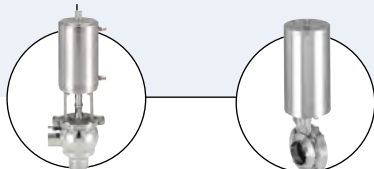


Control head for hygienic process valves



- Universal attachment for hygienic process valves
- Contactless position measurement system with 3 switching points (Teach-In function)
- Coloured status display
- Manual override operative with closed housing
- AS-Interface, DeviceNet, IO-Link

Type 8681 can be combined with...



Single seat valve
Double seat valve

Butterfly valve Ball
valve

The Type 8681 control head is optimised for decentralised automation of hygienic process valves. Thanks to its universal adapter it can be combined with all normal commercial butterfly valves, ball valves, single and double seated valves. With a decentralised automation concept, the control head takes over all pneumatic actuation, feedback and diagnostic functions up to and including field bus communication. The housing is easy to clean and features proven electrical IP protection and chemically resistant materials for use in hygienic processing in food, beverage and pharmaceutical industries. Depending on the process valve type, up to 3 pneumatic actuator chambers can be controlled independently from each other. The switching speeds of both movement directions can be set separately. A built-in check valve prevents incorrect switching of process valve actuator chambers which could result from back-pressure.

The process valve switching positions are detected by an inductive, analogue position sensor and reported to the PLC system. Up to 3 switching points can be adjusted automatically by a Teach-In function. Additionally a fourth switching position can be read in and fed back via an external inductive proximity switch. The coloured status display signals the particular process valve switching position or indicates a diagnostic function such as maintenance required status or fault conditions.

The pilot valves are equipped with a manual override. If the device housing is closed, the patented magnetically encoded manual override tool can be used to open the process valve from the exterior. Bus communication is available with AS-interface or DeviceNet.

Technical data	
Material	
Body	PA, PPO, VA
Cover	PC
Seal	CR, EPDM
Control medium	neutral gases, air DIN ISO 8573-1 (filter 5 µm recommended)
Dust concentration	Class 7 (<40 µm particle size)
Particle density	Class 7 (<10 mg/m³)
Pressure condensation point	Class 3 (<-20 °C)
Oil concentration	Class X (<25 mg/m³)
Supply pressure	2.5... 8 bar
Air capacity solenoid valve¹⁾ (supply and exhaust air per solenoid valve adjustable)	110 l _N /min - for pressurization and exhaust, lifting device 110 l _N /min - delivery condition 200 l _N /min - max. typical flow rate (throttle)
Pilot air ports	
Air inlet and outlet	G ¼
Service ports	G ⅜
Position sensor	
Outlet current	non-contact position sensor, 3 self-regulated switching points PNP (Teach-In function)
Stroke range	closer (normally open), PNP-output short-circuit proof, with clocking short-circuit protection
Resolution	max. 100 mA per feedback signal
Total error	0 to 80 mm ≤0.1 mm ±0.5 mm - when using a target for the dimensional drawing, material 1.4021 and a piston rod (Ø 22 mm, material 1.4301) (error refers to the reproducibility of the teach-position)
Ambient temperature	-10 to +55 °C +5 to +55 °C (ATEX Kat. 3D Ex tD A22 T135°C resp. 3G Ex nA IIC T4 Gc)
Installation	As required, preferably with actuator in upright position

¹⁾ Q_N-value acc. to the definition with decrease in pressure from 7 to 6 bar absolute with 20 °C.

Technical data, continued

Type of protection	IP 65/67 acc. to EN 60529
Protection class	3 (AS-Interface, 24 V DC, DeviceNet, IO-Link), 1 (120 V AC) acc. to DIN EN 61140
Digital communication	AS-Interface, DeviceNet, IO-Link
Approvals	
ATEX	dust ATEX category Ex tD 3D Ex tc IIIC T135°C Dc gas ATEX category Ex na 3G Ex nA IIC T4 Gc
FM	FM NI Class I Division 2
cULus	UL 61010-1 AND CSA C22.2 NO. 61010-1
EG-Conformity	EMV2004/108/EG; ATEX-policy 2014/34/UG

Technical data - Analogue version; 24 V DC	
Power supply	12 to 28 V DC
Residual ripple with DC	max. 10 %
Power consumption	<5 W (acc. to version and operating status, see instruction manual)
Valve control input (Y1 - Y3)	
Signal level - active	U >10 V, max. 24 V DC +10 %
Signal level - inactive	U <5 V
Impedance	U >30 kOhm
Outputs / binary feedback signals	
Design	S1 out - S4 out
Switchable output current	Normally open contact, PNP output short circuit proof, with self-clocking short circuit protection max. 100 mA per feedback signal
Output voltage - active	≥ (operating voltage -2 V)
Output voltage - inactive	max. 1 V im in unloaded state
Input / proximity switch	
(external initiator: S4 in)	
Operating voltage	Voltage present at control head -10 %
Current carrying capacity, sensor power supply	max. 90 mA short-circuit protection
Design	DC 2- and 3-conductor, NO or NC (factory setting NO), PNP output
Input current 1 signal	$I_{\text{Sensor}} >6.5 \text{ mA}$, limited internally to 10 mA
Input voltage 1 signal	$U_{\text{Sensor}} >10 \text{ V}$
Input current 0 signal	$I_{\text{Sensor}} <4 \text{ mA}$
Input voltage 0 signal	$U_{\text{Sensor}} <5 \text{ V}$
Electrical connection	
Multipole	M12 12 pin with cable 8 cm, 1 x M16 x 1.5 cable glands for external initiator (clamping range 3... 6 mm)
Cable gland	M16 x 1.5 (cable-Ø 5... 10 mm, screw terminals 0.14... 1.5 mm ²), 1 x M16 x 1.5 glands for external initiator (clamping range 3... 6 mm)

Technical data - Analogue version; 120 V AC	
Power supply	110 to 130 V AC / 50/60 Hz
Current consumption (stand by current)	10 mA to 120 V AC
Valve control inputs (Y1 - Y3)	
Signal level - active	U >60 V AC
Signal level - inactive	U <20 V AC
Impedance	>40 kOhm
Outputs / binary feedback signals	
Design	S1 out - S3 out
Switchable output current	Normally open contact, L switching, short-circuit protection via automatically resetting fuse max. 50 mA per feedback signal
Output voltage - active	≥ (operating voltage -2 V)
Output voltage - inactive	max. 1 V in unloaded state
Input / proximity switches	
(external initiator: S4 in)	
Operating voltage	Voltage present at control head - $U_{\text{Nominal}} = 120 \text{ V AC}$, 50/60 Hz
Current carrying capacity, sensor power supply	max. 0.7 A
Design	DC 2- and 3-conductor, NO contact, L switching
Input current 1 signal	$I_{\text{Sensor}} <2 \text{ mA}$
Electrical connection	
Cable gland	M16 x 1,5 (cable-Ø 5... 10 mm, screw terminals 0.4... 1.5 mm ²), 1 x M16 x 1.5 cable glands for external initiator (clamping range 3... 6 mm)

