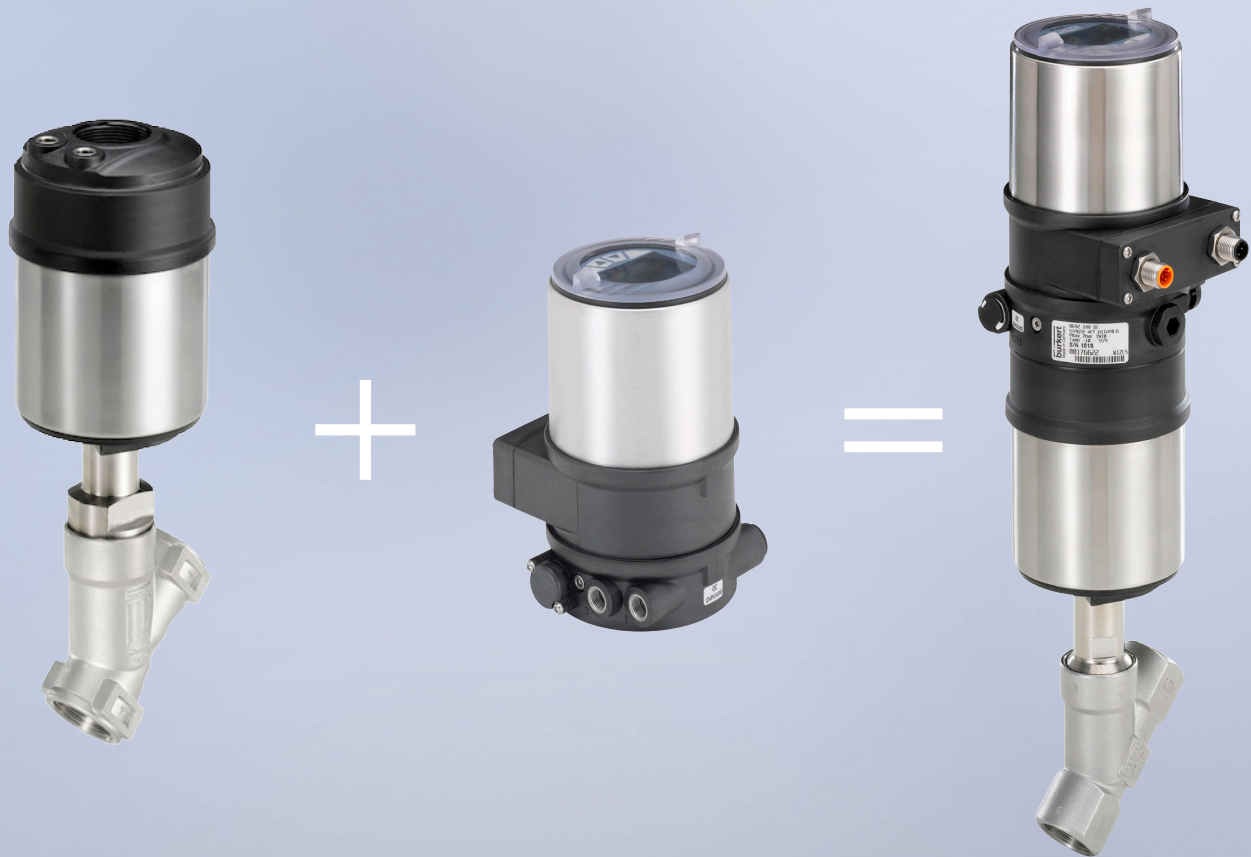


Angle-seat Valve System for continuous control

Type 8802/2300 electro-pneumatically operated angle-seat valve



TWO YEAR WARRANTY
on this valve system

Burkert 8802 continuous control valve



2300 series
angle-seat valve

+



8692 continuous
controller

=



8802 continuous
control valve

The design of the System Type 8802 control valve enables the easy integration of digital automation units whether they are a simple Blind Positioner, high-capacity Positioner with optional integrated fieldbus interface or even a digital Process Controller with an intuitive, backlit graphical display. The fully integrated system with control valve and automation system has a compact and smooth design, integrated pneumatic lines, IP65/67/NEMA4X protection class and superior chemical resistance.

