

# **Bürkert** Select

We make ideas flow



**bürkert**  
FLUID CONTROL SYSTEMS

SOLENOID VALVES

PROCESS ACTUATION

PROCESS VALVES

SENSORS



# Quality Products from a Reliable Partner

Bürkert is unique in its product offering for measuring, controlling, and regulating fluids. No other company's range of expertise in this sector is as **extensive as Bürkert's** and we pride ourselves in making ideas flow.

Bürkert's priority is clear. Our products are designed to be configured, delivered and installed **as simply as possible**. Our vast portfolio (28,000 types) of German engineered products are precision manufactured solely to contribute to the efficiency of your process.

**Superlative research and development centres** in Ingelfingen, Germany and Triembach, France, exhibit our commitment to maintaining a leading technological edge. Bürkert manufactures each of their products inside flexible, purpose built facilities in Germany and France. Having significant control over our complete supply chain means independence from outside suppliers and better control of our deliveries to you. Our independence allows us to be fast and Bürkert's **connected world-wide inventory** ensures off-the-shelf delivery on many items.

With an **extensive product stock** our sales associates are able to swiftly provide information regarding inventory, order tracking and billing always embracing the idea of uncompromising service quality. We will only suggest equipment to fit the purpose and we'll even make "house calls" to help you set up and troubleshoot your equipment.

This selected product brochure serves as the basis of a commitment of **exceptional customer service**.

Whether your area of process control involves temperature, pressure, pH, conductivity, flow or level, **Bürkert has the products that can make your life simpler.**



# Bürkert Select

## SOLENOID VALVES

page 6



## PROCESS ACTUATION & NETWORKING

page 35



## PROCESS VALVES

page 39



## SENSORS, TRANSMITTERS & CONTROLLERS

page 58



## Selection Guide Solenoid Valves

Solenoid valves are deployed to shut off, release, dose, distribute or mix liquids or gases. They are confronted with many different requirements in a plethora of applications. In the table below there are direct-acting valves (utilizing rugged, proven working principles of plunger or pivot) and servo-assisted valves (which employ the direct-acting valves as pilot operators).

For a full explanation of the various working principles please see our Product Overview Number 1. Solenoid Valves

|                                |                                                                                                                       |                                                                                                               |                                                                                                                  |                                                                                                                 |                                                                                                                    |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>High Pressure</b>           | <br><b>0255</b><br>page 12           | <br><b>5404</b><br>page 21   |                                                                                                                  |                                                                                                                 |                                                                                                                    |
| <b>Steam &amp; Hot Media</b>   | <br><b>6013</b><br>page 9            | <br><b>0255</b><br>page 12   | <br><b>0406</b><br>page 20      | <br><b>0407</b><br>page 20   |                                                                                                                    |
| <b>Aggressive Chemicals</b>    | <br><b>0124</b><br>page 15         | <br><b>0142</b><br>page 19 |                                                                                                                  |                                                                                                                 |                                                                                                                    |
| <b>Contaminated Fluids</b>     | <br><b>0330</b><br>page 14, 28, 29 | <br><b>5282</b><br>page 18 |                                                                                                                  |                                                                                                                 |                                                                                                                    |
| <b>General Purpose 3/2 way</b> | <br><b>6012</b><br>page 25         | <br><b>6014</b><br>page 26 | <br><b>0340</b><br>page 30    |                                                                                                                 |                                                                                                                    |
| <b>General Purpose 2/2 way</b> | <br><b>6011</b><br>page 8          | <br><b>6013</b><br>page 9  | <br><b>6213 EV</b><br>page 22 | <br><b>0290</b><br>page 24 | <br><b>6281 EV</b><br>page 16 |

## Selection Guide Solenoid Valves

This chart can be used to choose a valve where the working pressure (orange bar) is known. For each valve the available orifices are detailed (green bar). At the right side of the chart the available body and seal materials can be seen as well as the possible process connections. Plunger type direct-acting valves should be restricted to neutral and clean fluids while pivoted armature valves offer excellent reliability by

employing a media separating diaphragm to control corrosive, contaminated or aggressive fluids.

The use of servo-assisted valves is governed in large part by the pilot construction and employ diaphragms for liquids and gases and piston seals for higher pressures and steam.

|              |  | Pressure range [bar]           |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     | Body Material |    |    | Seal Material |    |       |     | Connections G [inches] |     |      |     |      |  |  |              |  |                |                 |         |
|--------------|--|--------------------------------|-----|------|------|-------------------------------|-----|------------------------------|-----|-----|-----|-----|-----|-----|----|----|-----|-----|---------------|----|----|---------------|----|-------|-----|------------------------|-----|------|-----|------|--|--|--------------|--|----------------|-----------------|---------|
|              |  | V                              | AC  | ≤0.2 | ≤0.5 | ≤1                            | ≤2  |                              |     |     | ≤3  |     |     |     | ≤5 | ≤8 | ≤10 | ≤16 |               |    |    |               |    |       |     |                        | ≤18 | ≤25  | ≤30 | ≤100 |  |  |              |  |                |                 |         |
|              |  | Orifice [mm]                   |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
|              |  | 0.4                            | 0.6 | 0.8  | 1.2  | 1.6                           | 2.0 | 2.4                          | 2.5 | 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10 | 12 | 13  | 20  | 25            | 32 | 40 | 50            | 65 | Brass | St. | Plastic                | NBR | EPDM | FKM | PTFE |  |  |              |  |                |                 |         |
| Function 2/2 |  | Direct-acting Plunger          |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 6011         |  |                                |     |      |      | General Purpose               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  | M5, 1/8, MAN |  |                |                 |         |
| 6013         |  |                                |     |      |      | General Purpose               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/8 - 3/8, MAN |                 |         |
| 6027         |  |                                |     |      |      | Compact                       |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/4 - 1/2      |                 |         |
| 0255         |  |                                |     |      |      | Steam to 150 #, High Pressure |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/4 - 1/2      |                 |         |
| Function 2/2 |  | Direct-acting Pivoted Armature |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 0330/1       |  |                                |     |      |      | Slightly Contaminated Fluids  |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/4 (MAN)      |                 |         |
| Function 3/2 |  | Direct-acting Plunger          |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 6012         |  |                                |     |      |      |                               |     | General Purpose              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | M5, 1/8, MAN   |                 |         |
| 6014         |  |                                |     |      |      | General Purpose               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/8 - 3/8, MAN |                 |         |
| Function 3/2 |  | Direct-acting Pivoted Armature |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 0330/1       |  |                                |     |      |      | Slightly Contaminated Fluids  |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/4 (MAN)      |                 |         |
| 0124/5       |  |                                |     |      |      | Aggressive Chemicals          |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                | 1/4 (MAN)       |         |
| Function 2/2 |  | Servo-assisted Plunger         |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 6281 EV      |  |                                |     |      |      |                               |     | General Purpose              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                | 1/2 - 2         |         |
| 5404         |  |                                |     |      |      | Compressed Gases              |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                | 1/2 - 1         |         |
| 0406         |  |                                |     |      |      | Steam to 150 #                |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/2 - 1        |                 |         |
| Function 2/2 |  | Servo-assisted Isolated Pilot  |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 5282         |  |                                |     |      |      |                               |     | Slightly Contaminated Fluids |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                | 1/2 - 2 1/2     |         |
| 0142         |  |                                |     |      |      | Aggressive Chemicals          |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                | 1/2 - 2 (union) |         |
| Function 2/2 |  | Servo-assisted Soft Coupled    |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 6213 EV      |  |                                |     |      |      |                               |     | Clean Water                  |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 | 1/2 - 2 |
| Function 2/2 |  | Servo-assisted Hard Coupled    |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 0290         |  |                                |     |      |      | Zero DP, Clean Fluids         |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                | 1/2 - 2         |         |
| 0407         |  |                                |     |      |      | Steam to 150 #                |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/2 - 2        |                 |         |
| Function 3/2 |  | Servo-assisted Isolated Pilot  |     |      |      |                               |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  |                |                 |         |
| 0340         |  |                                |     |      |      | Slightly Contaminated Fluids  |     |                              |     |     |     |     |     |     |    |    |     |     |               |    |    |               |    |       |     |                        |     |      |     |      |  |  |              |  | 1/4 - 1 1/2    |                 |         |

■ Standard

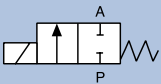
□ Optional

MAN Manifold mount

# Plunger Operated 2/2 Way Solenoid Valve

## 2/2-Way, G 1/8, 0-12 bar

- Brass or Stainless steel
- FKM seal as standard
- Slip over coil can be rotated in 4 x 90 degrees



Shown without plug

Direct-acting miniature solenoid valve which is plunger operated for neutral gases, liquids and technical vacuum. Available in standalone or manifold mount versions, there is also an "analysis" version which is manufactured under cleanroom conditions.

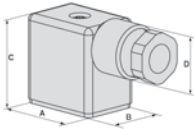
### Technical Data

|                       |                                         |
|-----------------------|-----------------------------------------|
| Pressure range        | 0-12 bar, max.                          |
| Temperature media     | -10 °C – +100 °C                        |
| Ambient temperature   | +55 °C, max.                            |
| Body material         | Brass or Stainless steel                |
| Seal material         | FKM                                     |
| Coil material         | Epoxy                                   |
| Power consumption     | DC: 4 W, AC: 9 VA (inrush), 6 VA (hold) |
| Protection class      | IP65                                    |
| Electrical Connection | 2507 cable plug Form B                  |

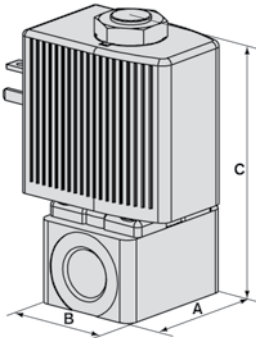
### Options

- Cable plug with LED and/or varistor

### Envelope Dimensions [mm] (see datasheet for details)



2507 cable plug Form B included (see page 32)



| Size  | A  | B  | C     |
|-------|----|----|-------|
| G 1/8 | 25 | 15 | 52.48 |

### Ordering Chart

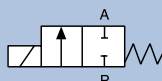
| Port connection<br>[inch] | Orifice<br>[mm] | Kv Value | Pressure range [bar] |      | Item no. Voltage/Frequency [V/Hz] |         |         |
|---------------------------|-----------------|----------|----------------------|------|-----------------------------------|---------|---------|
|                           |                 |          | DC                   | AC   | 24V DC                            | 24V AC  | 230V AC |
| Brass                     |                 |          |                      |      |                                   |         |         |
| G 1/8                     | 1.6             | 0.06     | 0-6                  | 0-12 | 163 499                           | 163 500 | 163 502 |
| G 1/8                     | 2.0             | 0.11     | 0-4.5                | 0-8  | 163 503                           | 163 504 | 163 506 |
| G 1/8                     | 2.4             | 0.13     | 0-3                  | 0-6  | 161 193                           | 163 507 | 161 194 |
| Stainless steel           |                 |          |                      |      |                                   |         |         |
| G 1/8                     | 1.6             | 0.06     | 0-6                  | 0-12 | 163 509                           | 163 510 | 163 512 |
| G 1/8                     | 2.0             | 0.11     | 0-4.5                | 0-8  | 163 513                           | 163 514 | 163 516 |
| G 1/8                     | 2.4             | 0.13     | 0-3                  | 0-6  | 163 517                           | 163 518 | 163 520 |



# Plunger Operated 2/2 Way Solenoid Valve



Supplied as shown



## G 1/8 - G 1/4, 0-25 bar

- Brass or Stainless steel
- Steam version available
- Slip over coil can be rotated in 4 x 90 degrees



6013

Direct-acting small solenoid valve which is plunger operated for neutral gases, liquids and technical vacuum. Available in standalone or manifold mount versions. Special versions are also available for use with steam.

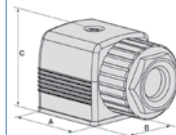
## Technical Data

|                              |                                           |
|------------------------------|-------------------------------------------|
| <b>Pressure range</b>        | 0-25 bar, max.                            |
| <b>Temperature media</b>     | -10 °C – +100 °C                          |
| <b>Ambient temperature</b>   | +55 °C, max.                              |
| <b>Body material</b>         | Brass or Stainless steel                  |
| <b>Seal material</b>         | FKM                                       |
| <b>Coil material</b>         | Epoxy (Class H)                           |
| <b>Power consumption</b>     | DC: 8 W, AC: 24 VA (inrush), 17 VA (hold) |
| <b>Protection class</b>      | IP65 with cable plug                      |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included)         |

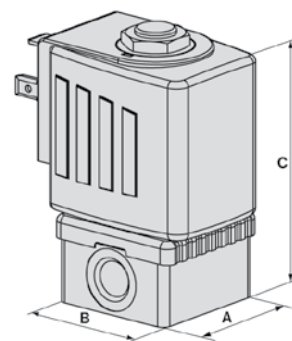
## Options

- Normally open
- Cable plug with LED and/or varistor
- PTFE/graphite seal to 180 °C
- Range of seal materials
- ATEX approval
- Polyamide (Class B) coil

## Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A included (see page 32)



| Size  | A    | B  | C    |
|-------|------|----|------|
| G 1/8 | 32.6 | 35 | 65.8 |
| G 1/4 | 49   | 35 | 71.8 |

## Ordering Chart

| Port connection<br>[inch] | Orifice<br>[mm] | Kv Value | Pressure range [bar] |      | Item no. Voltage/Frequency [V/Hz] |         |         |
|---------------------------|-----------------|----------|----------------------|------|-----------------------------------|---------|---------|
|                           |                 |          | DC                   | AC   | 24V DC                            | 24V AC  | 230V AC |
| Brass                     |                 |          |                      |      |                                   |         |         |
| G 1/8                     | 2.0             | 0.12     | 0-12                 | 0-25 | 134 237                           | 132 865 | 134 239 |
| G 1/8                     | 2.5             | 0.16     | 0-10                 | 0-16 | 134 240                           | 134 241 | 134 243 |
| G 1/8                     | 3.0             | 0.23     | 0-6                  | 0-10 | 126 091                           | 126 092 | 126 094 |
| G1/4                      | 3.0             | 0.23     | 0-6                  | 0-10 | 125 301                           | 125 302 | 125 304 |
| G1/4                      | 4.0             | 0.3      | 0-1.5                | 0-4  | 125 306                           | 125 307 | 125 309 |
| Stainless steel           |                 |          |                      |      |                                   |         |         |
| G 1/8                     | 2.0             | 0.12     | 0-12                 | 0-25 | 134 233                           | 134 234 | 134 236 |
| G 1/8                     | 3.0             | 0.23     | 0-6                  | 0-10 | 126 078                           | 126 079 | 126 081 |
| G1/4                      | 3.0             | 0.23     | 0-6                  | 0-10 | 125 317                           | 126 082 | 126 084 |
| G1/4                      | 4.0             | 0.3      | 0-1.5                | 0-4  | 125 318                           | 125 319 | 125 320 |

## 2/2-way Compact Solenoid Valve

### G 1/4 - G 1/2, 0-30 bar

- Direct-acting, normally closed
- Brass and stainless steel body
- Electrical connection cable plug Form A
- High pressure version up to 100 bar
- High temperature version up to +180 °C



Type 6027 is a direct-acting solenoid valve used for shut-off, dosing, filling, and ventilation. The push-over solenoid system is of modular design and the coil can be rotated 360°.

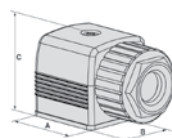
### Technical Data

|                              |                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Pressure range</b>        | 0 - 30 bar max.                                                                                                |
| <b>Medium temperature</b>    |                                                                                                                |
| Seal material FKM, PTFE/FKM  | -10 to +120°C                                                                                                  |
| Seal material PTFE/graphite  | -40 to +180 °C                                                                                                 |
| <b>Ambient temperature</b>   | -10 to +55°C                                                                                                   |
| <b>Body material</b>         | Brass or stainless steel 1.4404 (316L)                                                                         |
| <b>Coil material</b>         | Epoxy (class H)                                                                                                |
| <b>Seal material</b>         | FKM, PTFE/FKM and PTFE/graphite for high temperature versions (EPDM on request)                                |
| <b>Power consumption</b>     | DC: 16 W, AC: 105 VA (inrush), 37 VA (hold)                                                                    |
| <b>Electrical connection</b> | According to DIN EN 175301-803 Form A for cable plug Type 2508 (included - see Ordering chart for accessories) |
| <b>Protection class</b>      | IP65 with Cable Plug                                                                                           |

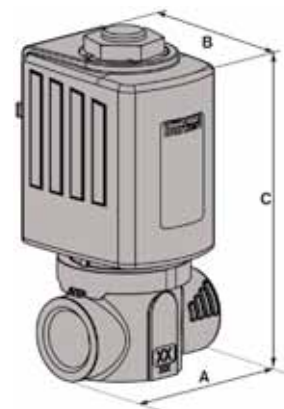
### Options

- Seal material EPDM, PTFE
- ATEX approval
- NPT, Rc port connections
- Higher pressures for gaseous medium
- Non-standard voltages
- Oxygen versions

### Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A included (see page 32)



| Size  | A  | B    | C     |
|-------|----|------|-------|
| G 1/4 | 55 | 55.5 | 98.2  |
| G 3/8 | 55 | 55.5 | 101.2 |
| G 1/2 | 59 | 55.5 | 103.2 |

## Ordering Chart (normally closed)

| Port connection               | Orifice [mm] | Kv value | Pressure range [bar] |       | Item no. per voltage/frequency [V/Hz] |         |         |
|-------------------------------|--------------|----------|----------------------|-------|---------------------------------------|---------|---------|
|                               |              |          | DC                   | AC    | 024/DC                                | 024/50  | 230/50  |
| Brass body                    |              |          |                      |       |                                       |         |         |
| G 1/4                         | 3            | 0.28     | 0-30                 | 0-25  | 178 295                               | 178 296 | 178 297 |
|                               | 4            | 0.54     | 0-12                 | 0-16  | 178 299                               | 178 300 | 178 301 |
|                               | 5            | 0.73     | 0-6                  | 0-10  | 178 303                               | 178 304 | 178 305 |
| G 3/8                         | 6            | 0.95     | 0-3                  | 0-6   | 178 323                               | 178 324 | 178 325 |
|                               | 8            | 1.6      | 0-1                  | 0-3   | 178 327                               | 178 328 | 178 329 |
| G 1/2                         | 8            | 1.6      | 0-1                  | 0-3   | 178 335                               | 178 336 | 178 337 |
|                               | 10           | 1.8      | 0-0.4                | 0-2   | 178 339                               | 178 340 | 178 341 |
| Stainless steel 1.4404 (316L) |              |          |                      |       |                                       |         |         |
| G 1/4                         | 3            | 0.28     | 0-30                 | 0-25  | 178 239                               | 178 240 | 178 241 |
|                               | 4            | 0.54     | 0-12                 | 0-16  | 178 243                               | 178 244 | 178 245 |
|                               | 5            | 0.73     | 0-6                  | 0-10  | 178 247                               | 178 248 | 178 249 |
| G 3/8                         | 6            | 0.95     | 0-3                  | 0-6   | 178 267                               | 178 268 | 178 269 |
|                               | 8            | 1.6      | 0-1                  | 0-3   | 178 271                               | 178 272 | 178 273 |
| G 1/2                         | 8            | 1.6      | 0-1                  | 0-3   | 178 279                               | 178 280 | 178 281 |
|                               | 10           | 1.8      | 0-0.4                | 0-2   | 178 283                               | 178 284 | 178 285 |
|                               | 12           | 2.0      | 0-1.2                | 0-0.2 | 178 287                               | 178 288 | 178 289 |

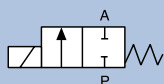
## Ordering Chart (normally open)

| Port connection               | Orifice [mm] | Kv value | Pressure range [bar] |      | Item no. per voltage/frequency [V/Hz] |         |         |
|-------------------------------|--------------|----------|----------------------|------|---------------------------------------|---------|---------|
|                               |              |          | DC                   | AC   | 024/DC                                | 024/50  | 230/50  |
| Brass body                    |              |          |                      |      |                                       |         |         |
| G 1/4                         | 3            | 0.28     | 0-16                 | 0-16 | 211 914                               | 228 487 | 228 488 |
|                               | 4            | 0.54     | 0-10                 | 0-10 | 208 623                               | 228 489 | 228 490 |
|                               | 5            | 0.73     | 0-8                  | 0-8  | 228 491                               | 228 492 | 228 493 |
| G 3/8                         | 5            | 0.73     | 0-8                  | 0-8  | 228 494                               | 228 495 | 228 496 |
|                               | 6            | 0.95     | 0-6                  | 0-6  | 228 497                               | 228 498 | 228 499 |
|                               | 8            | 1.6      | 0-3                  | 0-3  | 228 500                               | 228 501 | 228 502 |
| G 1/2                         | 8            | 1.6      | 0-3                  | 0-3  | 211 916                               | 228 503 | 228 504 |
|                               | 10           | 1.8      | 0-2                  | 0-2  | 210 436                               | 219 530 | 210 438 |
| Stainless steel 1.4404 (316L) |              |          |                      |      |                                       |         |         |
| G 1/4                         | 3            | 0.28     | 0-16                 | 0-16 | 230 243                               | 230 244 | 230 245 |
|                               | 4            | 0.54     | 0-10                 | 0-10 | 230 246                               | 230 247 | 230 248 |
|                               | 5            | 0.73     | 0-8                  | 0-8  | 230 249                               | 230 250 | 230 251 |
| G 3/8                         | 5            | 0.73     | 0-8                  | 0-8  | 230 252                               | 230 253 | 230 254 |
|                               | 6            | 0.95     | 0-6                  | 0-6  | 230 255                               | 230 256 | 230 257 |
|                               | 8            | 1.6      | 0-3                  | 0-3  | 230 258                               | 230 259 | 230 260 |
| G 1/2                         | 8            | 1.6      | 0-3                  | 0-3  | 230 261                               | 230 262 | 230 263 |
|                               | 10           | 1.8      | 0-2                  | 0-2  | 225 248                               | 230 264 | 230 265 |
|                               | 12           | 2.0      | 0-1                  | 0-1  | 210 441                               | 230 266 | 210 321 |

# Plunger Operated 2/2 Way Solenoid Valve

**G 1/4 - G 1/2, 0-16 bar**

- Fluid temperature to 180 °C
- Integrated metallic body seal
- Wear resistant stainless steel seat



Supplied as shown

High performance plunger operated, direct-acting solenoid valve with integrated metallic body seal and wear resistant stainless steel seat. Three way (Type 0355), high pressure (100 bar), and high temperature (250 °C) versions are also available.

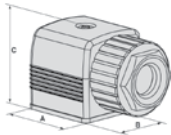
## Technical Data

|                              |                                                  |
|------------------------------|--------------------------------------------------|
| <b>Pressure range</b>        | 0-16 bar, max.                                   |
| <b>Temperature media</b>     | -40 °C – +180 °C                                 |
| <b>Ambient temperature</b>   | +55 °C, max.                                     |
| <b>Body material</b>         | Brass, stainless steel                           |
| <b>Seal material</b>         | PTFE                                             |
| <b>Coil material</b>         | Epoxy (Class H)                                  |
| <b>Power consumption</b>     | DC: 16 W, AC: 35-40 VA (inrush), 16/10 VA (hold) |
| <b>Protection class</b>      | IP65                                             |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included)                |

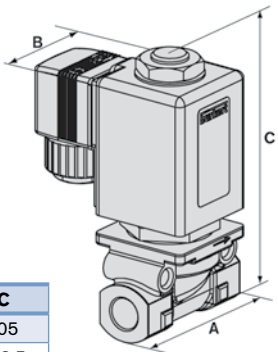
## Options

- Cable plug with LED and/or varistor

## Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A included (see page 32)



| Size  | A    | B    | C     |
|-------|------|------|-------|
| G 1/4 | 74.5 | 45.5 | 105   |
| G 1/2 | 46   | 45.5 | 108.5 |

## Ordering Chart

| Port connection<br>[inch] | Orifice<br>[mm] | Kv value | Pressure range [bar] |      | Item no. Voltage/Frequency [V/Hz] |         |         |
|---------------------------|-----------------|----------|----------------------|------|-----------------------------------|---------|---------|
|                           |                 |          | DC                   | AC   | 24V DC                            | 24V AC  | 230V AC |
| Brass body                |                 |          |                      |      |                                   |         |         |
| G 1/4                     | 3.0             | 0.25     | 0-10                 | 0-16 | 052 872                           | 058 421 | 046 865 |
| G 3/8                     | 4.0             | 0.5      | 0-4                  | 0-10 | 065 438                           | 059 100 | 051 143 |
| G 3/8                     | 6.0             | 0.8      | 0-1                  | 0-4  | 053 764                           | 050 389 | 051 324 |
| Stainless steel body      |                 |          |                      |      |                                   |         |         |
| G 1/4                     | 3.0             | 0.25     | 0-10                 | 0-16 | 021 554                           | 018 593 | 061 010 |
| G 1/4                     | 4.0             | 0.5      | 0-4                  | 0-10 | 021 251                           | 020 468 | 023 279 |
| G 1/2                     | 6.0             | 0.8      | 0-1                  | 0-4  | 022 504                           | 052 859 | 054 811 |

# ELEMENT Analytical Instruments

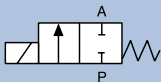
Our new dual output pH, ORP & conductivity transmitters are designed to make your life simpler. Now these field mount instruments can transmit both temperature and the desired analytical value simultaneously and the removable, backlit programming puck lets you upload and download parameters between devices. The intuitive programming structure means it's beautiful inside and out.



# Pivot Operated 2/2 Way Solenoid Valve

## G 1/4, 0-10 bar

- Isolating separating diaphragm design
- Manifold version available
- Handles slightly contaminated fluids with ease



Supplied as shown

Direct-acting solenoid valve employing Bürkert's unique pivoted armature. A hermetic isolation is guaranteed by this ground-breaking design. Shown is the threaded version. The valve is also available in manifold mount as the Type 0331.

### Technical Data

|                       |                                           |
|-----------------------|-------------------------------------------|
| Pressure range        | 0-10 bar, max.                            |
| Temperature media     | -10 °C – +90 °C                           |
| Ambient temperature   | +55 °C, max.                              |
| Body material         | Brass or Stainless steel                  |
| Seal material         | FKM                                       |
| Coil material         | Epoxy                                     |
| Power consumption     | DC: 8 W, AC: 30 VA (inrush), 15 VA (hold) |
| Protection class      | IP65                                      |
| Electrical Connection | 2508 cable plug Form A (included)         |
| Accreditations        | CE                                        |
| Extras                | Lockable manual override                  |

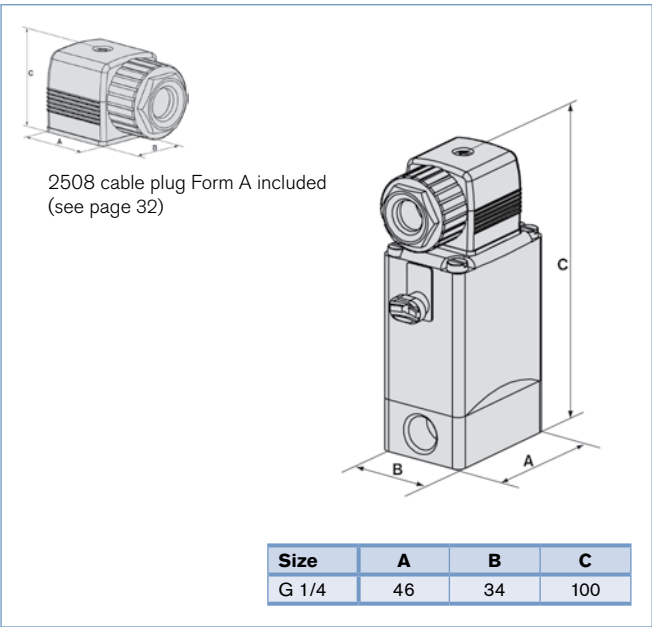
### Options

- Three way versions (page 28)
- Cable plug with LED and/or varistor
- Electrical position feedback
- Manifold mounting (Type 0331)
- Impulse coil
- Range of diaphragm seals to suit aggressive media
- Vacuum version

### Ordering Chart

| Port connection                              | Orifice | Kv value |      | Pressure range<br>[bar] | Item no. Voltage/Frequency [V/Hz] |         |         |
|----------------------------------------------|---------|----------|------|-------------------------|-----------------------------------|---------|---------|
| [inch]                                       | [mm]    | DC       | AC   | AC and DC               | 24V DC                            | 24V AC  | 230V AC |
| Brass valve body (normally closed)           |         |          |      |                         |                                   |         |         |
| G 1/4                                        | 3.0     | 0.14     | 0.18 | 0-10                    | 020 293                           | 022 883 | 124 909 |
| G 1/4                                        | 4.0     | 0.17     | 0.23 | 0-5                     | 024 019                           | 025 246 | 124 912 |
| Stainless steel valve body (normally closed) |         |          |      |                         |                                   |         |         |
| G 1/4                                        | 3.0     | 0.14     | 0.18 | 0-10                    | 020 292                           | 023 984 | 024 563 |
| G 1/4                                        | 4.0     | 0.17     | 0.23 | 0-5                     | 018 276                           | 018 857 | 020 873 |

### Envelope Dimensions [mm] (see datasheet for details)



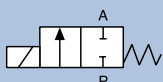


# Pivot Operated 2/2 Way Solenoid Valve

0124



Supplied as shown



## G 1/4, 0-10 bar

- Isolating separating diaphragm design
- Perfect for harsh chemicals
- Also available in manifold mount

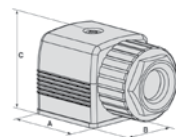


Direct-acting solenoid valve employing Bürkert's unique pivoted armature. A hermetic isolation is guaranteed against aggressive substances by the flexible diaphragm. Shown is the threaded version in precision moulded engineered polymer. The valve is also available in manifold mount as the Type 0125.

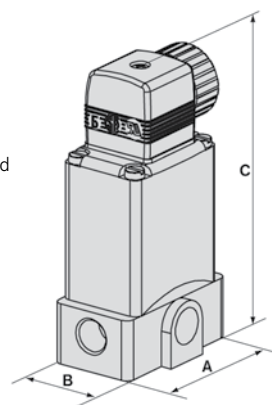
## Technical Data

|                              |                                               |
|------------------------------|-----------------------------------------------|
| <b>Pressure range</b>        | 0-10 bar, max.                                |
| <b>Temperature media</b>     | -30 °C – +80 °C (EPDM)<br>0 °C – +80 °C (FKM) |
| <b>Ambient temperature</b>   | +55 °C, max.                                  |
| <b>Body material</b>         | PP or PVDF                                    |
| <b>Seal material</b>         | FKM or EPDM                                   |
| <b>Coil material</b>         | Epoxy                                         |
| <b>Power consumption</b>     | DC: 8 W, AC: 30 VA (inrush), 15 VA (hold)     |
| <b>Protection class</b>      | IP65                                          |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included)             |
| <b>Accreditations</b>        | CE                                            |
| <b>Extras</b>                | Lockable manual override                      |

## Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A included (see page 32)



| Size  | A  | B  | C   |
|-------|----|----|-----|
| G 1/4 | 56 | 36 | 104 |

## Options

- Normally 2/2 open, Universal 3/2 way, 3/2 way divert
- Electrical position feedback
- Impulse coil
- Manifold mounting (Type 0125)
- Range of diaphragm seals to suit aggressive media
- Vacuum version
- Cable plug with LED and/or varistor
- 5W coil

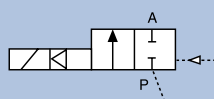
## Ordering Chart

| Port connection       | Orifice [mm] | Kv value | Pressure range [bar] |       | Seal material | Item No. Voltage/Frequency [V/Hz] |         |         |
|-----------------------|--------------|----------|----------------------|-------|---------------|-----------------------------------|---------|---------|
|                       |              |          | DC                   | AC    |               | 24V DC                            | 24V AC  | 230V AC |
| Polypropylene<br>G1/4 | 3.0          | 0.25     | 0-8                  | 0-10  | EPDM          | 067 214                           | 022 105 | 062 398 |
|                       |              |          |                      |       | FKM           | 018 410                           | 088 496 | 045 653 |
|                       | 4.0          | 0.3      | 0-4                  | 0-5   | EPDM          | 021 660                           | 067 731 | 063 118 |
|                       |              |          |                      |       | FKM           | 062 695                           | 043 005 | 063 116 |
|                       | 5.0          | 0.4      | 0-3                  | 0-4.5 | EPDM          | 061 321                           | 054 261 | 049 969 |
|                       |              |          |                      |       | FKM           | 062 624                           | 067 007 | 022 619 |
| PVDF<br>G1/4          | 3.0          | 0.25     | 0-8                  | 0-10  | EPDM          | 019 224                           | 122 385 | 086 873 |
|                       |              |          |                      |       | FKM           | 018 188                           | 020 286 | 069 006 |
|                       | 4.0          | 0.3      | 0-4                  | 0-5   | EPDM          | 057 573                           | 088 266 | 125 507 |
|                       |              |          |                      |       | FKM           | 023 472                           | 069 079 | 087 837 |
|                       | 5.0          | 0.4      | 0-3                  | 0-4.5 | EPDM          | 120 184                           | 059 802 | 130 117 |
|                       |              |          |                      |       | FKM           | 064 512                           | 132 291 | 063 786 |

## Servo-Assisted Solenoid Valve with Diaphragm

### G 3/8 - G 2, 0.2-16 bar

- User friendly-one solenoid for all orifices
- Waterhammer-free and low noise
- Manual override
- Rugged moulded diaphragm



Servo-assisted solenoid valve with servo-diaphragm for the control of liquid or gaseous Medium. A pressure difference of 0.5 bar is required for a complete switchover. The modular coil system allows the interchange of the coils over all orifices to be in line with the nominal power and circuit function.

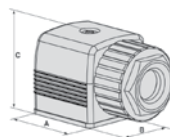
### Technical Data

|                                       |                                                                                                          |
|---------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Pressure range</b>                 | 0.2-16 bar, max.                                                                                         |
| <b>Temperature media</b> - <b>NBR</b> | -10° to +80°C                                                                                            |
| <b>FKM</b>                            | 0° to 120°C (with polyamide coil 90°C)                                                                   |
| <b>Ambient temperature</b>            | +55 °C, max.                                                                                             |
| <b>Body material</b>                  | Brass acc. to DIN EN 50930-6<br>(Stainless steel dezincification resistant on request)                   |
| <b>Seal material</b>                  | NBR, FKM, EPDM                                                                                           |
| <b>Coil material</b>                  | Polyamide or Epoxy                                                                                       |
| <b>Power consumption</b>              | DC: 8 W, AC: 24 VA (inrush),<br>Circuit function A -14/8 VA (hold)<br>Circuit function B -16/7 VA (hold) |
| <b>Protection class</b>               | IP65                                                                                                     |
| <b>Electrical Connection</b>          | 2508 cable plug Form A (included)                                                                        |

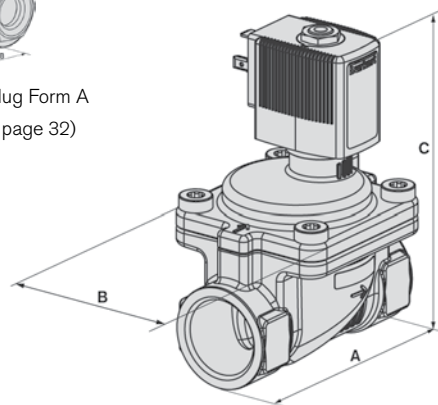
### Options

- NPT, RC port connections
- EPDM version up to +100°C with epoxy coil
- Further voltages on request
- European gas approval, EPDM with KTW/W270
- Brass dezincification

### Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A  
included (see page 32)



| Size    | A   | B  | C   |
|---------|-----|----|-----|
| G 1/2   | 65  | 42 | 101 |
| G 3/4   | 80  | 42 | 105 |
| G 1     | 95  | 60 | 112 |
| G 1 1/4 | 95  | 70 | 123 |
| G 1 1/2 | 126 | 99 | 152 |
| G 2     | 132 | 99 | 163 |



# Servo-Assisted Solenoid Valve with Servo Diaphragm

Ordering Chart (normally closed)

| Port connection                                                                    | Orifice [mm] | Kv value | Pressure range [bar] | Item no. per voltage/frequency [V/Hz] |           |           |
|------------------------------------------------------------------------------------|--------------|----------|----------------------|---------------------------------------|-----------|-----------|
|                                                                                    |              |          |                      | 024/DC                                | 024/50-60 | 230/50-60 |
| Brass body, Seal material NBR, Polyamide coil, Medium temperature -10...+80°C      |              |          |                      |                                       |           |           |
| G 1/2                                                                              | 13           | 3.8      | 0.2-16               | 221 844                               | 221 845   | 221 846   |
| G 3/4                                                                              | 20           | 8.5      | 0.2-16               | 221 850                               | 221 851   | 221 852   |
| G 1                                                                                | 25           | 12       | 0.2-16               | 221 856                               | 221 857   | 221 858   |
| G 1 1/4                                                                            | 25           | 12       | 0.2-16               | 221 859                               | 221 860   | 221 861   |
| G 1 1/2                                                                            | 40           | 30       | 0.2-16               | 221 862                               | 221 863   | 221 864   |
| G 2                                                                                | 40           | 30       | 0.2-16               | 221 865                               | 221 866   | 221 867   |
| Stainless steel body, Seal material FKM, Epoxy coil, Medium temperature 0...+120°C |              |          |                      |                                       |           |           |
| G 1/2                                                                              | 13           | 3.8      | 0.2-16               | 221 989                               | 221 990   | 221 991   |
| G 3/4                                                                              | 20           | 8.5      | 0.2-16               | 221 992                               | 221 993   | 221 994   |
| G 1                                                                                | 20           | 8.5      | 0.2-16               | 221 995                               | 221 996   | 221 997   |
| G 1                                                                                | 25           | 12       | 0.2-16               | 221 998                               | 221 999   | 222 000   |
| G 1 1/4                                                                            | 25           | 12       | 0.2-16               | 222 001                               | 222 002   | 222 003   |
| G 1 1/2                                                                            | 40           | 30       | 0.2-16               | 222 004                               | 222 005   | 222 006   |
| G 2                                                                                | 40           | 30       | 0.2-16               | 222 007                               | 222 008   | 222 009   |

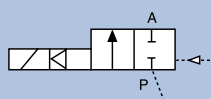
Ordering Chart (normally open)

| Port connection                                                                    | Orifice [mm] | Kv value | Pressure range [bar] | Item no. per voltage/frequency [V/Hz] |         |         |
|------------------------------------------------------------------------------------|--------------|----------|----------------------|---------------------------------------|---------|---------|
|                                                                                    |              |          |                      | 024/DC                                | 024/50  | 230/50  |
| Brass body, Seal material NBR, Epoxy coil, Medium temperature -10...+80°C          |              |          |                      |                                       |         |         |
| G 1/2                                                                              | 13           | 3.8      | 0.2-16               | 221 926                               | 221 928 | 221 929 |
| G 3/4                                                                              | 20           | 8.5      | 0.2-16               | 221 934                               | 221 935 | 221 936 |
| G 1                                                                                | 25           | 12       | 0.2-16               | 221 940                               | 221 941 | 221 942 |
| G 1 1/4                                                                            | 25           | 12       | 0.2-16               | 221 943                               | 221 944 | 221 945 |
| G 1 1/2                                                                            | 40           | 30       | 0.2-16               | 221 946                               | 221 947 | 221 948 |
| G 2                                                                                | 40           | 30       | 0.2-16               | 221 949                               | 221 950 | 221 951 |
| Stainless steel body, Seal material FKM, Epoxy coil, Medium temperature 0...+120°C |              |          |                      |                                       |         |         |
| G 1/2                                                                              | 13           | 3.8      | 0.2-16               | 228 387                               | 228 388 | 228 389 |
| G 3/4                                                                              | 20           | 8.5      | 0.2-16               | 228 390                               | 228 391 | 228 392 |
| G 1                                                                                | 25           | 12       | 0.2-16               | 228 393                               | 228 394 | 228 395 |
| G 1 1/4                                                                            | 25           | 12       | 0.2-16               | 228 396                               | 228 397 | 228 398 |
| G 1 1/2                                                                            | 40           | 30       | 0.2-16               | 228 399                               | 228 400 | 228 401 |
| G 2                                                                                | 40           | 30       | 0.2-16               | 228 402                               | 228 403 | 228 404 |

## Servo-Assisted Solenoid Valve with Isolated Pilot

### G 1/2 - G 2, 0.2-10 bar

- Unique isolated technology for slightly contaminated fluids
- Independently adjustable open / close rate
- Field configurable normally open / closed



Completely unique servo-assisted solenoid valve with isolated pivoted armature pilot. This valve design is much less sensitive to fluid contamination than plunger operated valves and therefore offers many advantages in the process environment. The pilot section can be rotated in the field to make the valve Normally Open.