Technical data, continued

Technical data - AS-Interface	
Profil	S-7.A.E (A/B slave max. 62 slaves/master) S-7.F.F (max. 31 slaves/master)
Power supply above bus line from bus signal separated	according specification reversible (Jumper)
Power consumption equipment without external power supply Max. current consumption Current consumption in normal operation (acc. to reduction of electric current; Valve +1 end position achieved)	<160 mA (incl. external initiator with 30 mA) <150 mA 3 valves activated, 1 position feedback with LED display, no external initiator
Power consumption equipment with external power supply The power supply unit must include a secure disconnect in accordance with IEC 60364-4-41. It must conform to SELV standard. The ground potential may no have an earth connection.	19.2 V DC to 31.6 V DC ≤110 mA 24 V DC ≤150 mA type.
Output (from master perspective) / solenoid valves Typ. switching capacity Typ. continuous output Watchdog function Typ. pull-in current per solenoid valve Typ. holding current per solenoid valve Operating mode Valve type	0.9 W per solenoid valve for 200 ms after switch-on 0.6 W per solenoid valve for 200 ms after switch-on integrated 30 mA or 0.9 W / 200 ms (at 30.5 AS-i-voltage) 20 mA or 0.6 W / 200 ms (at 30.5 AS-i-voltage) Long-term operation (100 % operation) 6524
Input / proximity switches (external initiator: S4 in) Operating voltage Current carrying capacity, sensor power supply Design Input current 1 signal Input voltage 1 signal Input current 0 signal Input voltage 0 signal	AS interface voltage present at control head -10 % max. 30 mA short-circuit protection DC 2- and 3-conductor, NO or NC (factory setting NO), PNP output $I_{\text{Sensor}} > 6.5 \text{ mA}$, limited internally to 10 mA $U_{\text{Sensor}} > 10 \text{ V}$ $I_{\text{Sensor}} < 4 \text{ mA}$ $U_{\text{Sensor}} < 5 \text{ V}$
Electrical connection (AS-i flat cable clip at cable 80 cm as standard)	M12 4 pin at cable 8 cm (acc. 0.3 m cable length acc. to AS-Interface Specification) 1 x M16 x 1.5 cable glands for external initiator (clamping range 3... 6 mm). M12 4 pin at cable 80 cm (acc. 1.0 m cable length acc. to AS-Interface Specification) 1 x M16 x 1.5 cable glands for external initiator (clamping range 3... 6 mm).
Technical data - DeviceNet	
Power supply	11 to 24 V DC (acc. to specification)
Max. current consumption	<200 mA at 24 V DC (200 ms after switching on solenoid valves)
Input / proximity switches (external initiator: S4 in) Operating voltage Current carrying capacity, sensor power supply Design Input current 1 signal Input voltage 1 signal Input current 0 signal Input voltage 0 signal	via DeviceNet power supply -10 % Max. 30 mA DC 2- and 3-conductor, NO contact, PNP output $I_{\text{Sensor}} > 6.5 \text{ mA}$, limited internally to 10 mA $U_{\text{Sensor}} > 10 \text{ V}$ $I_{\text{Sensor}} < 4 \text{ mA}$ $U_{\text{Sensor}} < 5 \text{ V}$
Output (from master perspective) / solenoid valves Max. switching capacity Typ. continuous output Output reduction Current consumption per solenoid valve Operating mode Valve type	0.9 W per solenoid valve for 200 ms after switch-on 0.9 W per solenoid valve from 200 ms after switch-on integrated via DeviceNet interface electronics 50 mA at 12 V DC 25 mA at 24 V DC 22 mA at 28 V DC Long-term operation (100 % operation) 6524
Electrical connection Multipole	M12, 5 pin at cable 80 cm, 1 x M16 x 1.5 cable glands for external initiator (clamping range 3... 6 mm.)

Technical data, continued

Technical data - IO-Link	
IO-Link specification	V1.1.2
SIO-Mode	No
VendorID	0x78, 120
DeviceID	According to IODD file (Port Class A or Port Class B)
Transmission rate	230.4 kbit/s
Frame type in operate	TYPE_2_V
Min. Zykluszeit	2 ms
Data Storage	Yes
Max. cable length	20 m
Port Class	A or B
Operating voltage	18 up to 30 V DC (according specification)
Supply	via IO-Link
Max. current consumption	
Port Class A	<170 mA at 18 V, without external initiator at 3 solenoid valves
Port Class B	<65 mA at 18 V, without external initiator from Power 1; <100mA at 18V at 3 solenoid valves from Power 2
Current consumption in normal operation (acc. to reduction of electric current 3x solenoid valve +1 end position achieved)	
Port Class A	<155 mA at 18 V, without external initiator at 3 solenoid valves
Port Class B	<65 mA at 18 V, without external initiator from Power 1; <85 mA at 18 V at 3 solenoid valves from Power 2
Input (from master perspective Ext. Initiator S4 in) solenoid valves	
Operating voltage	Voltage to Power 1 -10%
Current carrying capacity, sensor power supply	Max. 30 mA, short-circuit protection
Design	DC 2- and 3-wire, (NO), PNP-Output
Input current 1 signal	$I_{\text{Sensor}} > 6.5 \text{ mA}$, internally limited to 10 mA
Input voltage 1 signal	$U_{\text{Sensor}} > 10 \text{ V}$
Input current 0 signal	$I_{\text{Sensor}} < 4 \text{ mA}$
Input voltage 0 signal	$U_{\text{Sensor}} < 5 \text{ V}$
Output (from master perspective) solenoid valves	
Max. switching capacity	0.9W (per solenoid valve)
Typ. continuous output	0.6W (per solenoid valve)
Pull-in current	40mA resp. 0.9W / 200ms (with nominal voltage 24V)
Holding current	25mA resp. 0.6W (with nominal voltage 24V)
Operating mode	Continuous operation (100 % ED)
Electrical connection	
Multipole	M12, 4-pin (IO-Link, Port Class A) M12, 5-pin (IO-Link, Port Class B)
Cable gland	M16x1.5 (Clamping range 5...10 mm, screw terminals 0.14...1.5 mm ²) 1x Cable gland M16x1.5 (Clamping range 3...6 mm, screw terminals 0.14...1.5 mm ²) for external initiator

Technische Daten, Fortsetzung

Bit configuration chart

Databit	D3	D2	D1	D0
Input	External initiator S4	Position 3	Position 2	Position 1
Output	not configured	solenoid valve 3	solenoid valve 2	solenoid valve 1
Parameterbit	D3	D2	D1	D0
Output	not configured	not configured	not configured	not configured

Programming data

Databit	Programming data with 62 slaves AS-Interface - Device for A/B-Slave- adressing (Standard device)	Programming data with 31 Slaves AS-Interface (optional)
E/A - configuration	7 hex (4 Inputs / 4 Outputs) see bit configuration chart	7 hex (4 Inputs / 4 Outputs) see bit configuration chart
ID-Code	A hex	F hex
combinative ID-code 1	7 hex	(F hex)
combinative ID-code 2	E hex	(F hex)
Profile	S-7.A.E	S-7.F.F