Support documentation for 2300 + 8692



Threaded Datasheet



Clamp Datasheet



Tube End Datasheet



8692 Datasheet



Type 2300 Angle-Seat Valve

- 2/2-way Angle-Seat Valve with stainless steel design
- For medium up to +185°C (365°F), DN 15-65 (0.5"-2.5")
- High flow rates
- High cycle life
- Flow optimised body in stainless steel
- Deliverable with flow direction below or above seat
- Clean design for optimal use in hygienic environment
- Suitable for steam up to 150 PSI (g)



Technical Data	
Orifice	0.5" (DN15) to 2.5" (DN65)
Port connections Weld acc. to Threaded port and clamp - see separate datasheets	ASME BPE
Body material	Stainless Steel 316L
Nominal pressure	PN25 (Body)
Actuator material Actuator Cover	PPS Stainless steel 1.4561 (316Ti)
Plug sealing	PTFE/St.st. (PTFE/stainless steel) and St.st./St.st. (stainless steel/stainless steel)
Seat leakage IEC 534-4/ EN 1349	Shut-off class III and IV for St.st./St.st. Shut-off class IV for PTFE/St.st.
Medium	Water, alcohol, oils, fuels, hydraulic fluids, salt solution, alkali solutions, organic solvents, steam, optional fuel gas, (EC Gas Appliances Directive 2009/142/EG)
Viscosity	max. 600 mm ² /s
Spindle packing	PTFE V-rings with spring compensation
Medium temperature	-10°C to +185 °C (max. +130°C for PTFE/ST.st. sealing)
Ambient temperature	0 to +55°C; 32°F to 131°F (with positioner or process controllers) 0 to +80 °C; 32°F to 176°F (remote version)
Control medium	Compressed air
Relevant pilot pressure for circuit function A	Port size DN 15 to 50 Port size 5,5 to 7 bar DN 65 5,6 to 7 bar
Pilot air ports	Push-in connector for external ø 6 mm or 1/4" tube
Installation	As required, preferably with actuator in upright position
Surface Finish on request	standard Ra, internal ≤3.2 µm internal connection area

In line with Burkert's philosophy for modular valves and sensors the construction of the 2300 angle-seat valve fulfils tough criteria for process environments. Unrivalled cycle life and sealing integrity is guaranteed by the proven self adjusting spindle packing with V-seals.

The parabolic trim results in a flow characteristic approximately 35% larger than conventional control valves. It is available in either stainless steel or with a durable PTFE seal for tight shut-off.

The design enables the easy integration of automation modules whether they are digital electropneumatic positioner or process controller.

The fully integrated system has a compact and smooth design, integrated pneumatic lines, IP65/67 protection class and superior chemical resistance.

This system has been engineered for reliable accurate control in applications where high flow rate is an advantage.

Type 8692 Positioner

- Compact robust stainless steel, NEMA 4X design
- Contact-free position sensor
- Integral control air routing
- Electrically isolated inputs and outputs
- Industry leading diagnostics alarms as standard
- Easy start-up by automatic X-Tune function



