



Type 8695 can be combined with...



Type 2100

Angle set valve



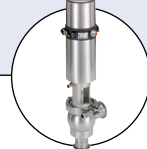
Type 2101

Globe valve



Type 2103

Diaphragm valve



Hygienic process
valves

Control head for decentralized automation of ELEMENT process valves

- Contact-free inductive valve position registration (Teach function)
- Coloured illuminated status display
- Internal control air routing
- Fieldbus AS-Interface or DeviceNet (option)
- With ATEX II cat. 3G/D approval

The control head Type 8695 is designed for decentralized automation of ELEMENT Type 21xx process valves with smaller nominal size. The registration of the valve position is done through a contact-free analog position sensor, which automatically recognises and saves the valve end position through the teach function when starting up. The integrated pilot valve controls single or double-acting actuators.

The design of the control unit and the actuator is specially designed for the requirements of a hygienic process environment and enables an internal control air channel without external tubings. Besides the electrical position feedback signal the status of the device is shown directly on the control head itself through coloured LEDs showing a clear visible valve position status. As an option a fieldbus interface, AS-Interface, can be chosen.

The housing is easy to clean and features proven IP protection and chemically resistant materials for use in hygienic processing in food, beverage and pharmaceutical industries. Combined with Bürkert ELEMENT actuators the unique pilot valve system enables a compressed air recycling that avoids actuator chambers contamination from the environment.

| Technical data | |
|-----------------------------------|--|
| Material | |
| Body | PPS, stainless steel |
| Cover | PC |
| Sealing | EPDM |
| Control medium | neutral gases, air, quality classes acc. to ISO 8573-1 |
| Dust concentration | Class 7 (< 40 µm particle size) |
| Particle density | Class 5 (< 10 mg/m ³) |
| Pressure condensation point | Class 3 (< -20 °C) |
| Oil concentration | Class X (< 25 mg/m ³) |
| Supply pressure | 0 to 7 bar ¹⁾ |
| Actuator system | for single or double-acting actuators |
| Actuator series 21xx | actuator Ø 50 mm |
| Pilot air ports | Threaded ports G 1/8 stainless steel or push-in connector (tube Ø 6 mm / 1/4") |
| Position feedback | Analog position sensor (contact-free) with autotune switch-point (PNP) (NPN on request) |
| Stroke range valve spindle | 2.5 to 32 mm |
| Ambient temperature | |
| with pilot valve | - 10 to + 55 °C |
| Without pilot valve | - 20 to + 60 °C |
| Installation | as required, preferably with actuator in upright position |
| Protection type | IP65/IP67 acc. to EN 60529, Type 4X acc. to NEMA 250 standard |
| Protection class | 3 acc. to DIN EN 61140 |
| Approvals | |
| ATEX | ⊕ II 3D Ex tc IIIC T135 °C Dc / ⊕ II 3G Ex ec IIC T4 Gc certificate; BVS 14 ATEX E 008 X |
| IECEX | Ex tc IIIC T135 °C Dc / Ex ec IIC T4 Gc certificate; IECEX BVS 14.0009 X |
| UL | cULus certificate; E238179 |
| Ignition protection | II 3D Ex tc IIIC T135 °C Dc II 3G Ex ec IIC T4 Gc |
| Fieldbus communication | AS-Interface, DeviceNet |
| Conformity | EMC directive 2014/30/EU |

¹⁾ The supply pressure has to be 0.5 - 1 bar above the minimum required pilot pressure for the valve actuator.

Technical data, continued

Without fieldbus communication

| Technical data | |
|---|--------------------------------------|
| Power supply | 24 V DC \pm 10% UL: NEC Class 2 |
| Residual ripple with DC | 10% |
| Power consumption | < 2 W |
| Electrical connection Multipole | M12, 8 pin |
| Output | max. 100 mA per output |

With fieldbus communication; AS-Interface

| Technical data | |
|---|--|
| Profile | S-B.A.E. (A/B slave, max. 62 slaves/master) Certificate No. 87301 acc. to version 3.0 |
| Power supply through bus line separated from bus signal | 29.5 to 31.6 V DC, UL: NEC Class 2 according to specification on request |
| Power consumption Units without external power supply Max. power consumption Power consumption in normal operation (after current reduction; Valve + 1 end position achieved) | 120 mA 90 mA |
| Output Contact rating Watch-dog function | \leq 1 W over AS-Interface integrated |
| Electrical connection | M12 4-pins |
| Programming data | see operating instructions |