Function overview of control head Type 8681

Function	Version					
	24 V DC	120 V AC	AS-Interface Standard-Slave	AS-Interface A/B-Slave	IO-Link	Device-Net
Basic functions						
Teach function of the position measuring system for 3 definable teach points (S1, S2, S3)*	x	x	x	x	x	x
Manual override solenoid valves (mechanical)	x	x	x	x	x	x
Manual override, magnetic (for solenoid valve MV1 = 2/A1)	x	x	x	x	x	x
Position feedback process valve OPEN/CLOSED**	x	x	x	x	x	x
Feedback signal current valve position (intermediate position) in mm					x***	x
Optical position feedback of teach points (S1, S2, S3) and S4*	x	x	x	x	x	x
Change of the colours of the optical position feedback possible (LED in 3 colours: green, yellow, red)	x	x	x	x	x	x
Selection of different LED display modes					x	
LED status display / Status LEDs (on the electronic module)			x	x	x	x
Locating function					x	
büS communication interface (for Bürkert COMMUNICATOR)					x	
Diagnosis						
Counter switching cycles of solenoid valves MV1 ... 3 with definable limit value	x	x	x	x	x	x
Counter operating hours with definable limit value	x	x	x	x	x	x
Maintenance/service notification (feedback when selected limit values are exceeded)	x	x	x	x	x	x
Active diagnostic messages (via Bürkert COMMUNICATOR)					x	
Device reset (to reset counter values)	x	x	x	x	x	x
Feedback Teach error	x	x	x	x	x	x
Feedback overtemperature					x	
Feedback communication error			x	x	x	x
Tolerance band of end position detection					x	
Tolerance for switching time overrun					x	
Error detection if the setpoint position is not reached (end positions not reached)					x	
Detection of undervoltage and overvoltage of the power supply					x	
Activate maintenance function					x	
Tolerance band of end position detection	x	x	x	x	x	x
Log function for error cases (via Bürkert COMMUNICATOR)						
Parameterisation						
Parameterisation via PC-Tool (service interface on electronic module)	x	x	x	x		x
Deactivate/activate safety position in case of bus error			x	x	x	x
Fail-safe positions are defined in the event of power and compressed air failure	x	x	x	x	x	x
Deactivation/activation of the magnetic manual override	x	x	x	x	x	x
Deactivation of local operation (Lock function)					x	
Factory reset function (reset to factory setting)	x	x	x	x	x	x

*S1 - mostly lower valve position (valve completely closed)

S2 - mostly upper valve position (valve fully open)

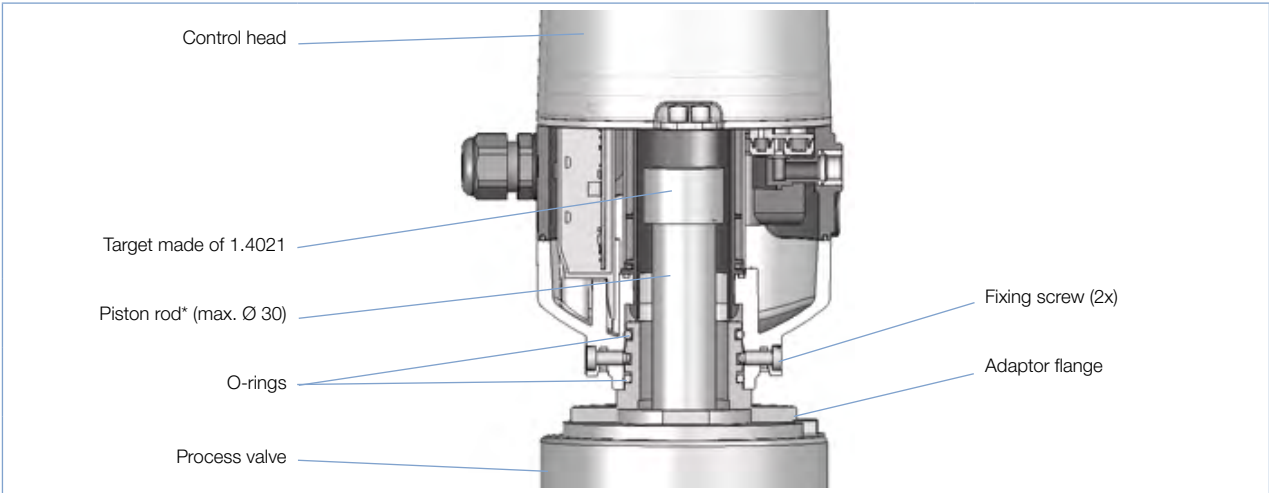
S3 - mostly specific intermediate position (e.g. upper cycle stroke for double-seat valves)

S4 - external feedback/initiator (e.g. lower cycle stroke for double-seat valves)

**OPEN/CLOSED via S1/S2 / intermediate position via S3 / external feedback/initiator via S4

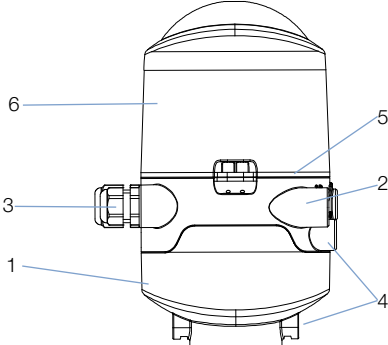
***Specification for IO-Link instead of in mm 0.1*mm

Flange for process valve



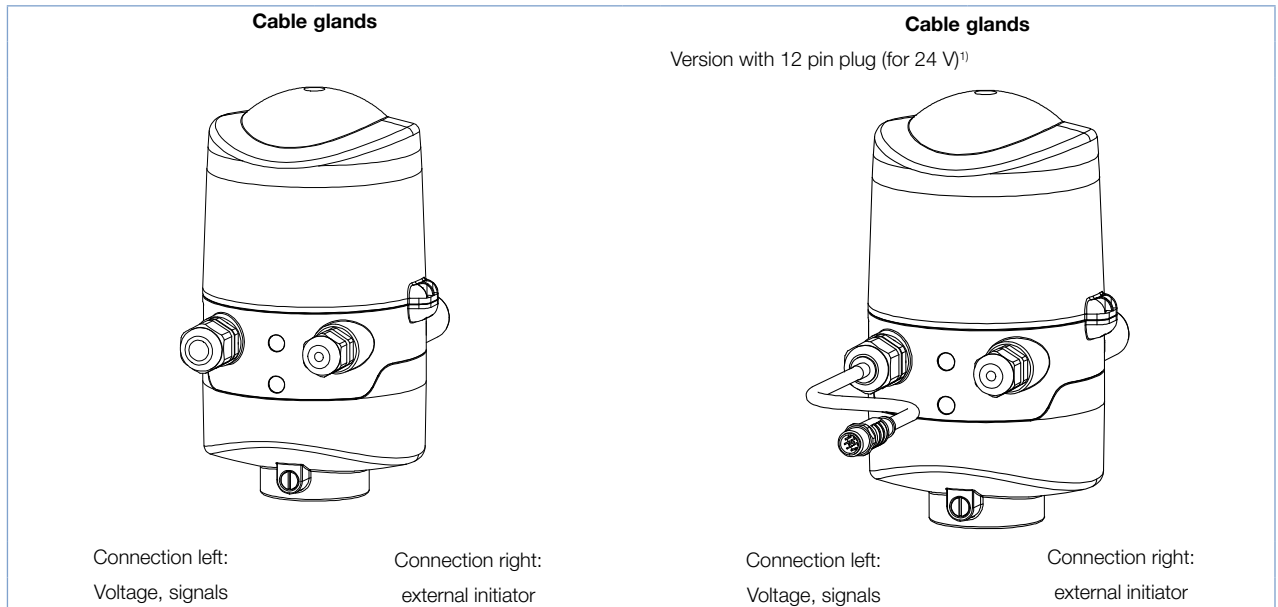
* Target and piston should not be made of ferromagnetic or material with high electrical conductivity (e.g. copper, aluminium). Stainless steel without ferromagnetic properties such as 1.4404 are suitable (if necessary verify after handling).