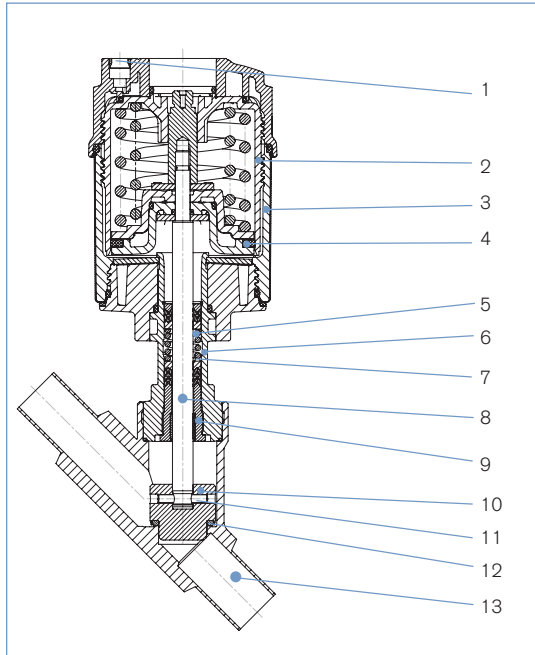
Technical Data	
Material	Body Cover Sealing
	PPS, stainless steel PC EPDM
Power Supply	24 VDC +/- 10% UL; NEC Class 2
Residual ripple	max. 10%
Setpoint setting	0/4 to 20mA and 0 to 5/10 V
Output resistance	0/4 to 20mA: 180 Ω 0 to 5/10 V: 19 k Ω
Control medium	neutral gases, air, quality classes acc. to ISO 8573-1
Dust concentration	Class 7 (<40µm particle size)
Particle density	Class 5 (<10mg/m ³)
Pressure condensation point	Class 3 (<-20°C)
Oil concentration	Class X (<25mg/m ³)
Ambient temperature	-10 to +55°C
Pilot air ports	Threaded ports G1/8 stainless steel
Supply pressure	Low air flow rate 0 to 7 bar ¹⁾ High air flow rate 3 to 7 bar
Air input filter	Exchangeable (mesh aperture-0.1mm)
Actuator system	Low air flow rate: Ø Actuator 70 / 90 mm High air flow rate: Ø Actuator 130 mm
Position detection module	Contact-free, wear-free
Installation	As required, preferably with actuator upright position
Protection type	IP65 and IP67 according to EN 60529, Type 4X
Power consumption	< 5 W
Electrical connection	Multipole connection Cable gland
	M12, 8-pins and M12 4-pins (optional)
Approvals	UL listed for USA and Canada cULus
Protection class	3 acc. to DIN EN 61140
Conformity	EMC directive 2014/30/EU

The compact Positioner Type 8692 is optimized for integrated mounting on the pneumatic actuators in the process valve series Type 23xx/2103 and is specially designed for the requirements of a hygienic process environment. The control air channel is integrated in the actuator without external tubings. The easy handling and the selection of additional software functions are done either on a big graphic display with backlight and keypad or over a PC interface.

The Positioner registers the valve position without deterioration through a contact-free, analog position sensor. The control of single or double-acting actuators is done without internal air consumption. With integrated diagnostic functions operation conditions of the control valve can be monitored. Through status signals, valve diagnostic messages are transmitted according to NAMUR NE107 and recorded as history entries.

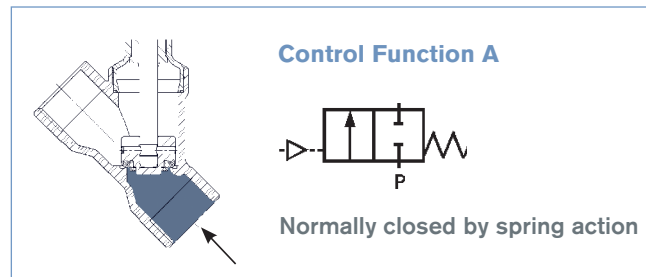
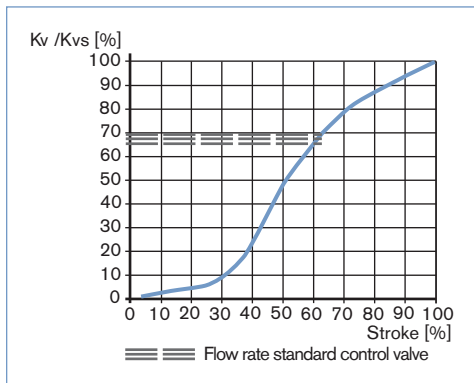
The housing is easy to clean and features proven IP protection and chemically resistant materials for use in hygienic processing, in food, beverage and pharmaceutical industries. Combined with Burkert ELEMENT actuators the unique pilot valve system enables a compressed air recycling that avoids actuator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