With fieldbus communication; DeviceNet

| Technical data | |
|---|---|
| Profile | Group 2 Only Slave Device; MAC-ID and transfer rate adjustable through DIP-switch |
| Power supply | 11 to 25 V DC UL: NEC Class 2 |
| Power consumption | \leq 80 mA |
| Output Inrush current Hold current | \leq 50 mA \leq 30 mA |
| Input "0" "1" | 0 to 1.5 V \geq 8 V |
| Electrical connection | M12-Micro Style - flange connector 5-pins (configuration according DeviceNet specification) |

Ordering information for decentralized automation of On/Off ELEMENT valve systems

A decentralized, automated valve system consists of **control head Type 8695** and a **process valve ELEMENT Type 21xx**, actuator size 50 mm. The following information is necessary for the selection of a complete system:

- **Article no.** of the desired control head **Type 8695** (see ordering chart on p. 4)
- **Article no.** of the selected process valve **Type 21xx** (see separate datasheets, Type 2100, 2101, 2103)

You order two components and receive a complete assembled and certified valve.

Click on the orange box "More info." below... you will come to our website for the resp. product where you can download the datasheet.

Example for decentralised automation of On/Off ELEMENT valve systems

Control head Type 8695

Pneumatic process valves



More info.

Angle seat valve
Type 2100



More info.

Globe valve
Type 2101



More info.

Diaphragm valve
Type 2103



More info.

Third party
hygienic
process
valves

Valve system On/Off ELEMENT



Valve system
Type 8801-YE-M
2100 + 8695



Valve system
Type 8801-GC-M
2101 + 8695



Valve system
Type 8801-DF-M
2103 + 8695



**Customised attachment to
third party actuators***

*please see datasheet Type KK01 adapter kits for hygienic process valves or contact your sales office for related drawings or individual engineering support

Ordering chart for control head Type 8695 (other versions on request)

Control head for decentralized automation of ELEMENT On/Off process valves Type 21xx

| Electrical connection | Communication | Control function | Pilot air ports threaded ports | Article no. | |
|-----------------------|---------------|------------------|--------------------------------|-------------|-------------------|
| | | | | Standard | ATEX II cat. 3G/D |
| M12 multipole | AS-Interface | single-acting | G 1/8 | 227444 | 265075 |
| | | double-acting | G 1/8 | 227440 | 265069 |
| | S-B.A.E | single-acting | G 1/8 | 238724 | 265076 |
| | | double-acting | G 1/8 | 265081 | 265070 |
| | DeviceNet | single-acting | G 1/8 | 227446 | 265077 |
| | | double-acting | G 1/8 | 227442 | 265071 |
| | | | G 1/8 | 234246 | 265067 |
| | | | | | |

Note: All non-ATEX versions are UL approved.

i Further versions on request

- >** **Additional**
push-in pilot air ports (tube Ø 6 mm / 1/4")

Ordering chart adapter kit (has to be ordered separately)

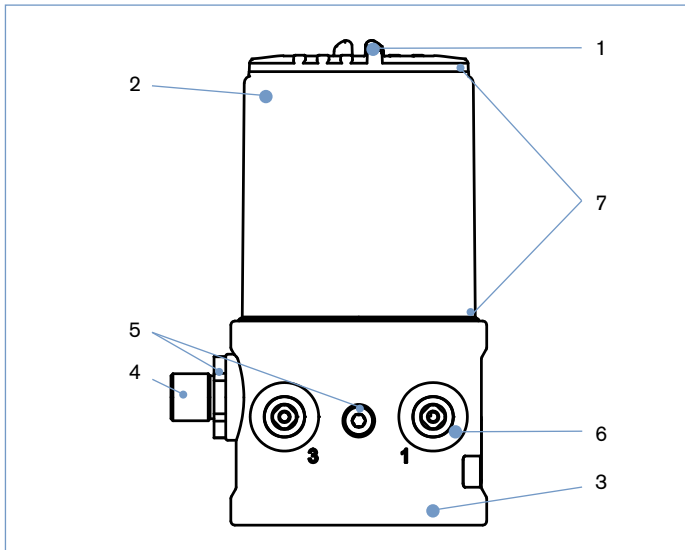
| Description | Actuator size | Control function | Article no. |
|--------------------------------|---------------|------------------|-------------|
| Adapter kit ELEMENT Types 21xx | Ø 50 mm | universal | 679918 |