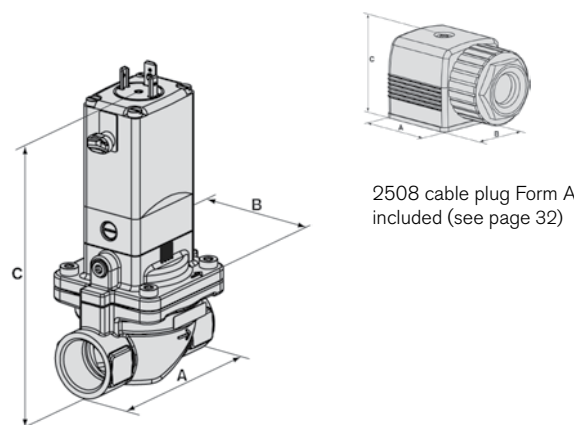
### Technical Data

|                              |                                           |
|------------------------------|-------------------------------------------|
| <b>Pressure range</b>        | 0.2-10 bar, max.                          |
| <b>Temperature media</b>     | 0 °C – +90 °C                             |
| <b>Ambient temperature</b>   | +55 °C, max.                              |
| <b>Body material</b>         | Brass or Stainless steel                  |
| <b>Seal material</b>         | NBR with brass, FKM with Stainless        |
| <b>Coil material</b>         | Epoxy                                     |
| <b>Power consumption</b>     | DC: 8 W, AC: 24 VA (inrush), 14 VA (hold) |
| <b>Protection class</b>      | IP65                                      |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included)         |

### Options

- Normally open
- Electrical position feedback
- Impulse coil
- Range of diaphragm seals to suit aggressive media
- Cable plug with LED and/or varistor

### Envelope Dimensions [mm] (see datasheet for details)



| Size    | A   | B   | C   |
|---------|-----|-----|-----|
| G 1/2   | 65  | 40  | 123 |
| G 3/4   | 100 | 60  | 131 |
| G 1     | 115 | 70  | 141 |
| G 1 1/4 | 126 | 85  | 147 |
| G 1 1/2 | 126 | 85  | 156 |
| G 2     | 164 | 115 | 177 |
| G 2 1/2 | 180 | 115 | 185 |

### Ordering Chart

| Port connection<br>[inch] | Orifice<br>[mm] | Kv value | Pressure range<br>[bar] | Seal<br>material | Item no. Voltage/Frequency [V/Hz] |           |           |
|---------------------------|-----------------|----------|-------------------------|------------------|-----------------------------------|-----------|-----------|
|                           |                 |          |                         |                  | 24V DC                            | 024/50-60 | 230/50-60 |
| Brass                     |                 |          |                         |                  |                                   |           |           |
| G 1/2                     | 13              | 4        | 0.2-10                  | NBR              | 134 430                           | 134 431   | 134 433   |
| G 3/4                     | 20              | 5        | 0.2-10                  | NBR              | 134 434                           | 134 435   | 134 437   |
| G 1                       | 25              | 10       | 0.2-10                  | NBR              | 134 438                           | 134 439   | 134 441   |
| G 1 1/4                   | 32              | 20       | 0.2-10                  | NBR              | 134 442                           | 134 443   | 134 445   |
| G 1 1/2                   | 40              | 20       | 0.2-10                  | NBR              | 134 446                           | 134 447   | 134 449   |
| G 2                       | 50              | 40       | 0.2-10                  | NBR              | 134 450                           | 134 451   | 134 453   |
| Stainless steel           |                 |          |                         |                  |                                   |           |           |
| G 1/2                     | 20              | 4        | 0.2-10                  | FKM              | 134 514                           | 134 515   | 134 517   |
| G 3/4                     | 20              | 5        | 0.2-10                  | FKM              | 134 518                           | 134 519   | 134 521   |
| G 1                       | 25              | 10       | 0.2-10                  | FKM              | 134 522                           | 134 523   | 134 525   |
| G 1 1/4                   | 32              | 20       | 0.2-10                  | FKM              | 134 526                           | 134 527   | 134 529   |
| G 1 1/2                   | 40              | 20       | 0.2-10                  | FKM              | 134 530                           | 134 531   | 134 533   |
| G 2                       | 50              | 40       | 0.2-10                  | FKM              | 134 534                           | 134 535   | 134 537   |

# Isolated Pilot Solenoid Valve for Aggressive Chemicals



Supplied as shown

Ø 20 - Ø 63, true union, 0.5-6 bar

- Unique isolated technology for slightly contaminated fluids
- Designed for use with aggressive chemicals
- Rugged moulded diaphragm



0142

Servo-assisted brass plunger piloted solenoid valve with un-coupled rugged diaphragm. This valve is specifically designed for aggressive fluids where a chemically compatible solution is required.

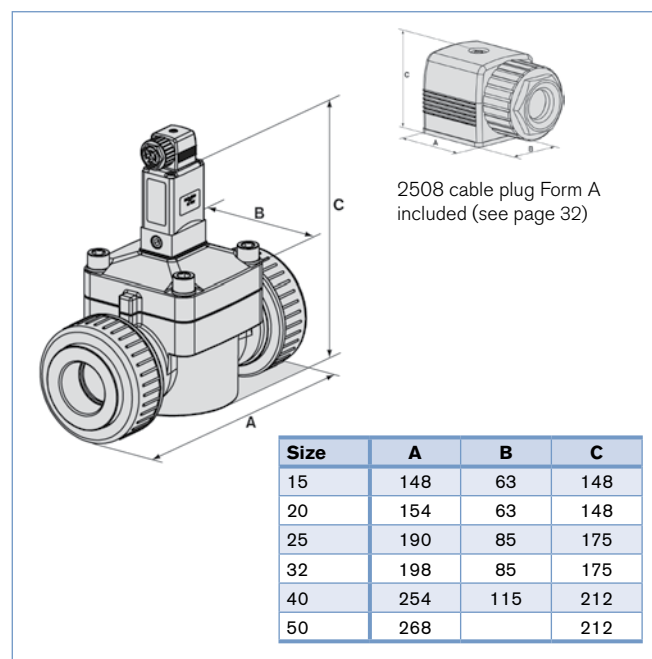
## Technical Data

|                                 |                                           |
|---------------------------------|-------------------------------------------|
| <b>Pressure range</b>           | 0.5-6 bar, max.                           |
| <b>Temperature media</b>        | 50 °C                                     |
| <b>max. Ambient temperature</b> | +40 °C (PVC), +55 °C, (PVDF)              |
| <b>Body material</b>            | PVC (PVDF on request)                     |
| <b>Seal material</b>            | EPDM or FKM                               |
| <b>Coil material</b>            | Epoxy                                     |
| <b>Power consumption</b>        | DC: 5 W, AC: 20 VA (inrush), 11 VA (hold) |
| <b>Protection class</b>         | IP65                                      |
| <b>Electrical Connection</b>    | 2508 cable plug Form A (included)         |
| <b>Accreditations</b>           | CE                                        |

## Options

- Normally open
- Electrical position feedback
- Impulse coil
- Range of diaphragm seals to suit aggressive media
- Cable plug with LED and/or varistor

Envelope Dimensions [mm] (see datasheet for details)



## Ordering Chart

| Port connection<br>Ø [mm] | Orifice<br>[mm] | Kv value | Pressure range<br>[bar] | Seal<br>material | Item no. Voltage/Frequency [V/Hz] |         |         |
|---------------------------|-----------------|----------|-------------------------|------------------|-----------------------------------|---------|---------|
|                           |                 |          |                         |                  | 24V DC                            | 24V AC  | 230V AC |
| PVC Body                  |                 |          |                         |                  |                                   |         |         |
| 20                        | 15              | 5        | 0.5-6                   | EPDM             | 041 980                           | 050 898 | 041 911 |
| 20                        | 15              | 5        | 0.5-6                   | FKM              | 041 938                           | 050 953 | 041 934 |
| 25                        | 20              | 6        | 0.5-6                   | EPDM             | 042 045                           | 050 908 | 041 986 |
| 25                        | 20              | 6        | 0.5-6                   | FKM              | 042 008                           | 050 954 | 042 005 |
| 32                        | 25              | 14       | 0.5-6                   | EPDM             | 042 047                           | 050 916 | 042 126 |
| 32                        | 25              | 14       | 0.5-6                   | FKM              | 042 079                           | 050 974 | 042 113 |
| 50                        | 40              | 30       | 0.5-6                   | EPDM             | 042 195                           | 067 693 | 042 247 |
| 50                        | 40              | 30       | 0.5-6                   | FKM              | 042 198                           | 067 699 | 042 245 |
| 63                        | 50              | 36       | 0.5-6                   | EPDM             | 042 266                           | 067 705 | 042 261 |
| 63                        | 50              | 36       | 0.5-6                   | FKM              | 042 264                           | 054 887 | 042 262 |

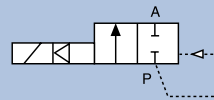
# Servo-Assisted Piston Solenoid Valves for up to 180 °C Steam

## G 1/2 - G 2, 0-12 bar

- Fluid temperature to 180 °C
- Wear resistant stainless steel seat
- Most reliable valves for hot neutral fluids



Type 0406



Type 0407

Shown with  
2508 plug

Servo-assisted solenoid valves for steam and hot gaseous media. A plunger pilots a piston to make a tight seal on a wear resistant stainless insert seat. Hard coupled design for low pressure switching (0407), uncoupled design where differential pressure is available (0406).

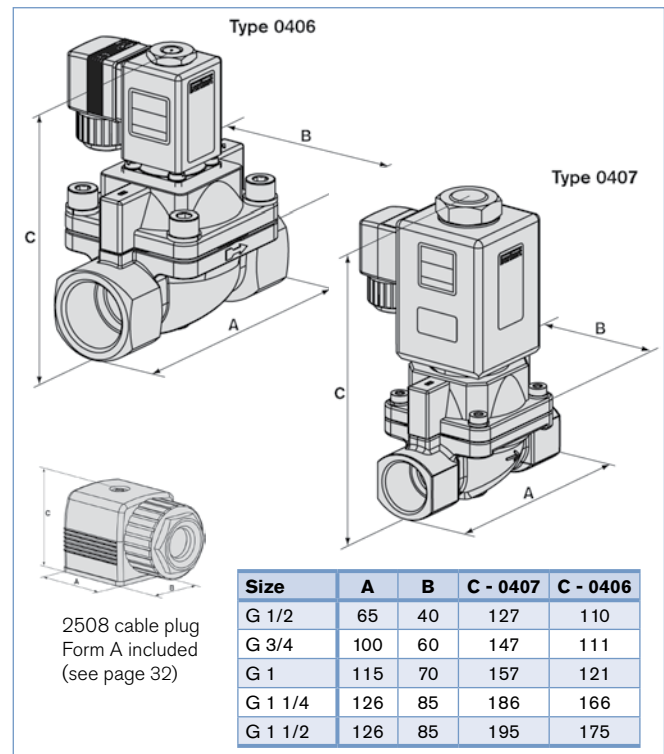
### Technical Data

|                              |                                                                                             |
|------------------------------|---------------------------------------------------------------------------------------------|
| <b>Pressure range</b>        | 0-12 bar, max.                                                                              |
| <b>Temperature media</b>     | 0 °C – +180 °C                                                                              |
| <b>Ambient temperature</b>   | +55 °C, max.                                                                                |
| <b>Body material</b>         | Brass with anti-wear stainless valve seat                                                   |
| <b>Seal material</b>         | PTFE piston seal                                                                            |
| <b>Coil material</b>         | Epoxy                                                                                       |
| <b>Power consumption</b>     | Type 0406: AC: 21 VA (inrush), 12 VA (hold)<br>Type 0407: AC: 100 VA (inrush), 35 VA (hold) |
| <b>Protection class</b>      | IP65                                                                                        |
| <b>Electrical Connection</b> | 2508 Cable plug Form A (included)                                                           |

### Options

- Cable plug with LED and/or varistor

### Envelope Dimensions [mm] (see datasheet for details)



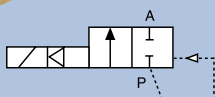
### Ordering Chart

| Port connection<br>[inch] | Orifice<br>[mm] | Kv value | Pressure range [bar] |      | Item no. Voltage/Frequency [V/Hz] |         |            |
|---------------------------|-----------------|----------|----------------------|------|-----------------------------------|---------|------------|
|                           |                 |          | DC                   | AC   | 24V DC                            | 24V AC  | 230V AC    |
| Type 0406                 |                 |          |                      |      |                                   |         |            |
| G 1/2                     | 13              | 3.7      | 1-4                  | 1-12 | 019 310                           | 020 541 | 061 305    |
| G 3/4                     | 20              | 5        | 1-4                  | 1-12 | 021 004                           | 019 818 | 061 303    |
| G 1                       | 25              | 10       | 1-4                  | 1-12 | 019 983                           | 021 440 | 061 304    |
| Type 0407                 |                 |          |                      |      |                                   |         |            |
| G 1/2                     | 13              | 3.7      | 0-10                 | 0-10 | 125 542                           | 021 598 | 615 637    |
| G 3/4                     | 20              | 5        | 0-10                 | 0-10 | 150 311                           | 022 032 | 615 157    |
| G 1                       | 25              | 10       | 0-10                 | 0-10 | 174 745                           | 021 620 | 615 638    |
| G 1 1/4                   | 32              | 16       | 0-10                 | 0-10 | –                                 | 085 385 | 064 919    |
| G 1 1/2                   | 40              | 16       | 0-10                 | 0-10 | 226 757                           | 085 392 | 085 394    |
| G 2                       | 50              | 36       | 0-10                 | 0-10 | 085 400                           | -       | on request |

# Servo-Assisted Piston Solenoid Valve for High Pressure



Shown with 2508 plug



## G 1/2 - G 1, 1-50 bar

- Unaffected by pressure surges
- Piston design for high reliability
- Perfect for compressed gases



5404

Servo-assisted solenoid valve with a plunger piloted piston seal. Employ where reliable, stable control of neutral gases at pressure is required.

### Technical Data

|                              |                                           |
|------------------------------|-------------------------------------------|
| <b>Pressure range</b>        | 1-50 bar, max.                            |
| <b>Temperature media</b>     | -10 °C – +90 °C                           |
| <b>Ambient temperature</b>   | +55 °C, max.                              |
| <b>Body material</b>         | Brass                                     |
| <b>Seal material</b>         | PTFE                                      |
| <b>Coil material</b>         | Polyamide                                 |
| <b>Power consumption</b>     | DC: 8 W, AC: 24 VA (inrush), 14 VA (hold) |
| <b>Protection class</b>      | IP65                                      |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included)         |

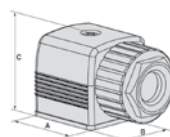
### Options

- Normally open
- Cable plug with LED and/or varistor
- Epoxy High Temperature Coils

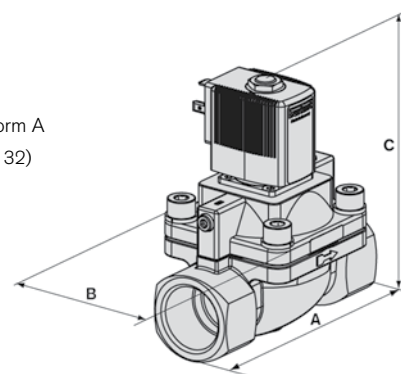
### Ordering Chart

| Port connection<br>[inch] | Orifice<br>[mm] | Kv value | Pressure range [bar] |           | Item no. Voltage/Frequency [V/Hz] |         |         |
|---------------------------|-----------------|----------|----------------------|-----------|-----------------------------------|---------|---------|
|                           |                 |          | for liquids          | for gases | 24 V DC                           | 024/50  | 230/50  |
| G 1/2                     | 12              | 2        | 1-50                 | 1-50      | 134 590                           | 134 591 | 134 593 |
| G 3/4                     | 20              | 5        | 1-25                 | 1-32      | 134 594                           | –       | –       |
|                           |                 |          | 1-25                 | 1-40      | –                                 | 134 595 | 134 597 |
| G 1                       | 25              | 10       | 1-25                 | 1-32      | 134 598                           | –       | –       |
|                           |                 |          | 1-25                 | 1-40      | –                                 | 134 599 | 134 601 |

### Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A  
included (see page 32)



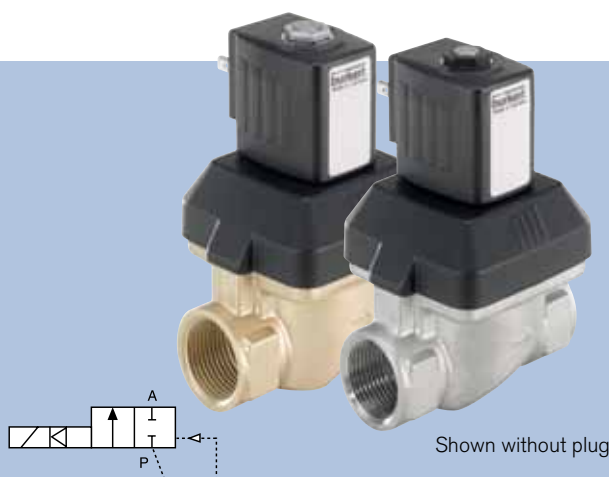
| Size  | A   | B  | C    |
|-------|-----|----|------|
| G 1/2 | 65  | 32 | 96.5 |
| G 3/4 | 100 | 60 | 109  |
| G 1   | 115 | 70 | 119  |

# Assisted Soft-Coupled Solenoid Valve for Liquids

6213 EV

## G 1/4 - G 2, 0-10 bar

- Universally applicable without differential pressure
- Short mounting length
- High flow rate
- Waterhammer free and low noise



Soft-coupled, normally closed solenoid valve with a plunger piloted rolling diaphragm seal for neutral liquids to 90 °C. Its high flow waterhammer-free design allows switching from 0 bar. For complete opening, a differential pressure of at least 0.1 bar is required.

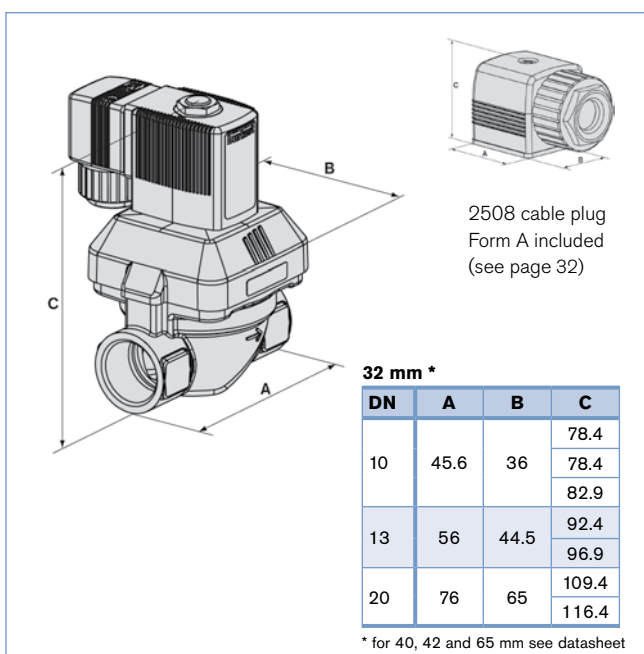
### Technical Data

|                              |                                                          |
|------------------------------|----------------------------------------------------------|
| <b>Pressure range</b>        | 0-10 bar max.                                            |
| <b>Medium temperature</b>    |                                                          |
| NBR                          | -10 to +80 °C                                            |
| FKM                          | 0 to +90 °C (polyamide coil)<br>0 to 120 °C (epoxy coil) |
| <b>Ambient temperature</b>   | +55 °C, max.                                             |
| <b>Body material</b>         | Brass or Stainless steel                                 |
| <b>Seal material</b>         | NBR with brass, FKM with Stainless                       |
| <b>Coil material</b>         | Polyamide or Epoxy                                       |
| <b>Protection class</b>      | IP65 with cable plug                                     |
| <b>Electrical Connection</b> | 2508 cable plug Form A included (see page 32)            |
| <b>Accreditations</b>        | CE                                                       |

### Options

- FKM and EPDM seals on BR, NBR and EPDM seals on St.St.
- Drinking water approved to KTW/W270
- NPT, Rc port connections
- Brass dezincification resistant
- Non-standard voltages available

### Envelope Dimensions [mm] (see datasheet for details)



### Ordering Chart

| Port connection                                                               | Orifice [mm] | Kv value | Pressure range [bar] | Power consumption |                |             | Item no. per voltage/frequency [V/Hz] |         |         |
|-------------------------------------------------------------------------------|--------------|----------|----------------------|-------------------|----------------|-------------|---------------------------------------|---------|---------|
|                                                                               |              |          |                      | Inrush AC [VA]    | Hold AC [VA/W] | Hold DC [W] | 024/DC                                | 024/50  | 230/50  |
| Brass-body, NBR Diaphragm, polyamide coil, medium temperature -10...+80°C     |              |          |                      |                   |                |             |                                       |         |         |
| G 1/4                                                                         | 10           | 1.9      | 0 - 10               | 34                | 14/8           | 10 (11)     | 221 674                               | 221 675 | 221 677 |
| G 3/8                                                                         | 10           | 1.9      | 0 - 10               | 34                | 14/8           | 10 (11)     | 221 598                               | 221 599 | 221 601 |
| G 1/2                                                                         | 10           | 1.9      | 0 - 10               | 34                | 14/8           | 10 (11)     | 221 606                               | 221 607 | 221 609 |
| G 1/2                                                                         | 13           | 3.6      | 0 - 10               | 36                | 14/8           | 10 (11)     | 221 602                               | 221 603 | 221 605 |
| G 3/4                                                                         | 13           | 3.6      | 0 - 10               | 36                | 14/8           | 10 (11)     | 221 618                               | 221 619 | 221 621 |
| G 3/4                                                                         | 20           | 8.3      | 0 - 10               | 38                | 14/8           | 10 (11)     | 221 630                               | 221 631 | 221 633 |
| G 1                                                                           | 20           | 8.3      | 0 - 10               | 38                | 14/8           | 10 (11)     | 221 634                               | 221 635 | 221 637 |
| Brass-body, NBR Diaphragm, epoxy coil, medium temperature -10...+80°C         |              |          |                      |                   |                |             |                                       |         |         |
| G 1                                                                           | 25           | 11       | 0 - 10               | 150               | 37/16          | 28 (29)     | 227 533                               | 221 725 | 221 728 |
| G 1 1/4                                                                       | 25           | 11       | 0 - 10               | 150               | 37/16          | 28 (29)     | 227 534                               | 221 729 | 221 732 |
| G 1 1/2                                                                       | 40           | 30       | 0 - 10               | 190               | 37/16          | 28 (29)     | 227 539                               | 221 750 | 221 753 |
| G 2                                                                           | 40           | 30       | 0 - 10               | 190               | 37/16          | 28 (29)     | 227 541                               | 221 754 | 221 757 |
| Stainless steel body, FKM Diaphragm, epoxy coil, medium temperature 0...120°C |              |          |                      |                   |                |             |                                       |         |         |
| G 3/8                                                                         | 10           | 1.9      | 0 - 10               | 34                | 14/8           | 10 (11)     | 221 758                               | 221 759 | 221 761 |
| G 1/2                                                                         | 13           | 3.6      | 0 - 10               | 36                | 14/8           | 10 (11)     | 221 762                               | 221 763 | 221 765 |
| G 3/4                                                                         | 20           | 8.3      | 0 - 10               | 38                | 14/8           | 10 (11)     | 222 122                               | 222 123 | 222 125 |
| G 1                                                                           | 25           | 11       | 0 - 10               | 150               | 37/16          | 28 (29)     | 227 550                               | 228 430 | 222 143 |
| G 1 1/4                                                                       | 25           | 11       | 0 - 10               | 150               | 37/16          | 28 (29)     | 227 551                               | 228 433 | 222 145 |
| G 1 1/2                                                                       | 40           | 30       | 0 - 10               | 190               | 37/16          | 28 (29)     | 227 557                               | 228 436 | 222 147 |
| G 2                                                                           | 40           | 30       | 0 - 10               | 190               | 37/16          | 28 (29)     | 227 558                               | 228 439 | 222 149 |



# Mass Flow Controller

Whatever the application, it is all down to precise regulation, constant control and accurate metering of the gaseous media to ensure consistent and reproducible results. Our efficient and intelligent devices make gas handling simple.

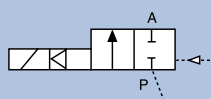


# Servo-Assisted Hard-Coupled Solenoid Valve

0290

## G 1/2 - G 2, 0-16 bar

- True zero differential pressure
- Operates on vacuum
- Process proven rugged and reliable design



Shown with 2508 plug

One of the ever reliable workhorses of the Bürkert solenoid range this hard-coupled solenoid valve with plunger piloted rugged diaphragm seal is perfect for vacuum, neutral gases and liquids. Its durable heavy duty construction is available in brass and stainless steel with a range of diaphragm and seal materials.

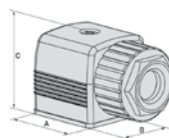
### Technical Data

|                              |                                   |
|------------------------------|-----------------------------------|
| <b>Pressure range</b>        | 0-16 bar, max.                    |
| <b>Temperature media</b>     | -10 °C – +90 °C                   |
| <b>Ambient temperature</b>   | +55 °C, max.                      |
| <b>Body material</b>         | Brass or Stainless steel          |
| <b>Seal material</b>         | NBR or FKM                        |
| <b>Coil material</b>         | Epoxy (Class H)                   |
| <b>Protection class</b>      | IP65                              |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included) |

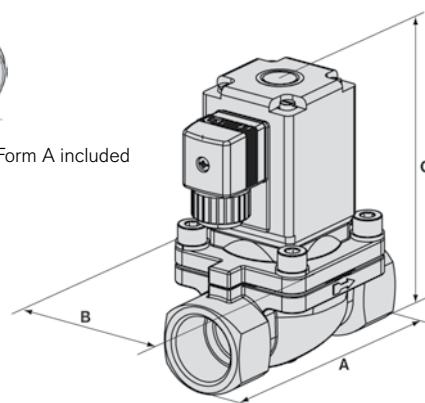
### Options

- EPDM seals
- Cable plug with LED and/or varistor

### Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A included (see page 32)



| Size  | A    | B  | C    |
|-------|------|----|------|
| G 1/2 | 74.5 | 40 | 95.5 |
| G 3/4 | 100  | 60 | 122  |
| G 1   | 115  | 70 | 131  |

### Ordering Chart

| Port connection<br>[inch] | Orifice<br>[mm] | Kv value | Pressure range<br>[bar] | Seal material | Item no. Voltage/Frequency [V/Hz] |         |         |
|---------------------------|-----------------|----------|-------------------------|---------------|-----------------------------------|---------|---------|
|                           |                 |          |                         |               | 24V DC                            | 24V AC  | 230V AC |
| Brass                     |                 |          |                         |               |                                   |         |         |
| G 1/2                     | 12              | 2.8      | 0-16                    | NBR           | 050 294                           | 050 294 | 044 373 |
| G 3/4                     | 20              | 5        |                         | NBR           | 049 518                           | 049 518 | 045 292 |
| G 1                       | 25              | 10       |                         | NBR           | 053 675                           | 053 675 | 045 293 |
| G 1 1/4                   | 32              | 16       | 0-12                    | NBR           | 085 291                           | 085 291 | 052 513 |
| G 1 1/2                   | 40              | 16       |                         | NBR           | 085 295                           | 085 295 | 085 297 |
| G 2                       | 50              | 38       |                         | NBR           | 085 299                           | –       | 085 301 |
| Stainless steel           |                 |          |                         |               |                                   |         |         |
| G 1/2                     | 12              | 2.8      | 0-16                    | FKM           | 049 987                           | 049 987 | 042 888 |
| G 3/4                     | 20              | 5        |                         | FKM           | 066 381                           | 066 381 | 064 701 |
| G 1                       | 25              | 10       |                         | FKM           | 065 542                           | 065 542 | 066 125 |

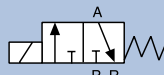


# Miniature Plunger Operated 3/2 Valve

6012



Shown without plug



## G 1/8, 0-10 bar

- Reliable double seated, plunger operation
- High quality FKM seal as standard
- Slip over coil can be rotated in 4 x 90 degrees



Direct-acting 3/2 way, normally closed or normally open solenoid valve. Standalone threaded or manifoldable for neutral gases and liquids it is also suitable for technical vacuum.

## Technical Data

|                       |                                         |
|-----------------------|-----------------------------------------|
| Pressure range        | 0-10 bar, max.                          |
| Temperature media     | -10 °C – +100 °C                        |
| Ambient temperature   | +55 °C, max.                            |
| Body material         | Brass                                   |
| Seal material         | FKM                                     |
| Coil material         | Epoxy (Class H)                         |
| Power consumption     | DC: 4 W, AC: 9 VA (inrush), 6 VA (hold) |
| Protection class      | IP65                                    |
| Electrical Connection | 2507 cable plug Form B (included)       |

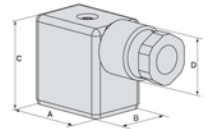
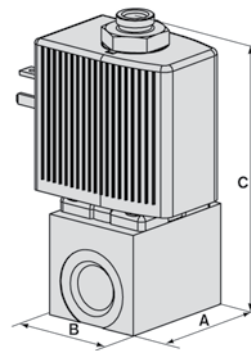
## Options

- Stainless steel body
- Universal 3/2 (T) configuration

## Ordering Chart

| Port connection<br>[inch]                 | Orifice<br>[mm] | Kv Value | Pressure range<br>[bar] | Item no. Voltage/Frequency [V/Hz] |         |         |
|-------------------------------------------|-----------------|----------|-------------------------|-----------------------------------|---------|---------|
|                                           |                 |          |                         | 24V DC                            | 24V AC  | 230V AC |
| Without manual override (normally closed) |                 |          |                         |                                   |         |         |
| G 1/8                                     | 1.2             | 0.045    | 0-10                    | 161 904                           | 163 577 | 163 579 |
| G 1/8                                     | 1.6             | 0.06     | 0-6                     | 163 580                           | 163 581 | 163 583 |
| With manual override (normally closed)    |                 |          |                         |                                   |         |         |
| G 1/8                                     | 1.2             | 0.045    | 0-10                    | 163 584                           | 163 585 | 163 587 |
| G 1/8                                     | 1.6             | 0.06     | 0-6                     | 163 588                           | 163 589 | 163 591 |

## Envelope Dimensions [mm] (see datasheet for details)



2507 cable plug  
Form B included  
(see page 32)

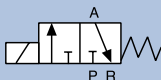
- Upper port is M5 fitting

| Size  | A  | B  | C    |
|-------|----|----|------|
| G 1/8 | 25 | 20 | 56.5 |

# Compact Plunger Operated 3/2 Valve

## G 1/8 & G 1/4, 0-10 bar

- Reliable double seated, plunger operation
- High quality FKM seal as standard
- Slip over coil can be rotated in 4 x 90 degrees



Shown with 2508 plug

Direct-acting 3/2 way, normally closed or normally open solenoid valve. Standalone threaded or manifolded for neutral gases and liquids it is also suitable for technical vacuum.

### Technical Data

|                       |                                           |
|-----------------------|-------------------------------------------|
| Pressure range        | 0-10 bar, max.                            |
| Temperature media     | -10 °C – +100 °C                          |
| Ambient temperature   | -10 to +55 °C, max.                       |
| Body material         | Brass                                     |
| Seal material         | FKM                                       |
| Coil material         | Polyamide (Class B)                       |
| Power consumption     | DC: 8 W, AC: 24 VA (inrush), 17 VA (hold) |
| Protection class      | IP65 with cable plug                      |
| Electrical Connection | 2508 cable plug Form A (included)         |

### Options

- Cable plug with LED and/or varistor
- Stainless steel available
- Hazardous area approvals
- Universal 3/2 (T) configuration

### Ordering Chart

| Port connection<br>[inch]                        | Orifice<br>[mm] | Kv value | Pressure range<br>[bar] | Item no. Voltage/Frequency [V/Hz] |         |         |
|--------------------------------------------------|-----------------|----------|-------------------------|-----------------------------------|---------|---------|
|                                                  |                 |          |                         | 24V DC                            | 24V AC  | 230V AC |
| Brass, without manual override (normally closed) |                 |          |                         |                                   |         |         |
| G 1/8                                            | 2               | 0.11     | 0-10                    | 125 333                           | 125 334 | 125 336 |
| G 1/8                                            | 2.5             | 0.16     | 0-6                     | 125 341                           | 125 340 | 125 342 |
| Brass, with manual override (normally closed)    |                 |          |                         |                                   |         |         |
| G 1/4                                            | 2               | 0.11     | 0-10                    | 125 349                           | 126 147 | 126 149 |

### Envelope Dimensions [mm] (see datasheet for details)

2508 plug included (see page 32)

| Size  | A  | B  | C    |
|-------|----|----|------|
| G 1/8 | 32 | 35 | 73.3 |
| G 1/4 | 46 | 35 | 79.3 |

# Intelligent | Integrated | Beautiful

ELEMENT is a complete system approach to allow you to solve process problems. It encompasses the total loop: valves, sensors and controllers in one beautifully simple architecture which can be relied on to monitor and control inert fluids, steam, corrosive solvents, chemicals or abrasive fluids in a wide variety of application environments. ELEMENT meets all the requirements of the food and beverage industries, as well as the pharmaceuticals and cosmetics, in regard to safe process applications and easy-to-clean equipment.

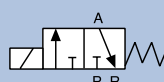


# Pivot Operated 3/2 Way Solenoid Valve

0330

## G 1/4, 0-16 bar

- Isolating separating diaphragm design
- Long service life
- Handles slightly contaminated fluids with ease



Shown in brass with 2508 plug  
(stainless steel version available)

Direct-acting 3/2 way normally closed and normally open solenoid valves with pivoted armature and isolating diaphragm. This flexible valve series includes many options, various body materials, diaphragm and sealing materials and a range of electrical connections to suit many applications.