Materials

	1	Housing lower part	PPO
	2	Fluid part	PPO
	3	Cable glands	PA
	4	Screws/threaded ports	Stainless steel
	5	Seal	EPDM, CR
	6	Cover	PC

Connections

Without fieldbus communication 24 V DC

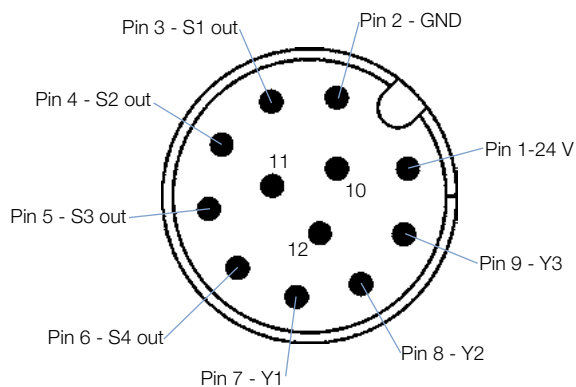


¹⁾ M12-plug acc. to IEC 61076-2-101, 12 pin with cable 8 cm

Multipole connection M12, 12-pin

Input and output signals to the higher-level control system (SPS):

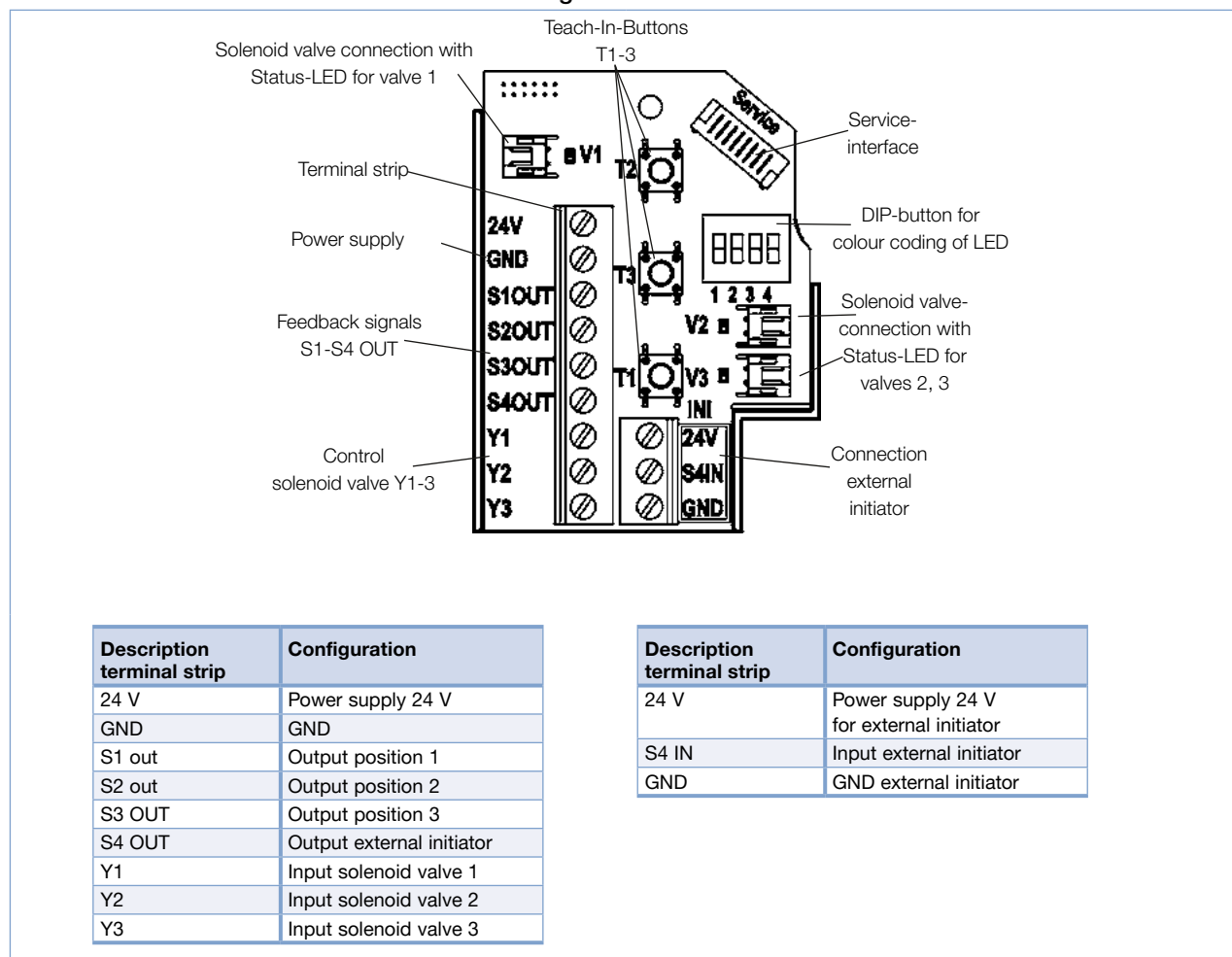
12-pin circular plug-in connector M12 x 1.0 (acc. to IEC 61076-2-101)