For installation kits to 3rd party process valves please see datasheet [Type KK01](#) adapter kits for hygienic process valves or contact your sales office for related drawings or individual engineering support

Ordering chart accessories

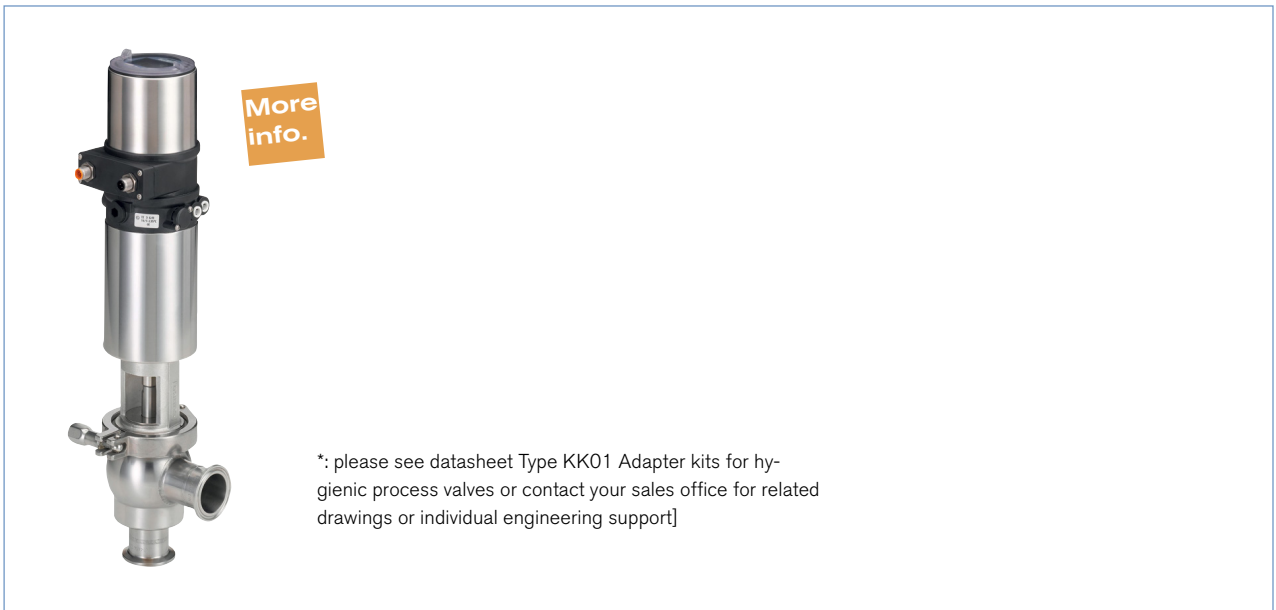
| Description | Article no. |
|---|-------------|
| M12 socket 8 pin with 5 m cable for power supply and input/output signals | 919267 |
| Silencer G 1/8 | 780779 |
| Silencer, push-in connector | 902662 |
| Sensor puck (spare part) | 677245 |

Materials



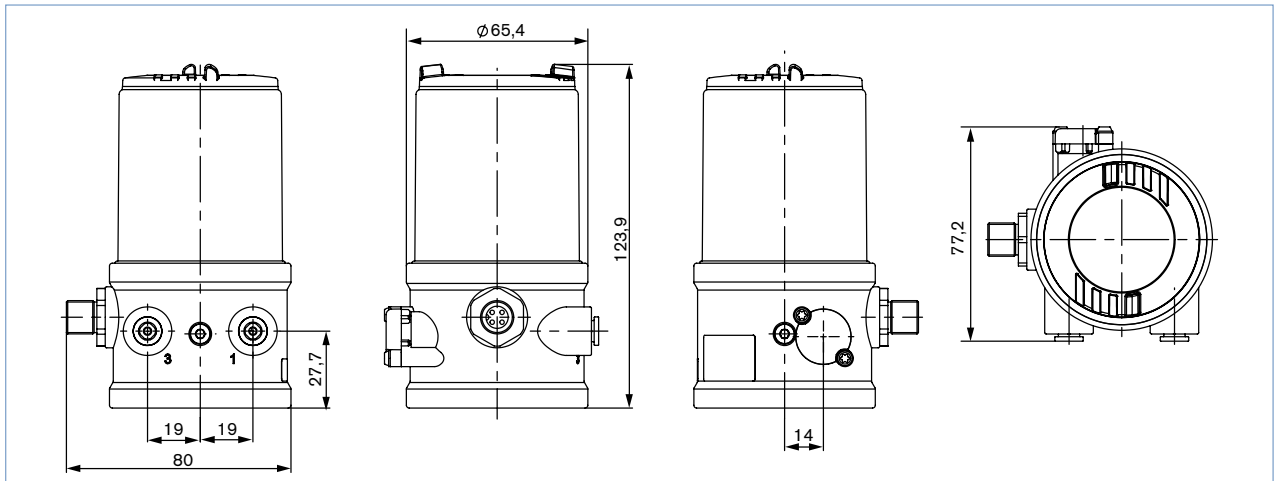
| | |
|-----------------------------|---------------------|
| 1 Cover | PC |
| 2 Body casing | Stainless steel |
| 3 BASIC body | PPS |
| 4 Plug M12 | Stainless steel |
| 5 Screws | Stainless steel |
| 6 Push-in connector | POM/stainless steel |
| Threaded ports G 1/8 | Stainless steel |
| 7 Sealing | EPDM |