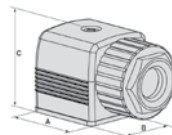
## Technical Data

|                              |                                           |
|------------------------------|-------------------------------------------|
| <b>Pressure range</b>        | 0-16 bar, max.                            |
| <b>Temperature media</b>     | 0 °C – +80 °C                             |
| <b>Ambient temperature</b>   | +55 °C, max.                              |
| <b>Body material</b>         | Brass (Stainless steel available)         |
| <b>Seal material</b>         | NBR                                       |
| <b>Coil material</b>         | Epoxy                                     |
| <b>Power consumption</b>     | DC: 8 W, AC: 30 VA (inrush), 15 VA (hold) |
| <b>Protection class</b>      | IP65 with cable plug                      |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included)         |
| <b>Extras</b>                | Manual override as standard               |

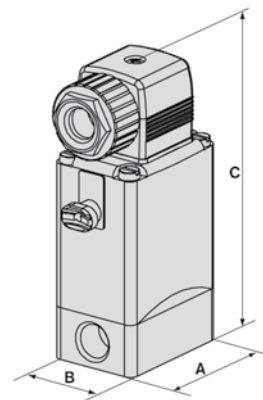
## Options

- Stainless steel body
- Electrical position feedback
- Impulse coil
- Range of diaphragm seals to suit aggressive media
- Vacuum version
- Cable plug with LED and/or varistor
- Manifold mounting (Type 0331)
- Universal function

## Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug  
Form A included  
(see page 32)



| Size  | A  | B  | C   |
|-------|----|----|-----|
| G 1/4 | 46 | 34 | 100 |

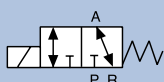
## Ordering Chart

| Port connection<br>[inch]           | Orifice<br>[mm] | Kv value | Pressure range [bar] | Voltage/Frequency [V/Hz] |         |         |
|-------------------------------------|-----------------|----------|----------------------|--------------------------|---------|---------|
|                                     |                 |          |                      | 24V DC                   | 24V AC  | 230V AC |
| Normally closed 3 way configuration |                 |          |                      |                          |         |         |
| G 1/4                               | 2.0             | 0.11     | 0-16                 | 041 103                  | 042 129 | 041 105 |
| G 1/4                               | 3.0             | 0.23     | 0-10                 | 041 107                  | 041 108 | 041 116 |
| Normally open 3 way configuration   |                 |          |                      |                          |         |         |
| G 1/4                               | 2.0             | 0.11     | 0-16                 | 056 984                  | 041 858 | 041 137 |
| G 1/4                               | 3.0             | 0.28     | 0-10                 | 041 139                  | 041 141 | 041 147 |

# Pivot Operated 3/2 Way Universal Solenoid Valve



Shown with 2508 plug



## G 1/4, 0-12 bar

- Universal flow function
- Isolating separating diaphragm design
- Handles slightly contaminated fluids with ease



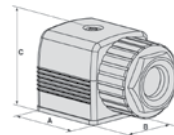
0330

Direct-acting 3/2 way universal function (T) solenoid valves with pivoted armature and isolating diaphragm. This flexible valve series includes many options, various body materials, diaphragm and sealing materials and a range of electrical connections to suit many applications.

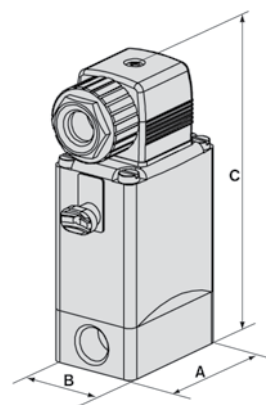
## Technical Data

|                              |                                           |
|------------------------------|-------------------------------------------|
| <b>Pressure range</b>        | 0-12 bar, max.                            |
| <b>Temperature media</b>     | 0 °C – +90 °C                             |
| <b>Ambient temperature</b>   | +55 °C, max.                              |
| <b>Body material</b>         | Brass or Stainless steel                  |
| <b>Seal material</b>         | FKM                                       |
| <b>Coil material</b>         | Epoxy                                     |
| <b>Power consumption</b>     | DC: 8 W, AC: 30 VA (inrush), 15 VA (hold) |
| <b>Protection class</b>      | IP65 with cable plug                      |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included)         |
| <b>Extras</b>                | Manual override as standard               |

## Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A included (see page 32)



| Size  | A  | B  | C   |
|-------|----|----|-----|
| G 1/4 | 46 | 34 | 100 |

## Options

- Electrical position feedback
- Impulse coil
- Range of diaphragm seals to suit aggressive media
- Vacuum ring version
- Cable plug with LED and/or varistor
- Manifold mounting (Type 0331)

## Ordering Chart

| Port connection<br>[inch]                | Orifice<br>[mm] | Kv value | Pressure range [bar] | Voltage/Frequency [V/Hz] |         |         |
|------------------------------------------|-----------------|----------|----------------------|--------------------------|---------|---------|
|                                          |                 |          |                      | 24V DC                   | 24V AC  | 230V AC |
| Brass valve body, universal function     |                 |          |                      |                          |         |         |
| G 1/4                                    | 2.0             | 0.11     | 0-12                 | 124 922                  | 138 316 | 124 925 |
| G 1/4                                    | 3.0             | 0.16     | 0-8                  | 124 927                  | 124 928 | 124 930 |
| Stainless steel body, universal function |                 |          |                      |                          |         |         |
| G 1/4                                    | 2.0             | 0.11     | 0-12                 | 124 932                  | 124 933 | 124 935 |
| G 1/4                                    | 3.0             | 0.16     | 0-8                  | 124 937                  | 124 938 | 124 940 |

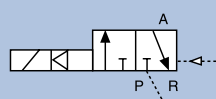


# Servo-Assisted 3/2 Way Solenoid Valve with Isolated Pilot

0340

**G 1/4 - G 1 1/2, 0.5-16 bar**

- Servo-Piston for large flow rates
- Pivoted armature isolated pilot
- Manual override as standard



Shown with 2508 plug

Servo-assisted 3/2 way normally closed and normally open solenoid valve with a pivoted armature and isolating diaphragm. This series encompasses a range of diaphragms, sealing materials and electrical connections. Perfect for pneumatic actuation of very large process valves.

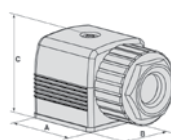
## Technical Data

|                              |                                           |
|------------------------------|-------------------------------------------|
| <b>Pressure range</b>        | 0.5-16 bar, max.                          |
| <b>Temperature media</b>     | 0 °C – +90 °C                             |
| <b>Ambient temperature</b>   | +55 °C, max.                              |
| <b>Body material</b>         | Brass                                     |
| <b>Seal material</b>         | NBR                                       |
| <b>Coil material</b>         | Epoxy                                     |
| <b>Power consumption</b>     | DC: 8 W, AC: 30 VA (inrush), 15 VA (hold) |
| <b>Protection class</b>      | IP65 with cable plug                      |
| <b>Electrical Connection</b> | 2508 cable plug Form A (included)         |
| <b>Extras</b>                | Manual override as standard               |

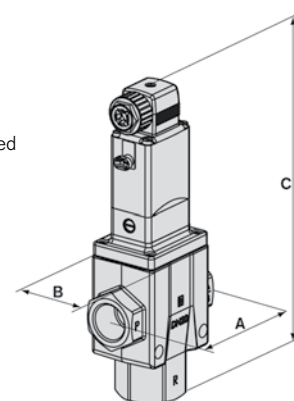
## Options

- Electrical position feedback
- Impulse coil
- Range of diaphragm seals to suit difficult media
- Cable plug with LED and/or varistor

## Envelope Dimensions [mm] (see datasheet for details)



2508 cable plug Form A included (see page 32)



| Size  | A   | B  | C     |
|-------|-----|----|-------|
| G 1/4 | 65  | 33 | 154.5 |
| G 3/8 | 76  | 33 | 179.5 |
| G 1/2 | 76  | 33 | 179.5 |
| G 3/4 | 90  | 52 | 215.5 |
| G 1   | 110 | 60 | 237.5 |

## Ordering Chart

| Port connection<br>[inch] | Orifice<br>[mm] | Kv value | Pressure range<br>[bar] | Item no. Voltage/Frequency [V/Hz] |         |         |
|---------------------------|-----------------|----------|-------------------------|-----------------------------------|---------|---------|
|                           |                 |          |                         | 24V DC                            | 24V AC  | 230V AC |
| Normally closed           |                 |          |                         |                                   |         |         |
| G 1/4                     | 8               | 0.95     | 0.5-16                  | 041 317                           | 041 318 | 041 329 |
| G 1/2                     | 12              | 2.6      | 0.5-16                  | 041 333                           | 041 334 | 041 346 |
| G 3/4                     | 20              | 6.6      | 0.5-16                  | 041 354                           | 041 665 | 041 361 |
| G 1                       | 25              | 10       | 0.5-10                  | 041 537                           | 041 362 | 041 364 |
| G 1 1/2                   | 40              | 24       | 0.5-10                  | 042 319                           | 041 365 | 041 366 |
| Normally open             |                 |          |                         |                                   |         |         |
| G 1/4                     | 8               | 0.95     | 0.5-16                  | 041 367                           | 041 368 | 041 371 |
| G 1/2                     | 12              | 2.6      | 0.5-16                  | 041 374                           | 041 375 | 041 380 |

# Perfect control was never so simple

Our newest generation of Solenoid Control Valves and control electronics can really make your life simpler. Ground-breaking innovation has created a remarkable range of high performance, reliable and accurate valves with orifices down to 0.05mm. Previously unattainable turn down ratios and unlimited modularity give you complete process flexibility. Bürkert's R&D teams have redefined the dynamics of proportional solenoid valves to minimize friction and stick-slip effects to provide unmatched span, repeatability and sensitivity.





## Cable plugs

2507 / 2508

### 0 to 250 V AC, DIN 43650

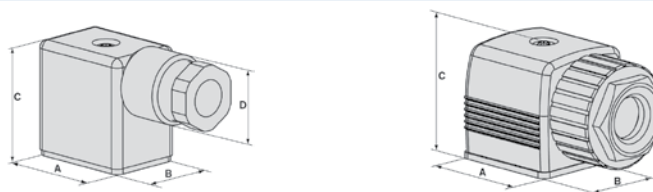
- Compact and simple to wire
- IP65 / NEMA 4X
- Also available with LED indicator
- Global Approvals



**2507** - Plug on connector for small valves and sensors. Options include LED, rectifier, suppression diode, and varistor. Modular flexible design allows flexibility in restricted space; watertight connection.

**2508** - Plug on connector for process area valves and sensors. Options include LED, rectifier, varistor and AS-i versions (2510/2511). The flexible design allows 90° installation flexibility.

Envelope Dimensions [mm] (see datasheet for details)



| Type | A  | B    | C    |
|------|----|------|------|
| 2507 | 51 | 20.8 | 32   |
| 2508 | 46 | 28   | 27.5 |

### Technical Data

| Type                         | 2507                           | 2508                           |
|------------------------------|--------------------------------|--------------------------------|
| Body material                | Polyamide                      | Polyamide                      |
| Contacts                     | Brass galvanised silver plated | Brass galvanised silver plated |
| Rotation                     | 2 x 180 degrees                | 4 x 90 degrees                 |
| Cable diameter               | 4.5 - 7 mm                     | 6 - 7 mm                       |
| Continuous temperature limit | +90 °C                         | +90 °C                         |
| Rating                       | 6 A                            | 6 A                            |
| Nominal voltage              | 0-250V                         | 0-250V                         |
| Feedback of function         | Optional Red LED               | Optional Red LED               |
| Protection                   | IP65                           | IP65                           |

### Ordering Chart

| Circuitry               | Voltage      | Item no. 2507 | Item no. 2508 |
|-------------------------|--------------|---------------|---------------|
| Standard                | 0-250V AC/DC | 423 845       | 008 376       |
| With LED                | 24 V DC      | 423 849       | 008 360       |
|                         | 110 V AC     | -             | 008 361       |
|                         | 230 V AC     | -             | 008 362       |
| "With LED and varistor" | 24 V DC      | 423 851       | 008 367       |
|                         | 110 V AC     | -             | 008 368       |
|                         | 230 V AC     | -             | 008 369       |

# Solenoid Valve Timer Units



Type 1078-1

Type 1078-2  
and 1077-2



0.5 s to 10 s up to 0.5 h...10 h

- Programmable alone or using separate operating unit
- Various switching functions
- Safety function



1078-1 / 1078-2

The 1078-1 is simply programmed by DIP switches and potentiometers and incorporates four different switching functions. It mounts directly onto Bürkert solenoid valves using the same three prong connection. This unit is perfect for simple tasks like compressor blowdown where reliability is required.

The 1078-2, which has eight different switching functions, is operated by a two button programmer (1077-2) with a small digital display. As changes are only possible via the programmer the unit is safely locked when it is removed. Multiple timers can simply be programmed as the last settings always remain in the 1077-2.

## Technical Data

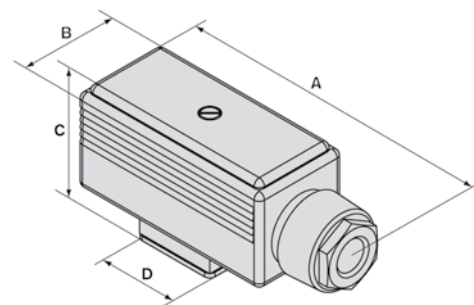
|                                         |                                                                                                                                      |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Time range</b>                       | 0.5 s...10 s up to 0.5 h...10 h                                                                                                      |
| <b>Display</b>                          | LED-connected power supply, LED-energized load                                                                                       |
| <b>Adjustment 1078-1</b>                | DIP-switches, precision adjustment of response times via potentiometers                                                              |
| <b>Adjustment 1078-2</b>                | Two buttons via 1077-2 programmer (not included)                                                                                     |
| <b>Switching functions</b>              | 4 (1078-1), 8 (1078-2)                                                                                                               |
| <b>Body material</b>                    | Polyamide                                                                                                                            |
| <b>Operating voltages</b>               | See table                                                                                                                            |
| <b>Power consumption</b>                | Max. 1.5W                                                                                                                            |
| <b>Ingress protection</b>               | IP65                                                                                                                                 |
| <b>Plug Size</b>                        | Form A, DIN 43 650                                                                                                                   |
| <b>Switching load (I<sub>max</sub>)</b> | 2 A at supply voltage 12 DC.<br>1.5 A at supply voltage 24-48 V/50-60 Hz and DC<br>0.5 A at supply voltage 120-240 V/50-60 Hz and DC |
| <b>Cable outlet</b>                     | 4 x 90° positioning                                                                                                                  |
| <b>Working temperature range</b>        | -10 °C – +60 °C                                                                                                                      |
| <b>Influence of temperature</b>         | ±5 % of full scale time range                                                                                                        |
| <b>Influence of voltage</b>             | ±1 % of full scale time range                                                                                                        |

|                                  |                         |
|----------------------------------|-------------------------|
| <b>1077-2 Display</b>            | 4.5 digit 7 segment LCD |
| <b>1077-2 Adjustment</b>         | Two buttons             |
| <b>1077-2 Body material</b>      | Polyamide               |
| <b>1077-2 Ingress protection</b> | IP65 (with valve)       |

## Options

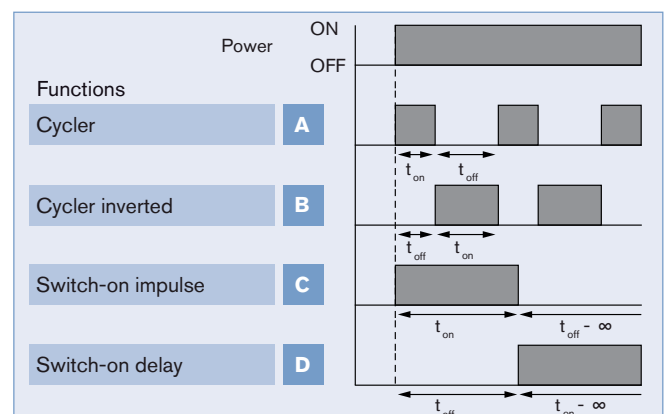
- 1078-2 without operating unit
- Unit for max. time 100 h (option NA15)

Envelope Dimensions [mm] (see datasheet for details)



| A  | B  | C    |
|----|----|------|
| 90 | 28 | 53.5 |

## Functions



## Ordering Chart

| Type              | Item no. Voltage/Frequency [V/Hz] |             |
|-------------------|-----------------------------------|-------------|
|                   | 24V DC & AC                       | 110-240V AC |
| 1078-1            | 060 621                           | 060 620     |
| 1078-2            | 060 629                           | 060 630     |
| 1077-2 programmer | 060 638                           |             |

# ATEX Solenoid Valves for Hazardous Locations

## G 1/8 to G 2

- Valves designed exclusively for demanding ATEX environments
- Fully Encapsulated Coils



Bürkert's worldwide certifications allow engineers to employ global standards on every project. With certifications for FM, CSA and EEx (ATEX) we can build a valve for your toughest application.

Add in a perfect range of intrinsically safe valve technology and you have all the control strategies for hazardous locations. This page shows only a small example of the complete range.

## Technical Data

|                       | 6013                                                                                                         | 6281 EV                                                    | 5282                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|
| Pressure range        | 0-10 bar, max.                                                                                               | 0.2-16 bar, max.                                           | 0.2-10 bar, max.                        |
| Size range            | 1/8" and 1/4"                                                                                                | 1/2" to 2"                                                 | 1/2" to 2"                              |
| Temperature media     | -10 °C – +90 °C                                                                                              | -10 °C – +90 °C (+80 °C)                                   | 0 °C – +90 °C                           |
| Surface temperature   | T4 = 135 °C max.<br>Surface Temperature                                                                      | T4 = 135 °C max.<br>Surface Temperature                    | T4 = 135 °C max.<br>Surface Temperature |
| Body material         | Brass or Stainless steel                                                                                     | Brass or Stainless steel                                   | Brass or Stainless steel                |
| Seal material         | FKM                                                                                                          | NBR or FKM                                                 | NBR or FKM                              |
| Power consumption     | DC: 9 W                                                                                                      | DC: 9 W                                                    | DC: 40 W (inrush), 3 W (hold)           |
| Protection class      | IP65                                                                                                         | IP65                                                       | IP65                                    |
| Electrical Connection | Cable 3m                                                                                                     | Cable 3m                                                   | Cable 3m or junction box                |
| Accreditations        | II 1/2 G Ex m II T4,T5,T6<br>II 1/2 G Ex em II T3<br>II 2 G/D Ex m II T4,T5,T6<br>II 2 G/D Ex em II T4,T5,T6 | II 2G EEx m II T4 PTB 00 ATEX 2129X<br>II 2D IP 65 T 135°C | II 2G EEx ed IIC T5 PTB03 ATEX 1030X    |
| Override              | Optional                                                                                                     | Optional                                                   | Manual override as standard             |

## Ordering Charts

### 6013 ATEX

| Port                   | Orifice | Kv Value | Pressure range [bar] | Item no.  |            |
|------------------------|---------|----------|----------------------|-----------|------------|
|                        |         |          |                      | 24V AC&DC | 230V AC&DC |
| <b>Brass</b>           |         |          |                      |           |            |
| G 1/8                  | 2.0     | 0.12     | 0-10                 | 136 039   | 136 041    |
|                        | 3.0     | 0.23     | 0-5                  | 136 045   | 136 047    |
| G 1/4                  | 2.0     | 0.12     | 0-10                 | 139 892   | 139 894    |
|                        | 3.0     | 0.23     | 0-5                  | 136 048   | 136 050    |
| <b>Stainless steel</b> |         |          |                      |           |            |
| G 1/8                  | 2.0     | 0.12     | 0-10                 | 136 027   | 136 029    |
|                        | 3.0     | 0.23     | 0-5                  | 136 030   | 136 032    |
| G 1/4                  | 2.0     | 0.12     | 0-10                 | 139 887   | 139 889    |
|                        | 3.0     | 0.23     | 0-5                  | 136 033   | 136 035    |

### 5282 ATEX, Pressure range: 0.5-10 bar

|    | Port    | Orifice | Kv Value | Seal material | 24V AC&DC | 230V AC&DC |
|----|---------|---------|----------|---------------|-----------|------------|
| MS | G 1/2   | 13      | 4        | NBR           | 138 171   | 138 173    |
|    | G 3/4   | 20      | 5        | NBR           | 138 174   | 138 176    |
|    | G 1     | 25      | 10       | NBR           | 138 177   | 138 179    |
|    | G 1 1/2 | 40      | 20       | NBR           | 138 183   | 138 185    |
|    | G 2     | 50      | 40       | NBR           | 138 186   | 138 188    |
| VA | G 1/2   | 20      | 5        | FKM           | 138 228   | 138 230    |
|    | G 3/4   | 20      | 5        | FKM           | 138 231   | 138 233    |
|    | G 1     | 25      | 10       | FKM           | 138 234   | 138 236    |
|    | G 1 1/2 | 40      | 20       | FKM           | 138 240   | 138 242    |
|    | G 2     | 50      | 40       | FKM           | 138 243   | 138 245    |

### 6281 EV ATEX, Brass, 0.2-16 bar

| Port                                           | Orifice [mm] | Kv value | 024/UC  | 230/UC  |
|------------------------------------------------|--------------|----------|---------|---------|
| <b>Seal material NBR, Brass body</b>           |              |          |         |         |
| G 1/2                                          | 13           | 3.8      | 228 405 | 228 406 |
| G 3/4                                          | 20           | 8.5      | 228 407 | 228 408 |
| G 1                                            | 25           | 12       | 228 409 | 228 410 |
| G 1 1/4                                        | 25           | 12       | 228 411 | 228 412 |
| G 1 1/2                                        | 40           | 30       | 228 413 | 228 414 |
| G 2                                            | 40           | 30       | 228 415 | 228 416 |
| <b>Seal material FKM, Stainless steel body</b> |              |          |         |         |
| G 1/2                                          | 13           | 3.8      | 228 417 | 228 418 |
| G 3/4                                          | 20           | 8.5      | 228 419 | 228 420 |
| G 1                                            | 25           | 12       | 228 421 | 228 422 |
| G 1 1/4                                        | 25           | 12       | 228 423 | 228 424 |
| G 1 1/2                                        | 40           | 30       | 228 425 | 228 426 |
| G 2                                            | 40           | 30       | 228 427 | 228 428 |

## Options

- 6013** - Normally open; Three way (6014)
- 6281 EV** - Normally open
- 5282** - Normally open; Three way (0340)

## Process Actuation and Valve Islands

The pilot valves required for controlling actuators may be fitted at various locations (Non Ex or hazardous locations) and in different ways (centralized or decentralized automation). Our range extends from directly mounted pilot valves on the actuator to centralized valve islands with Fieldbus interface in control cabinets (AirLINE and AirLINE Ex)

When using a centralized valve island, corresponding pneumatic tubing must be installed from the control cabinet to the final control element. Alternatively, Bürkert offers with the ELEMENT positioners and controllers a wide range of equipment to actuate, monitor, network, position and decentralize process control into the field.



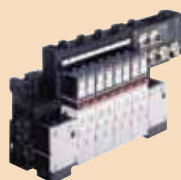
**8691**  
page 57

**Decentralized  
Process  
Actuation &  
Control**



**Control cabinets**

**Cabinets  
and Control  
Solutions**



**8640 Profibus**



**8644 AirLINE Rockwell,  
Siemens, Phoenix or Wago**



**8650 AirLINE Ex**

**Valve Islands  
and Fieldbus**



**6014**



**8640 with 5470 valves**



**8640  
with 6518/6519 valves**

**Valve Blocks  
and Manifolds**



**6012 P**  
page 36



**6014 P**  
page 36



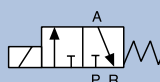
**6519**  
page 37

**Single Pilot  
Valves**

## Direct Mounting Pilot for Bürkert Process Valves

### G 1/8" & G 1/4", 0-10 bar

- Simple to connect to valve and air supply
- Low power
- Tough and reliable



Shown with 2508 and 2507 plug

Direct-acting 3/2 way normally closed solenoid valve is plunger operated and designed to fit simply and securely to Bürkert process valves. It is engineered for process compressed air.

### Technical Data

|                              | 6012 P                                     | 6014 P                                       |
|------------------------------|--------------------------------------------|----------------------------------------------|
| <b>Pressure range</b>        | 0-10 bar, max.                             | 0-10 bar, max.                               |
| <b>Temperature media</b>     | -10 °C – +100 °C                           | -10 °C – +100 °C                             |
| <b>Ambient temperature</b>   | +55 °C, max.                               | +55 °C, max.                                 |
| <b>Body material</b>         | Polyamide                                  | Brass and aluminium                          |
| <b>Banjo bolt material</b>   | Brass, nickel plated                       | Brass, nickel plated                         |
| <b>Seal material</b>         | Banjo screw: NBR<br>Valve: FKM             | FKM                                          |
| <b>Coil material</b>         | Epoxy                                      | Polyamide                                    |
| <b>Power consumption</b>     | DC: 4 W, AC: 9 VA (inrush),<br>6 VA (hold) | DC: 8 W, AC: 24 VA (inrush),<br>17 VA (hold) |
| <b>Protection class</b>      | IP65                                       | IP65                                         |
| <b>Electrical Connection</b> | 2507 cable plug Form B                     | 2508 cable plug Form A                       |

### Options

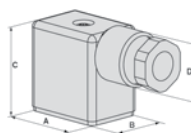
#### 6012 P

- Normally open (function D)
- Cable plug with LED and/or varistor

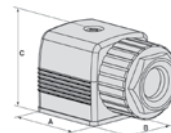
#### 6014 P

- Normally open (function D)
- Cable plug with LED and/or varistor
- Hazardous area approvals

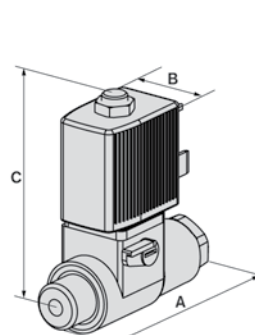
### Envelope Dimensions [mm] (see datasheet for details)



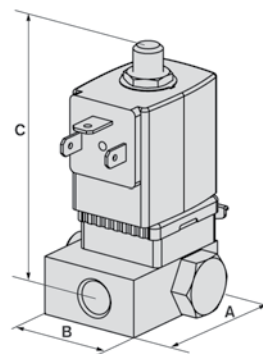
2507 cable plug  
Form B included  
(see page 32)



2508 cable plug  
Form A included  
(see page 32)



Type 6012 P



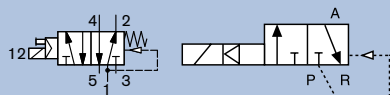
Type 6014 P

| Type   | A  | B  | C    |
|--------|----|----|------|
| 6012 P | 57 | 20 | 69.6 |
| 6014 P | 54 | 40 | 89   |

### Ordering Chart

|        | Port (P) | Port (A) | Orifice | Q <sub>nn</sub> [l/min] | Pressure range [bar] | 24V DC  | 24V AC  | 230V AC |
|--------|----------|----------|---------|-------------------------|----------------------|---------|---------|---------|
| 6012 P | 6mm      | G1/8     | 1.2     | 48                      | 0-10                 | 552 287 | 552 288 | 552 290 |
|        | 6mm      | G1/4     | 1.2     | 48                      | 0-10                 | 552 283 | 552 284 | 552 286 |
|        | G1/8     | G1/8     | 1.2     | 48                      | 0-10                 | 552 299 | 552 300 | 552 302 |
|        | G1/4     | G1/8     | 1.2     | 48                      | 0-10                 | 552 295 | 552 296 | 552 298 |
|        | G1/4     | G1/4     | 1.2     | 48                      | 0-10                 | 552 291 | 552 292 | 552 294 |
| 6014 P | G1/4     | G1/4     | 2.0     | 120                     | 0-10                 | 424 103 | 424 104 | 424 107 |

# Direct Mounting NAMUR Pneumatic Pilot Valve



## 5/2-3/2-Way, G 1/4-NAMUR, 2-8 bar

- 5/2 and 3/2-way functions in one delivery
- Extreme switching reliability
- Premium corrosion resistant construction

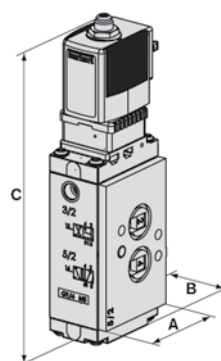
NAMUR 6519/  
6519 ATEX

The 6519 incorporates a standard NAMUR flange to facilitate an extremely simple direct mounting onto process actuators. Bürkert's tried and true diaphragm seating design guarantees reliable switching of the valve, even after long shutdown periods. Manufactured from high quality engineered plastics this series can be operated as either a 5/2 or 3/2 way valve in chemically aggressive process conditions.

### Technical Data

|                              |                                                                               |
|------------------------------|-------------------------------------------------------------------------------|
| <b>Pressure range</b>        | 2-8 bar                                                                       |
| <b>Temperature media</b>     | -10 °C – +50 °C                                                               |
| <b>Ambient temperature</b>   | +55 °C, max.                                                                  |
| <b>Manual override</b>       | Yes                                                                           |
| <b>Body material</b>         | Polyamide                                                                     |
| <b>Connections</b>           | G 1/4 (nickel plated brass) x NAMUR<br>Nickel plated brass or Stainless steel |
| <b>Orifice</b>               | 6mm                                                                           |
| <b>Q<sub>Nn</sub></b>        | 900 l/min                                                                     |
| <b>Seal material</b>         | PB (NBR and PUR)                                                              |
| <b>Coil material</b>         | Polyamide                                                                     |
| <b>Power consumption</b>     | 2 W (for AC and DC)                                                           |
| <b>Protection class</b>      | IP65                                                                          |
| <b>Electrical Connection</b> | See table below                                                               |

### Envelope Dimensions [mm] (see datasheet for details)



For plug details please see page 32 and table below. Class 1 Div I valves are supplied with flying leads and conduit connector

| Size | A  | B  | C    |
|------|----|----|------|
| 1/8" | 32 | 35 | 73.3 |
| 1/4" | 46 | 35 | 79.3 |

### Options

- Without manual override
- Intrinsically safe range (1 option shown in table as example)

### Ordering Chart

| Type              | Material | Port (P) | Orifice | Q <sub>nn</sub> [l/min] | Pressure range [bar] | 24V DC  | 24V AC  | 230V AC |
|-------------------|----------|----------|---------|-------------------------|----------------------|---------|---------|---------|
| <b>Standard</b>   |          |          |         |                         |                      |         |         |         |
| Cable plug        | MN       | G1/4     | 6.0     | 900                     | 2-8                  | 131 421 | 131 422 | 131 424 |
|                   | VA       | G1/4     | 6.0     | 900                     | 2-8                  | 131 425 | 131 426 | 131 428 |
| <b>ATEX EEXm</b>  |          |          |         |                         |                      |         |         |         |
| 3m cable          | MN       | G1/4     | 6.0     | 900                     | 2-8                  | 131 627 | 131 627 | 131 629 |
|                   | VA       | G1/4     | 6.0     | 900                     | 2-8                  | 131 631 | 131 631 | 131 633 |
| Junction box      | MN       | G1/4     | 6.0     | 900                     | 2-8                  | 427 978 | 427 978 | 139 066 |
|                   | VA       | G1/4     | 6.0     | 900                     | 2-8                  | 139 067 | 139 067 | 139 069 |
| <b>ATEX EEXia</b> |          |          |         |                         |                      |         |         |         |
| Cable plug        | MN       | G1/4     | 6.0     | 900                     | 2-8                  | 144 483 | -       | -       |
|                   | VA       | G1/4     | 6.0     | 900                     | 2-8                  | 144 482 | -       | -       |



# Network your ideas... quicker than ever

Bürkert connects a world of process solutions to work efficiently. Across international guidelines and standards and spanning dynamic conditions of global competition we are ready to work towards your success. A synergy of knowledge of both process engineering, precise project management and specific pneumatic and fieldbus technology means we are the specialist you can trust.



## Build your perfect valve

Making your life simpler, our ground-breaking innovation has created a remarkable range of attractive and hardworking valve elements which can be combined to give the user the best possible fit for purpose. With unlimited modularity, Bürkert saves you time by offering valves for media from slurries to steam and from de-ionized water to hydrochloric acid to offer peace of mind with the sure knowledge you have chosen experience and quality.



### Control and Communication



### Actuators



### Valve Bodies

# On-Off Pneumatically Operated 2/2 Way Angle Valve for Liquids

## G 1/2 - G 2 1/2, 0-16 bar

- Superior performance over ball valves
- Worldwide benchmark for quality and reliability
- Waterhammer-free



Bürkert's classic angle seat valve. Designed for unmatched life cycle performance, is a perfect replacement for actuated ball valves. Configuration with underseat flow for liquids these anti-waterhammer valves employ live loaded packing and an N-seal piston actuator all in an application proven rugged compact envelope.