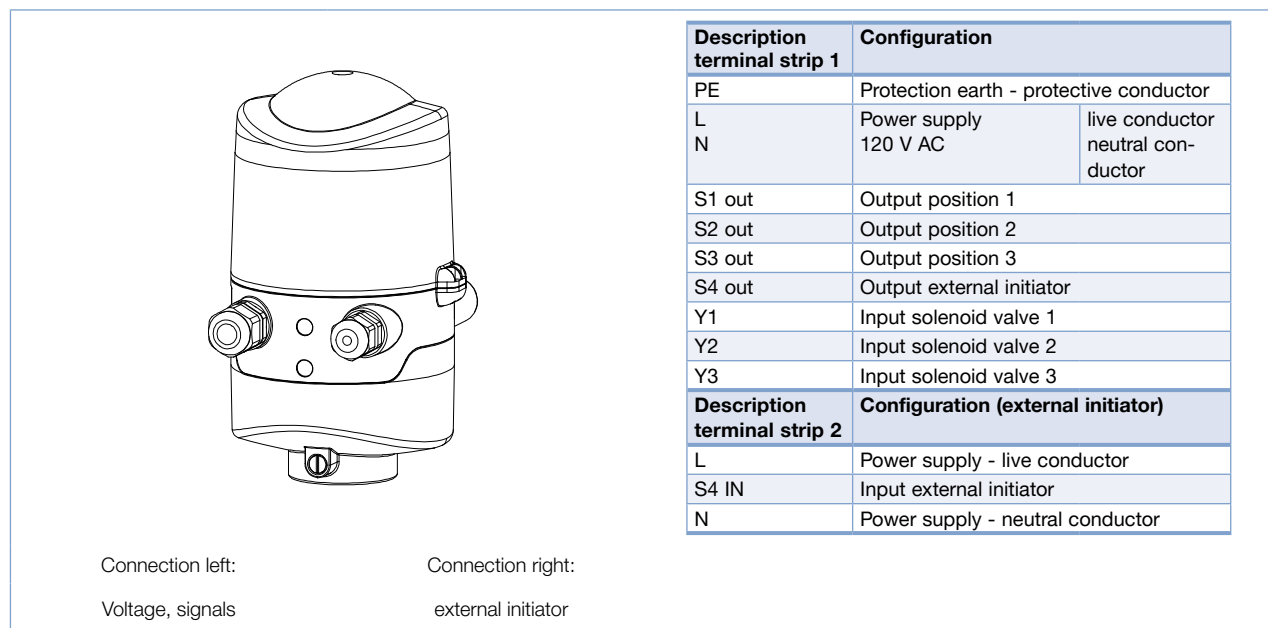
Pin	Description	Configuration
1	24 V	Power supply 24 V
2	GND	GND
3	S1 out	Output position S1
4	S2 out	Output position S2
5	S3 out	Output position S3
6	S4 out	Output external initiator S4
7	Y1	Input solenoid valve 1
8	Y2	Input solenoid valve 2
9	Y3	Input solenoid valve 3
10		not configured
11		not configured
12		not configured

Connections, Continued

Without Fieldbus communication 24 V DC cable glands



Without fieldbus communication 120 V AC

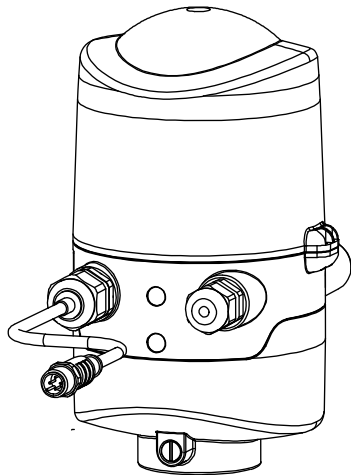


Connections, continued

With fieldbus communication AS-Interface

with multipole connection¹⁾

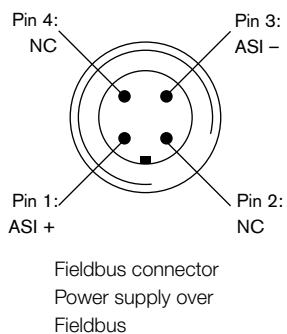
(M12-plug acc. to IEC 61076-2-101, 4-pin) an 8 cm cable



Connection left:
AS-Interface

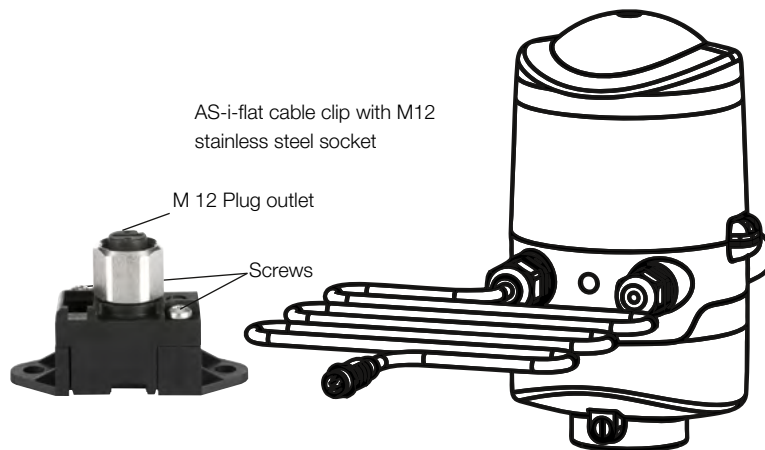
Connection right:
external initiator

¹⁾ on request



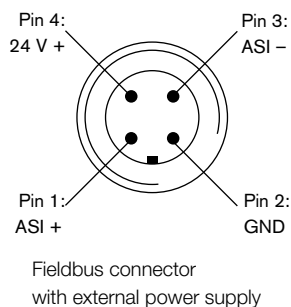
with multipole connection

(M12-plug acc. to IEC 61076-2-101, 4 pin) with mounted AS-i-flat cable clip at cable 80 cm cable



Connection left:
AS-Interface

Connection right:
external initiator

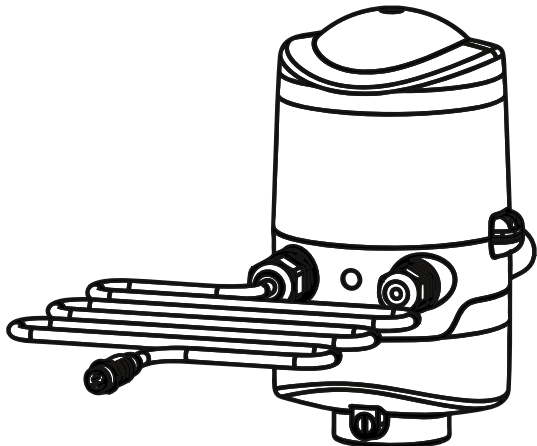


Pin	Configuration (Power supply over Fieldbus)	Configuration (external power supply)	Wire colour
1	AS-Interface - AS-i +	AS-Interface - AS-i +	brown
2	not configured	GND	white
3	AS-Interface - AS-i -	AS-Interface - AS-i -	blue
4	not configured	24 V +	black

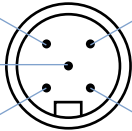
Power supply of valves over Fieldbus	External power supply of valves
Power Valve 24V S4IN GND ASI Ext. Jumper	Power Valve 24V S4IN GND ASI Ext. Jumper

Connections, continued

With fieldbus communication DeviceNet



View of plug from the front onto the pins



Pin	Signal	Wire colour
1	Drain	shielding
2	V+	red
3	V-	black
4	CAN_H	white
5	CAN_L	blue

Connection left:

DeviceNet

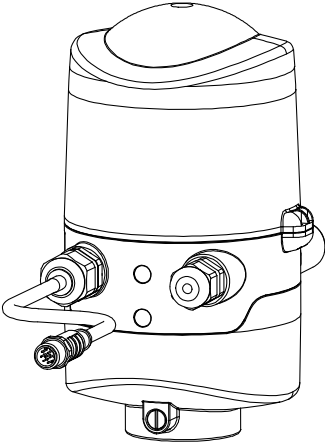
Connection right:

external initiator

With digital communication IO-Link, multipole and cable gland

Multipole

M12-plug acc. to IEC 61076-2-101, 4-pol (Port Class A) or 5-pin (Port Class B) and cable 15 cm