Materials Type 2300



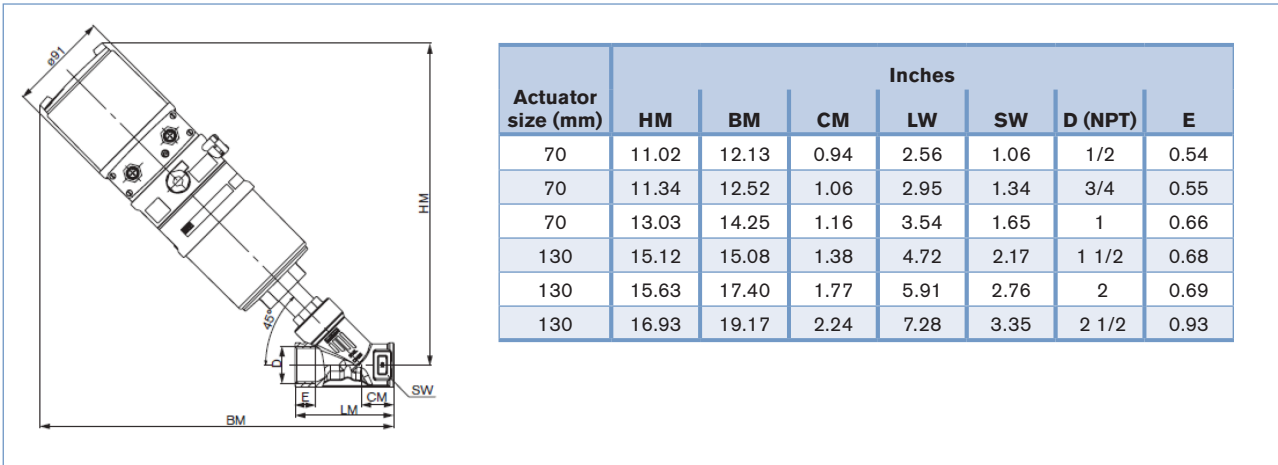
- | | |
|-------------------------------|----------------------------------------------------------|
| 1 Pilot air ports | Push-in connector PP (standard) |
| 2 Actuator | PPS |
| 3 Cover | Stainless steel 1.4561 (316Ti) |
| 4 Piston seal | FKM |
| 5 Spring | Stainless steel 1.4310 |
| 6 Tube | Stainless steel 1.4401 (316) / 1.4404 (316L) |
| 7 Spindle packing | PTFE |
| 8 Spindle | Stainless steel 1.4401 (316) / 1.4404 (316L) |
| 9 Spindle guidance | Edelstahl 1.4404 (316L) |
| 10 Plug | Stainless steel 1.4571 |
| 11 Spring straight pin | Stainless steel 1.4310 |
| 12 Plug seal | Stainless steel 1.4571 / PTFE disc for soft seat sealing |
| 13 Valve body | Stainless steel 316L |