### Technical Data

|                          |                                  |
|--------------------------|----------------------------------|
| Pressure range           | 0-16 bar, max.                   |
| Temperature media        | -10 °C – +180 °C                 |
| Ambient temperature max. | +60 °C                           |
| Body material            | Gunmetal, stainless steel        |
| Seal material            | PTFE                             |
| Actuator Material        | Polyamide (optional PPS)         |
| Control medium           | Instrument air at 6 bar          |
| Flow direction           | Under seat anti water-hammer     |
| Port connection          | G-thread                         |
| Safe position            | Normally closed or normally open |

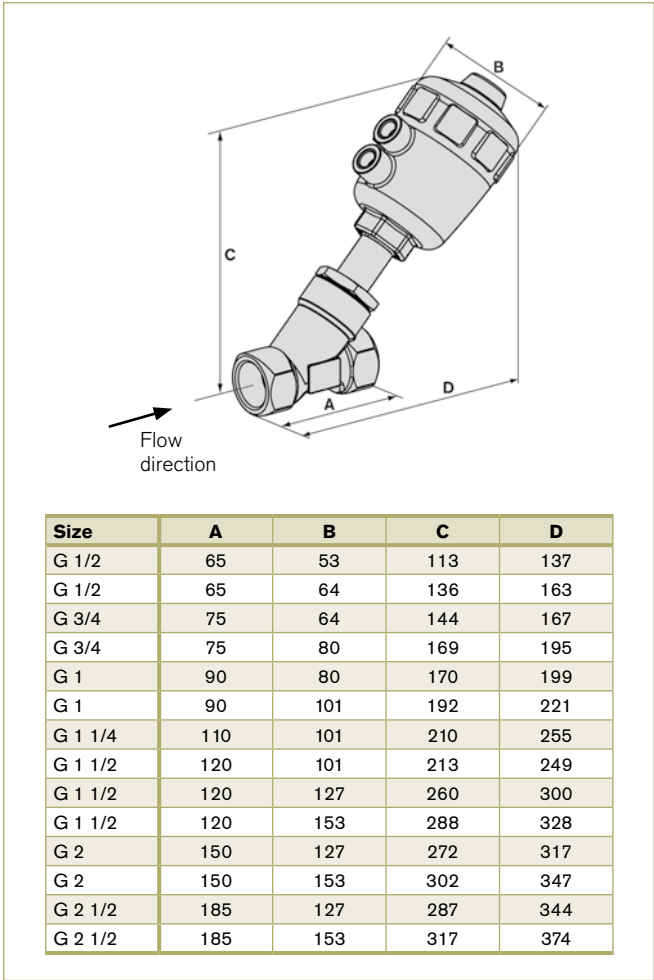
### Options

- Double acting
- Solenoid pilot valves (see page 36)
- Vacuum version
- Feedback switches
- Steam version (see page 45)
- Cleaned for oxygen service
- Stroke limiter

### Accessories for 2100

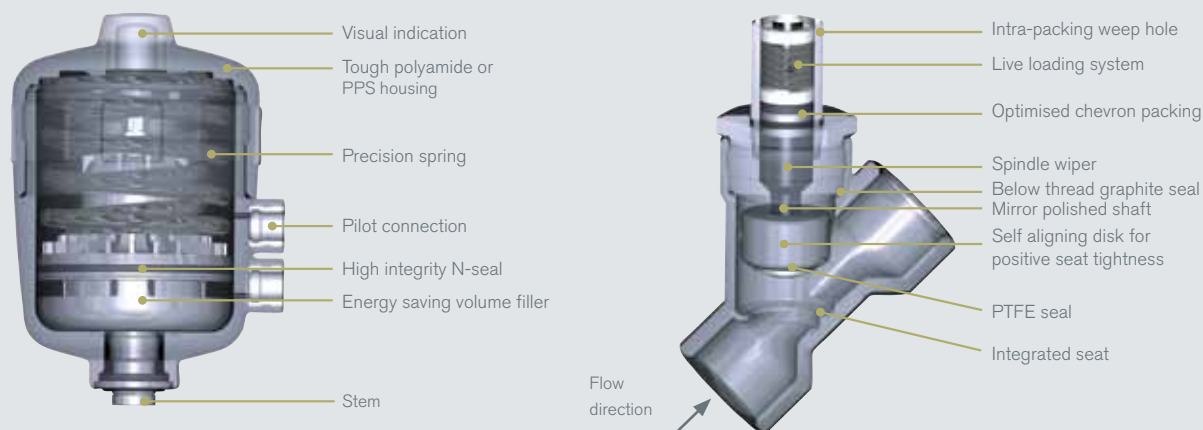


Envelope Dimensions [mm] (see datasheet for details)



| Size    | A   | B   | C   | D   |
|---------|-----|-----|-----|-----|
| G 1/2   | 65  | 53  | 113 | 137 |
| G 1/2   | 65  | 64  | 136 | 163 |
| G 3/4   | 75  | 64  | 144 | 167 |
| G 3/4   | 75  | 80  | 169 | 195 |
| G 1     | 90  | 80  | 170 | 199 |
| G 1     | 90  | 101 | 192 | 221 |
| G 1 1/4 | 110 | 101 | 210 | 255 |
| G 1 1/2 | 120 | 101 | 213 | 249 |
| G 1 1/2 | 120 | 127 | 260 | 300 |
| G 1 1/2 | 120 | 153 | 288 | 328 |
| G 2     | 150 | 127 | 272 | 317 |
| G 2     | 150 | 153 | 302 | 347 |
| G 2 1/2 | 185 | 127 | 287 | 344 |
| G 2 1/2 | 185 | 153 | 317 | 374 |

## Sectional Drawings



## Ordering Charts - 2000 for liquids

| Port            | Orifice<br>[mm] | Actuator<br>Ø [mm] | Kv value | Pressure range<br>[bar] | Item no. - Gunmetal body |              | Item no. - Cast st. st. body |              |
|-----------------|-----------------|--------------------|----------|-------------------------|--------------------------|--------------|------------------------------|--------------|
|                 |                 |                    |          |                         | PA actuator              | PPS actuator | PA actuator                  | PPS actuator |
| Normally closed |                 |                    |          |                         |                          |              |                              |              |
| G 1/2           | 13              | 40                 | 3.7      | 0-15                    | 178 608                  | 178 607      | 178 606                      | 178 605      |
|                 |                 | 50                 | 4.2      | 0-16                    | 178 684                  | 178 683      | 178 682                      | 178 681      |
| G 3/4           | 20              | 50                 | 8.5      | 0-11                    | 178 680                  | 178 679      | 178 678                      | 178 677      |
|                 |                 | 63                 | 9        | 0-16                    | 178 666                  | 178 665      | 178 664                      | 178 663      |
| G 1             | 25              | 63                 | 18       | 0-11                    | 178 676                  | 178 675      | 178 674                      | 178 667      |
|                 |                 | 80                 | 18       | 0-16                    | 186 489                  | 187 565      | 186 488                      | 187 844      |
| G 1 1/4         | 32              | 80                 | 27       | 0-14                    | 178 699                  | 178 698      | 178 697                      | 178 696      |
| G 1 1/2         | 40              | 100                | 42       | 0-12.5                  | 185 072                  | 187 829      | 185 073                      | –            |
|                 |                 | 125                | 42       | 0-16                    | 186 487                  | –            | 187 840                      | –            |
| G 2             | 50              | 100                | 55       | 0-7.2                   | 001 134                  | 002 170      | 001 140                      | 001 239      |
|                 |                 | 125                | 55       | 0-10                    | 001 593                  | 002 171      | 001 601                      | –            |
| G 2 1/2         | 65              | 125                | 90       | 0-5.2                   | 001 368                  | 002 172      | 001 373                      | 001 703      |
| Normally open   |                 |                    |          |                         |                          |              |                              |              |
| G 1/2           | 13              | 40                 | 3.8      | 0-16                    | 178 601                  | 178 602      | 178 603                      | 178 604      |
|                 |                 | 50                 | 4.2      | 0-16                    | 178 691                  | 178 690      | 178 689                      | 178 688      |
| G 3/4           | 20              | 50                 | 8.5      | 0-16                    | 178 687                  | 179 020      | 178 686                      | 178 685      |
| G 1             | 25              | 50                 | 10       | 0-16                    | 178 850                  | 178 849      | 178 848                      | 178 847      |
| G 1 1/4         | 32              | 63                 | 25       | 0-16                    | 178 845                  | 178 853      | 178 852                      | 178 851      |
| G 1 1/2         | 40              | 63                 | 35       | 0-16                    | 178 864                  | 178 863      | 178 862                      | 178 861      |
| G 2             | 50              | 80                 | 49       | 0-16                    | 001 595                  | 002 180      | 001 603                      | 002 164      |
| G 2 1/2         | 65              | 80                 | 77       | 0-16                    | 001 372                  | 002 181      | 001 377                      | 001 710      |

# On-Off Pneumatically Operated 2/2 Way ELEMENT Angle Valve

**1/2" - 2", 0-25 bar**

- Perfect for clean applications
- Wide range of accessories
- Compressed air recycling control function with ELEMENT Control Tops



ELEMENT angle seat valves are designed for unmatched life cycle performance. Shown on this page in normally closed configuration with underseat flow for liquids these valves exhibit live loaded packing with all of the advantages of the ELEMENT platform: Intelligent, Integrated and Beautiful.

## Technical Data

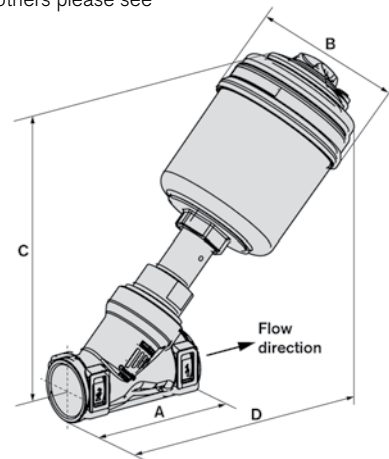
|                                 |                                |
|---------------------------------|--------------------------------|
| <b>Angle Seat</b>               | 2100 ELEMENT                   |
| <b>Pressure range</b>           | 0-25 bar, max.                 |
| <b>Temperature media</b>        | -10 °C – +185 °C               |
| <b>Ambient temperature max.</b> | +60 °C (push-in air ports)     |
| <b>Body material</b>            | 316L stainless steel           |
| <b>Seal material</b>            | PTFE                           |
| <b>Actuator Material</b>        | Stainless steel/PPS            |
| <b>Control medium</b>           | Instrument air at 6 bar        |
| <b>Flow direction</b>           | Under seat anti water-hammer   |
| <b>Port connection</b>          | G-thread, weld end, clamp      |
| <b>Safe position</b>            | Normally closed, normally open |

## Options

- Double acting
- Solenoid pilot valves
- Vacuum version
- Feedback switches

## Envelope Dimensions [mm] (see datasheet for details)

Dimensions shown for threaded version for others please see datasheet



| Port Connection | Actuator [mm] | A   | B    | C   | D   |
|-----------------|---------------|-----|------|-----|-----|
| G 1/2           | 50            | 85  | 64.5 | 158 | 192 |
| G 3/4           | 70            | 95  | 91   | 181 | 219 |
| G 1             | 70            | 105 | 91   | 189 | 228 |
| G 1 1/4         | 70            | 105 | 91   | 195 | 240 |
| G 1 1/2         | 70            | 120 | 91   | 200 | 243 |
| G 2             | 90            | 130 | 120  | 256 | 302 |

## Accessories for 2100



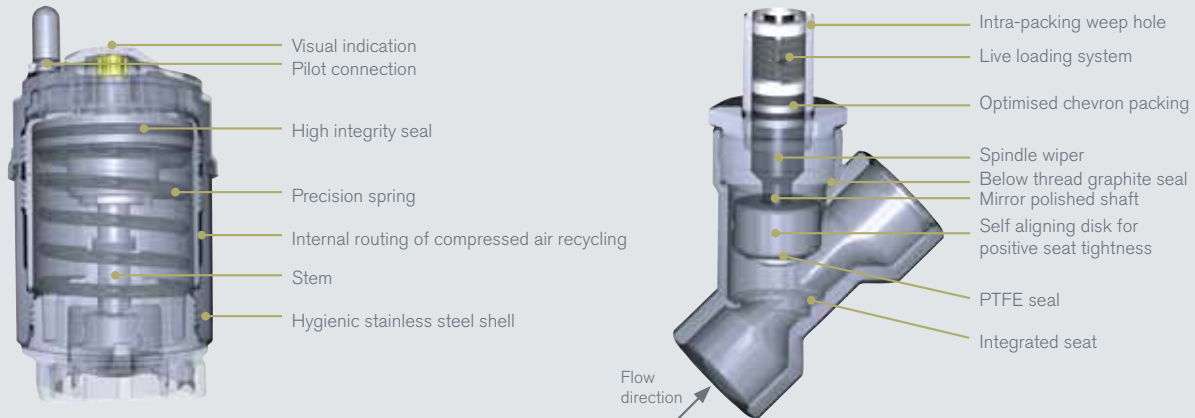
**8690 Control Top**

**8691 Control Top with superBRIGHT feedback**





## Sectional Drawings



## Ordering Chart

### Angle seat valve G Thread

| Port                   | Orifice<br>[mm] | Actuator<br>Ø [mm] | Min.<br>pressure<br>[bar] | Operating<br>pressure to<br>+185°C [bar] | Item no. |
|------------------------|-----------------|--------------------|---------------------------|------------------------------------------|----------|
| <b>Normally closed</b> |                 |                    |                           |                                          |          |
| G 1/2                  | 13              | 50                 | 5.0                       | 25                                       | 213 619  |
| G 1/2                  |                 | 70                 | 5.0                       | 25                                       | 213 620  |
| G 3/4                  | 20              | 50                 | 5.0                       | 13                                       | 227 616  |
| G 3/4                  |                 | 70                 | 5.0                       | 20                                       | 213 621  |
| G 1                    | 25              | 50                 | 5.0                       | 6                                        | 227 617  |
| G 1                    |                 | 70                 | 5.0                       | 16                                       | 213 622  |
| G 1 1/4                | 32              | 70                 | 5.0                       | 8.5                                      | 213 623  |
| G 1 1/4                |                 | 90                 | 5.0                       | 16                                       | 213 624  |
| G 1 1/2                | 40              | 70                 | 5.0                       | 6                                        | 213 625  |
| G 1 1/2                |                 | 90                 | 5.0                       | 16                                       | 213 627  |
| G 2                    | 50              | 90                 | 5.0                       | 10                                       | 175 108  |
| G 2                    |                 | 130                | 5.0                       | 16                                       | 188 610  |
| <b>Normally open</b>   |                 |                    |                           |                                          |          |
| G 1/2                  | 13              | 50                 | see<br>datasheet          | 16                                       | 213 637  |
| G 1/2                  |                 | 70                 |                           | 16                                       | 213 638  |
| G 3/4                  | 20              | 50                 |                           | 16                                       | 213 639  |
| G 3/4                  |                 | 70                 |                           | 16                                       | 213 640  |
| G 1                    | 25              | 70                 | see<br>datasheet          | 16                                       | 213 641  |
| G 1 1/4                | 32              | 70                 |                           | 16                                       | 213 642  |
| G 1 1/2                | 40              | 70                 |                           | 16                                       | 213 643  |
| G 2                    | 50              | 70                 |                           | 16                                       | 175 123  |

### Clamp acc. to ISO 2852, flow direction below the seat

| Orifice<br>[mm]        | Actuator<br>size<br>Ø [mm] | Port<br>clamp<br>external<br>Ø [mm] | Minimum<br>pilot<br>pressure<br>[bar] | Operating<br>pressure<br>up to<br>+185 °C<br>[bar] | Item no. |
|------------------------|----------------------------|-------------------------------------|---------------------------------------|----------------------------------------------------|----------|
| <b>Normally closed</b> |                            |                                     |                                       |                                                    |          |
| 15                     | 50                         | 34.0                                | 5.0                                   | 25                                                 | 187 097  |
| 15                     | 70                         | 34.0                                | 5.0                                   | 25                                                 | 188 783  |
| 20                     | 50                         | 50.5                                | 5.0                                   | 13                                                 | 209 437  |
| 20                     | 70                         | 50.5                                | 5.0                                   | 20                                                 | 188 784  |
| 25                     | 50                         | 50.0                                | 5.0                                   | 6                                                  | 227 613  |
| 25                     | 70                         | 50.5                                | 5.0                                   | 16                                                 | 188 785  |
| 32                     | 70                         | 50.5                                | 5.0                                   | 8.5                                                | 188 786  |
| 32                     | 90                         | 50.5                                | 5.0                                   | 16                                                 | 188 787  |
| 40                     | 70                         | 64.0                                | 5.0                                   | 6                                                  | 188 788  |
| 40                     | 90                         | 64.0                                | 5.0                                   | 16                                                 | 188 789  |
| 50                     | 90                         | 77.5                                | 5.0                                   | 10                                                 | 188 790  |
|                        | 130                        | 77.5                                | 5.0                                   | 16                                                 | 188 791  |
| <b>Normally open</b>   |                            |                                     |                                       |                                                    |          |
| 15                     | 50                         | 34.0                                | see<br>datasheet                      | 16                                                 | 187 101  |
| 15                     | 70                         | 34.0                                |                                       | 16                                                 | 188 800  |
| 20                     | 50                         | 50.5                                |                                       | 16                                                 | 187 102  |
| 20                     | 70                         | 50.5                                |                                       | 16                                                 | 188 801  |
| 25                     | 70                         | 50.5                                |                                       | 16                                                 | 188 802  |
| 32                     | 70                         | 50.5                                |                                       | 16                                                 | 188 803  |
| 40                     | 70                         | 64.0                                |                                       | 16                                                 | 188 804  |
| 50                     | 70                         | 77.5                                |                                       | 16                                                 | 188 805  |

### Clamp acc. to ASME BPE, flow direction below the seat

|                        |     |      |                  |    |         |
|------------------------|-----|------|------------------|----|---------|
| <b>Normally closed</b> |     |      |                  |    |         |
| 15                     | 50  | 25.0 | 5.0              | 25 | 187 103 |
| 15                     | 70  | 25.0 | 5.0              | 25 | 188 806 |
| 20                     | 50  | 25.0 | 5.0              | 13 | 227 614 |
| 20                     | 70  | 25.0 | 5.0              | 20 | 188 807 |
| 25                     | 50  | 50.5 | 5.0              | 6  | 227 615 |
| 25                     | 70  | 50.5 | 5.0              | 16 | 188 808 |
| 40                     | 70  | 50.5 | 5.0              | 6  | 188 809 |
| 40                     | 90  | 50.5 | 5.0              | 16 | 188 810 |
| 50                     | 90  | 64.0 | 5.0              | 10 | 188 811 |
|                        | 130 | 64.0 | 5.0              | 16 | 188 812 |
| <b>Normally open</b>   |     |      |                  |    |         |
| 15                     | 50  | 25.0 | see<br>datasheet | 16 | 187 107 |
| 15                     | 70  | 25.0 |                  | 16 | 188 820 |
| 20                     | 50  | 25.0 |                  | 16 | 187 108 |
| 20                     | 70  | 50.5 |                  | 16 | 188 821 |
| 25                     | 70  | 50.5 |                  | 16 | 188 822 |
| 40                     | 70  | 50.5 |                  | 16 | 188 823 |
| 50                     | 70  | 64.0 |                  | 16 | 188 824 |



## Ordering Chart

## Weld end acc. to EN ISO 1127

| Orifice<br>[mm]        | Actuator<br>size<br>Ø<br>[mm] | Port<br>connection<br>tube-Ø<br>[mm] | Minimum<br>pilot<br>pressure<br>[bar] | Operating<br>pressure<br>up to<br>+185°C [bar] | Item no. |
|------------------------|-------------------------------|--------------------------------------|---------------------------------------|------------------------------------------------|----------|
| <b>Normally closed</b> |                               |                                      |                                       |                                                |          |
| 15                     | 50                            | 21.3 x 1.6                           | 5.0                                   | 25                                             | 187 065  |
| 15                     | 70                            | 21.3 x 1.6                           | 5.0                                   | 25                                             | 188 680  |
| 20                     | 50                            | 26.9 x 1.6                           | 5.0                                   | 13                                             | 210 757  |
|                        | 70                            | 26.9 x 1.6                           | 5.0                                   | 20                                             | 188 681  |
| 25                     | 50                            | 33.7 x 2                             | 5.0                                   | 6                                              | 235 519  |
|                        | 70                            | 33.7 x 2                             | 5.0                                   | 16                                             | 188 682  |
| 32                     | 70                            | 42.4 x 2                             | 5.0                                   | 8.5                                            | 188 683  |
| 32                     | 90                            | 42.4 x 2                             | 5.0                                   | 16                                             | 188 684  |
| 40                     | 70                            | 48.3 x 2                             | 5.0                                   | 6                                              | 188 685  |
| 40                     | 90                            | 48.3 x 2                             | 5.0                                   | 16                                             | 188 686  |
| 50                     | 90                            | 60.3 x 2.6                           | 5.0                                   | 10                                             | 188 687  |
|                        | 130                           | 60.3 x 2.6                           | 5.0                                   | 16                                             | 188 688  |
| <b>Normally open</b>   |                               |                                      |                                       |                                                |          |
| 15                     | 50                            | 21.3 x 1.6                           | see<br>datasheet                      | 16                                             | 187 069  |
| 15                     | 70                            | 21.3 x 1.6                           |                                       | 16                                             | 188 697  |
| 20                     | 50                            | 26.9 x 1.6                           |                                       | 16                                             | 187 070  |
| 20                     | 70                            | 26.9 x 1.6                           |                                       | 16                                             | 188 698  |
| 25                     | 70                            | 33.7 x 2                             |                                       | 16                                             | 188 699  |
| 32                     | 70                            | 42.4 x 2                             |                                       | 16                                             | 188 700  |
| 40                     | 70                            | 48.3 x 2                             |                                       | 16                                             | 188 701  |
| 50                     | 70                            | 60.3 x 2.6                           |                                       | 16                                             | 188 702  |

## Weld end acc. to DIN 11850 S2

|                        |     |          |                  |     |         |
|------------------------|-----|----------|------------------|-----|---------|
| <b>Normally closed</b> |     |          |                  |     |         |
| 15                     | 50  | 19 x 1.5 | 5.0              | 25  | 187 071 |
| 15                     | 70  | 19 x 1.5 | 5.0              | 25  | 188 703 |
| 20                     | 50  | 23 x 1.5 | 5.0              | 13  | 227 605 |
|                        | 70  | 23 x 1.5 | 5.0              | 20  | 188 704 |
| 25                     | 50  | 29 x 1.5 | 5.0              | 6   | 227 606 |
|                        | 70  | 29 x 1.5 | 5.0              | 16  | 188 705 |
| 32                     | 70  | 35 x 1.5 | 5.0              | 8.5 | 188 706 |
| 32                     | 90  | 35 x 1.5 | 5.0              | 16  | 188 707 |
| 40                     | 70  | 41 x 1.5 | 5.0              | 6   | 188 708 |
| 40                     | 90  | 41 x 1.5 | 5.0              | 16  | 188 709 |
| 50                     | 90  | 53 x 1.5 | 5.0              | 10  | 188 710 |
|                        | 130 | 53 x 1.5 | 5.0              | 16  | 188 711 |
| <b>Normally open</b>   |     |          |                  |     |         |
| 15                     | 50  | 19 x 1.5 | see<br>datasheet | 16  | 187 075 |
| 15                     | 70  | 19 x 1.5 |                  | 16  | 188 720 |
| 20                     | 50  | 23 x 1.5 |                  | 16  | 187 076 |
| 20                     | 70  | 23 x 1.5 |                  | 16  | 188 721 |
| 25                     | 70  | 29 x 1.5 |                  | 16  | 188 722 |
| 32                     | 70  | 35 x 1.5 |                  | 16  | 188 723 |
| 40                     | 70  | 41 x 1.5 |                  | 16  | 188 724 |
| 50                     | 70  | 53 x 1.5 |                  | 16  | 188 725 |

## Weld end acc. to ASME BPE

| Orifice<br>[mm]        | Actuator<br>size<br>ø<br>[mm] | Port<br>connection<br>tube-Ø<br>[mm] | Minimum<br>pilot<br>pressure<br>[bar] | Operating<br>pressure<br>up to<br>+185°C [bar] | Item no. |
|------------------------|-------------------------------|--------------------------------------|---------------------------------------|------------------------------------------------|----------|
| <b>Normally closed</b> |                               |                                      |                                       |                                                |          |
| 15                     | 50                            | 12.7 x 1.65                          | 5.0                                   | 25                                             | 187 077  |
| 15                     | 70                            | 12.7 x 1.65                          | 5.0                                   | 25                                             | 188 726  |
| 20                     | 50                            | 19.05 x 1.65                         | 5.0                                   | 13                                             | 227 607  |
|                        | 70                            | 19.05 x 1.65                         | 5.0                                   | 20                                             | 188 727  |
| 25                     | 50                            | 25.4 x 1.65                          | 5.0                                   | 6                                              | 227 608  |
|                        | 70                            | 25.4 x 1.65                          | 5.0                                   | 16                                             | 188 728  |
| 40                     | 70                            | 38.1 x 1.65                          | 5.0                                   | 6                                              | 188 729  |
| 40                     | 90                            | 38.1 x 1.65                          | 5.0                                   | 16                                             | 188 730  |
| 50                     | 90                            | 50.8 x 1.65                          | 5.0                                   | 10                                             | 188 731  |
|                        | 130                           | 50.8 x 1.65                          | 5.0                                   | 16                                             | 188 732  |
| <b>Normally open</b>   |                               |                                      |                                       |                                                |          |
| 15                     | 50                            | 12.7 x 1.65                          | see<br>datasheet                      | 16                                             | 187 082  |
| 15                     | 70                            | 12.7 x 1.65                          |                                       | 16                                             | 188 740  |
| 20                     | 50                            | 19.05 x 1.65                         |                                       | 16                                             | 187 083  |
| 20                     | 70                            | 19.05 x 1.65                         |                                       | 16                                             | 188 741  |
| 25                     | 70                            | 25.4 x 1.65                          |                                       | 16                                             | 188 742  |
| 40                     | 70                            | 38.1 x 1.65                          |                                       | 16                                             | 188 743  |
| 50                     | 70                            | 50.8 x 1.65                          |                                       | 16                                             | 188 744  |

## Weld end acc. to SMS 3008, flow direction below the seat

|                        |     |          |                  |    |         |
|------------------------|-----|----------|------------------|----|---------|
| <b>Normally closed</b> |     |          |                  |    |         |
| 15                     | 50  | 12 x 1.0 | 5.0              | 25 | 187 084 |
| 15                     | 70  | 12 x 1.0 | 5.0              | 25 | 188 745 |
| 20                     | 50  | 18 x 1.0 | 5.0              | 13 | 227 609 |
|                        | 70  | 18 x 1.0 | 5.0              | 20 | 188 746 |
| 25                     | 50  | 25 x 1.2 | 5.0              | 6  | 227 610 |
|                        | 70  | 25 x 1.2 | 5.0              | 16 | 188 747 |
| 40                     | 70  | 38 x 1.2 | 5.0              | 6  | 188 748 |
| 40                     | 90  | 38 x 1.2 | 5.0              | 16 | 188 749 |
| 50                     | 90  | 51 x 1.2 | 5.0              | 10 | 188 750 |
|                        | 130 | 51 x 1.2 | 5.0              | 16 | 188 751 |
| <b>Normally open</b>   |     |          |                  |    |         |
| 15                     | 50  | 12 x 1.0 | see<br>datasheet | 16 | 187 089 |
| 15                     | 70  | 12 x 1.0 |                  | 16 | 188 759 |
| 20                     | 50  | 18 x 1.0 |                  | 16 | 187 090 |
| 20                     | 70  | 18 x 1.0 |                  | 16 | 188 760 |
| 25                     | 70  | 25 x 1.2 |                  | 16 | 188 761 |
| 40                     | 70  | 38 x 1.2 |                  | 16 | 188 762 |
| 50                     | 70  | 51 x 1.2 |                  | 16 | 188 763 |

## Weld end acc. to BS 4825, flow direction below the seat

|                        |     |              |                  |    |         |
|------------------------|-----|--------------|------------------|----|---------|
| <b>Normally closed</b> |     |              |                  |    |         |
| 15                     | 50  | 12.7 x 1.2   | 5.0              | 25 | 187 091 |
| 15                     | 70  | 12.7 x 1.2   | 5.0              | 25 | 188 764 |
| 20                     | 70  | 19.05 x 1.65 | 5.0              | 20 | 188 765 |
| 25                     | 70  | 25.4 x 1.65  | 5.0              | 16 | 188 766 |
| 40                     | 70  | 38.1 x 1.65  | 5.0              | 6  | 188 767 |
| 40                     | 90  | 38.1 x 1.65  | 5.0              | 16 | 188 768 |
| 50                     | 90  | 50.8 x 1.65  | 5.0              | 10 | 188 769 |
|                        | 130 | 50.8 x 1.65  | 5.0              | 16 | 188 770 |
| <b>Normally open</b>   |     |              |                  |    |         |
| 15                     | 50  | 12.7 x 1.2   | see<br>datasheet | 16 | 187 095 |
| 15                     | 70  | 12.7 x 1.2   |                  | 16 | 188 778 |
| 20                     | 50  | 19.05 x 1.65 |                  | 16 | 187 096 |
| 20                     | 70  | 19.05 x 1.65 |                  | 16 | 188 779 |
| 25                     | 70  | 25.4 x 1.65  |                  | 16 | 188 780 |
| 40                     | 70  | 38.1 x 1.65  |                  | 16 | 188 781 |
| 50                     | 70  | 50.8 x 1.65  |                  | 16 | 188 782 |

# On-Off Pneumatically Operated 2/2 Way Angle Valve for Steam and Gases

2000



## G 1/2" - G 2 1/2", 0-16 bar

- Worldwide benchmark for quality and reliability
- PPS head for hot environments
- Self adjusting double packing

2000

Bürkert's classic angle seat valve for on-off steam applications. Depending upon around the globe for unsurpassed lifetime. Its closed configuration with overseat flow for steam and gases these valves exhibit live loaded packing, N-seal piston actuator all in a rugged compact envelope.

### Technical Data

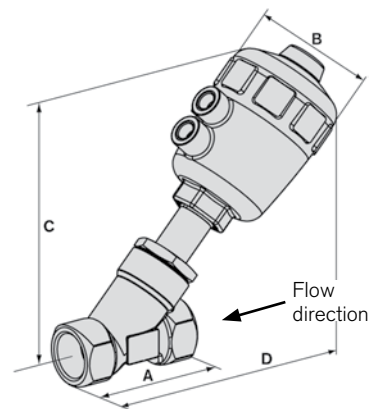
|                                 |                                                                           |
|---------------------------------|---------------------------------------------------------------------------|
| <b>Pressure range</b>           | 0-16 bar, max.                                                            |
| <b>Temperature media</b>        | -10 °C – +180 °C                                                          |
| <b>Ambient temperature max.</b> | PA actuator -10 °C – +60 °C<br>PPS actuator 40-80: 140 °C, 100-125: 90 °C |
| <b>Body material</b>            | Gunmetal, stainless steel                                                 |
| <b>Seal material</b>            | PTFE                                                                      |
| <b>Actuator Material</b>        | Polyamide or PPS                                                          |
| <b>Control medium</b>           | Instrument air at 6 bar                                                   |
| <b>Flow direction</b>           | Over seat to minimize actuator size                                       |
| <b>Port connection</b>          | G-thread                                                                  |
| <b>Safe position</b>            | Normally closed                                                           |

### Ordering Chart

| Port                 | Orifice<br>[mm] | Actuator<br>[mm] | Kv Value | Pressure<br>range<br>[bar] | Item no.<br>PA | Item no.<br>PPS |
|----------------------|-----------------|------------------|----------|----------------------------|----------------|-----------------|
| Gun metal body       |                 |                  |          |                            |                |                 |
| G 1/2                | 13              | 50               | 4.2      | 16                         | 183 939        | 186 106         |
| G 3/4                | 20              | 40               | 7.9      | 16                         | 186 822        | ▪               |
|                      |                 | 50               | 8.0      | 16                         | 185 356        | 180 374         |
| G 1                  | 25              | 50               | 14.5     | 16                         | 186 380        | 187 556         |
|                      |                 | 63               | 18.0     | 16                         | 178 860        | 178 859         |
| G 1 1/4              | 32              | 63               | 25.0     | 16                         | 178 855        | 178 854         |
| G 1 1/2              | 40              | 63               | 35.0     | 16                         | 178 896        | 178 897         |
| G 2                  | 50              | 63               | 49.0     | 16                         | 001 251        | 002 149         |
| G 2 1/2              | 65              | 80               | 77.0     | 14                         | 001 398        | 002 151         |
|                      |                 | 100              | 90.0     | 15                         | 130 332        | 186 344         |
| Stainless steel body |                 |                  |          |                            |                |                 |
| G 1/2                | 13              | 50               | 4.2      | 16                         | 186 376        | 186 467         |
| G 3/4                | 20              | 40               | 7.9      | 16                         | 187 672        | ▪               |
|                      |                 | 50               | 8.0      | 16                         | 185 304        | 180 375         |
| G 1                  | 25              | 50               | 14.5     | 16                         | 186 729        | 187 872         |
|                      |                 | 63               | 18.0     | 16                         | 178 857        | 178 856         |
| G 1 1/4              | 32              | 63               | 25.0     | 16                         | 178 893        | 178 892         |
| G 1 1/2              | 40              | 63               | 35.0     | 16                         | 178 895        | 178 894         |
| G 2                  | 50              | 63               | 49.0     | 16                         | 001 401        | 002 158         |
| G 2 1/2              | 65              | 80               | 77.0     | 14                         | 001 402        | 002 160         |
|                      |                 | 100              | 90.0     | 15                         | 130 333        | —               |

▪ on request

### Envelope Dimensions [mm] (see datasheet for details)



| Size    | Act. | A   | B   | C   | D   |
|---------|------|-----|-----|-----|-----|
| G 3/4   | 40   | 75  | 64  | 144 | 167 |
| G 1     | 50   | 90  | 64  | 145 | 175 |
| G 1     | 63   | 90  | 80  | 170 | 199 |
| G 2     | 63   | 150 | 80  | 204 | 249 |
| G 2 1/2 | 80   | 185 | 101 | 239 | 296 |
| G 2 1/2 | 100  | 185 | 127 | 287 | 344 |

### Options

- Double acting
- Solenoid pilot valves (see page 36)
- Vacuum version
- Feedback switches
- High temperature actuator in PPS
- Chemically resistant actuator
- Cleaned for oxygen service
- Stroke limiter

# On-Off Pneumatically Operated 2/2 Way Globe Valves with Flange connection acc. to DIN EN 1092-1

## DN 10 - DN 100, 0-16 bar

- Accurate, quiet and reliable
- Perfect replacement for flanged ball valves
- Superior lifetime



Stainless flanged globe valve engineered as an uncompromising replacement for flanged ball valves where regular unplanned maintenance or life cycle performance is an issue. Shown on this page in normally closed configuration with underseat flow for liquids these valves exhibit live loaded packing, N-seal piston actuator in a rugged compact envelope which fits global standards.

### Technical Data

|                            |                                                |
|----------------------------|------------------------------------------------|
| <b>Pressure range</b>      | 0-16 bar max.                                  |
| <b>Temperature media</b>   | -10 °C - +180 °C (CLASSIC) / +185 °C (ELEMENT) |
| <b>Ambient temperature</b> | +60 °C (push-in air ports)                     |
| <b>Body material</b>       | Stainless steel                                |
| <b>Seal material</b>       | PTFE                                           |
| <b>Actuator Material</b>   | Polyamide (optional PPS for high temperature)  |
| <b>Control medium</b>      | Instrument air (see pressure below)            |
| <b>Flow direction</b>      | Under seat anti water-hammer                   |
| <b>Port connection</b>     | Flange DIN EN 1092-1                           |

### Options

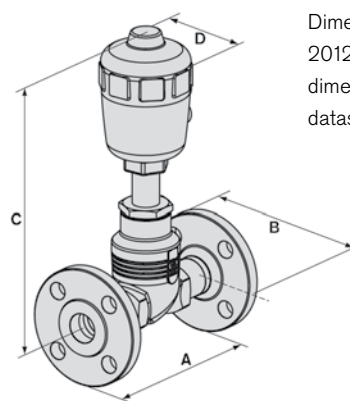
- Normally open
- Double acting
- Solenoid pilot valves (see page 36)
- Vacuum version
- Feedback switches
- High temperature actuator
- Chemically resistant actuator
- Stroke limiter
- JIS and ANSI flanges

### Ordering Chart

#### ELEMENT - Flange connection acc. to DIN EN 1092-1

| Orifice [mm] | Actuator size Ø [mm] | Kv value | Minimum pilot pressure [bar] | Operating pressure to +185°C [bar] | Item no. |
|--------------|----------------------|----------|------------------------------|------------------------------------|----------|
| 15           | 50                   | 4.7      | 4.8                          | 25                                 | 203 076  |
| 20           | 50                   | 8.1      | 4.8                          | 13                                 | 203 077  |
|              | 70                   | 8.1      | 4.8                          | 20                                 | 203 078  |
| 25           | 50                   | 13       | 4.8                          | 6                                  | 203 079  |
|              | 70                   | 13       | 4.8                          | 16                                 | 189 700  |
| 32           | 70                   | 19.5     | 4.8                          | 8.5                                | 203 080  |
|              | 90                   | 19.5     | 5.0                          | 16                                 | 203 081  |
| 40           | 70                   | 31       | 4.8                          | 6                                  | 203 082  |
|              | 90                   | 31       | 5.0                          | 16                                 | 203 083  |
| 50           | 90                   | 45       | 5.0                          | 10                                 | 203 084  |
|              | 130                  | 45       | 5.0                          | 16                                 | 218 418  |

### Envelope Dimensions [mm] (see datasheet for details)



Dimensions shown for 2012 for exact 2101 dimensions please see datasheet

| Size (DN) | A   | B     | C   | D   |
|-----------|-----|-------|-----|-----|
| 10        | 184 | 89    | 211 | 64  |
| 20        | 184 | 99    | 247 | 80  |
| 25        | 184 | 108   | 273 | 101 |
| 40        | 222 | 127   | 397 | 157 |
| 50        | 254 | 152.4 | 402 | 157 |
| 65        | 276 | 177.8 | 430 | 157 |
| 80        | 298 | 190.5 | 498 | 211 |
| 100       | 352 | 229   | 508 | 211 |

#### CLASSIC

| Orifice [mm] | Actuator size Ø [mm] | Kv value | Minimum pilot pressure [bar] | Operating pressure up to +180 °C [bar] | Item no. PA actuator |
|--------------|----------------------|----------|------------------------------|----------------------------------------|----------------------|
| 65           | 125                  | 73.0     | 5.6                          | 12                                     | 152 743              |
|              | 175                  | 73.0     | 4.5                          | 15                                     | 152 761              |
| 80           | 125                  | 110.0    | 5.6                          | 7.5                                    | 155 527              |
|              | 175                  | 110.0    | 4.5                          | 10                                     | 152 779              |
|              | 225                  | 110.0    | 3.3                          | 12.5                                   | 152 797              |
| 100          | 125                  | 165.0    | 5.6                          | 5                                      | 155 546              |
|              | 175                  | 155.0    | 4.5                          | 7.0                                    | 152 815              |
|              | 225                  | 155.0    | 4.8                          | 10                                     | 152 833              |

## On-Off Pneumatically Operated 3/2 Way Globe Valve



### G 1/2 - G 2, 0-16 bar

- Superior performance over 3/2 ball valves
- Long life actuator

3 way pneumatic piston operated valve with two seats and PTFE seals. Fitted with a Classic Bürkert long life actuator this valve can be deployed to control a wide range of liquids and gases. Live loaded packing and a range of process oriented accessories make this rugged and compact valve an excellent choice. High flow rates are attained with the sturdy proven gunmetal 3-way body. As with all the 2000 series valves a reliable self-adjusting packing gland provides high sealing integrity. Various fluidic circuit functions can be obtained by a simple exchange of the pressure and service ports making these maintenance-free valves the sensible alternative to three way ball valves.

### Technical Data

|                                 |                          |
|---------------------------------|--------------------------|
| <b>Pressure range</b>           | 0-16 bar, max.           |
| <b>Temperature media</b>        | -10 °C – +180 °C         |
| <b>Ambient temperature max.</b> | +60 °C                   |
| <b>Body material</b>            | Gunmetal                 |
| <b>Seal material</b>            | PTFE                     |
| <b>Actuator Material</b>        | Polyamide (optional PPS) |
| <b>Control medium</b>           | Instrument air at 6 bar  |
| <b>Safe position</b>            | Normally closed          |

### Options

- Normally open
- Double acting
- Solenoid pilot valves (see page 36)
- Vacuum version
- Feedback switches
- High temperature actuator in PPS
- Chemically resistant actuator
- Cleaned for oxygen service
- Stroke limiter

### Envelope Dimensions [mm] (see datasheet for details)

|  | Size    | A   | B   | C   |
|--|---------|-----|-----|-----|
|  | G 1/2   | 75  | 64  | 228 |
|  | G 1/2   | 75  | 80  | 262 |
|  | G 3/4   | 75  | 64  | 228 |
|  | G 1     | 90  | 80  | 269 |
|  | G 1 1/4 | 120 | 101 | 303 |
|  | G 1 1/4 | 120 | 157 | 402 |
|  | G 1 1/2 | 120 | 101 | 303 |
|  | G 1 1/2 | 120 | 157 | 402 |
|  | G 2     | 160 | 157 | 435 |

### Ordering Chart

| Orifice | Actuator | Kv Value |     | Pressure range [bar] |      | Item no. |
|---------|----------|----------|-----|----------------------|------|----------|
|         |          | 1-2      | 2-3 | 1-2                  | 2-3  |          |
| 13      | 63       | 9        | 5.5 | 0-16                 | 0-16 | 002 300  |
| 20      | 63       | 10.5     | 6.5 | 0-16                 | 0-16 | 002 301  |
| 25      | 63       | 17       | 10  | 0-10                 | 0-16 | 002 133  |
| 32      | 125      | 38       | 24  | 0-14                 | 0-16 | 002 302  |
| 40      | 125      | 40       | 26  | 0-14                 | 0-16 | 002 303  |
| 50      | 125      | 55       | 37  | 0-10                 | 0-16 | 002 136  |

# Manually Operated 2/2 Way Diaphragm Valve

## DN 15 - 50, 0-10 bar

- For aggressive media
- Flow optimised body
- Tough, durable PPS handwheel



Hand operated diaphragm valve for aggressive chemicals. Provides long service life even with polluted, dirty or high viscosity fluids. The diaphragm between the actuator and body hermetically isolates the fluid from the actuator and provides a strong seal over the valve seat. The manual nature of the operator means that the valve can be used for shut-off and for flow control.