Mounting on third party hygienic process valves



Dimensions [mm]

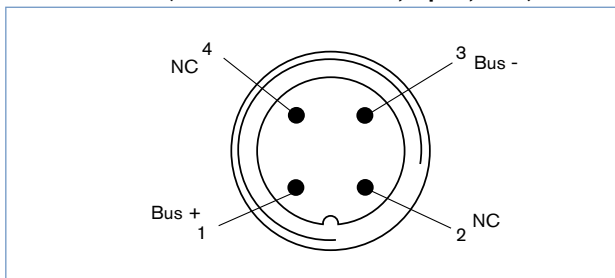
Mounting on process valve ELEMENT Type 21xx



Electrical installation

AS-Interface

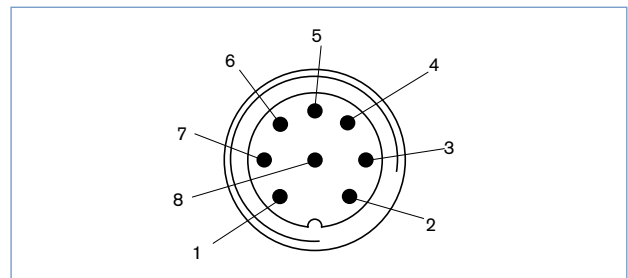
Multipole connection AS-Interface
 Bus connection (M12-circular connector, 4-pins, male)



| Pin | Description | Configuration |
|-----|-------------|-------------------------|
| 1 | Bus + | bus line AS-Interface + |
| 2 | NC | not assigned |
| 3 | Bus - | bus line AS-Interface - |
| 4 | NC | not assigned |

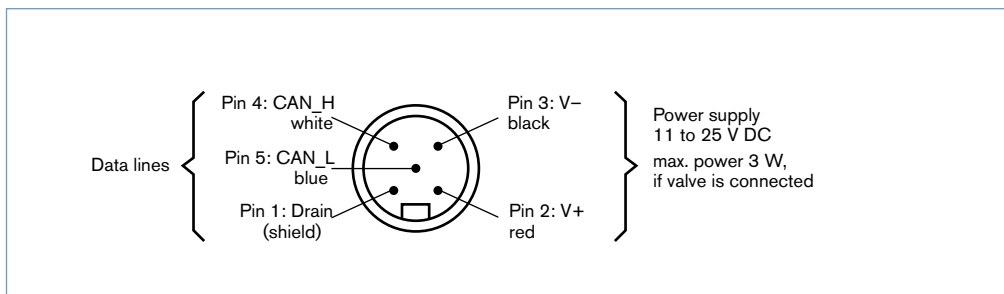
24 V DC

Multipole connection M12, 8-pins



| Pin | Description | Configuration |
|-----|---------------------|---------------|
| 1 | Limit switch 1 | IN 1 / TOP |
| 2 | Limit switch 2 | IN 2 / BOTTOM |
| 3 | Power supply | GND |
| 4 | Operating voltage + | 24 V DC |
| 5 | Valve control + | Valve + |
| 6 | Valve control - | Valve - |
| 7 | n.a. | not assigned |
| 8 | n.a. | not assigned |

With fieldbus communication DeviceNet



To find your nearest Bürkert facility, click on the orange box → www.burkert.com

In case of special application conditions,
 please consult for advice.

Subject to alteration.
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