Connection left:

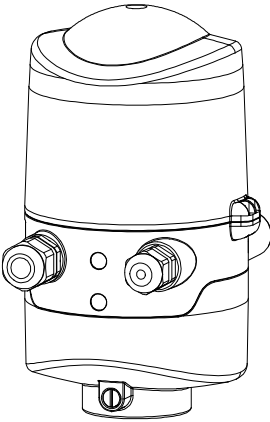
Connection right:

Voltage, signals (IO-Link-connection)

external initiator

Cable gland

M16 x 1,5 (SW22)



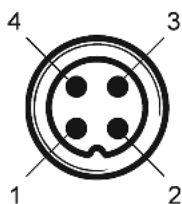
Connection left:

Connection right:

Voltage, signals (IO-Link-connection)

external initiator

Pin assignment M12 plug, 4-pin, Port Class A

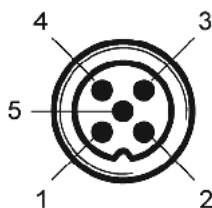


Pin	Description	Configuration (IO-Link-Mode)	Wire colour
1	L+	24 V DC	brown
2	DIO / 2L+	not assigned	(white)
3	L-	0 V (GND)	blue
4	C/Q	IO-Link	black

Pin assignment for Port Class B follows on next page

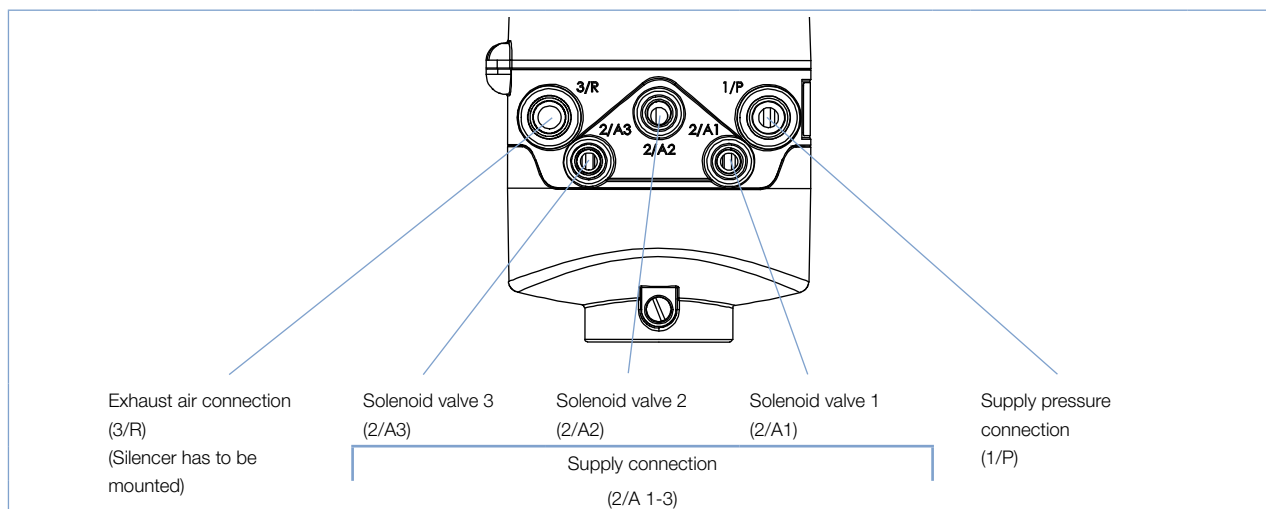
With digital communication IO-Link, multipole and cable gland, continued

Pin assignment M12 plug, 5-pin, Port Class B



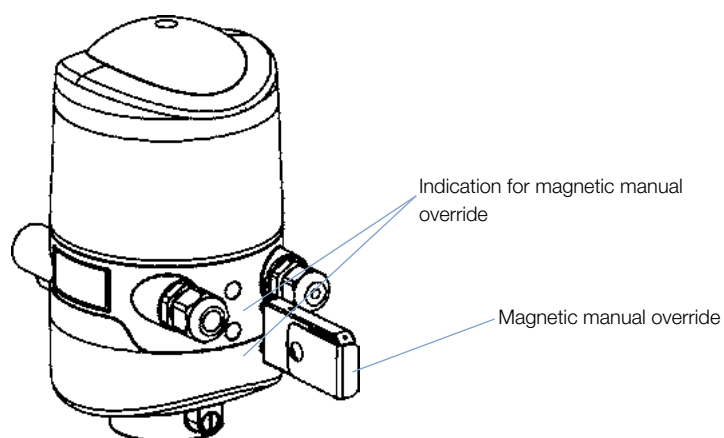
Pin	Description	Configuration (IO-Link-Mode)	Wire colour
1	L+	24 V DC (Power 1)	brown
2	DIO / 2L+	24 V DC (Power 2)	white
3	L-	0 V (GND - Power 1)	blue
4	C/Q	IO-Link	black
5	2M	0 V (GND - Power 2)	grey or yellow/green

Pneumatic connection



Magnetic manual override

Activation / De-Activation solenoid valve 1 (process valve maintenance)



Version	Article no.
Magnetic manual override	196490

8681 Control head

bürkert

Ordering chart control head Type 8681 (other versions on request)