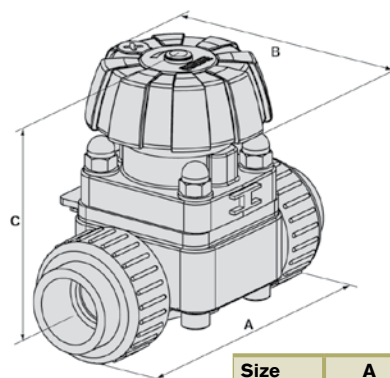
### Technical Data

|                     |                                             |
|---------------------|---------------------------------------------|
| Pressure range      | 0-10 bar, max.                              |
| Temperature media   | See datasheet                               |
| Ambient temperature | +60 °C, max.                                |
| Body material       | PVC, PP or PVDF                             |
| Seal material       | EPDM, PTFE/EPDM (FKM on request)            |
| Handwheel / Bonnet  | PPS / PPS                                   |
| Process connection  | True Union with solvent connection included |

### Options

- Pneumatic actuation (see page 49)
- Feedback switches
- PVDF body
- PP body

### Envelope Dimensions [mm] (see datasheet for details)



| Size  | A   | B   | C   |
|-------|-----|-----|-----|
| 1/2   | 128 | 86  | 92  |
| 3/4   | 152 | 86  | 102 |
| 1     | 166 | 86  | 108 |
| 1 1/4 | 192 | 114 | 139 |
| 1 1/2 | 222 | 114 | 149 |
| 2     | 266 | 114 | 170 |

### Ordering chart

| Orifice<br>DN<br>[mm] | Port<br>[inch] | Kv value | Pressure<br>range at<br>+20°C<br>[bar] | PVC                           |                                    | PP                            |                                    | PVDF                          |                                    |
|-----------------------|----------------|----------|----------------------------------------|-------------------------------|------------------------------------|-------------------------------|------------------------------------|-------------------------------|------------------------------------|
|                       |                |          |                                        | Item no.<br>EPDM<br>diaphragm | Item no.<br>EPDM/PTFE<br>diaphragm | Item no.<br>EPDM<br>diaphragm | Item no.<br>EPDM/PTFE<br>diaphragm | Item no.<br>EPDM<br>diaphragm | Item no.<br>EPDM/PTFE<br>diaphragm |
| True union connection |                |          |                                        |                               |                                    |                               |                                    |                               |                                    |
| 15                    | 1/2            | 3.5      | 0 - 10                                 | 144 758                       | 144 764                            | 144 782                       | 144 788                            | 144 806                       | 144 812                            |
| 20                    | 3/4            | 7.2      | 0 - 10                                 | 144 759                       | 144 765                            | 144 783                       | 144 789                            | 144 807                       | 144 813                            |
| 32                    | 1              | 12.5     | 0 - 10                                 | 144 760                       | 144 766                            | 144 784                       | 144 790                            | 144 808                       | 144 814                            |
| 32                    | 1 1/4          | 19.0     | 0 - 10                                 | 144 761                       | 144 767                            | 144 785                       | 144 791                            | 144 809                       | 144 815                            |
| 40                    | 1 1/2          | 28.0     | 0 - 10                                 | 144 762                       | 144 768                            | 144 786                       | 144 792                            | 144 810                       | 144 816                            |
| 50                    | 2              | 40.0     | 0 - 7                                  | 144 763                       | 144 769                            | 144 787                       | 144 793                            | 144 811                       | 144 817                            |
| Spigot connection     |                |          |                                        |                               |                                    |                               |                                    |                               |                                    |
| 15                    | 1/2            | 3.5      | 0 - 10                                 | 144 770                       | 144 776                            | 144 794                       | 144 800                            | 144 818                       | 144 824                            |
| 20                    | 3/4            | 7.2      | 0 - 10                                 | 144 771                       | 144 777                            | 144 795                       | 144 801                            | 144 819                       | 144 825                            |
| 25                    | 1              | 12.5     | 0 - 10                                 | 144 772                       | 144 778                            | 144 796                       | 144 802                            | 144 820                       | 144 826                            |
| 32                    | 1 1/4          | 19.0     | 0 - 10                                 | 144 773                       | 144 779                            | 144 797                       | 144 803                            | 144 821                       | 144 827                            |
| 40                    | 1 1/2          | 28.0     | 0 - 10                                 | 144 774                       | 144 780                            | 144 798                       | 144 804                            | 144 822                       | 144 828                            |
| 50                    | 2              | 40.0     | 0 - 7                                  | 144 775                       | 144 781                            | 144 799                       | 144 805                            | 144 823                       | 144 829                            |

# On-Off Pneumatically Operated 2/2 Way Diaphragm Valve



## DN15 - DN50, 0-10 bar

- Chemical environment valve
- Engineered Plastic Body
- Removable true union connections

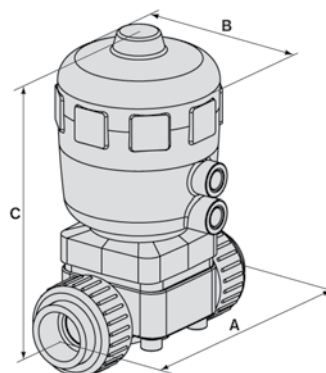
2030

Pneumatically actuated, chemically resistant diaphragm valve for on-off control. A wide range of accessories add to the overall safe function of this valve in critical areas while the addition of a control head transforms this to provide accurate modulating control.

### Technical Data

|                     |                                                |
|---------------------|------------------------------------------------|
| Pressure range      | 0-10 bar, max.                                 |
| Temperature media   | -10 °C – +100 °C                               |
| Ambient temperature | +60 °C, max.                                   |
| Body material       | PVC                                            |
| Seal material       | EPDM, PTFE/EPDM (FKM on request)               |
| Actuator Material   | Polyamide                                      |
| Control medium      | Neutral gases, air                             |
| Flow direction      | Bidirectional                                  |
| Control function    | Normally closed (normally open also available) |

Envelope Dimensions [mm] (see datasheet for details)



| Size  | A   | B   | C   |
|-------|-----|-----|-----|
| 1/2   | 128 | 80  | 139 |
| 3/4   | 152 | 101 | 173 |
| 1     | 166 | 101 | 176 |
| 1 1/4 | 192 | 127 | 231 |
| 1 1/2 | 222 | 153 | 277 |
| 2     | 266 | 153 | 284 |

### Ordering chart

| Orifice         | Port connection | Actuator size Ø | Kv value | Minimum pilot pressure | Operating pressure | Seal material EPDM  |                 | Seal material PTFE/EPDM |                 |
|-----------------|-----------------|-----------------|----------|------------------------|--------------------|---------------------|-----------------|-------------------------|-----------------|
| [mm]            | [mm]            | [mm]            |          | [bar]                  | [bar]              | Item no. true union | Item no. spigot | Item no. true union     | Item no. spigot |
| Normally closed |                 |                 |          |                        |                    |                     |                 |                         |                 |
| 15              | 20              | 50              | 3.0      | 5.0                    | 8.5                | 141 449             | 141 451         | 144 293                 | 144 294         |
|                 |                 | 63              | 3.5      | 5.0                    | 10                 | 141 450             | 141 452         | 141 455                 | 141 456         |
| 20              | 25              | 80              | 7.0      | 5.5                    | 10                 | 141 459             | 141 461         | 141 465                 | 141 466         |
| 25              | 32              | 80              | 11.0     | 5.5                    | 10                 | 141 468             | 141 469         | 141 472                 | 141 473         |
| 32              | 40              | 100             | 18.0     | 5.5                    | 10                 | 141 475             | 141 860         | 141 478                 | 141 479         |
| 40              | 50              | 100             | 24.0     | 5.5                    | 6.5                | 141 482             | 141 861         | 144 301                 | 144 302         |
|                 |                 | 125             | 26.0     | 5.5                    | 10                 | 141 483             | 141 484         | 141 487                 | 141 488         |
| 50              | 63              | 125             | 43.0     | 5.5                    | 8                  | 141 490             | 141 862         | –                       | –               |
| 50              | 63              | 125             | 43.0     | 5.5                    | 10                 | –                   | –               | 141 493                 | 141 494         |
| Normally open   |                 |                 |          |                        |                    |                     |                 |                         |                 |
| 15              | 20              | 50              | 3.0      | see datasheet          | 10                 | 141 497             | 141 499         | 141 503                 | 141 504         |
| 20              | 25              | 63              | 7.0      |                        | 10                 | 141 507             | 141 509         | 141 514                 | 141 515         |
| 25              | 32              | 80              | 11.0     |                        | 10                 | 141 516             | 141 518         | 141 521                 | 141 522         |
| 32              | 40              | 100             | 18.0     | see datasheet          | 10                 | 141 524             | 141 864         | 141 527                 | 141 528         |
| 40              | 50              | 100             | 24.0     |                        | 10                 | 141 531             | 141 865         | 141 536                 | 141 537         |
| 50              | 63              | 125             | 43.0     |                        | 10                 | 141 539             | 141 866         | 141 542                 | 141 543         |



# Manually Operated 2/2 Way Forged Diaphragm Valve

## DN10 - DN80, 0-10 bar

- Hermetic separation of fluids from actuator
- Standard and customized variations available
- Certifications for hygienic processing applications



Hand operated diaphragm valve designed specifically for 3A / FDA compliant bioprocessing tasks. The forged 316L stainless steel body can be delivered with your specific surface finish with a range of diaphragm materials to suit positive control of ultra-pure, abrasive and aggressive fluids. The diaphragm type valve is preferred in these applications due to its favourable flow characteristics, its cleanability and its zero dead volume design.

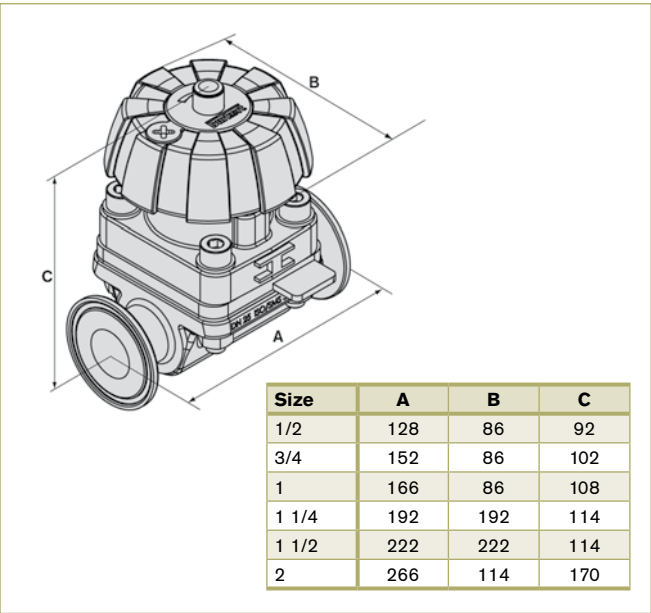
### Technical Data

|                     |                                         |
|---------------------|-----------------------------------------|
| Pressure range      | 0-10 bar, max.                          |
| Temperature media   | -10 °C                                  |
| Ambient temperature | Up to +130 °C, briefly up to +150 °C    |
| Body material       | Forged 316L ASME BPE specification      |
| Seal material       | EPDM, PTFE/EPDM (FKM on request)        |
| Handwheel / Bonnet  | PPS / PPS (other options see datasheet) |
| Process connection  | Hygienic clamp                          |
| Length              | BPE (long or short)                     |

### Options

- All mechanical and electropolished finishes a standard
- Pneumatic actuation (see page 52)
- Feedback switches
- Locking function
- Other configurations
- Multi-port valve blocks

### Envelope Dimensions [mm] (see datasheet for details)



## Ordering chart for valves

| Port connection                                                  |        | External-Ø | Kv value water | Max. operating pressure | Item no.<br>Diaphragm EPDM     |                                  | Item no.<br>Diaphragm PTFE/EPDM |                                  |
|------------------------------------------------------------------|--------|------------|----------------|-------------------------|--------------------------------|----------------------------------|---------------------------------|----------------------------------|
| [mm]                                                             | [inch] | [mm]       | [m³/h]         | [bar]                   | mech. polished,<br>Ra ≤ 0.6 µm | electro polished,<br>Ra ≤ 0.4 µm | mech. polished,<br>Ra ≤ 0.6 µm  | electro polished,<br>Ra ≤ 0.4 µm |
| <b>Body with clamp connection acc. ISO 2852</b>                  |        |            |                |                         |                                |                                  |                                 |                                  |
| 25                                                               | 1      | 22.6       | 16.0           | 10                      | 218 857                        | 445 724                          | 218 732                         | 445 739                          |
| 40                                                               | 1 1/2  | 35.6       | 29.0           | 10                      | 218 727                        | 445 729                          | 218 733                         | 445 744                          |
| 50                                                               | 2      | 48.6       | 50.0           | 7                       | 218 728                        | 445 734                          | 218 734                         | 445 749                          |
| <b>Body with clamp connection acc. DIN 32676</b>                 |        |            |                |                         |                                |                                  |                                 |                                  |
| 15                                                               | 1/2    | 16.0       | 6.0            | 10                      | 218 738                        | 445 894                          | 218 748                         | 445 919                          |
| 20                                                               | 3/4    | 20.0       | 11.0           | 10                      | 218 739                        | 445 899                          | 218 749                         | 445 924                          |
| 25                                                               | 1      | 26.0       | 16.0           | 10                      | 218 740                        | 445 904                          | 218 750                         | 445 929                          |
| 40                                                               | 1 1/2  | 38.0       | 29.0           | 10                      | 218 741                        | 445 909                          | 218 751                         | 445 934                          |
| 50                                                               | 2      | 50.0       | 50.0           | 7                       | 218 742                        | 445 914                          | 218 752                         | 445 939                          |
| <b>Body with clamp connection acc. ASME BPE short connection</b> |        |            |                |                         |                                |                                  |                                 |                                  |
| 8                                                                | 1/4    | 25.0       | 1.0            | 10                      | 218 758                        | 445 859                          | 218 775                         | 445 824                          |
| 10                                                               | 3/8    | 25.0       | 1.0            | 10                      | 218 759                        | 445 864                          | 218 776                         | 445 829                          |
| 15                                                               | 1/2    | 25.0       | 6.0            | 10                      | 218 760                        | 445 869                          | 218 777                         | 445 834                          |
| 20                                                               | 3/4    | 25.0       | 11.0           | 10                      | 218 761                        | 445 874                          | 218 778                         | 445 839                          |
| 25                                                               | 1      | 50.5       | 16.0           | 10                      | 218 762                        | 445 879                          | 218 779                         | 445 844                          |
| 40                                                               | 1 1/2  | 50.5       | 29.0           | 10                      | 218 763                        | 445 884                          | 218 780                         | 445 849                          |
| 50                                                               | 2      | 64.0       | 50.0           | 7                       | 218 764                        | 445 889                          | 218 781                         | 445 854                          |
| 65                                                               | 2 1/2  | 77.5       | 54.0           | 7                       | 218 765                        | 551 455                          | 218 782                         | 551 461                          |
| 80                                                               | 3      | 91.0       | 160.0          | 5                       | 218 766                        | 551 348                          | 218 783                         | 551 378                          |
| <b>Body with clamp connection acc. ASME BPE long connection</b>  |        |            |                |                         |                                |                                  |                                 |                                  |
| 8                                                                | 1/4    | 25.0       | 1.0            | 10                      | 218 792                        | 445 754                          | 218 806                         | 445 789                          |
| 10                                                               | 3/8    | 25.0       | 1.0            | 10                      | 218 793                        | 445 759                          | 218 807                         | 445 794                          |
| 15                                                               | 1/2    | 25.0       | 6.0            | 10                      | 218 794                        | 445 764                          | 218 808                         | 445 799                          |
| 20                                                               | 3/4    | 25.0       | 11.0           | 10                      | 218 795                        | 445 769                          | 218 809                         | 445 804                          |
| 25                                                               | 1      | 50.5       | 16.0           | 10                      | 218 796                        | 445 774                          | 218 810                         | 445 809                          |
| 40                                                               | 1 1/2  | 50.5       | 29.0           | 10                      | 218 797                        | 445 779                          | 218 811                         | 445 814                          |
| 50                                                               | 2      | 64.0       | 50.0           | 7                       | 218 798                        | 445 784                          | 218 812                         | 445 819                          |
| <b>Body with weld end acc. EN ISO 1127/ISO 4200, DN 8-50</b>     |        |            |                |                         |                                |                                  |                                 |                                  |
| 8                                                                | 1/4    | 13.5       | 1.0            | 10                      | 218 575                        | 445 494                          | 218 595                         | 445 529                          |
| 10                                                               | 3/8    | 17.2       | 1.0            | 10                      | 218 576                        | 445 499                          | 218 596                         | 445 534                          |
| 15                                                               | 1/2    | 21.3       | 6.0            | 10                      | 218 577                        | 445 504                          | 218 597                         | 445 539                          |
| 20                                                               | 3/4    | 26.9       | 11.0           | 10                      | 218 579                        | 445 509                          | 218 598                         | 445 544                          |
| 25                                                               | 1      | 33.7       | 16.0           | 10                      | 218 580                        | 445 514                          | 218 599                         | 445 549                          |
| 40                                                               | 1 1/4  | 42.4       | 29.0           | 10                      | 218 581                        | 550 291                          | 218 600                         | 550 288                          |
| 40                                                               | 1 1/2  | 48.3       | 29.0           | 10                      | 218 582                        | 445 519                          | 218 601                         | 445 554                          |
| 50                                                               | 2      | 60.3       | 50.0           | 7                       | 218 584                        | 445 524                          | 218 602                         | 445 559                          |
| <b>Body with weld end acc. DIN 11850 Series 2, DN 10-50</b>      |        |            |                |                         |                                |                                  |                                 |                                  |
| 10                                                               | 3/8    | 13.0       | 1.0            | 10                      | 218 620                        | 445 634                          | 218 634                         | 445 664                          |
| 15                                                               | 1/2    | 19.0       | 6.0            | 10                      | 218 621                        | 445 639                          | 218 635                         | 445 669                          |
| 20                                                               | 3/4    | 23.0       | 11.0           | 10                      | 218 622                        | 445 644                          | 218 636                         | 445 674                          |
| 25                                                               | 1      | 29.0       | 16.0           | 10                      | 218 623                        | 445 649                          | 218 637                         | 445 679                          |
| 32                                                               | 1 1/4  | 35.0       | 29.0           | 10                      | 218 624                        | 554 982                          | 218 639                         | 554 992                          |
| 40                                                               | 1 1/2  | 41.0       | 29.0           | 10                      | 218 625                        | 445 654                          | 218 640                         | 445 684                          |
| 50                                                               | 2      | 53.0       | 50.0           | 7                       | 218 626                        | 445 659                          | 218 641                         | 445 689                          |
| <b>Body with weld end acc. SMS 3008</b>                          |        |            |                |                         |                                |                                  |                                 |                                  |
| 25                                                               | 1      | 25.0       | 16.0           | 10                      | 218 658                        | 445 694                          | 218 667                         | 445 709                          |
| 40                                                               | 1 1/2  | 38.0       | 29.0           | 10                      | 218 660                        | 445 699                          | 218 668                         | 445 714                          |
| 50                                                               | 2      | 51.0       | 50.0           | 7                       | 218 661                        | 445 704                          | 218 669                         | 445 719                          |
| 65                                                               | 2 1/2  | 63.5       | 54.0           | 7                       | 218 662                        | 551 557                          | 218 670                         | 551 562                          |
| <b>Body with weld end acc. BS 4825</b>                           |        |            |                |                         |                                |                                  |                                 |                                  |
| 8                                                                | 1/4    | 6.35       | 1.0            | 10                      | 218 680                        | 445 564                          | 218 689                         | 445 599                          |
| 10                                                               | 3/8    | 9.53       | 1.0            | 10                      | 218 682                        | 445 569                          | 218 690                         | 445 604                          |
| 15                                                               | 1/2    | 12.70      | 6.0            | 10                      | 218 683                        | 447 926                          | 218 691                         | 447 946                          |
| 20                                                               | 3/4    | 19.05      | 12.0           | 10                      | 218 684                        | 447 931                          | 218 692                         | 447 951                          |
| <b>Body with weld end acc. ASME BPE</b>                          |        |            |                |                         |                                |                                  |                                 |                                  |
| 8                                                                | 1/4    | 6.35       | 1.0            | 10                      | 218 697                        | 447 936                          | 218 712                         | 447 956                          |
| 10                                                               | 3/8    | 9.53       | 1.0            | 10                      | 218 698                        | 447 941                          | 218 713                         | 447 961                          |
| 15                                                               | 1/2    | 12.70      | 6.0            | 10                      | 218 699                        | 445 574                          | 218 715                         | 445 609                          |
| 20                                                               | 3/4    | 19.05      | 12.0           | 10                      | 218 700                        | 445 579                          | 218 716                         | 445 614                          |
| 25                                                               | 1      | 25.40      | 16.0           | 10                      | 218 701                        | 445 584                          | 218 717                         | 445 619                          |
| 40                                                               | 1 1/2  | 38.10      | 29.0           | 10                      | 218 702                        | 445 589                          | 218 718                         | 445 624                          |
| 50                                                               | 2      | 50.80      | 50.0           | 7                       | 218 703                        | 445 594                          | 218 719                         | 445 629                          |

Port connection size equals the orifice diaphragm size except for port connection 32 mm. At port connection 32 mm the orifice diaphragm size equals 40 mm.

# On-Off Pneumatically Operated 2/2 Way Forged Diaphragm Valve

## DN8 - DN50, 0-10 bar

- Beautiful look and feel
- Interface to feedback and control options
- Compressed air recycling control function with ELEMENT Control Tops



ELEMENT forged diaphragm valve designed for perfect hygienic use. As well as an aesthetic look and feel the valve is 3A / FDA compliant for bioprocessing. The hermetic separation of fluids from the operating mechanism also offers favourable flow characteristics and zero dead volume.

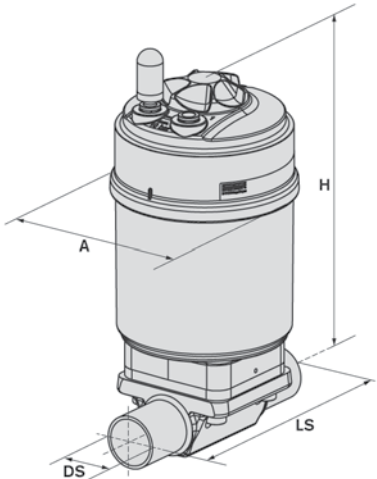
### Technical Data

|                     |                                     |
|---------------------|-------------------------------------|
| Pressure range      | 0-10 bar, max.                      |
| Temperature media   | -10 °C – +130 °C                    |
| Ambient temperature | +60 °C, max.                        |
| Body material       | Forged 316L stainless steel         |
| Internal finish     | Ra ≤ 0.6                            |
| External finish     | Forged surface                      |
| Seal material       | PTFE or EPDM                        |
| Actuator Material   | Polished 316L stainless steel / PPS |
| Control medium      | Instrument air up to 10 bar         |
| Flow direction      | Bidirectional                       |
| Connections         | Weld end tube: hygienic clamp       |
| Pilot connections   | 6mm tube                            |
| Norms               | FDA compliant , 3A                  |

### Options

- BN2 material
- Block and weld bodies
- Any standard surface finish
- Classic actuator for sizes above 2"
- Intelligent positioner (see page 54)

### Envelope Dimensions (see datasheet for details)



| Orifice | Ø Actuator [mm] | Ø A [mm] | Ø DS [inch] | LS [mm] | H [mm] |
|---------|-----------------|----------|-------------|---------|--------|
| 1/4"    | 50              | 65       | 1/4"        | 78      | 129    |
| 3/8"    | 50              | 65       | 3/8"        | 108     | 144    |
| 1/2"    | 70              | 91       | 1/2"        | 108     | 161    |
| 3/4"    | 70              | 91       | 3/4"        | 117     | 171    |
| 1"      | 70              | 91       | 1"          | 127     | 174    |
| 1 1/2"  | 130             | 159      | 1 1/2"      | 159     | 288    |
| 2"      | 130             | 159      | 2"          | 190     | 311    |

## Ordering charts

| Orifice                            |        | Kv value | Actuator | Pilot pressure | Item no.<br>mech. polished,<br>Ra ≤ 0.6 µm<br>EPDM | Item no.<br>mech. polished,<br>Ra ≤ 0.6 µm<br>PTFE/EPDM |
|------------------------------------|--------|----------|----------|----------------|----------------------------------------------------|---------------------------------------------------------|
| [mm]                               | [inch] |          |          |                |                                                    |                                                         |
| Body with weld end connection      |        |          |          |                |                                                    |                                                         |
| Acc. to EN ISO 1127/ISO 4200       |        |          |          |                |                                                    |                                                         |
| 8                                  | 1/4    | 1.0      | 50       | 5-10           | 218 005                                            | 218 012                                                 |
| 15                                 | 1/2    | 5.5      | 70       | 5-10           | 218 006                                            | 218 013                                                 |
| 20                                 | 3/4    | 10.0     | 70       | 5-10           | 218 007                                            | 218 014                                                 |
| 25                                 | 1      | 14.0     | 70       | 5-10           | 218 008                                            | 218 015                                                 |
|                                    |        |          | 90       | 5.5-10         | 218 009                                            | 218 016                                                 |
| 40                                 | 1 1/2  | 30.0     | 130      | 5-7            | 218 010                                            | 218 017                                                 |
| 50                                 | 2      | 51.5     | 130      | 5-7            | 218 011                                            | 218 018                                                 |
| Acc. to DIN 11850 Series 2         |        |          |          |                |                                                    |                                                         |
| 10                                 | 3/8    | 1.0      | 50       | 5-10           | 218 019                                            | 218 026                                                 |
| 15                                 | 1/2    | 5.5      | 70       | 5-10           | 218 020                                            | 218 027                                                 |
| 20                                 | 3/4    | 10.0     | 70       | 5-10           | 218 021                                            | 218 028                                                 |
| 25                                 | 1      | 14.0     | 70       | 5-10           | 218 022                                            | 218 029                                                 |
|                                    |        |          | 90       | 5.5-10         | 218 023                                            | 218 030                                                 |
| 40                                 | 1 1/2  | 30.0     | 130      | 5-7            | 218 024                                            | 218 031                                                 |
| 50                                 | 2      | 51.5     | 130      | 5-7            | 218 025                                            | 218 032                                                 |
| Acc. to ASME BPE                   |        |          |          |                |                                                    |                                                         |
| 8                                  | 1/4    | 1.0      | 50       | 5-10           | 218 033                                            | 218 041                                                 |
| 10                                 | 3/8    | 1.0      | 50       | 5-10           | 218 034                                            | 218 042                                                 |
| 15                                 | 1/2    | 5.5      | 70       | 5-10           | 218 035                                            | 218 043                                                 |
| 20                                 | 3/4    | 10.0     | 70       | 5-10           | 218 036                                            | 218 044                                                 |
| 25                                 | 1      | 14.0     | 70       | 5-10           | 218 037                                            | 218 045                                                 |
|                                    |        |          | 90       | 5.5-10         | 218 038                                            | 218 046                                                 |
| 40                                 | 1 1/2  | 30.0     | 130      | 5-7            | 218 039                                            | 218 047                                                 |
| 50                                 | 2      | 51.5     | 130      | 5-7            | 218 040                                            | 218 048                                                 |
| Acc. to BS 4825                    |        |          |          |                |                                                    |                                                         |
| 8                                  | 1/4    | 1.0      | 50       | 5-10           | 218 049                                            | 218 053                                                 |
| 10                                 | 3/8    | 1.0      | 50       | 5-10           | 218 050                                            | 218 054                                                 |
| 15                                 | 1/2    | 5.5      | 70       | 5-10           | 218 051                                            | 218 055                                                 |
| 20                                 | 3/4    | 10.0     | 70       | 5-10           | 218 052                                            | 218 056                                                 |
| Body with clamp connection         |        |          |          |                |                                                    |                                                         |
| Acc. to DIN 32676                  |        |          |          |                |                                                    |                                                         |
| 15                                 | 1/2    | 5.5      | 70       | 5-10           | 218 057                                            | 218 063                                                 |
| 20                                 | 3/4    | 10.0     | 70       | 5-10           | 218 058                                            | 218 064                                                 |
| 25                                 | 1      | 14.0     | 70       | 5-10           | 218 059                                            | 218 065                                                 |
|                                    |        |          | 90       | 5.5-10         | 218 060                                            | 218 066                                                 |
| 40                                 | 1 1/2  | 30.0     | 130      | 5-7            | 218 061                                            | 218 067                                                 |
| 50                                 | 2      | 51.5     | 130      | 5-7            | 218 062                                            | 218 068                                                 |
| Acc. to ASME BPE - short dimension |        |          |          |                |                                                    |                                                         |
| 10                                 | 3/8    | 1.0      | 50       | 5-10           | 218 070                                            | 218 078                                                 |
| 15                                 | 1/2    | 5.5      | 70       | 5-10           | 218 071                                            | 218 079                                                 |
| 20                                 | 3/4    | 10.0     | 70       | 5-10           | 218 072                                            | 218 080                                                 |
| 25                                 | 1      | 14.0     | 70       | 5-10           | 218 073                                            | 218 081                                                 |
|                                    |        |          | 90       | 5.5-10         | 218 074                                            | 218 082                                                 |
| 40                                 | 1 1/2  | 30.0     | 130      | 5-7            | 218 075                                            | 218 083                                                 |
| 50                                 | 2      | 51.5     | 130      | 5-7            | 218 076                                            | 218 084                                                 |
| Acc. to ASME BPE - long dimension  |        |          |          |                |                                                    |                                                         |
| 8                                  | 1/4    | 1.0      | 50       | 5-10           | 218 085                                            | 218 092                                                 |
| 15                                 | 1/2    | 5.5      | 70       | 5-10           | 218 086                                            | 218 093                                                 |
| 20                                 | 3/4    | 10.0     | 70       | 5-10           | 218 087                                            | 218 094                                                 |
| 25                                 | 1      | 14.0     | 70       | 5-10           | 218 088                                            | 218 095                                                 |
|                                    |        |          | 90       | 5.5-10         | 218 089                                            | 218 096                                                 |
| 40                                 | 1 1/2  | 30.0     | 130      | 5-7            | 218 090                                            | 218 097                                                 |
| 50                                 | 2      | 51.5     | 130      | 5-7            | 218 091                                            | 218 098                                                 |

## Control Valves

8802

### 2/2 way Continuous Control DN13-DN50

- High Control Accuracy
- Stainless IP65 and 67 protection
- Simple to install and commission



### ELEMENT Control Valves

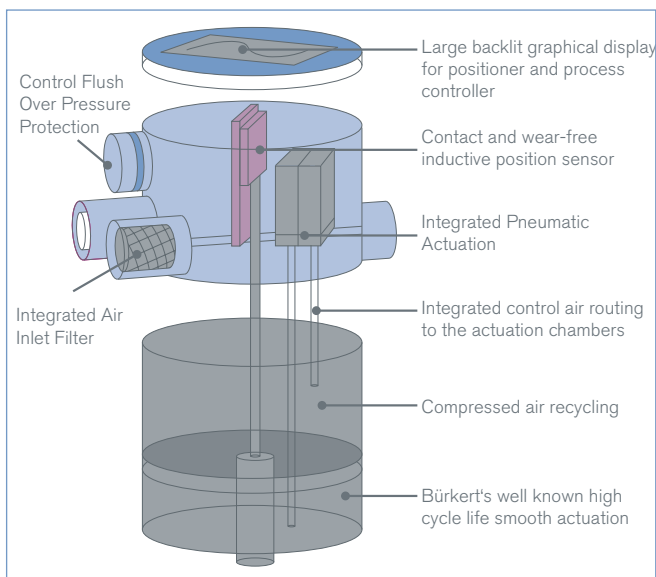
As part of a remarkable range of attractive and process control components our hardworking angle seat control valves offer high flows for large capacity heat exchange operations while our globe valves offer extreme precision and quiet operation. Both can be incorporated in the superlative 8802 control valve system. The 8802 Continuous ELEMENT architecture enables the easy integration of three levels of automation modules: a simple blind Positioner; a positioner with display; and a fully functional process controller. A range of fieldbus interfaces (AS-i, Profibus or DeviceNet) can be added with ease.

Simple, intuitive, multilingual menu driven HMI allows you to control your loop with the minimum time investment. There are no other control valves on the market which offer the following features:

- Wash down to EHEDG design standards and IP65/IP67
- Unrivalled control characteristics
- Positive positioner pressure and overpressure relief
- Unmatched Resistance to cleaning materials
- Compressed air recycling innovation eliminates corrosion of the spring chamber
- Security code lock
- Digital calibration
- Diagnostic tools
- PC interface set up tools
- DTMs
- Superb graphic backlit display
- Contactless, wear-free analog displacement sensor
- Simple and reliable drive adaptation by automatic TEACH
- On board air filter
- ProcessTUNE
- Close tight cut off, inversion, free customized characteristic, filter, dead band, start position, safe position, split range, max. min. time and digital signal calibration
- Binary input and 2 binary outputs
- Analog output for position, setpoint or process variable

Threaded, OD tube weld ends and flanged connections make this an easily installed part of your control loop. These control valves offer unmatched life cycle performance.

Truly Intelligent, Integrated and Beautiful.



### Technical Data

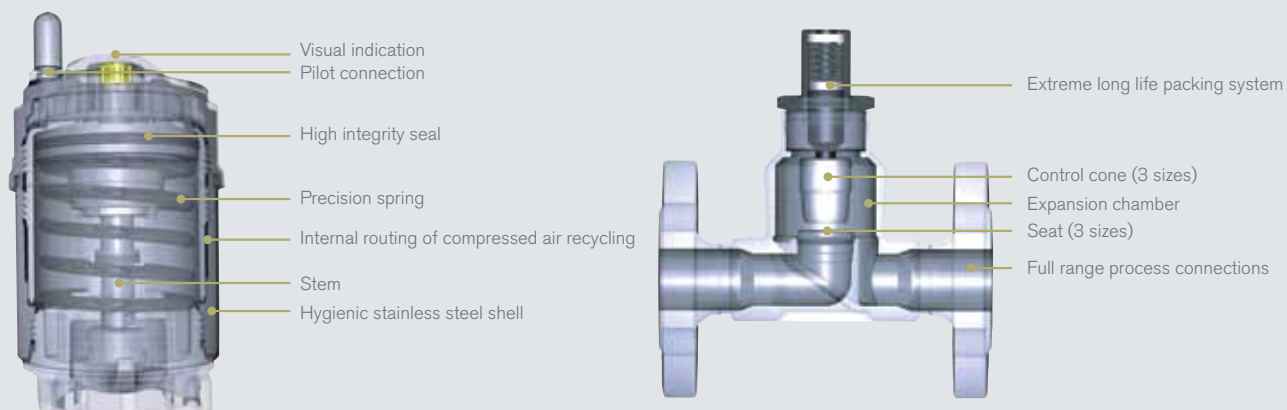
|                                 |                                               |
|---------------------------------|-----------------------------------------------|
| <b>Angle Seat</b>               | 2300 ELEMENT                                  |
| <b>Pressure range</b>           | 0 - 16 bar, max.                              |
| <b>Temperature media</b>        | -10 °C – +185 °C (+130 °C for PTFE seat seal) |
| <b>Ambient temperature max.</b> | +55 °C, max.                                  |
| <b>Body material</b>            | 316L stainless steel                          |
| <b>Seal material</b>            | Stainless steel                               |
| <b>Actuator Material</b>        | Stainless steel/PPS                           |
| <b>Control medium</b>           | Instrument air at 5.5...7 bar                 |
| <b>Flow direction</b>           | Under seat anti water-hammer                  |
| <b>Port connection</b>          | G-threads, weld ends, flanges                 |
| <b>Safe position</b>            | Normally closed                               |



**smartSizer**

All of these valves can be simply and accurately sized using our online software

## Sectional Drawings



## Ordering charts

| Size | Orifice | Kv value | Actuator | Operating pressure [bar] | with 8692 Positioner | with 8693 Process Controller |
|------|---------|----------|----------|--------------------------|----------------------|------------------------------|
|------|---------|----------|----------|--------------------------|----------------------|------------------------------|

### Angle Control Valve (2300 + 8692/3)

#### G Thread Connection (new short body)

| Size  | Orifice | Kv value | Actuator | Operating pressure [bar] | with 8692 Positioner | with 8693 Process Controller |
|-------|---------|----------|----------|--------------------------|----------------------|------------------------------|
| 1/2   | 13      | 5        | 70       | 16                       | 229 270              | 228 611                      |
| 3/4   | 20      | 10       | 70       | 16                       | 229 272              | 229 415                      |
| 1     | 25      | 16       | 90       | 16                       | 229 279              | 229 416                      |
| 1 1/4 | 32      | 23       | 90       | 16                       | 229 275              | 229 417                      |
| 1 1/2 | 40      | 36       | 130      | 16                       | 229 280              | 229 419                      |
| 2     | 50      | 53       | 130      | 16                       | 229 281              | 229 420                      |

### Globe Control Valve (2301 + 8692/3)

#### Flange Connection acc. to DIN EN 1092-1

| Size  | Orifice | Kv value | Actuator | Operating pressure [bar] | with 8692 Positioner | with 8693 Process Controller |
|-------|---------|----------|----------|--------------------------|----------------------|------------------------------|
| 1/2   | 15      | 4.3      | 70       | 16                       | 225 353              | 232 010                      |
| 3/4   | 20      | 7.1      | 70       | 16                       | 219 164              | 229 461                      |
| 1     | 25      | 12.0     | 90       | 16                       | 229 422              | 229 462                      |
| 1 1/4 | 32      | 13.6     | 90       | 16                       | 219 166              | 229 464                      |
| 1 1/2 | 40      | 23.8     | 130      | 16                       | 229 423              | 229 465                      |
| 2     | 50      | 37.0     | 130      | 16                       | 229 424              | 229 467                      |



## On-Off Ball Valve Packages

### G 1/4 - G 4, 0-63 bar

- Fully integrated system
- Plug and play
- Tested and Ready to Install



Quarter turn solutions can be deployed for high pressure or high temperature applications. Ball valves are industry proven in a wide range of applications and are particularly suitable for applications where low cycles and high reliability is required. These valves are standard 3-piece design with the advantage of either an on-off actuation package including a NAMUR solenoid valve or integrated valve positioner and process controller.

### Technical Data

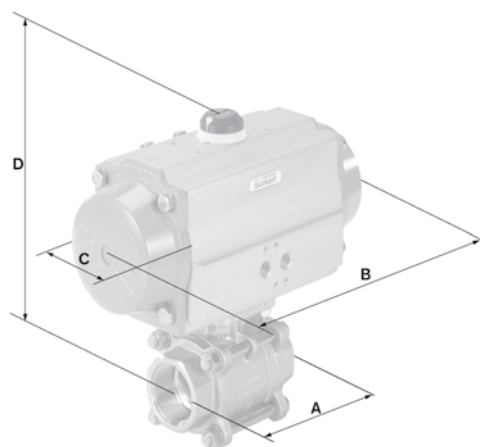
|                          |                                                      |
|--------------------------|------------------------------------------------------|
| <b>Pressure range</b>    | 0-63 bar, max. at +60 °C (> +60 °C see datasheet)    |
| <b>Temperature media</b> | Up to +100 °C (see datasheet for P & T relationship) |
| <b>Body material</b>     | Stainless steel                                      |
| <b>Seal material</b>     | PTFE, (RPTFE and Advanced PTFE available)            |
| <b>Port connection</b>   | G-thread                                             |
| <b>Bore</b>              | Full                                                 |

### Ordering chart

| Type 8805 with 3 piece threaded |                 |          |          |                      |          |
|---------------------------------|-----------------|----------|----------|----------------------|----------|
| Orifice                         | Port connection | Actuator | Kv Value | Pressure range [bar] | Item no. |
| 10                              | G 1/4           | 15       | 9        | 0-63                 | 217 250  |
| 12                              | G 3/8           | 15       | 9        | 0-63                 | 217 251  |
| 15                              | G 1/2           | 30       | 19       | 0-63                 | 217 252  |
| 20                              | G 3/4           | 30       | 46       | 0-63                 | 217 253  |
| 25                              | G 1             | 60       | 72       | 0-63                 | 217 254  |
| 32                              | G 1 1/4         | 60       | 105      | 0-63                 | 217 255  |
| 40                              | G 1 1/2         | 100      | 170      | 0-63                 | 217 256  |
| 50                              | G 2             | 100      | 275      | 0-63                 | 217 257  |
| 63                              | G 2 1/2         | 150      | 507      | 0-63                 | 217 258  |
| 80                              | G 3             | 220      | 905      | 0-63                 | 217 259  |
| 100                             | G 4             | 300      | 1414     | 0-63                 | 217 260  |

### Envelope Dimensions [mm]

(see datasheet for details)



|         | A   | B   | C   | D   |
|---------|-----|-----|-----|-----|
| G 1/4   | 65  | 136 | 72  | 129 |
| G 3/8   | 65  | 136 | 72  | 129 |
| G 1/2   | 75  | 154 | 85  | 145 |
| G 3/4   | 80  | 154 | 85  | 145 |
| G 1     | 90  | 204 | 93  | 174 |
| G 1 1/4 | 110 | 204 | 93  | 174 |
| G 1 1/2 | 120 | 241 | 106 | 203 |
| G 2     | 140 | 241 | 106 | 203 |
| G 2 1/2 | 185 | 259 | 119 | 245 |
| G 3     | 205 | 304 | 136 | 285 |
| G 4     | 240 | 333 | 147 | 325 |

# Control Tops and Feedback Packages for Pneumatically Actuated Valves



- Extreme modularity
- Fit all Bürkert actuators
- Reliable and simple to adapt

Accessories  
(8690 / 8691)

These feedback switch and pilot packs fit in the ELEMENT range of accessories. Designed for uncompromising performance this new generation is even more rugged. For single and double acting actuators the SuperBRIGHT LEDs let you see the status of your process valves from a distance. Chemically resistant PPS housing is designed in accordance with EHEDG guidelines for use in hygienic environments. Features include simple one-touch setup and a compressed air flush system which means there is always a small positive pressure in the head to completely prevent atmospheric ingress. Simple connection to DeviceNet or AS-interface make this a leap forward in valve communication.

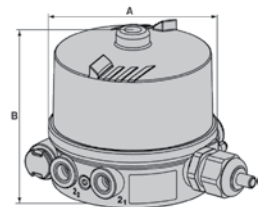
## Technical Data

|                              | 8690                                                                       | 8691                                                                       |
|------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <b>Pilot valve</b>           | 24 V DC $\pm 10\%$ , residual ripple 10% (no technical direct current); 1W | 24 V DC $\pm 10\%$ , residual ripple 10% (no technical direct current); 2W |
| <b>Micro switch</b>          | Max. 24 V DC, max. 2A                                                      |                                                                            |
| <b>Initiator</b>             | 10 to 24 V DC, max. 100mA ext. load per initiator                          | PNP, 10 to 24 V DC, max. 100mA                                             |
| <b>Electrical connection</b> | Cable gland or 8-pole M12                                                  | Cable gland or 8-pole M12, AS-i Connect                                    |
| <b>Buses available</b>       |                                                                            | DeviceNet, AS-i                                                            |
| <b>Optical feedback</b>      |                                                                            | SuperBRIGHT LED                                                            |
| <b>Media</b>                 | Instrument air                                                             | Instrument air                                                             |
| <b>Body, Cover, Seal</b>     | PPS, PC, EPDM                                                              | PPS, PC, EPDM                                                              |
| <b>Push in connector</b>     | (external $\varnothing$ 6mm or 1/4") or threaded ports G 1/8               |                                                                            |
| <b>Integrated filter</b>     | 0.1mm                                                                      | 0.1mm                                                                      |
| <b>Supply pressure</b>       | 3-7 barg                                                                   | 3-7 barg                                                                   |
| <b>Accreditations</b>        | IP65/67, CE                                                                | IP65/67, CE                                                                |
| <b>Operating temperature</b> | 0 °C to +55 °C                                                             | 0 °C to +55 °C                                                             |
| <b>Ambient temperature</b>   | 0 °C to +55 °C                                                             | 0 °C to +55 °C                                                             |

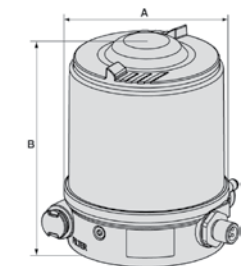
## Envelope Dimensions [mm]

(see datasheet for details)

Type 8690



Type 8691



| Type | A  | B   |
|------|----|-----|
| 8690 | 91 | 86  |
| 8691 | 91 | 119 |

## Options

### 8690

- Versions for double acting actuators

### 8691

- Versions for double acting actuators
- AS-i version
- DeviceNet version

## Ordering chart - 8690

| Pilot Valves | Switches     | Type       | Item no. Cable Gland | Item no. M12 |
|--------------|--------------|------------|----------------------|--------------|
| 0            | One switch   | Mechanical | –                    | 227 194      |
| 0            | Two switches | Mechanical | 227 196              | 227 197      |
| 1            | One switch   | Mechanical | 227 229              | 227 231      |
| 1            | Two switches | Mechanical | 227 233              | 227 235      |
| 0            | One switch   | Inductive  | –                    | 227 187      |
| 0            | Two switches | Inductive  | –                    | 227 191      |
| 1            | One switch   | Inductive  | 227 217              | 227 219      |
| 1            | Two switches | Inductive  | 227 221              | 227 223      |

|                            |         |
|----------------------------|---------|
| Adapter for ELEMENT Valves | 665 720 |
|----------------------------|---------|

## Ordering chart - 8691

| Type                        | Cable Gland / AS-i Clip | Item no. M12 |
|-----------------------------|-------------------------|--------------|
| Inductive                   | 227 261                 | 227 263      |
| Adapter for ELEMENT Valves  | 665 721                 | 665 721      |
| AS-Interface (Push-in 1/4") | 227 259                 | 227 256      |
| DeviceNet (Push-in 1/4")    | –                       | 227 257      |

Please call customer service or see data-sheet for adaption to Classic valves.

## Bürkert World of Sensor Solutions

| Flow, Batch and Ratio                                                                                                                       | Level                                                                                                                            | pH/ORP                                                                                                                           | Pressure                                                                                                                            | Transmitters and Controllers                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Paddle wheel</b><br/>page 59 and 60</p>             |  <p><b>Ultrasonic</b></p>                       |  <p><b>Transmitter</b><br/>page 80</p>          |  <p><b>Switch/display</b><br/>page 77</p>        |  <p><b>Single channel universal controller</b><br/>page 82</p> |
|  <p><b>Paddle wheel transmitter</b><br/>page 62 and 64</p> |  <p><b>Radar</b><br/>page 71</p>                |                                                                                                                                  |  <p><b>Blind Transmitter</b></p>                 |  <p><b>Dual channel analysis controller</b><br/>page 83</p>    |
|  <p><b>Insertion magmeter</b><br/>page 68 and 69</p>     |  <p><b>Guided microwave</b><br/>page 75</p>   |                                                                                                                                  |                                                                                                                                     |                                                                                                                                                   |
|                                                                                                                                             |                                                                                                                                  | Conductivity                                                                                                                     | Temperature                                                                                                                         |                                                                                                                                                   |
|  <p><b>Full bore magmeter</b><br/>page 67</p>            |  <p><b>Tuning fork switch</b><br/>page 70</p> |  <p><b>Conductive version</b><br/>page 81</p> |  <p><b>PT100 Switch/Display</b><br/>page 78</p> |                                                                                                                                                   |
|  <p><b>Batch controller</b><br/>page 66</p>              |  <p><b>Tuning fork switch</b><br/>page 70</p> |  <p><b>Inductive version</b><br/>page 84</p>  |                                                                                                                                     |                                                                                                                                                   |

# INLINE Flowmeter for Continuous Flow Measurement



## DN15 - DN65, 0-16 bar

- Turn & Lock bayonet fitting isolates sensor from media
- Direct interface with PLC's
- Multiple material choices

Please add fitting S030 from page 65

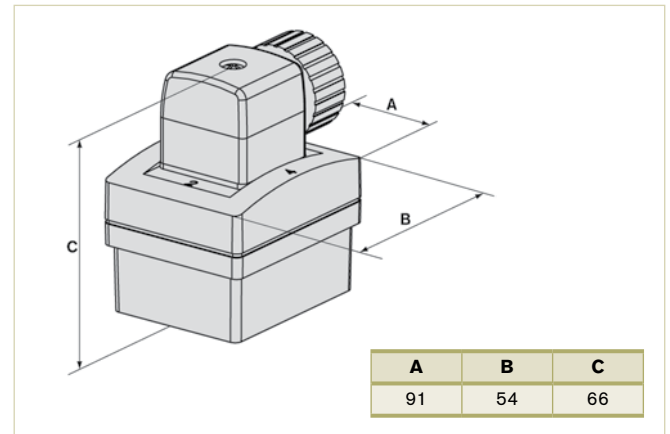
SE30

Unique bayonet style flow meter constructed from an SE30 sensor and an S030 flow fitting. Perfect for neutral, solid free liquids. A hall-effect sensor produces a square wave frequency proportional to the flow rate or a coil sensor produces a sine wave output.

### Technical Data (Standard)

|                                          |                                         |
|------------------------------------------|-----------------------------------------|
| <b>SE30 Housing material</b>             | Polycarbonate                           |
| <b>Ambient temperature</b>               | -15 °C – +60 °C (+80 °C)                |
| <b>Voltage supply / Current</b>          | 12...36 V DC ≤ 30 mA                    |
| <b>Max. cable length</b>                 | 50m shielded                            |
| <b>Electrical connections</b>            | Cable plug                              |
| <b>Outputs</b>                           | Transistor PNP and NPN, max. 100mA      |
| <b>Protection class</b>                  | IP65, (with connector plugged-in)       |
| <b>Sensor size range</b>                 | DN15 - DN65 with bayonet fitting        |
| <b>Flow velocity</b>                     | 0.3 – 10m/s                             |
| <b>Measuring error (stand. k-factor)</b> | ≤ ±(0.5% o.FS + 2.5% o.R)               |
| <b>Linearity, Repeatability</b>          | ≤ ± 0.5% o.FS (at 10m/s), 0.4% o.R.     |
| <b>Fitting Materials</b>                 | Brass, Stainless, PVC (Union)           |
| <b>Sensor materials</b>                  | PVDF paddle wheel with ceramic bearings |
| <b>O-rings</b>                           | FKM                                     |
| <b>Max. Fluid Temperature</b>            | +100 °C (metal), +50 °C (PVC),          |
| <b>Max. fluid pressure</b>               | 0-16 bar (metal), 0-10 bar (PVC)        |

### Envelope Dimensions [mm] (see datasheet for details)



### Ordering chart SE30

| Description          | Item no. |
|----------------------|----------|
| Hall                 | 423 913  |
| Hall (use with 8025) | 423 914  |
| High temperature *   | 449 694  |

\*see separate datasheet below 8030 type selection

### Options

- AS-i Connection (on request)
- Hygienic clamp and ASME weld end connections
- ANSI/DIN flange connection
- PVDF and PP fittings.
- High temperature version to 125 °C/257 °F
- Low flow fittings down to 6mm
- High flow fittings (8020) to 16"
- Various sealing materials
- Individual calibration certificate

# In-Line Flowmeter for Monitoring, Switching and Display

## DN15-DN50, 0-16 bar

- Monitor, switch and transmit functions
- Large display
- Turn & Lock bayonet fitting isolates sensor from media

Please add fitting S030 from page 65



Unique bayonet style flow meter constructed from an SE32 transmitter and an S030 flow fitting. A large digital display with 3 button keypad and bar-graph make this perfect for neutral, solid free liquids. Hysteresis and goal-post switching make this an intelligent component in any flow control loop.

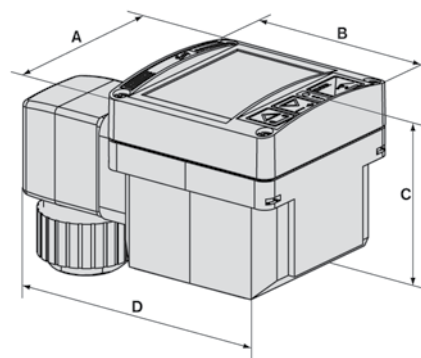
### Technical Data

|                                      |                                                                                                                  |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>SE32 Housing material</b>         | PC+20% glass fibre                                                                                               |
| <b>Ambient temperature</b>           | 0 °C – +60 °C                                                                                                    |
| <b>Voltage supply / Current</b>      | 12...30 V DC, 80 mA (no Load)                                                                                    |
| <b>Electrical Protection</b>         | Short circuit and reversed polarity                                                                              |
| <b>Max. cable length</b>             | 100m shielded                                                                                                    |
| <b>Electrical connections</b>        | Cable plug and M12                                                                                               |
| <b>Outputs</b>                       | NPN and PNP<br>5...30 V DC; 700 mA<br>Relay 3 A/250 V AC, or 3 A/30 V DC;<br>frequency 0...300 Hz<br>4 ... 20 mA |
| <b>Switching accuracy (teach-in)</b> | ± 1% at 10m/s                                                                                                    |
| <b>Switching accuracy (standard)</b> | ± 1% o.FS +3% o.R.                                                                                               |
| <b>Ingress protection</b>            | IP65                                                                                                             |
| <b>Size range</b>                    | DN15-DN65 with bayonet fitting                                                                                   |
| <b>Flow velocity</b>                 | 0.3 to 10m/s                                                                                                     |
| <b>Linearity / Repeatability</b>     | ≤ ± 0.5% o.FS (at 10m/s), 0.4% o.R.                                                                              |
| <b>Fitting Materials</b>             | Brass, Stainless, PVC (Union)                                                                                    |
| <b>Sensor Materials</b>              | PVDF paddle wheel with ceramic bearings                                                                          |
| <b>O-rings</b>                       | FKM                                                                                                              |
| <b>Max. Fluid Temperature</b>        | +100 °C (metal), +50 °C (PVC)                                                                                    |
| <b>Max. fluid pressure</b>           | 0-16 bar (metal), 0-10 bar (PVC)                                                                                 |

### Options

- AS-i Connection (on request)
- Hygienic clamp and ASME weld end connections
- ANSI/DIN flange connection
- PVDF and PP fittings
- Low flow fittings down to 6mm
- Various sealing materials
- Individual calibration certificate

### Envelope Dimensions [mm] (compact version)



| A  | B  | C  | D  |
|----|----|----|----|
| 54 | 54 | 50 | 94 |

### Ordering chart

| Output         | Connection       | Item No |
|----------------|------------------|---------|
| NPN            | Cable plug       | 436 474 |
| PNP            | Cable plug       | 434 871 |
| NPN & PNP      | M12 connection   | 436 473 |
| Relay          | Cable plug & M12 | 436 475 |
| 4-20mA & Relay | Cable plug & M12 | 444 699 |

| Connection                 | Type         | Item No |
|----------------------------|--------------|---------|
| M12 plug for NPN/PNP       | Plug only    | 917 116 |
| 5 PIN-M12 plug for NPN/PNP | 5m prewired  | 560 365 |
| M12 plug for 4-20mA        | Plug only    | 444 799 |
| 8 PIN-M12 plug for 4-20mA  | 10m prewired | 553 578 |

Please note: other cable lengths on request



# Speed and quality

Bürkert provides many of its customers with total welded system solutions which are completely compliant. Our Quality Management Systems, Quality Assurance, Risk Assessment and Validation and Training all meet latest practices and combine with our manufacturing and engineering design teams to give you an optimum experience.





## In-Line Flow Transmitter for Pipe Sizes to 2"

SE36

### DN06 - DN65

- Turn & Lock
- Direct interface with PLC's
- Brass and stainless 0...16 bar
- Plastic 0...10 bar

Please add fitting S030 from page 65

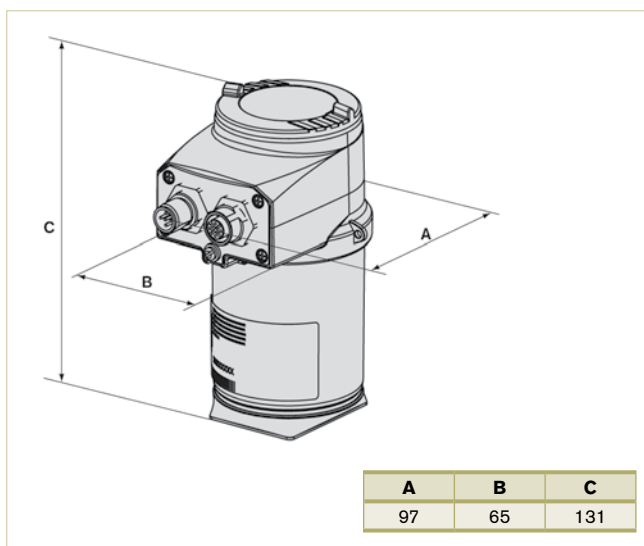


Unique bayonet style flow meter constructed from an SE36 sensor and any of the S030 fittings shown on page 65. This two-wire 4-20 mA INLINE flow meter is manufactured to provide true, reliable flow for neutral, solid free liquids. A backlit removable display allows the system to be flexible and adds more value.

### Technical Data

| Electronic module                    |                                                                    |
|--------------------------------------|--------------------------------------------------------------------|
| Housing material                     | Stainless steel, PPS, PC                                           |
| Display                              | Removable dot matrix 128 x 64 with backlight                       |
| Ambient temperature                  | - 10 °C – +60 °C                                                   |
| Voltage supply                       | 14...36 V DC for 2-wire models                                     |
| Electrical Protection                | Short circuit protection<br>Reversed polarity of DC protected      |
| Electrical connections               | M12                                                                |
| Outputs                              | 4 ... 20 mA for flow rate<br>Transistor output NPN and PNP, 700 mA |
| Output Load max.                     | < 1100 Ω at 36 V DC<br>< 610 Ω at 24 V DC<br>< 180 Ω at 14 V DC    |
| Ingress protection                   | IP65 and 67                                                        |
| Integrated sensor and fitting module |                                                                    |
| Size range                           | DN6 to 65 with bayonet fitting                                     |
| Flow velocity                        | 0.3 to 10m/s                                                       |
| Measuring error (teach in)           | ≤ ± 1% o.R (at 10m/s)                                              |
| Measuring error (Std. k-factor)      | ≤ ± 2.5% o.R                                                       |
| Linearity                            | ≤ ± 0.5% o.FS (at 10m/s)                                           |
| Repeatability                        | 0.4% o.R                                                           |
| Fitting Materials                    | PVC, PVDF, Brass, Stainless, Stainless HT                          |
| Paddle wheel                         | PVDF                                                               |
| Axis and bearing                     | Ceramic                                                            |
| O-rings                              | FKM                                                                |
| Max. Fluid Temperature               | +100 °C (metal), +50 °C (PVC)                                      |
| Ambient temperature range            | 0 to +60 °C                                                        |
| Max. fluid pressure                  | 16 bar (metal), 10 bar (PVC)                                       |

### Envelope Dimensions [mm] (see datasheet for details)



### Options

- Hygienic clamp and weld end connections
- ANSI/DIN flange connection
- PVDF and PP fittings
- Various sealing materials
- Individual calibration certificate
- Pre-wired cordsets and M12 connectors and cables
- Display unit only (item number 559 168)

### Ordering Chart for compact transmitter Type SE36

| Specifications | Output                               | Electrical connection               | Item no.        |              |
|----------------|--------------------------------------|-------------------------------------|-----------------|--------------|
|                |                                      |                                     | without display | with display |
| 2 outputs      | 1 x transistor + 1 x 4-20mA (2 wire) | 5-pin M12 male fixed connector      | 560 880         | 561 880      |
| 3 outputs      | 2 x transistor + 1 x 4-20mA (2 wire) | 5-pin M12 male fixed connector      | 560 881         | 561 881      |
| 4 outputs      | 2 x transistor + 2 x 4-20mA (3 wire) | 5-pin M12 male and 5-pin M12 female | 560 882         | 561 882      |

### Accessories

| Connection       | Type        | Item No |
|------------------|-------------|---------|
| 5-pin M12 male   | Plug only   | 560 946 |
| 5-pin M12 male   | 2m prewired | 559 177 |
| 5-pin M12 female | Plug only   | 917 116 |
| 5-pin M12 female | 5m prewired | 560 365 |
| 5-pin M12 female | 2m prewired | 438 680 |

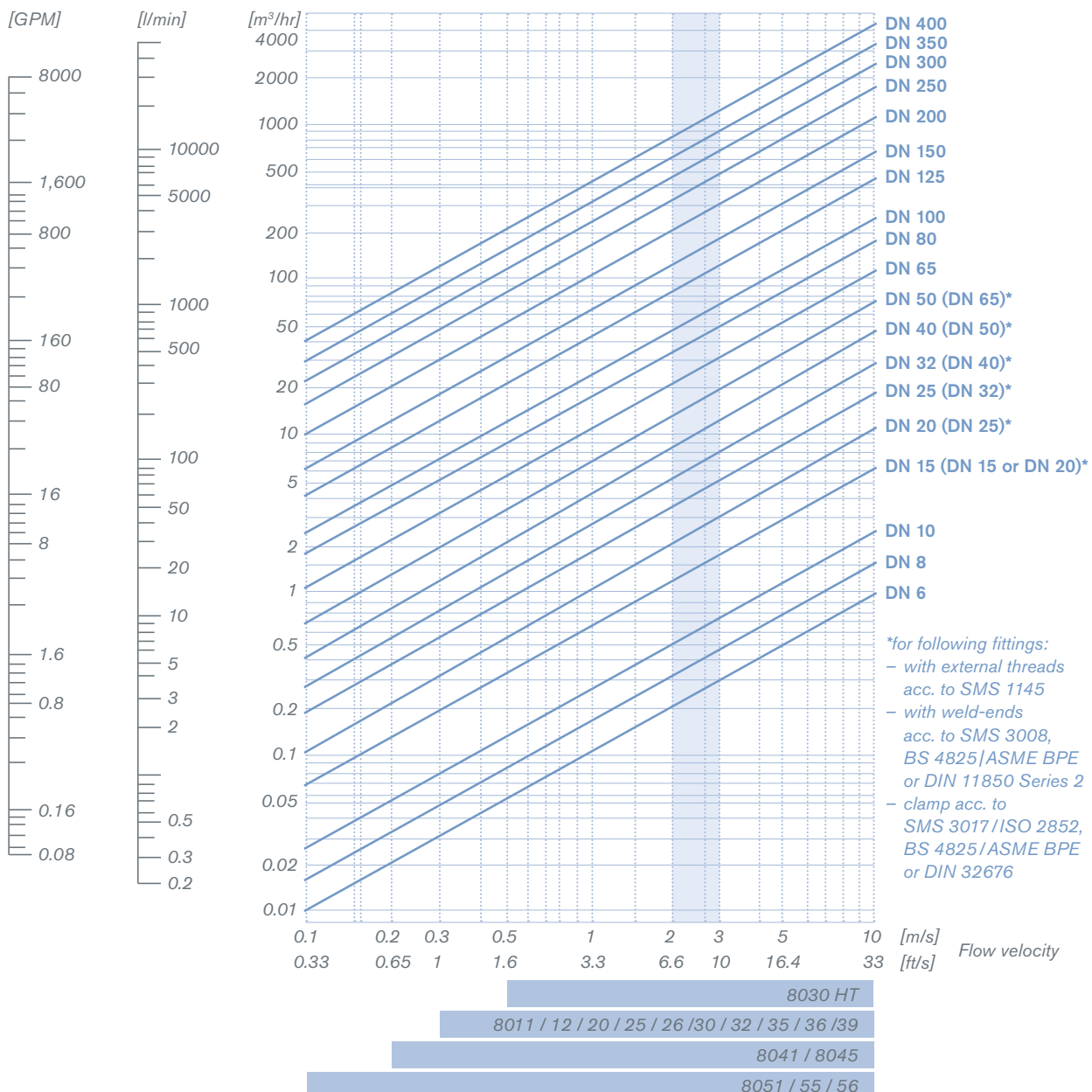
Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

## Selection Help – Flow Velocity Considerations

Depending on the sensor type, the right flow rate has to be chosen to get the best accuracy. The higher the flow velocity, the lower the measurement error, but the higher the pressure loss. The following chart will help you find the correct fitting diameter for your application depending on flow velocity and sensor technology. Pipes for fluids similar to water are generally designed for an average flow velocity of approx. 2 to 3 m/s or 6-10 ft/s.

### Flow rate

Diagram for nominal diameter selection



## Insertion Flow Transmitter for Pipe Sizes above 2"

### DN15-400, PN 10

- Ideal for Pipe Sizes above 2"
- Direct interface with PLC's
- Brass and stainless

Please add fitting S020 from page 65



Insertion style flow meter constructed from SE26 transmitter provides a 4-20 mA output directly proportional to flow. A range of fittings from weld-o-lets to saddles makes these ELEMENT style transmitters perfect for neutral, solid free liquids. A backlit removable display with joystick programming makes commissioning a breeze.

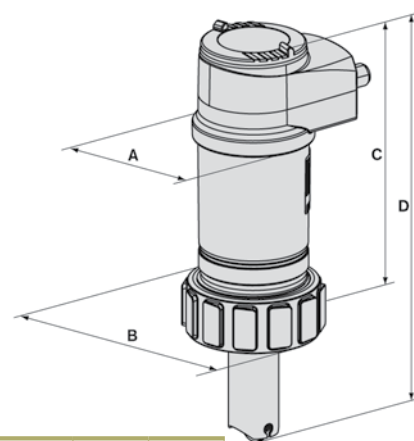
### Technical Data

| Insertion Flow Meter            |                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------|
| Size range                      | DN15-400                                                                             |
| Display                         | Dot matrix 128 x 64 with backlight                                                   |
| Flow velocity                   | 0.3 to 10m/s                                                                         |
| Measuring error (teach in)      | $\leq \pm 1\%$ o.R                                                                   |
| Measuring error (std. k-factor) | $\leq \pm 2.5\%$ o.R                                                                 |
| Linearity                       | $\leq \pm 0.5\%$ o.FS (at 10m/s)                                                     |
| Repeatability                   | 0.4% o.R.                                                                            |
| Housing material                | Stainless steel, PPS, PC                                                             |
| Paddle wheel                    | PVDF                                                                                 |
| Axis and bearing                | Ceramic                                                                              |
| O-rings                         | FKM as standard                                                                      |
| Max. Fluid Temperature          | +100 °C (also depends on piping material)                                            |
| Ambient temperature range       | -10 °C – +60 °C                                                                      |
| Max. fluid pressure             | PN 10                                                                                |
| Voltage supply                  | 14...36 V DC for 2-wire models                                                       |
| Electrical Protection           | Short circuit protection<br>Reversed polarity of DC protected                        |
| Electrical connections          | M12                                                                                  |
| Outputs                         | 4 ... 20 mA for flow rate<br>Transistor output NPN and PNP, 700 mA                   |
| Output Load                     | < 1100 $\Omega$ at 36 V DC<br>< 610 $\Omega$ at 24 V DC<br>< 180 $\Omega$ at 14 V DC |
| Ingress protection              | IP65 and 67                                                                          |

### Options

- PVDF and PP fittings
- Various sealing materials
- Individual calibration certificate
- Without display

### Envelope Dimensions [mm] (see datasheet for details)



|       | A  | B  | C   | D     |
|-------|----|----|-----|-------|
| Short | 65 | 75 | 151 | 230   |
| Long  | 65 | 75 | 151 | 268.5 |

### Ordering Chart

| Output                                       | Electrical connection               | Item no. with display |         |
|----------------------------------------------|-------------------------------------|-----------------------|---------|
|                                              |                                     | Short                 | Long    |
| 1 x transistor NPN + 1 x 4-20mA (2 wire)     | 5-pin M12 male                      | 561 860               | 561 870 |
| 2 x transistor NPN/PNP + 1 x 4-20mA (2 wire) | 5-pin M12 male                      | 561 861               | 561 871 |
| 2 x transistor NPN/PNP + 2 x 4-20mA (3 wire) | 5-pin M12 male and 5-pin M12 female | 561 862               | 561 872 |
| without display                              |                                     |                       |         |
| 1 x transistor NPN + 1 x 4-20mA (2 wire)     | 5-pin M12 male                      | 560 860               | 560 870 |
| 2 x transistor NPN/PNP + 1 x 4-20mA (2 wire) | 5-pin M12 male                      | 560 861               | 560 871 |
| 2 x transistor NPN/PNP + 2 x 4-20mA (3 wire) | 5-pin M12 male and 5-pin M12 female | 560 862               | 560 872 |

### Accessories

| Connection       | Type        | Item No |
|------------------|-------------|---------|
| 5-pin M12 male   | Plug only   | 560 946 |
| 5-pin M12 male   | 2m prewired | 559 177 |
| 5-pin M12 female | Plug only   | 917 116 |
| 5-pin M12 female | 2m prewired | 438 680 |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

## S030 and S020 flow fittings

S020 PVC



S030 PVC

### Inline fitting S030 Insertion fitting S020

- Wide range of materials and process connections
- S020 up to DN400
- Metal up to 16 bar
- Plastic up to 10 bar

Fittings

### Ordering Chart

S030 (for SE30, SE32, SE36)

| Size<br>DN | PVC (DIN) | Brass G | Stainless G<br>Standard | Stainless G<br>High temp. | PVDF<br>ISO 10931 | St.St. Hygienic<br>Clamp | St.St. BS4825 | DIN EN 1092-1 |
|------------|-----------|---------|-------------------------|---------------------------|-------------------|--------------------------|---------------|---------------|
| 15         | 423 938   | 423 980 | 424 004                 | 449 726                   | 423 968           | –                        | –             | 424 040       |
| 20         | 423 939   | 423 981 | 424 005                 | 449 727                   | 423 969           | 443 395                  | 443 369       | 424 041       |
| 25         | 423 940   | 423 982 | 424 006                 | 449 728                   | 423 970           | 443 396                  | 443 370       | 424 042       |
| 32         | 423 941   | 423 983 | 424 007                 | 449 729                   | 423 971           | –                        | 443 371       | 424 043       |
| 40         | 423 942   | 423 984 | 424 008                 | 449 730                   | 423 972           | 443 397                  | 443 372       | 424 044       |
| 50         | 423 943   | 423 985 | 424 009                 | 449 731                   | 423 973           | 443 398                  | 443 373       | 424 045       |
| 65         | –         | –       | –                       | –                         | –                 | 443 399                  | 443 374       | –             |

### Ordering Chart

S020 (for 8026, 8041, 8045) - Short sensor

Long sensor

| Size<br>DN | PVC (DIN)<br>true union, FKM | Brass G<br>internal, FKM | Stainless G<br>internal, FKM | St.St. welding<br>tab | PP saddle<br>EPDM |
|------------|------------------------------|--------------------------|------------------------------|-----------------------|-------------------|
| 15         | 428 670                      | 428 712                  | 428 736                      |                       |                   |
| 20         | 428 671                      | 428 713                  | 428 737                      |                       |                   |
| 25         | 428 672                      | 428 714                  | 428 738                      |                       |                   |
| 32         | 428 673                      | 428 715                  | 428 739                      |                       |                   |
| 40         | 428 674                      | 428 716                  | 428 740                      |                       |                   |
| 50         | 428 675                      | 428 717                  | 428 741                      | 418 111               | 425 138           |
| 65         |                              |                          |                              | 418 112               | 425 139           |
| 80         |                              |                          |                              | 418 113               | 425 140           |
| 100        |                              |                          |                              | 418 114               | 425 141           |
| 125        |                              |                          |                              | 418 115               | 425 143           |
| 150        |                              |                          |                              | 418 116               | 425 144           |
| 200        |                              |                          |                              | 418 117               | 425 416           |
| 250        |                              |                          |                              | 418 756               |                   |
| 300        |                              |                          |                              | 420 070               |                   |
| 350        |                              |                          |                              | 416 637               |                   |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

## Batch Controller with switch, selector and PLC connectivity

### 7 batch sizes, 2 relay outputs

- Controls 7 batches automatically
- Fast fill and fine control for accuracy
- Shows both flow rate and volume

Please add flow sensor 8020, 8030, 8070



Unique batch controller for accurate filling of liquids. This universal IP65 controller is wall mounted and compatible with all sensors with an open collector pulse, relay reed, TTL, CMOS or coil output.

### Technical data

|                                           |                                                                                                       |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Housing material</b>                   | ABS, PC*                                                                                              |
| <b>Front panel foil</b>                   | Polyester                                                                                             |
| <b>Screws</b>                             | Stainless Steel                                                                                       |
| <b>Cable plug / gland</b>                 | PA                                                                                                    |
| <b>Ambient temperature</b>                | 0 °C – +60 °C                                                                                         |
| <b>Display</b>                            | 15 x 60mm, 8-digit LCD, alphanumeric, 15 segments, 9mm high                                           |
| <b>Voltage supply</b>                     | 12–30 V DC or 115/230 V AC, 50–60 Hz                                                                  |
| <b>Current consumption max.</b>           | ≤ 70 mA without consumption of inputs/outputs                                                         |
| <b>Electrical Protection</b>              | Reversed polarity of DC protected                                                                     |
| <b>Compatibility with Bürkert sensors</b> | Any Bürkert flow sensor with frequency output (8020, 8030, 8030HT, 8041, 8031, 8070, 8071)            |
| <b>Compatibility with other sensors</b>   | Any open collector NPN, coil, TTL, CMOS                                                               |
| <b>Electrical connections</b>             | PG Cable glands (wall version)                                                                        |
| <b>Outputs</b>                            | 2 relays, freely programmable, 3A, 230 V AC                                                           |
| <b>Flow input frequency</b>               | 2.5 Hz up to 700 Hz                                                                                   |
| <b>Sensor power supply</b>                | 12...30, or 0...18 V DC, 100 mA max. (24 V DC Version); +15 V DC or +27 V DC, 25 mA max. (AC version) |
| <b>Ingress protection</b>                 | IP65, IP65 (front)*                                                                                   |

\* Panel mount version.