Communi- cation	Power supply	Connection	ATEX Zone 2/22 cat. 3	FM NI Class I Division 2	cULus	Number of solenoid valves	Feedback	Article no.
Analogue	12... 28 V DC	Cable glands	-	-	-	0	3 int. +1 ext.	196410
			-	-	-	1	3 int. +1 ext.	196411
			-	-	-	2	3 int. +1 ext.	196412
			-	-	-	3	3 int. +1 ext.	196413
			Yes	-	-	1	3 int. +1 ext.	196415
	12... 28 V DC	M12, 12-pin, cable 8 cm	-	-	-	0	3 int. +1 ext.	196420
			-	-	-	1	3 int. +1 ext.	196421
			-	-	-	2	3 int. +1 ext.	196422
			-	-	-	3	3 int. +1 ext.	196423
			Yes	-	-	1	3 int. +1 ext.	196425
	120 V AC	Cable glands	-	-	-	0	3 int. +1 ext.	196470
			-	-	-	1	3 int. +1 ext.	196471
			-	-	-	2	3 int. +1 ext.	196472
			-	-	-	3	3 int. +1 ext.	196473
			Yes	-	-	1	3 int. +1 ext.	196475
AS-Interface (62 Slaves)	29.5... 31.6 V DC	Version with AS-i flat cable clip and cable 80 cm	-	-	-	0	3 int. +1 ext.	196430
			-	-	-	1	3 int. +1 ext.	196431
			-	-	-	2	3 int. +1 ext.	196432
			-	-	-	3	3 int. +1 ext.	196433
			Yes	-	-	1	3 int. +1 ext.	196435
DeviceNet	via Bus	M12, 5-pin, cable 80 cm	-	-	-	0	3 int. +1 ext.	196450
			-	-	-	1	3 int. +1 ext.	196451
			-	-	-	2	3 int. +1 ext.	196452
			-	-	-	3	3 int. +1 ext.	196453
			Yes	-	-	1	3 int. +1 ext.	196455
IO-Link	18 ... 30 V DC (according specifi- cation)	Multipole M12, 5-pin(Port Class B) with 15 cm cable	-	-	-	0	3 int. +1 ext.	359308
			-	-	-	1	3 int. +1 ext.	358577
			-	-	-	2	3 int. +1 ext.	359309
			-	-	-	3	3 int. +1 ext.	355009
			Yes	-	-	0	3 int. +1 ext.	359322
			Yes	-	-	1	3 int. +1 ext.	359323
			Yes	-	-	2	3 int. +1 ext.	359324
			Yes	-	-	3	3 int. +1 ext.	359325
		Multipole 4-pin (Port Class A) with 15 cm cable	-	-	-	0	3 int. +1 ext.	359167
			-	-	-	1	3 int. +1 ext.	358578
			-	-	-	2	3 int. +1 ext.	359258
			-	-	-	3	3 int. +1 ext.	358579
			Yes	-	-	0	3 int. +1 ext.	359318
			Yes	-	-	1	3 int. +1 ext.	359319
			Yes	-	-	2	3 int. +1 ext.	359320
			Yes	-	-	3	3 int. +1 ext.	359321

Ordering chart control head Type 8681, continued (other versions on request)

FM/UL version								
Analogue	12...28 V DC	Cable glands	-	Yes	-	0	3 int. + 1 ext.	267358 
			-	Yes	-	1	3 int. + 1 ext.	261483 
			-	Yes	-	3	3 int. + 1 ext.	261484 
			-	-	Yes	1	3 int. + 1 ext.	281497 
			-	-	Yes	3	3 int. + 1 ext.	281498 
AS-Interface (62 Slaves)	29.5...31.6 V DC	Cable glands	-	Yes	-	1	3 int. + 1 ext.	261485 
			-	Yes	-	2	3 int. + 1 ext.	268730 
			-	Yes	-	3	3 int. + 1 ext.	261486 
			-	-	Yes	1	3 int. + 1 ext.	329396 
			-	-	Yes	3	3 int. + 1 ext.	329397 
DeviceNet	via Bus	Cable glands	-	Yes	-	1	3 int. + 1 ext.	261487 
			-	Yes	-	3	3 int. + 1 ext.	261488 
		Multipole M12, 5-pin, cable 80 cm	-	-	Yes	1	3 int. + 1 ext.	281501 
			-	-	Yes	3	3 int. + 1 ext.	281502 

FM IO-Link available on request



Further versions on request



Additional

AS-Interface: connection M12 4 pin cable 8 cm
AS-Interface (31 Slaves)

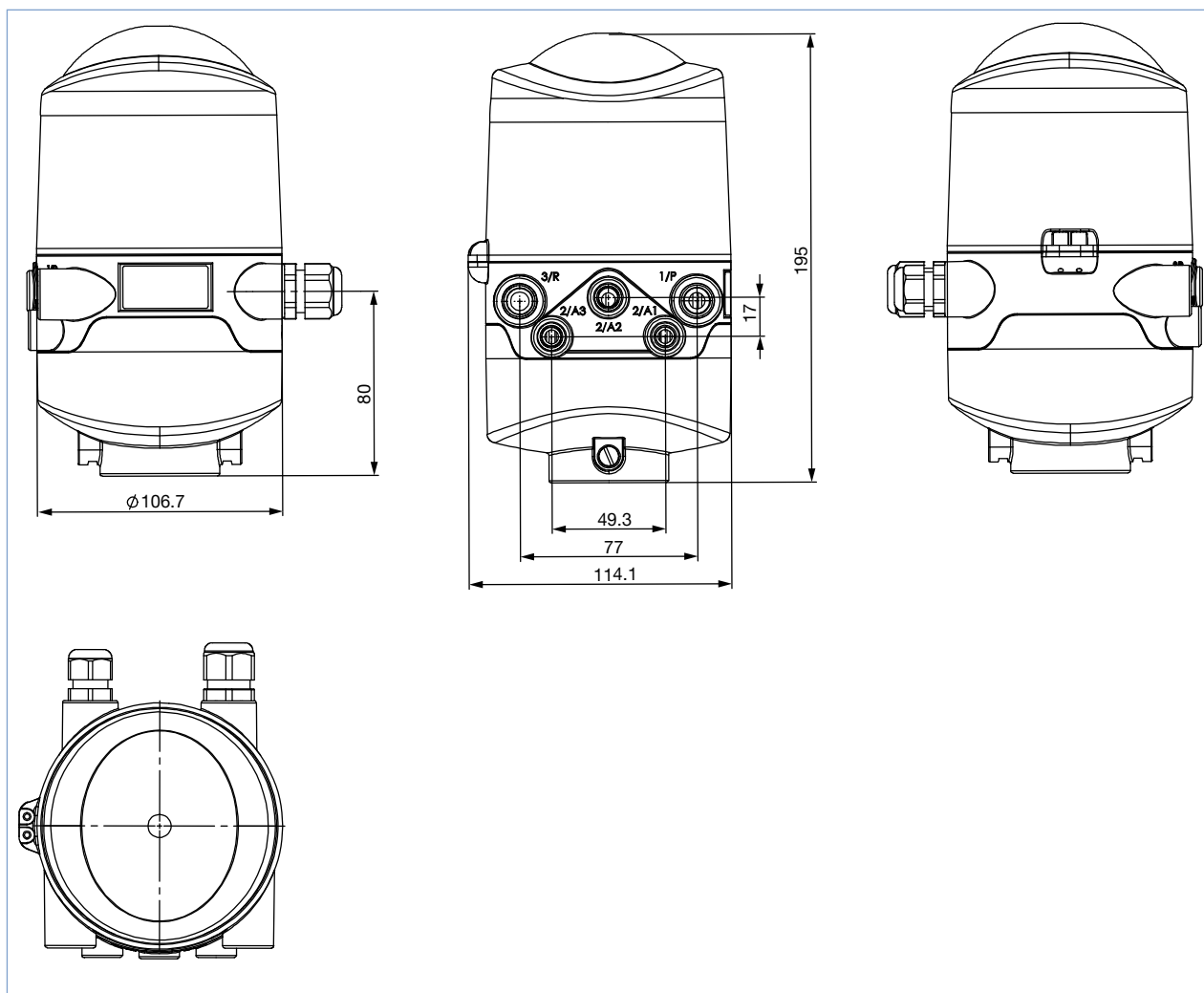
Ordering chart for accessories

Version	Article no.
General accessories	
Rotary push-in fitting, brass nickel-plated G ¼ for Ø tube 8/6	780084 
Rotary push-in fitting, brass nickel-plated G ⅜ for Ø tube 6/4	780082 
Universal Adaptor with O-ring	196495 
Target for position sensor, 1.4021	196494 
Magnetic manual override tool	196490 
AS-i-flat cable clamp with M12 stainless steel bush	799646 
USB Adapter set for PC communication	227093 
büS-Stick Set 1 (incl. cable (M12 and Micro-USB) Stick with integrated terminating resistor, power supply and software) to connect with Bürkert Communicator	772426 
Software Bürkert Communicator	http://www.buerkert.de/de/type/8920
Spare parts	
Silencer PE G ¼	780780 
Blind plug PP G ⅜	770901 
Cable 8 cm with M12-plug, 12 pin for 24 V DC	217574 
Cable 80 cm with M12-plug, 4 pin for AS-i	217572 
Cable 8 cm with M12-plug, 4 pin for AS-i	217573 
Cable 80 cm with M12-plug, 5 pin for DeviceNet	218187 
Set with 20 lead seals, to avoid tool-free opening of the cover	257100 