### Options

- Compact inline mount

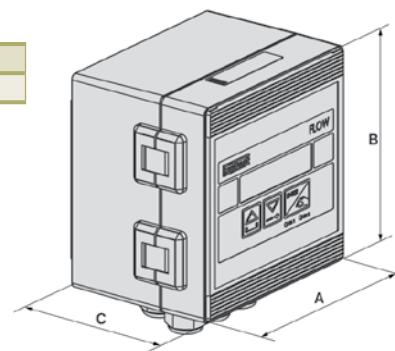
### Ordering Chart

| Description | Totalizers | Relays  | Connection              | 12-30 V DC | 115-230 V AC |
|-------------|------------|---------|-------------------------|------------|--------------|
| Wall mount  | 2          | 2 x 3 A | 5 x PG 13.5 cable gland | 433 740    | 433 741      |
| Panel mount | 2          | 2 x 3 A | Terminal strip          | 419 536    | –            |

### Envelope Dimensions [mm] (see datasheet for details)

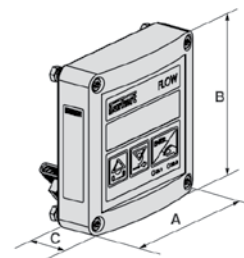
#### Wall Mount

| A   | B   | C  |
|-----|-----|----|
| 120 | 120 | 90 |



#### Panel Mount

| A  | B  | C  |
|----|----|----|
| 88 | 88 | 25 |



# Full bore INLINE Magmeter



Shown is the remote flanged sensor and the hygienic clamp compact version

## DN3 to 200, Up to 16 bar

- High frequency sampling
- Flow or Batch Control
- Compact or remote version
- 3 different electronics can be connected to 4 different types of sensors

8051, 8055, 8056

These full bore magmeters accurately measure the flow of liquids with conductivities as low as 5  $\mu\text{S}/\text{cm}$  with or without solids. Varied application environments such as water, wastewater, sludge, slurries, pastes, acids, alkalis, juices, fruit pulp can easily be handled. This extremely robust, time tested design incorporates the latest electronics and when combined with a valve as the actuating element they can control high-precision dosing operations. A simple HMI and a wide range of materials, measuring tube liners and process connections makes this a simple choice.

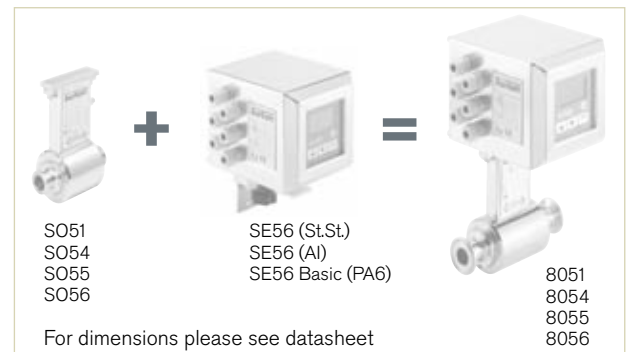
## Technical Data (standard version SE56)

|                               |                                                                                                           |
|-------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Housing material</b>       | Die cast aluminium or 304 Stainless steel                                                                 |
| <b>Ambient temperature</b>    | -20 °C – +60 °C                                                                                           |
| <b>Voltage supply</b>         | 90...265 V AC                                                                                             |
| <b>Electrical connections</b> | PG glands                                                                                                 |
| <b>Outputs</b>                | 1 x 4-20mA<br>2 x transistor (40V DC, 100mA, Fmax=1250Hz)<br>Standard input 1 x digital (0 up to 40 V DC) |
| <b>Ingress protection</b>     | IP67                                                                                                      |
| <b>Approvals</b>              | CE                                                                                                        |
| <b>Size range</b>             | DN3 to 200                                                                                                |
| <b>Flow velocity</b>          | 0.04 to 10m/s                                                                                             |
| <b>Measuring error</b>        | $\pm 0.2\%$ of Reading (for liquid velocity > 1m/s)                                                       |
| <b>Linearity</b>              | $\leq \pm 0.5\%$ o.FS (at 10m/s)                                                                          |
| <b>Repeatability</b>          | Repeatability better than 0.1%                                                                            |
| <b>Electrode material</b>     | St.St. 316L (optional 3 x St.St. 316L or 4 x Hastelloy C / Titanium / Tantalum / Platinum)                |
| <b>Axis and bearing</b>       | Minimum conductivity 5 $\mu\text{S}/\text{cm}$                                                            |
| <b>O-rings</b>                | FKM                                                                                                       |
| <b>max. Fluid Temperature</b> | +100 °C (PTFE lining), remote (PTFE) 130°C, +60 °C (PP lining)                                            |
| <b>max. fluid pressure</b>    | Fluid pressure max. 16 bar                                                                                |

## Options

- Various sealing materials
- Larger sizes are available as standard
- Individual calibration certificate
- Other options Remote versions (10/20m cable, IP68), blind version
- St.St. body and EN or ANSI/DIN flanges for S055
- PTFE lining and PN40 pressure class for S054 and S055
- 2 relay outputs NO/NC 2A-250V AC, 60W 125V AC
- Hart, Profibus, RS232, RS485

## System Architecture



## Ordering Chart

| Transmitter / Batch Controller Electronics - SE56 | Item no. |
|---------------------------------------------------|----------|
| Stainless steel                                   | 558 306  |
| Aluminium                                         | 558 747  |

| INLINE Flow Meter                                                    |              |               |        |          |
|----------------------------------------------------------------------|--------------|---------------|--------|----------|
| Connection                                                           | Orifice [mm] | Flow Range    | Lining | Item no. |
| <b>BSPM INLINE meter fitting - S051 - Stainless steel body</b>       |              |               |        |          |
| 1/8"                                                                 | 3            | 0...250 l/h   | PTFE   | 554 321  |
| 1/4"                                                                 | 6            | 0...1000 l/h  | PTFE   | 553 065  |
| 3/8"                                                                 | 10           | 0...3000 l/h  | PTFE   | 553 374  |
| 1/2"                                                                 | 15           | 0...6000 l/h  | PTFE   | 553 481  |
| 3/4"                                                                 | 20           | 0...12500 l/h | PTFE   | 553 539  |
| <b>DIN 2501 INLINE meter fitting - S055 - Carbon steel body</b>      |              |               |        |          |
| 1"                                                                   | 25           | 0...18 m³/h   | PP     | 553 540  |
| 1 1/2"                                                               | 40           | 0...45 m³/h   | PP     | 553 542  |
| 2"                                                                   | 50           | 0...72 m³/h   | PP     | 553 485  |
| 2 1/2"                                                               | 65           | 0...120 m³/h  | PP     | 553 393  |
| 3"                                                                   | 80           | 0...180 m³/h  | PP     | 553 394  |
| 4"                                                                   | 100          | 0...280 m³/h  | PP     | 553 489  |
| 6"                                                                   | 150          | 0...640 m³/h  | PP     | 557 512  |
| <b>BS4825 Hygienic clamp INLINE meter fitting - S056 St.St. body</b> |              |               |        |          |
| 1/8"                                                                 | 3            | 0...250 l/h   | PTFE   | 559 786  |
| 1/4"                                                                 | 6            | 0...1000 l/h  | PTFE   | 553 325  |
| 3/8"                                                                 | 10           | 0...3000 l/h  | PTFE   | 554 350  |
| 1/2"                                                                 | 15           | 0...6000 l/h  | PTFE   | 553 533  |
| 3/4"                                                                 | 20           | 0...12500 l/h | PTFE   | 553 534  |
| 1"                                                                   | 25           | 0...18 m³/h   | PTFE   | 553 535  |
| 1 1/2"                                                               | 40           | 0...45 m³/h   | PTFE   | 553 536  |
| 2"                                                                   | 50           | 0...72 m³/h   | PTFE   | 553 537  |
| 2 1/2"                                                               | 65           | 0...120 m³/h  | PTFE   | 553 538  |
| 3"                                                                   | 80           | 0...180 m³/h  | PTFE   | 559 791  |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)



## Blind Insertion Magmeter in PVDF

### DN06-400, up to 16 bar

- Solid state technology
- Direct interface with PLC's
- Range of fitting materials

Please add fitting S020 from page 65

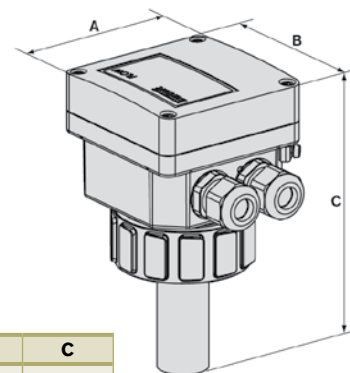


Insertion magmeter constructed from a PVDF finger and high quality blind electronic module. Perfect for contaminated or aggressive fluids it has both 4 to 20 mA and pulse output, with optional 3A relays, making this a flexible solution for flow control or batching

### Technical Data

|                                            |                                                                                          |
|--------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Size range</b>                          | DN06-400                                                                                 |
| <b>Flow velocity</b>                       | 0.2 - 10m/s                                                                              |
| <b>Measuring error (teach in)</b>          | $\leq \pm 2\%$ o.R. (1-10m/s)                                                            |
| <b>Measuring error (standard k-factor)</b> | $\leq \pm 4\%$ o.R. (1-10m/s)                                                            |
| <b>Linearity</b>                           | $\leq \pm (1\% \text{ o.R.} + 0.1\% \text{ o.FS})$                                       |
| <b>Repeatability</b>                       | $\pm 0.25\%$ o.R.                                                                        |
| <b>Housing material</b>                    | PC+20% glass fibre                                                                       |
| <b>Electrode Material</b>                  | 316L St.St.                                                                              |
| <b>Mag-sensor Material</b>                 | PVDF                                                                                     |
| <b>O-rings</b>                             | FKM                                                                                      |
| <b>Max. Fluid Temperature</b>              | +80 °C                                                                                   |
| <b>Ambient temperature range</b>           | -10 °C – +60 °C                                                                          |
| <b>Max. fluid pressure</b>                 | PVDF version 10 bar<br>Stainless steel version 16 bar                                    |
| <b>Fluid conductivity</b>                  | > 20 $\mu\text{S/cm}$                                                                    |
| <b>Storage temperature</b>                 | -20 °C – +60 °C                                                                          |
| <b>Voltage supply</b>                      | 18...36 V DC                                                                             |
| <b>Current consumption max.</b>            | $\leq 220$ mA                                                                            |
| <b>Electrical Protection</b>               | Short circuit protection<br>Reversed polarity of DC protected                            |
| <b>Electrical connections</b>              | M20 cable glands (optional 1/2" conduit)                                                 |
| <b>Outputs</b>                             | 4 ... 20 mA<br>Transistor, max. 100mA, frequency 0...240 Hz<br>Relay output 3 A/250 V AC |
| <b>Output Load</b>                         | Max. 1100 $\Omega$ at 36 V AC<br>Max. 330 $\Omega$ at 18 V AC                            |
| <b>Ingress protection</b>                  | IP65                                                                                     |

### Envelope Dimensions [mm] (see datasheet for details)



|              | A  | B  | C   |
|--------------|----|----|-----|
| <b>Short</b> | 88 | 88 | 162 |
| <b>Long</b>  | 88 | 88 | 199 |

### Options

- Stainless steel finger for +150 °C and 16 bar with PPA housing
- FDA approved wetted materials, - Hastelloy C Electrodes

### Ordering Chart Transmitter Type 8041

| Output             | Relay | Housing material | Gaskets | Sensor version         | Electrical connection | Item no. |
|--------------------|-------|------------------|---------|------------------------|-----------------------|----------|
| 4-20 mA, frequency | 1     | PC               | FKM     | short, PVDF            | 2 cable glands        | 558 064  |
|                    |       |                  |         | long, PVDF             | 2 cable glands        | 558 065  |
|                    |       | PPA              | FKM     | short, stainless steel | 2 cable glands        | 552 779  |
|                    |       |                  |         | long, stainless steel  | 2 cable glands        | 552 780  |

**Note:** Delivered with 1 EPDM gasket set.

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

## Insertion Magmeter in Stainless Steel



### DN06 - 400, PN 16

- Simple to read display
- Direct interface with PLC's
- Easy push button menu

Please add fitting S020 from page 65

8045

With a stainless steel insertion finger and high quality electronic display module this unit is perfect for contaminated or aggressive fluids. 4 to 20 mA and pulse output with optional 3A relays makes this a flexible solution for flow control, batching or CIP control in FDA applications.

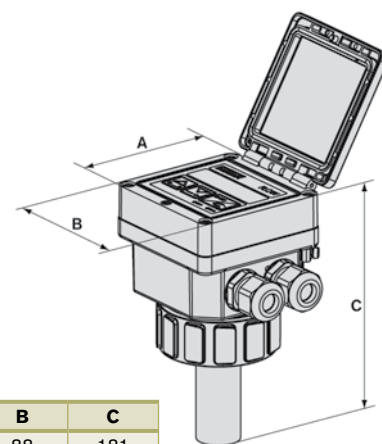
### Technical Data

|                                   |                                                                                          |
|-----------------------------------|------------------------------------------------------------------------------------------|
| <b>Size range</b>                 | DN06 - 400                                                                               |
| <b>Flow velocity</b>              | 0.2 – 10m/s                                                                              |
| <b>Measuring error (teach in)</b> | $\leq \pm 2\%$ o.R. (1 – 10m/s)                                                          |
| <b>Measuring error</b>            | $\leq \pm 4\%$ o.R. (1 – 10m/s)                                                          |
| <b>Linearity</b>                  | $\leq \pm (1\% \text{ o.R.} + 0.1\% \text{ o.FS})$                                       |
| <b>Repeatability</b>              | $\pm 0.25\%$ o.R.                                                                        |
| <b>Housing material</b>           | PPA                                                                                      |
| <b>Electrode Material</b>         | 316L St.St.                                                                              |
| <b>Mag-sensor Material</b>        | 316L St.St. (FDA compliant)                                                              |
| <b>O-rings</b>                    | FKM                                                                                      |
| <b>Max. Fluid Temperature</b>     | +150 °C (St.St. fitting)                                                                 |
| <b>Ambient temperature range</b>  | -10 °C – +60 °C                                                                          |
| <b>Max. fluid pressure</b>        | PN 16 (depending on fitting)                                                             |
| <b>Fluid conductivity</b>         | > 20 $\mu\text{S/cm}$                                                                    |
| <b>Voltage supply</b>             | 18...36 V DC                                                                             |
| <b>Current consumption max.</b>   | $\leq 300 \text{ mA}$                                                                    |
| <b>Electrical Protection</b>      | Short circuit and reversed polarity protected                                            |
| <b>Electrical connections</b>     | M20 cable glands                                                                         |
| <b>Outputs</b>                    | 4 ... 20 mA<br>Transistor, max. 100mA, frequency 0...240 Hz<br>Relay output 3 A/250 V AC |
| <b>Output Load</b>                | Max. 1300 $\Omega$ at 30 V<br>Max. 700 $\Omega$ at 18 V                                  |
| <b>Ingress protection</b>         | IP65                                                                                     |

### Options

- PVDF finger for +80 °C and 6 bar with PC housing
- Hastelloy electrodes

### Envelope Dimensions [mm] (see datasheet for details)



|              | A  | B  | C   |
|--------------|----|----|-----|
| <b>Short</b> | 88 | 88 | 181 |
| <b>Long</b>  | 88 | 88 | 218 |

### Ordering Chart for transmitter 8045

| Relays | Housing material | Sensor version         | Item no. |
|--------|------------------|------------------------|----------|
| No     | PC               | Short, PVDF            | 426 498  |
|        |                  | Long, PVDF             | 426 499  |
| 2      | PC               | Short, PVDF            | 426 506  |
|        |                  | Long, PVDF             | 426 507  |
| No     | PPA              | Short, Stainless Steel | 449 670  |
|        |                  | Long, Stainless Steel  | 449 672  |
| 2      | PPA              | Short, Stainless Steel | 449 671  |
|        |                  | Long, Stainless Steel  | 449 673  |

**Note:** Delivered with 1 EPDM gasket set.

# Tuning-Fork Level Switch

8110 / 8111

## G 3/4", G 1" and clamp 2", up to 64 bar

- For universal use as overflow or dry run protection system
- Hygienic surface finish
- Extension tubes available



Type 8110



Type 8111

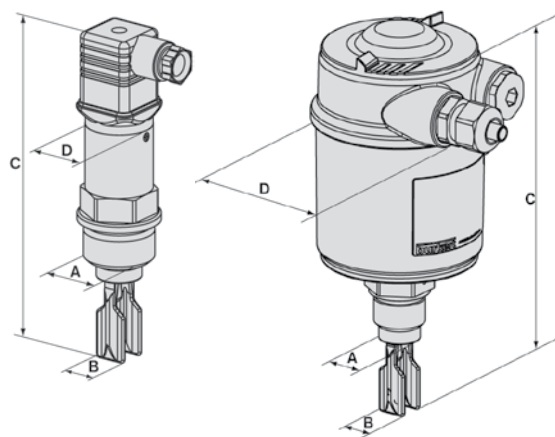
**8110** - Level switch tuning fork in a compact stainless steel design. Simple setup without adjustment makes this perfect for deployment into process environments. The 40mm fork offers a clear, reliable measurement and high immunity to turbulence, foam, air bubbles and buildup.

**8111** - Tuning fork relay switch for rugged process environments. Super-BRIGHT visual output lets the user know the status from a distance. This device provides peace of mind from overflow or run dry and can be installed in utility or clean tanks and pipes.

## Technical Data

| Type                          | 8110                                                                 | 8111                                                                 |
|-------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>Process Connection</b>     | G 3/4, G 1 or Clamp 2"                                               | G 3/4, G 1 or Clamp 2"                                               |
| <b>Max. Fluid Temperature</b> | +100 °C G<br>+150 °C Clamp                                           | +150 °C G<br>+150 °C Clamp                                           |
| <b>Materials</b>              | Stainless / PEI housing<br>Stainless steel forks<br>KLINGERSIL® seal | Stainless / PBT housing<br>Stainless steel forks<br>KLINGERSIL® seal |
| <b>Max. fluid pressure</b>    | 64 bar                                                               | 64 bar                                                               |
| <b>Voltage supply</b>         | 10...55 V DC / max.<br>0.5 W                                         | 20...253 V AC (5 A),<br>50-60 Hz, or 20...72 V DC                    |
| <b>Electrical connections</b> | M12                                                                  | M20 cable glands                                                     |
| <b>Outputs</b>                | Transistor output PNP,<br>250 mA                                     | Relay (DPDT), 2 floating<br>SPDTs                                    |
| <b>Ingress protection</b>     | IP66 and 67                                                          | IP66 and 67                                                          |

## Envelope Dimensions [mm] (see datasheet for details)



| Type        | A        | B  | C   | D    |
|-------------|----------|----|-----|------|
| <b>8110</b> | 3/4" G   | 16 | 158 | 31.7 |
|             | 1" G     | 16 | 161 | 31.7 |
|             | 2" clamp | 16 | 165 | 31.7 |
| <b>8111</b> | 3/4" G   | 16 | 210 | 91   |
|             | 1" G     | 16 | 214 | 91   |
|             | 2" clamp | 16 | 213 | 91   |

## Options

### 8110

- DIN 11851, Flange, SMS
- ECTFE, enamel, Hastelloy C4 or PFA
- Higher temperatures on request

### 8111

- Various length extensions (8112)
- ATEX approvals
- DIN 11851, Flange, SMS
- ECTFE, enamel, Hastelloy C4 or PFA
- Higher temperatures on request

## Ordering Chart

| Process connection | Electrical connection | Item no. |
|--------------------|-----------------------|----------|
| <b>8110</b>        |                       |          |
| 3/4" BSPM          | Multipin M12          | 555 290  |
| 1" BSPM            | Multipin M12          | 555 292  |
| Clamp 2"           | Multipin M12          | 555 294  |
| <b>8111</b>        |                       |          |
| 3/4" BSPM          | 2 x M20 glands        | 558 110  |
| 1" BSPM            | 2 x M20 glands        | 558 112  |
| Clamp 2"           | 2 x M20 glands        | 558 114  |

Extension tubes are available (see datasheet 8112).

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

# Radar Level Transmitter for Liquids

8137 / 8138

Type 8137



## G or flange connection

- Measures up to 30 m
- High Pressure Version
- Two-wire

Radar level transmitter for aggressive media and high pressure. A sleek, compact stainless steel design incorporates a 2-wire HART transmitter which is easily PC configurable.

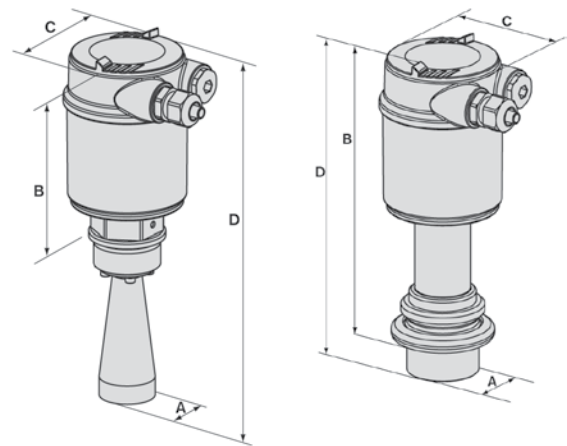
## Technical Data

|                                       |                                                                       |
|---------------------------------------|-----------------------------------------------------------------------|
| <b>Housing / Cover</b>                | PBT, Stainless steel 316L / PC                                        |
| <b>Seal ring / Ground terminal</b>    | NBR / Stainless steel 316Ti/316L (1.4571/1.4435)                      |
| <b>Seal</b>                           | Klingsil C-4400 (8137), EPDM (8138)                                   |
| <b>Antenna / cone</b>                 | Stainless steel 316L (8137), FFM-PTFE (8138) / PTFE (FFM-PTFE) (8137) |
| <b>Seal (antenna system)</b>          | FKM, EPDM (8137)                                                      |
| <b>Display</b>                        | LCD in full dot matrix                                                |
| <b>Ambient temperature</b>            | -40 °C – +80 °C                                                       |
| <b>Voltage supply</b>                 | 2-wire, 14 to 36 V DC                                                 |
| <b>Current consumption max.</b>       | 22 mA                                                                 |
| <b>Electrical connections</b>         | Cable glands M20 x 1.5                                                |
| <b>Outputs</b>                        | 4...20 mA/HART                                                        |
| <b>Dead zone</b>                      | 50mm                                                                  |
| <b>Measuring range (40mm antenna)</b> | 50mm to 10m                                                           |
| <b>Accuracy</b>                       | ± 3mm                                                                 |
| <b>Min. Dielectric</b>                | $\epsilon_r > 1.6$                                                    |
| <b>Temperature coefficient</b>        | 0.03%/10K                                                             |
| <b>Ingress protection</b>             | IP66, IP67                                                            |

## Options

- Ex versions (part numbers are shown, please see datasheets for details)
- 30m measuring with 75mm antenna
- Other hygienic fittings

## Envelope Dimensions [mm] (see datasheet for details)



| Type | A        | B   | C    | D   |
|------|----------|-----|------|-----|
| 8137 | 40       | 157 | 80.5 | 279 |
| 8138 | Clamp 2" | 218 | 80.5 | 226 |

## Ordering Chart

| Area        | Process Connection | Electrical Connection | Item no. |
|-------------|--------------------|-----------------------|----------|
| <b>8137</b> |                    |                       |          |
| Standard    | G 1 1/2 BSPM       | M20 cable gland       | 560 157  |
| Standard    | Flange DIN DN50    | M20 cable gland       | 560 161  |
| Ex          | G 1 1/2 BSPM       | M20 cable gland       | 560 158  |
| Ex          | Flange DIN DN50    | M20 cable gland       | 560 162  |
| <b>8138</b> |                    |                       |          |
| Standard    | Clamp 2"           | M20 cable gland       | 560 169  |
| Ex          | Clamp 2"           | M20 cable gland       | 560 170  |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

## System Competence - Perfect Solutions

Bürkert has a unique perspective in the process control and instrumentation industry as we are the only single brand which combines a complete range of valves, instruments, pneumatic actuation, networking and controllers from a single source. With our dedicated world-class engineers and our superlative manufacturing facilities we can deliver systems which meet your exact requirements.

Your reliable Bürkert sales consultant and our system engineers work together to ask the right questions and provide the right hardware. Transparent operations, up to date situation reports, review procedure, engineering change notices, portals through SAP and secure Intranet are normal in our projects.

For a world class system experience, insist on Bürkert people to be part of your next project.

01



### Connect

As a globally flexible company we are the partner of choice for fluid control systems. Following our principle of "one face to the customer", you have a competent, reliable consultant by your side at all times, who listens to your needs and presents a solution in your daily application language ... crossing conventional boundaries and creating synergies between industries in pursuit of your ideal solution.

02



### Conceive & Innovate

Your project team starts working for you: from your reliable sales consultant, qualified industry specialists to dedicated system engineers – Bürkert puts the necessary experts together and for the entire duration of the project they work together, combining their experience and clarifying all the requirements in close cooperation with you to come up with a feasible draft of your solution within the shortest time frame.

03



### Plan & Specify

In Phase 3 the project is planned in detail. A specification sheet and refined solution concept are developed. This defines exactly what you expect from the system and what it must provide to ensure that all components meet your requirements. At the end of this phase you are presented with a detailed product definition, a production specification and precise commercial conditions and agreements. Structured project management based on open communication, effective coordination and thorough documentation ensures fast and reliable results.

04



### Do & Check

Good communication, coordination and documentation at all project phases make sure that we are on the right track, developing the right solution, to allow us to quickly move on to prototyping. Thanks to the latest technology, we are able to build a prototype made of metal or plastic or a functional model, to test flow. We provide you with samples; we perform tests and, of course, obtain all the necessary local and global approvals to make sure the system can go to our production facilities.

05



### Complete

Our work does not end with the perfect delivery of components and systems. We offer a comprehensive program to our global clients interlinking services ranging from maintenance and service contracts operator training and integrated logistics. Our customer service is available around the clock, offering support through Internet, telephone or our qualified, experienced people at your site. We aim to provide only the utmost in customer experience. Something you will tell your friends about.

# Ultrasonic Level Transmitter for Process Control



## G 2" connection

- Large display
- Simple setup and installation
- Remote tankside display available
- Measuring range up to 10 metres

General purpose non-contact level transmitter with chemically resistant PVDF antenna measures from 0.3 to 10 metres. Output is normally 4-20mA. Output with optional 3 A relays.

## Technical Data

|                                 |                                                                      |
|---------------------------------|----------------------------------------------------------------------|
| <b>Housing / Cover / Probe</b>  | PC / ABS / PVDF                                                      |
| <b>Display</b>                  | 8-digit LCD display                                                  |
| <b>Ambient temperature</b>      | -20 °C – +60 °C                                                      |
| <b>Voltage supply</b>           | 3-wire, 18 to 32 V DC (or 115/230 V AC)                              |
| <b>Current consumption max.</b> | 200 mA                                                               |
| <b>Electrical connections</b>   | 2 x M20 glands, or DIN plug                                          |
| <b>Outputs</b>                  | 4...20 mA                                                            |
| <b>Output Load max.</b>         | 1300 Ohms at 32 V DC, 550 Ohms at 18 V DC, 1100 Ohms at 115/230 V AC |
| <b>Dead zone</b>                | 0.3m                                                                 |
| <b>Measuring range</b>          | 30cm – 10m                                                           |
| <b>Beam angle</b>               | 8°                                                                   |
| <b>Accuracy</b>                 | ± 0.25% of the measurement range                                     |
| <b>Process pressure</b>         | 2 bar                                                                |
| <b>Ingress protection</b>       | IP65, IP67 (sensor)                                                  |

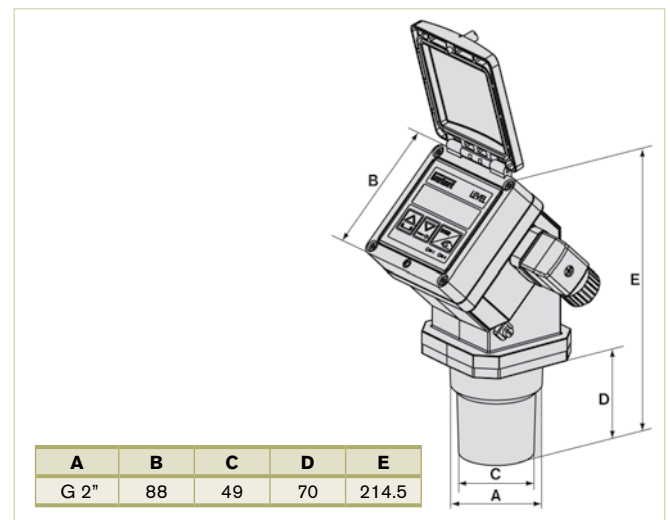
## Options

- 3 A Relay outputs
- Remote display
- Two wire version (8176)

## Ordering Chart

| Voltage     | Output            | Connection     | Item no. |
|-------------|-------------------|----------------|----------|
| 18-32V DC   | 4-20mA            | DIN plug       | 430 822  |
| 18-32V DC   | 4-20mA            | 2 x M20 glands | 430 823  |
| 18-32V DC   | 4-20mA + 2 relays | 2 x M20 glands | 430 824  |
| 115/230V AC | 4-20mA            | 2 x M20 glands | 430 825  |
| 115/230V AC | 4-20mA + 2 relays | 2 x M20 glands | 430 826  |

## Envelope Dimensions [mm] (see datasheet for details)





# Ultrasonic Level Transmitter for General Application

## G thread process connection

- Two-wire
- Reliable non-contact measurement
- HART configuration



Type 8176

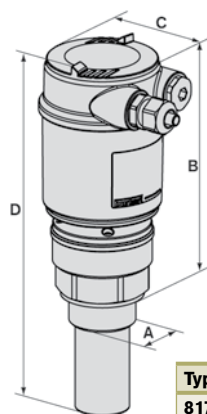
Type 8177

Ultrasonic level transmitters for non-contact measurement of process liquids and solids. Standard HART and 4-20mA HART compatible output.

## Technical Data

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| <b>Housing/Cover</b>             | PBT, Stainless steel 316L / PC                        |
| <b>Seal ring/Ground terminal</b> | NBR / Stainless steel 316Ti/316L (1.4571/1.4435)      |
| <b>Seal</b>                      | EPDM                                                  |
| <b>Transducer</b>                | PVDF                                                  |
| <b>Display</b>                   | LCD in full dot matrix                                |
| <b>Ambient temperature</b>       | -20 °C – +70 °C                                       |
| <b>Voltage supply</b>            | 2-wire, 14 to 36 V DC                                 |
| <b>Current consumption max.</b>  | 22 mA                                                 |
| <b>Electrical connections</b>    | Cable glands M20 x 1.5                                |
| <b>Outputs</b>                   | 4...20 mA/HART                                        |
| <b>Output Load max.</b>          | See datasheet                                         |
| <b>Measuring range:</b>          | 8176: up to 5m<br>8177: up to 8m                      |
| <b>Beam angle</b>                | 11°                                                   |
| <b>Accuracy</b>                  | < 0.2% or ± 4mm                                       |
| <b>Process temperature</b>       | -40 °C – +80 °C                                       |
| <b>Temperature coefficient</b>   | 0.06%/10K                                             |
| <b>Ingress protection</b>        | IP66/IP67, with M20 x 1.5 gland mounted and tightened |

## Envelope Dimensions [mm] (see datasheet for details)



| Type        | A        | B   | C    | D   |
|-------------|----------|-----|------|-----|
| <b>8176</b> | G 1 1/2" | 187 | 80.5 | 275 |
| <b>8177</b> | G 2"     | 190 | 80.5 | 274 |

## Options

- Ex versions (part numbers are shown, please see datasheets for details)

## Ordering Chart (versions with display)

| Type          | Process Connection | Range (liquids) | Range (solids) | Electrical Connection | Item no. |
|---------------|--------------------|-----------------|----------------|-----------------------|----------|
| 8176 Standard | 1 1/2" BSPM        | 0.25-5 m        | 0.25-2 m       | M20 cable gland       | 558 220  |
| 8176 Ex       | 1 1/2" BSPM        | 0.25-5 m        | 0.25-2 m       | M20 cable gland       | 558 222  |
| 8177 Standard | 2" BSPM            | 0.4-8 m         | 0.4-3.5 m      | M20 cable gland       | 558 224  |
| 8177 Ex       | 2" BSPM            | 0.4-8 m         | 0.4-3.5 m      | M20 cable gland       | 558 226  |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

# Microwave Level Transmitter for General Application



Type 8185



Type 8186

- For liquids and bulk materials
- Rod or cable versions
- Two-wire

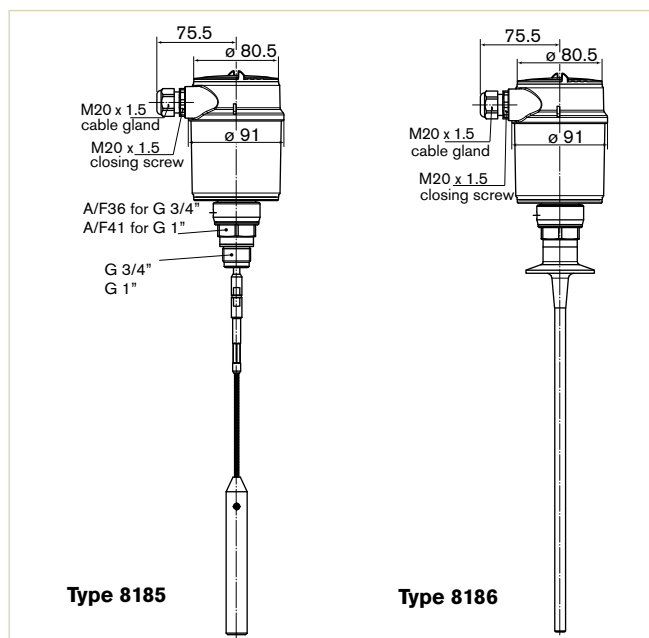
8185 / 8186

Guided radar level transmitter for aggressive media and high pressure. A sleek, compact stainless steel design incorporates a 2-wire HART transmitter which is easily PC configurable.

## Technical Data

|                                    |                                                                                                |
|------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Housing / Cover</b>             | PBT, Stainless steel 316L / PC                                                                 |
| <b>Seal ring / Ground terminal</b> | NBR / Stainless steel /316L                                                                    |
| <b>Conductor</b>                   | Stainless steel 1.4462                                                                         |
| <b>Display</b>                     | LCD in full dot matrix                                                                         |
| <b>Ambient temperature</b>         | -20 °C – +70 °C                                                                                |
| <b>Voltage supply</b>              | 2-wire, 14 to 36 V DC                                                                          |
| <b>Current consumption max.</b>    | 22 mA                                                                                          |
| <b>Electrical connections</b>      | Cable glands M20 x 1.5                                                                         |
| <b>Outputs</b>                     | 4...20 mA/HART                                                                                 |
| <b>Output Load max.</b>            | See datasheet                                                                                  |
| <b>Dead zone</b>                   | From top to probe: 80mm (150mm with Cable)<br>From bottom of the probe: 0mm (250mm with cable) |
| <b>Measuring range</b>             | 30cm to 4m with 8185 rod<br>1m to 32m with 8185 cable<br>0.08m to 4m with 8186                 |
| <b>Accuracy</b>                    | ± 3mm (See drawing in datasheet)                                                               |
| <b>Min. Dielectric</b>             | $\epsilon_r > 1.6$                                                                             |
| <b>Process temperature</b>         | -40 °C to +150 °C                                                                              |
| <b>Temperature coefficient</b>     | 0.06% /10K                                                                                     |
| <b>Ingress protection</b>          | IP66/IP67, with M20 x 1.5 gland mounted and tightened                                          |

## Envelope Dimensions [mm] (see datasheet for details)



## Options

- Ex versions (part numbers are shown, please see datasheets for details)
- Other hygienic fittings

## Ordering Chart

| Type                              | Location | Process Connection | Type  | Length | Electrical Connection | Item no. |
|-----------------------------------|----------|--------------------|-------|--------|-----------------------|----------|
| 8185                              | Standard | 3/4" BSPM          | Rod   | 1 m    | M20 cable gland       | 558 229  |
|                                   | Standard | 3/4" BSPM          | Rod   | 2 m    | M20 cable gland       | 558 233  |
|                                   | Standard | 3/4" BSPM          | Cable | 5 m    | M20 cable gland       | 558 241  |
|                                   | Standard | 3/4" BSPM          | Cable | 10 m   | M20 cable gland       | 558 245  |
|                                   | Standard | 1" BSPM            | Rod   | 1 m    | M20 cable gland       | 558 231  |
|                                   | Standard | 1" BSPM            | Rod   | 2 m    | M20 cable gland       | 558 235  |
|                                   | Standard | 1" BSPM            | Cable | 5 m    | M20 cable gland       | 558 243  |
|                                   | Standard | 1" BSPM            | Cable | 10 m   | M20 cable gland       | 558 247  |
| <b>Ex versions also available</b> |          |                    |       |        |                       |          |
| 8186                              | Standard | Clamp 2"           | Rod   | 1 m    | M20 cable gland       | 558 253  |
|                                   | Standard | Clamp 2"           | Rod   | 2 m    | M20 cable gland       | 558 255  |
|                                   | Ex       | Clamp 2"           | Rod   | 1 m    | M20 cable gland       | 558 257  |
|                                   | Ex       | Clamp 2"           | Rod   | 2 m    | M20 cable gland       | 558 259  |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

# Future good manufacturing practice

Our unique products provide the chance to enhance overall plant performance, make the very best of your space envelope, reduce and even eliminate dead space to optimise cleaning and ultimately achieve a higher product yield. We provide advantages during IQ, OQ and PQ and help you to stay ahead of the Process Analytical Technology field.



# Pressure transmitter / Switch / Controller



## Intelligent Pressure Measurement

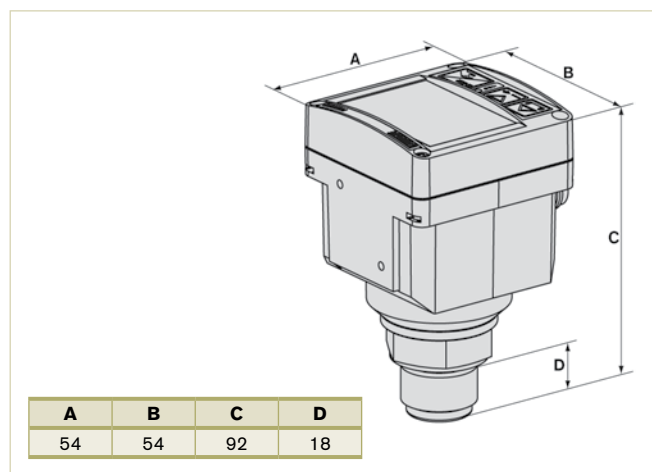
- Accurate, reliable pressure measurement and switch
- Switch for alarm or event logging
- Bar graph display for local monitoring
- Continuous or on/off control
- 2-wire transmitter

Programmable pressure sensor with switching and transmitting functions. It has a large display with bar graph and simple menu guided controls. Connection to the process with standard stainless steel connection and it can be set up with alarm, control or monitoring functions.

## Technical Data

|                                  |                                                                      |
|----------------------------------|----------------------------------------------------------------------|
| <b>Measuring range</b>           | To 50 bar                                                            |
| <b>Switching accuracy</b>        | ±1.5% FS                                                             |
| <b>Medium temperature</b>        | -20 °C – +100 °C (+100 °C for an ambient temperature of max. +40 °C) |
| <b>Repeatability</b>             | 0.25% FS                                                             |
| <b>Housing, cover</b>            | PC+20% glass fibre                                                   |
| <b>Sensor element</b>            | Ceramic                                                              |
| <b>Wetted parts</b>              | 316L stainless steel, ceramic / seal: FKM (EPDM optional)            |
| <b>Ambient temperature range</b> | 0 °C – +60 °C                                                        |
| <b>Ingress protection</b>        | IP65                                                                 |
| <b>Voltage supply</b>            | 12...30 V DC                                                         |
| <b>Protection</b>                | Reversed polarity of DC protected                                    |
| <b>Current consumption max.</b>  | 750 mA max. (with load - PNP output configuration)                   |
| <b>Electrical Protection</b>     | Short circuit protection                                             |
| <b>Max. cable length</b>         | 50m shielded                                                         |
| <b>Electrical connections</b>    | Cable plug<br>Multipin 5 pin, M12                                    |
| <b>Output</b>                    | Transistor output NPN and PNP<br>5...30 V DC, 700 mA                 |

Envelope Dimensions [mm] (see datasheet for details)



## Options

- Cable plug 2508,
- Outputs: Relay 3 A/250 or 3 A/30 V DC

## Ordering Chart (Transmitter)

| Pressure range | Electrical connection | Output                                 | Burst Pressure [bar] | Max. Pressure [bar] | Item no. |
|----------------|-----------------------|----------------------------------------|----------------------|---------------------|----------|
| 0-1            | M12 plug              | 4-20 mA + 2 NPN or 2 PNP <sup>1)</sup> | 4                    | 2                   | 557 934  |
| 0-2            | M12 plug              | 4-20 mA + 2 NPN or 2 PNP <sup>1)</sup> | 7                    | 4                   | 444 507  |
| 0-5            | M12 plug              | 4-20 mA + 2 NPN or 2 PNP <sup>1)</sup> | 12                   | 10                  | 444 506  |
| 0-10           | M12 plug              | 4-20 mA + 2 NPN or 2 PNP <sup>1)</sup> | 25                   | 20                  | 444 503  |
| 0-20           | M12 plug              | 4-20 mA + 2 NPN or 2 PNP <sup>1)</sup> | 50                   | 40                  | 444 504  |
| 0-50           | M12 plug              | 4-20 mA + 2 NPN or 2 PNP <sup>1)</sup> | 120                  | 100                 | 444 505  |

<sup>1)</sup> PNP standard, can be change to NPN with jumpers on electronic board

| Accessories for Type 8311                                     | Item no. |
|---------------------------------------------------------------|----------|
| M12 female cable connector with plastic threaded locking ring | 917 116  |
| 5 pin M12 female connector moulded on cable (2 m, shielded)   | 438 680  |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)



# Temperature Transmitter / Switch / Controller

8400

## Intelligent temperature measurement

- Wide choice of connections and outputs
- Switch for alarm or event logging
- Bar graph display for local monitoring
- Accurate measurement and switch
- Continuous on/off control
- 2-wire transmitter

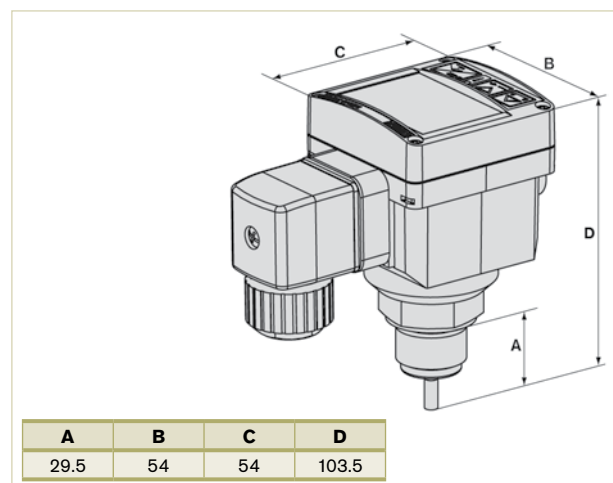


We offer a range of temperature control and measurement devices. Outputs are either Relay 700 mA transistor or 4 ... 20 mA, connections are G threads. The 8400 has a large LCD display.

## Technical Data 8400

|                                  |                                                                                                       |
|----------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Measuring range</b>           | -40 up to +125°C (-40 to 257°F)<br>(with ambient temperature between 0 and +40°C (-32 and 104°F))     |
| <b>Switching accuracy</b>        | ±0.5°C (0.9°F)(0 up to +80°C (32 to 176°F))<br>±1.5°C (2.7°F)(outside of 0 up to +80°C (32 to 176°F)) |
| <b>Repeatability</b>             | 0.40%                                                                                                 |
| <b>Housing material, cover</b>   | PC+20% glass fibre                                                                                    |
| <b>Sensor element</b>            | Pt100                                                                                                 |
| <b>Wetted parts (seal)</b>       | 316L stainless steel, FKM                                                                             |
| <b>Ambient temperature range</b> | -20 °C – +60 °C                                                                                       |
| <b>Ingress protection</b>        | IP65                                                                                                  |
| <b>Voltage supply</b>            | 12...30 V DC                                                                                          |
| <b>Protection</b>                | Reversed polarity of DC protected                                                                     |
| <b>Current consumption max.</b>  | 80 mA (no Load)                                                                                       |
| <b>Max. cable length</b>         | 100m shielded                                                                                         |
| <b>Electrical connections</b>    | Cable plug<br>Multipin 5 pin, M12                                                                     |
| <b>Output</b>                    | Transistor output NPN and PNP open collector 5...30 V DC, 700 mA                                      |

## Envelope Dimensions 8400 [mm] (see datasheet for details)



## Options

- 8400: Outputs : Relay 3 A/250 or 3 A/30 V DC

## Ordering Chart - 8400

| 8400 Sensor/Switch for sensor connection G 1/2 | Item no. |
|------------------------------------------------|----------|
| NPN and PNP M12 plug 5 pin                     | 436 501  |

| Accessory for ON/OFF Temperature Control System 8400        | Item no. |
|-------------------------------------------------------------|----------|
| 5 pin M12 female connector moulded on cable (2m., shielded) | 438 680  |

| More Versions                                                                                            | Item nos. |
|----------------------------------------------------------------------------------------------------------|-----------|
| Transmitter Version is available with 4 ... 20 mA output in 8 pin M12 (please see datasheet for details) | 444 696   |
| Relay version is available (please see datasheet for details)                                            | 436 503   |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

Making your life simpler, our new versatile 8619 transmitters and controllers save you time and space in your world of pH, ORP, conductivity and flow. With an eye on data integrity, process safety and ease of use this modular architecture can be easily customized to meet your most exacting requirements. The 8619 is the most flexible multi-parameter transmitter on the market and it's intuitive interface and it's look and feel are unparalleled. Perfect Bürkert innovation for your process world.





## pH/ORP Transmitter

- Beautiful process oriented design
- Accepts all standard pH probes
- Removable programming puck
- Data upload/download via puck

Please add fitting from page 85



pH transmitter with programmable outputs. pH and temperature output via single or dual analog 4-20 mA. Two transistor outputs are also included. Transmitters are engineered for a wide scope of measuring ranges and can be delivered in 2-wire or 3-wire configurations. Intelligent, integrated, beautiful design fits perfectly with an assortment of easily configured fittings.

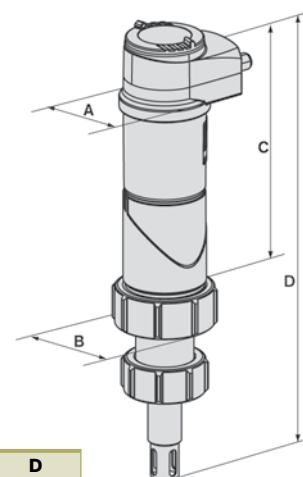
### Technical Data

|                                                        |                                                                                                                                                                          |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Measuring range</b>                                 | -2 ... 16pH                                                                                                                                                              |
| <b>Measuring error</b>                                 | ± 0.02pH                                                                                                                                                                 |
| <b>Temperature compensation</b>                        | Automatic via integrated temperature sensor                                                                                                                              |
| <b>Temperature Performance (via integrated Pt1000)</b> | Measuring range -40 °C - +130 °C<br>Measuring error ± 1 °C                                                                                                               |
| <b>Available Fitting Materials</b>                     | Stainless, PP, PVC                                                                                                                                                       |
| <b>Housing material</b>                                | Stainless steel, PPS, PC                                                                                                                                                 |
| <b>Insertion finger</b>                                | PVDF                                                                                                                                                                     |
| <b>Gasket seal</b>                                     | EPDM                                                                                                                                                                     |
| <b>Max. Fluid Temperature</b>                          | -20 °C - +130 °C (depending on fitting)                                                                                                                                  |
| <b>Max. fluid pressure</b>                             | PN 16                                                                                                                                                                    |
| <b>Ambient temperature</b>                             | -10 °C - +60 °C                                                                                                                                                          |
| <b>Storage temperature</b>                             | -10 °C - +60 °C (without probe)                                                                                                                                          |
| <b>Ingress protection</b>                              | IP65, IP67                                                                                                                                                               |
| <b>Voltage supply</b>                                  | 14...36 V DC for 2-wire models<br>12...36 V DC for 3-wire models                                                                                                         |
| <b>Protection</b>                                      | Reversed polarity of DC and peak protected                                                                                                                               |
| <b>Current consumption max.</b>                        | 1 A max. (with transistor load)                                                                                                                                          |
| <b>Electrical connections</b>                          | 1 x 5pin M12 male (2-wire)<br>1 x 5pin M12 male + 1 x 5 pin M12 female (3-wire)                                                                                          |
| <b>Outputs</b>                                         | 4-20 mA configurable temperature or pH<br>2 Transistors, configurable, open collector,<br>700 mA max., 0.5 A max. per transistor if the<br>2 transistor output are wired |
| <b>Output Load</b>                                     | < 1100 Ω at 36 V<br>< 610 Ω at 24 V<br>< 180 Ω at 14 V                                                                                                                   |

### Options

- Blind version (Neutrino)
- ORP: see datasheet 8202

### Envelope Dimensions [mm] (see datasheet for details)



| A  | B  | C   | D   |
|----|----|-----|-----|
| 75 | 75 | 210 | 338 |

### Ordering Chart

| Transmitter |                               |      |                     |          |
|-------------|-------------------------------|------|---------------------|----------|
| Wiring      | Outputs                       | Nut  | M12                 | Item no. |
| 2-wire      | 2 x transistors + 1 x 4-20 mA | PVC  | 5-pin male          | 559 630  |
| 2-wire      | 2 x transistors + 1 x 4-20 mA | PVDF | 5-pin male          | 559 632  |
| 3-wire      | 2 x transistors + 2 x 4-20 mA | PVC  | 5-pin male + female | 559 631  |
| 3-wire      | 2 x transistors + 2 x 4-20 mA | PVDF | 5-pin male + female | 559 633  |

| Electrodes (many more available from stock for other applications)           | Item no. |
|------------------------------------------------------------------------------|----------|
| pH electrode 0... 130 °C, 0... 6 bar,<br>pH 0... 14 - UNITRODE PLUS pH 120mm | 560 376  |
| pH electrode 0... 80 °C, 0... 6 bar,<br>pH 0... 14 - FLATRODE pH 120mm       | 561 025  |

| Accessories (for 8202 pH and 8222 conductivity) | Item no. |
|-------------------------------------------------|----------|
| display (programming puck) only                 | 559 168  |
| M12 5-pin female with 2 metre cable             | 438 680  |
| M12 5-pin female connector                      | 917 116  |
| M12 5-pin male with 2 metre cable               | 559 177  |
| M12 5-pin male connector                        | 560 946  |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

## Conductivity transmitter



- Beautiful process oriented design
- Intuitive menu structure
- Removable programming puck
- Data upload / download via puck

Please add fitting from page 85

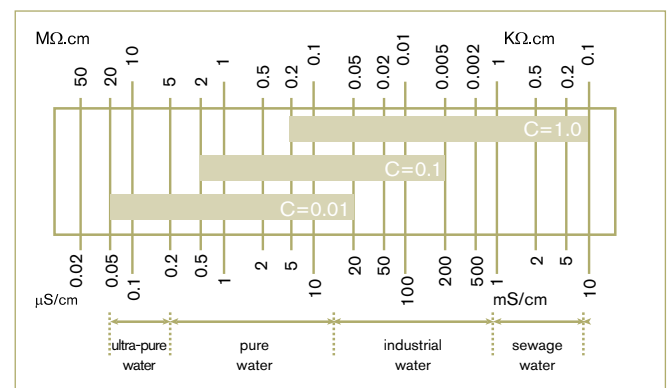
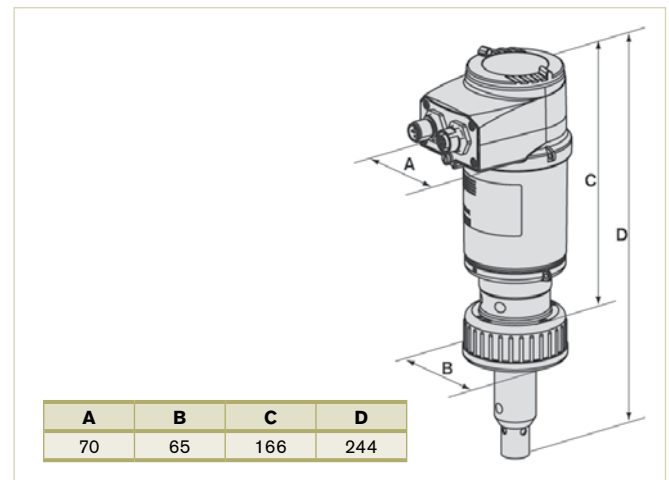
8222 Element

Conductivity transmitter with programmable outputs. Conductivity and temperature output via single or dual analog 4-20 mA. Two transistor outputs are also included. Transmitters are engineered for a wide scope of measuring ranges and can be delivered in 2-wire or 3-wire configurations. Intelligent, integrated, beautiful design fits perfectly with an assortment of easily configured fittings.

### Technical Data

|                                    |                                                                                                                                                                                    |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Measuring range Cond/T</b>      | 0.05 $\mu\text{S/cm}$ ... 10 $\text{mS/cm}$ , -40 °C                                                                                                                               |
| <b>Measuring error Cond/T</b>      | $\pm 3\%$ of measured value, $\pm 1$ °C                                                                                                                                            |
| <b>Temperature compensation</b>    | Automatic via integrated temperature sensor acc. to a predefined graph (NaCl or ultra-pure water)                                                                                  |
| <b>Available Fitting Materials</b> | Stainless, PP, PVC                                                                                                                                                                 |
| <b>Housing material</b>            | Stainless steel, PPS, PC (see datasheet S022)                                                                                                                                      |
| <b>Insertion finger</b>            | PVDF/St.St. for 0.01 or 0.1; graphite for 1.0                                                                                                                                      |
| <b>O-rings</b>                     | EPDM                                                                                                                                                                               |
| <b>Fluid Temperature</b>           | -20 °C - +100 °C (depending on fitting) (PVC 0 °C - +50 °C)                                                                                                                        |
| <b>Max. fluid pressure</b>         | 16 bar (depending on fitting)                                                                                                                                                      |
| <b>Ambient temperature</b>         | -10 °C - +60 °C                                                                                                                                                                    |
| <b>Storage temperature</b>         | -10 °C - +60 °C (without probe)                                                                                                                                                    |
| <b>Ingress protection</b>          | IP65, IP67                                                                                                                                                                         |
| <b>Voltage supply</b>              | 14...36 V DC for 2-wire models<br>12...36 V DC for 3-wire models                                                                                                                   |
| <b>Protection</b>                  | Reversed polarity of DC and peak protected                                                                                                                                         |
| <b>Outputs</b>                     | 4-20 mA configurable temperature or conductivity<br>2 Transistors, configurable, open collector,<br>700 mA max., 0.5 A max. per transistor if the<br>2 transistor output are wired |
| <b>Output Load</b>                 | < 1100 $\Omega$ at 36 V<br>< 610 $\Omega$ at 24 V<br>< 180 $\Omega$ at 14 V                                                                                                        |

### Envelope Dimensions [mm] (see datasheet for details)



The electrode is selected according to the measuring range and medium by using this table.

### Ordering Chart

| Nut material | Cell constant | Electrical connection               | Item No |
|--------------|---------------|-------------------------------------|---------|
| PVC          | C=0.01        | 5-pin M12 male and 5-pin M12 female | 559 619 |
|              | C=0.1         | 5-pin M12 male and 5-pin M12 female | 559 615 |
|              | C=1.0         | 5-pin M12 male and 5-pin M12 female | 559 611 |
| PVDF         | C=0.01        | 5-pin M12 male and 5-pin M12 female | 559 621 |
|              | C=0.1         | 5-pin M12 male and 5-pin M12 female | 559 617 |
|              | C=1.0         | 5-pin M12 male and 5-pin M12 female | 559 613 |

| Accessories                                         |         |
|-----------------------------------------------------|---------|
| Description                                         | Item No |
| Display/programming module                          | 559 168 |
| Electrical connector, 5-pin M12 male, plug only     | 560 946 |
| Electrical connector, 5-pin M12 male, 2m prewired   | 559 177 |
| Electrical connector, 5-pin M12 female, plug only   | 917 116 |
| Electrical connector, 5-pin M12 female, 5m prewired | 560 365 |
| Electrical connector, 5-pin M12 female, 2m prewired | 438 680 |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

# Universal Process Controller eCONTROL

8611

## 1/16 DIN Cut out Compact Universal controller

- For flow, pressure, pH, conductivity, level and temperature
- Continuous control: 2-point, 3-point, On/Off, ratio control
- Easy connectable to pneumatically or electrically driven systems



Thanks to its compact design, the universal 8611 controller is specially designed for compact control system applications. It is compatible with a wide range of proportional control valves and connects with an electro pneumatic servo-system for pneumatically actuated process control valves. The PI process controller is equipped with many additional functions. The actual process value can be supplied as one of three inputs; analogue 4-20 mA/0-10V, frequency or Pt100 signal directly to the universal controller. The process switching points can be set via a 4-20 mA/0-10V signal or with the keypad.

### Technical Data

| Materials                                                                                                                 |                           |
|---------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Housing/cover                                                                                                             | PC / PC +20% glass fibre  |
| Front panel foil/screws                                                                                                   | Polyester/Stainless steel |
| Multipin                                                                                                                  | CuZn, nickel-plated       |
| Display                                                                                                                   |                           |
| Dual-line 8-digit LCD with backlight                                                                                      |                           |
| Electrical connections                                                                                                    |                           |
| Multipin: M12-8pin, M8-4pin, M8-3pin                                                                                      |                           |
| Voltage supply cable                                                                                                      |                           |
| 0.5 mm <sup>2</sup> max. cross section, max. 100m, shielded                                                               |                           |
| Ambient temperature                                                                                                       |                           |
| 0°C - + 70°C                                                                                                              |                           |
| Relative humidity                                                                                                         |                           |
| ≤ 80%, without condensation                                                                                               |                           |
| Protection class                                                                                                          |                           |
| IP65                                                                                                                      |                           |
| Power supply                                                                                                              |                           |
| 24 V DC ± 10%, filtered and regulated                                                                                     |                           |
| Power consumption                                                                                                         |                           |
| Approx. 2 W<br>(without valve – without sensor input)                                                                     |                           |
| Input frequency range                                                                                                     |                           |
| 0,25 Hz – 1 kHz                                                                                                           |                           |
| Output for sensor supply                                                                                                  |                           |
| 24 V DC, max. 1 A                                                                                                         |                           |
| Controller modes                                                                                                          |                           |
| PI-Control, 2 point and 3 point, ratio control, including cascading<br>Up to 2 binary out with window and hysteresis mode |                           |
| Total load                                                                                                                |                           |
| max. 1.5 A                                                                                                                |                           |

### Ordering Chart

| Mounting position  | Sensor Input (extern)                                      | Controller outputs                     | Setpoint setting  | Process value output  | Binary In/Out             | UL Recognition | Item no. |
|--------------------|------------------------------------------------------------|----------------------------------------|-------------------|-----------------------|---------------------------|----------------|----------|
| Proportional valve | Temperature (Pt100)                                        | 1 x PWM                                | 4-20 mA<br>0-10 V | 4-20 mA<br>0-10 V     | 1 x Bin In<br>1 x Bin Out | –              | 204 642  |
|                    | Flow rate (frequency - NPN)                                | 1 x PWM                                | 4-20 mA<br>0-10 V | 4-20 mA<br>0-10 V     | 1 x Bin In<br>1 x Bin Out | –              | 204 639  |
|                    | All sensors with standard signal (4-20 mA / 0-10 V)        | 1 x PWM                                | 4-20 mA<br>0-10 V | 4-20 mA (*)<br>0-10 V | 1 x Bin In<br>1 x Bin Out | –              | 186 289  |
| Panel              | 2 x Frequency (NPN/PNP)<br>1 x 4-20 mA / 0-10 V<br>1 x RTD | 1 x PWM<br>2x PTM<br>1x 4-20 mA/0-10 V | 4-20 mA<br>0-10 V | 4 -20 mA<br>0-10 V    | 1 x Bin In<br>2 x Bin Out | No             | 210 206  |
|                    |                                                            |                                        |                   |                       |                           | UL-Recognized  | 562 655  |

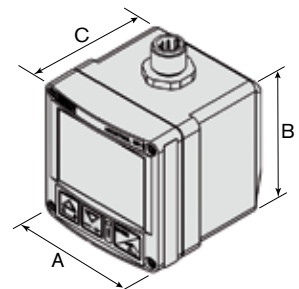
\* Either PWM/PTM or mA/0-10 V selectable as PI-control output. If 4-20 mA/0-10 V selected as PI-output, the process value isn't available.

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

### Envelope Dimensions [mm] (see datasheet for details)

#### Valve-mounting

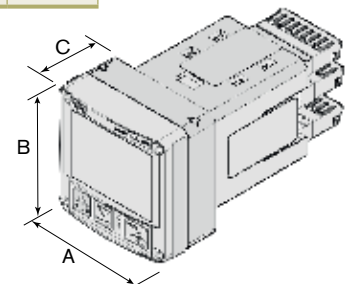
| A    | B    | C  |
|------|------|----|
| 54,2 | 75,5 | 61 |



#### Panel-mounting

| A    | B  | C  | D   |
|------|----|----|-----|
| 54,2 | 66 | 29 | 105 |

D: overall depth



### Options (see datasheet for details)

- Mounted on flow sensor fitting
- Mounted on rail or valve
- Accessories
- Spare parts

# Multi-channel, multi-functional transmitter/controller



## 1/4 DIN Panel Mount

- Flexible analytical and flow transmitter
- Unique flexibility
- Intuitive programming
- SD card for data logging + upload/download

8619

Bürkert's 8619 transmitter/controller is the latest addition to the process control program. The 1/4DIN panel mounted transmitter/controller incorporates a large backlit LCD display for adding up to 6 boards in a free mix for pH, conductivity incl. temperature, and output boards are connected to the digital inputs of the mainboard.

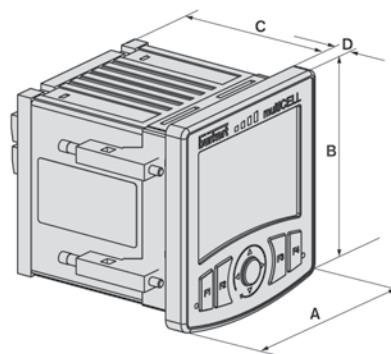
Optional software features can be simply activated when required by the application and an SD card is standard for data logging and up/down loading of parameterization files.

Special integrated dosing and control functions allow use in a large range of applications without the need additional devices.

## Technical Data

|                                      |                                                                          |
|--------------------------------------|--------------------------------------------------------------------------|
| <b>pH input</b>                      | -2.00...+16.00 (-600...+6000 mV)                                         |
| <b>ORP Redox input</b>               | -2000...+2000 mV                                                         |
| <b>Conductivity input</b>            | 0 µS/cm ... 2 S/cm                                                       |
| <b>pH/ORP/cond temp input</b>        | Pt100 / Pt1000                                                           |
| <b>Digital input</b>                 | Voltage: 5-36 V DC, 0.5 to 2500 Hz                                       |
| <b>Analog output</b>                 | 4 ... 20 mA<br>1100 Ω at 36 V DC<br>610 Ω at 24 V DC<br>100 Ω at 12 V DC |
| <b>Digital output</b>                | PNP/NPN max. 700 mA max. 2000 Hz                                         |
| <b>Cover, vision panel / Overlay</b> | PC / Silicone rubber                                                     |
| <b>Display</b>                       | Light blue backlit; 128 x 168 pixels                                     |
| <b>Languages</b>                     | English, French, German                                                  |
| <b>Mounting panel</b>                | 92mm x 92mm DIN cutout                                                   |
| <b>Ambient temperature range</b>     | -10 °C - +60 °C<br>Limited at 0 °C - +60 °C if memory card is used       |
| <b>Ingress protection</b>            | IP65 (front)                                                             |
| <b>Storage temperature</b>           | -20 °C - +60 °C                                                          |
| <b>Voltage supply</b>                | 12...36 V DC                                                             |
| <b>Protection</b>                    | Reversed polarity of DC and peak protected                               |
| <b>Power consumption</b>             | max. 1.5 VA (without modules)                                            |
| <b>Data logging</b>                  | SD Card                                                                  |
| <b>Data retention</b>                | EEPROM, Real time clock                                                  |

## Envelope Dimensions [mm] (see datasheet for details)



| A   | B   | C   | D  |
|-----|-----|-----|----|
| 102 | 107 | 101 | 11 |

## Ordering Chart

| Description                         | Digital Inputs | Raw signals            | RTD | Digital Outputs | Analog | Item no. |
|-------------------------------------|----------------|------------------------|-----|-----------------|--------|----------|
| BASE unit                           | 2              | —                      | —   | 2               | 2      | 560 205  |
| pH/ORP transmitter                  | 2              | 1 (pH/ORP)             | 1   | 2               | 2      | 560 200  |
| pH/ORP transmitter                  | 2              | 2 (pH/ORP)             | 2   | 4               | 4      | 560 202  |
| CONDUCTIVITY transmitter            | 2              | 1 (Cond.)              | 1   | 2               | 2      | 560 201  |
| CONDUCTIVITY transmitter            | 2              | 2 (Cond.)              | 2   | 4               | 4      | 560 203  |
| pH/ORP and CONDUCTIVITY transmitter | 2              | 1 (pH/ORP) + 1 (Cond.) | 2   | 4               | 4      | 560 204  |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

# Inductive Conductivity transmitter

- For tough, demanding conductivity applications
- Proven design for harsh chemicals
- PEEK version for CIP solutions

Please add fitting S020 from page 65

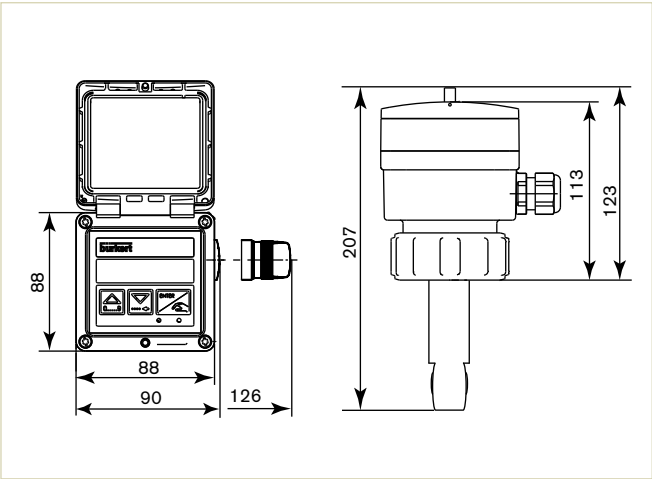


Inductive / toroidal conductivity transmitter with programmable outputs. The analog 4-20 mA output is proportional to conductivity. The unit can be equipped with two 3A relays. The unit has a very wide measuring range. Standard version is PVDF with PEEK version available for harsh CIP solutions.

## Technical Data

|                             |                                                                           |
|-----------------------------|---------------------------------------------------------------------------|
| Measuring range             | 100 µS/cm ... 2 S/cm                                                      |
| Measuring error             | ± 2% of reading                                                           |
| Temperature compensation    | Automatic via integrated temperature sensor                               |
| Available Fitting Materials | Brass, Stainless, PP, PVC, PVDF                                           |
| Housing material            | PC+20% glass fibre (PVDF sensor); PPA glass reinforced fibre (PP sensor)  |
| Insertion finger            | PVDF or PP + PEEK                                                         |
| O-rings                     | FKM or EPDM                                                               |
| Max. Fluid Temperature      | -15 °C - +120 °C (depending on fitting)                                   |
| Max. fluid pressure         | PN6 bar (also depending on fitting / temp)                                |
| Ambient temperature         | 0 °C - +60 °C                                                             |
| Storage temperature         | 0 °C - +60 °C                                                             |
| Ingress protection          | IP65                                                                      |
| Voltage supply              | 12...30 V DC or 115 V AC                                                  |
| Protection                  | Reversed polarity of DC and peak protected                                |
| Outputs                     | 4 ... 20 mA                                                               |
| Output Load                 | < 1000 Ω at 30 V<br>< 800 Ω at 24 V<br>< 450 Ω at 15 V<br>< 330 Ω at 12 V |

## Envelope Dimensions [mm] (see datasheet for details)



## Options

- Relay output: 2 relays, 3 A / 230 V
- PEEK insertion finger for harsh CIP conditions
- Material Test Report for stainless steel fittings

## Ordering Chart for inductive conductivity transmitter

| Material | Output            | Gasket | Electrical Connection | Item No |
|----------|-------------------|--------|-----------------------|---------|
| PP       | 4-20mA            | FKM    | DIN plug              | 558 768 |
|          | 4-20mA + 2 relays | FKM    | 2 x M20 glands        | 558 770 |
| PVDF     | 4-20mA            | FKM    | DIN plug              | 431 673 |
|          | 4-20mA + 2 relays | FKM    | 2 x M20 glands        | 431 679 |
| PEEK     | 4-20mA            | EPDM   | DIN plug              | 440 321 |
|          | 4-20mA + 2 relays | EPDM   | 2 x M20 glands        | 440 324 |

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)

# Fittings for 8202 & 8222 pH and Conductivity Sensors



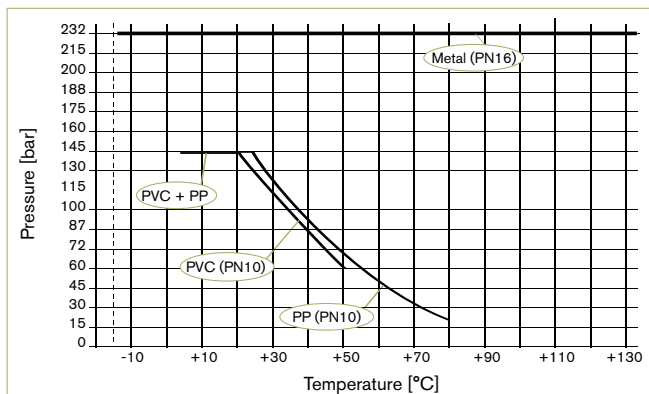
## 1" - 3" pipe and tank mount fittings

- Simple installation guaranteed
- Range of chemically compatible materials
- Modular concept for pH, ORP and conductivity

S022 Fittings

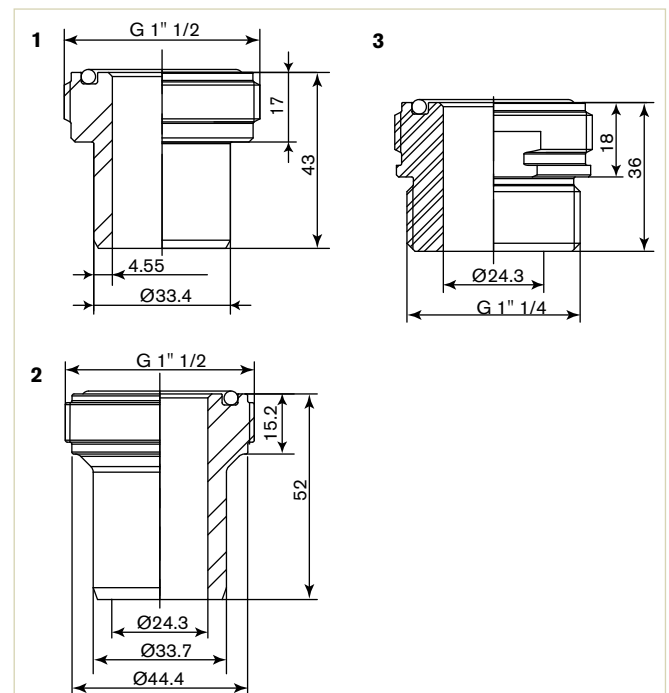
Fittings to connect the compact analytical transmitters to the media. Materials included are PVC-U, PP, Stainless steel, and PVC thread. For chemical resistance details please download our chemical resistance booklet from our website [www.burkert.com](http://www.burkert.com)

## Pressure / temperature chart



**Note:** Always take lowest max. medium temp. of both adapter and chosen ELEMENT transmitter.

## Envelope Dimensions [mm] (see datasheet for details)



## Adaptation overview

| Adaptor S022                                        | Piping systems | DN                                        | Description                                                                                  | Materials Body / Seal       | Type of Installation                       | Item no. |
|-----------------------------------------------------|----------------|-------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------|----------|
| <b>1</b><br><br>PVC-U, PP metric or Solvent adaptor |                | 32 up to 110 (06 up to 25 with reduction) | Solvent adaptor with G 1 1/2" external threaded for ELEMENT transmitter connection           | PVC-U / FKM, EPDM           | Solvent weld on 1"x1" to 3"x1" Tee fitting | 560 705  |
| <b>2</b><br><br>Stainless steel **                  |                | Respect recommendations of installation   | Welding adaptor with G 1 1/2" external threaded for ELEMENT transmitter connection           | Stainless steel / FKM, EPDM | To weld directly on pipe                   | 561 232  |
| <b>3</b><br><br>PVC-U, G or G 1 1/4" screw-on       |                | Respect recommendations of installation   | G 1 1/4" screw-on adaptor with G 1 1/2" external threaded for ELEMENT transmitter connection | PVC-U / FKM, EPDM           | To screw on tank or pipe                   | 560 707  |

\*\* Please ask for Material Test Reports (MTRs) at time of ordering if required.

Remark: please refer to corresponding datasheet for updated product information at [www.burkert.com](http://www.burkert.com)



## Room for Notes



**Bürkert Fluid Control Systems**

Brimscombe Port Business Park  
Brimscombe, Stroud  
GL5 2QQ  
United Kingdom

Tel. +44 (0)1453 731353

Fax +44 (0)1453 731343

[sales.uk@burkert.com](mailto:sales.uk@burkert.com)

[www.burkert.co.uk](http://www.burkert.co.uk)