8681 Control head

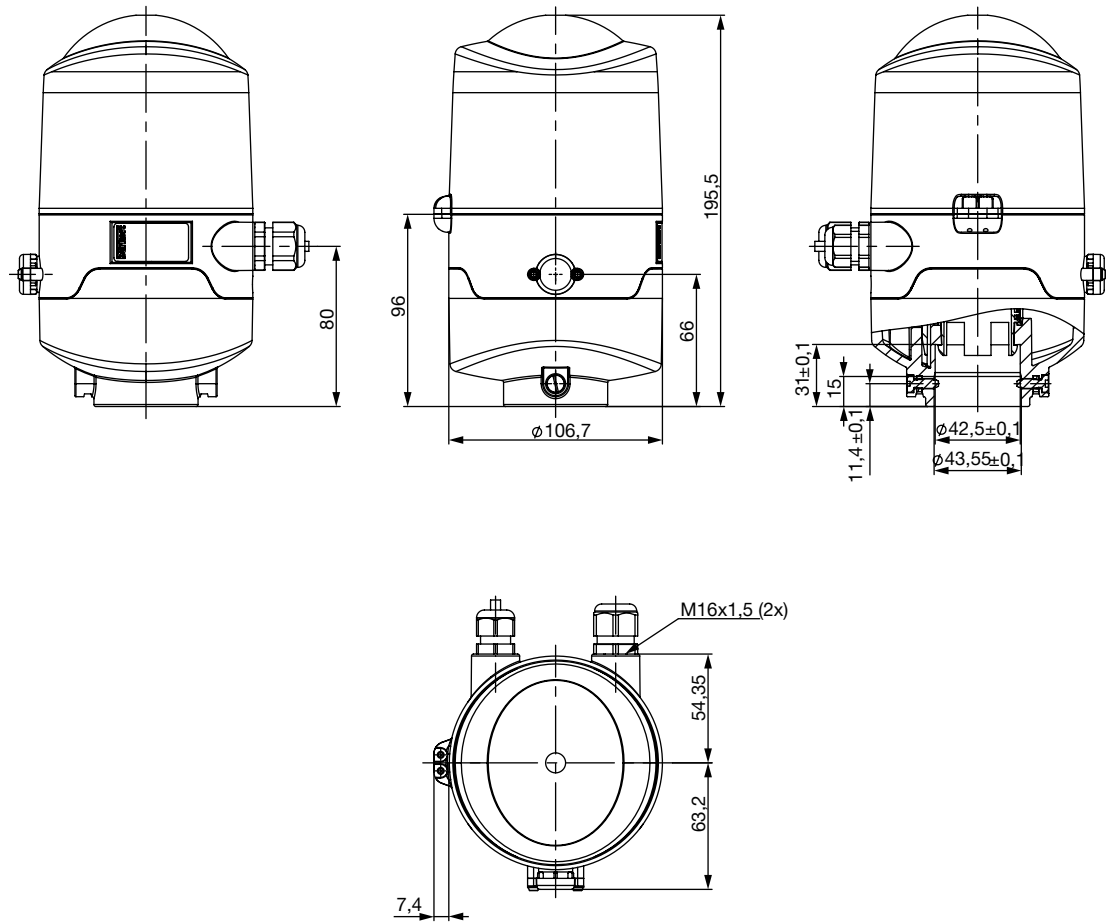
bürkert

Dimensions [mm]



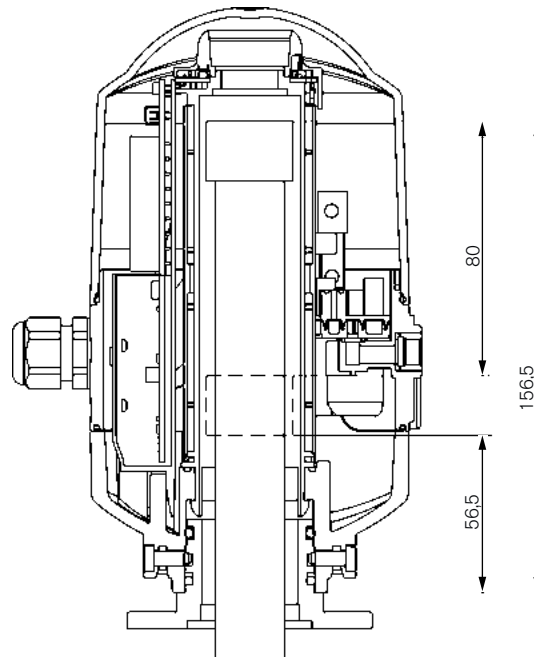
Dimensions [mm], continued

Feedback version (without pilot valves)



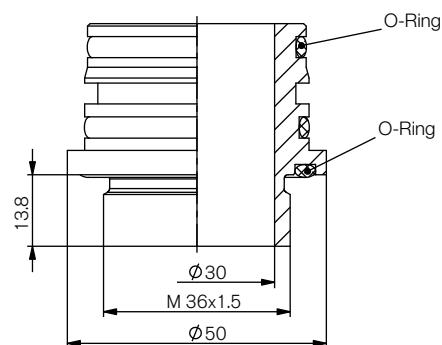
Dimensions [mm], continued

Measuring range of piston rod and target



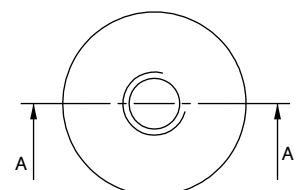
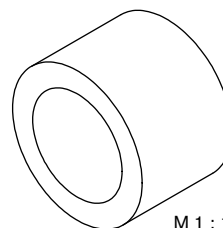
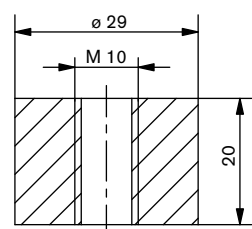
Accessories dimensions [mm]

Universal Stainless steel flange



Manufacturing a customized flange adaptor requires detailed drawing to ensure the control head functions and seals proper

Target for Type 8681 (1.4021)



Version	Article no.
Universal Stainless steel flange with O-ring	196495 
Target for Type 8681 made of 1.4021	196494 

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

Subject to alteration.
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