Flow characteristic

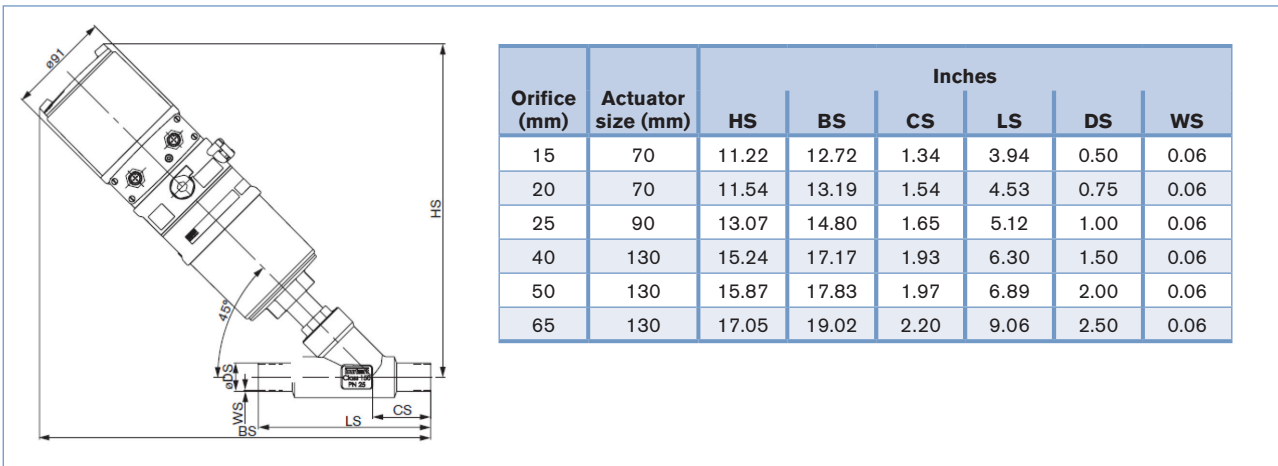


Orifice (mm)	Actuator size (mm)	Cv (gpm) values at stroke (%)										
		5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
15	70	0.18	0.2	0.3	0.5	1.4	3.1	4.0	4.6	5.2	5.5	5.8
20	70	0.30	0.3	0.5	1.3	4.6	6.8	8.3	9.6	10.5	11.1	11.6
25	90	0.39	0.4	0.7	1.7	6.0	10.3	13.3	15.0	16.4	17.8	18.5
40	130	0.55	0.8	1.6	5.9	16.2	23.1	28.1	32.7	36.7	39.9	41.6
50	130	1.01	1.4	2.1	4.6	17.6	30.1	40.5	46.6	52.0	55.5	61.3
65	130	1.97	2.3	7.5	23	40.5	55.5	67.1	77.5	86.7	96.0	104.1

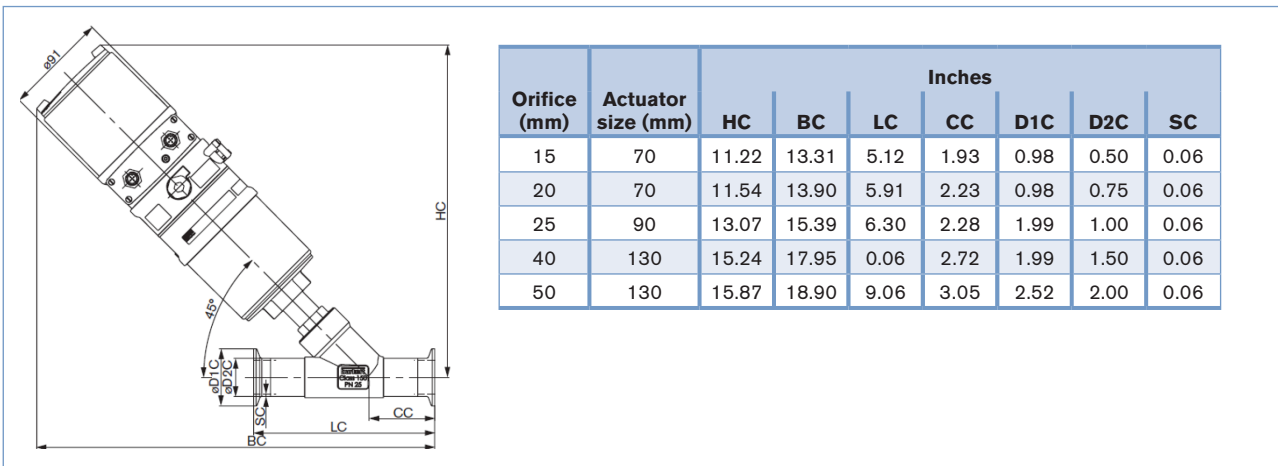
Dimensions NPT end



Dimensions weld end ASME BPE

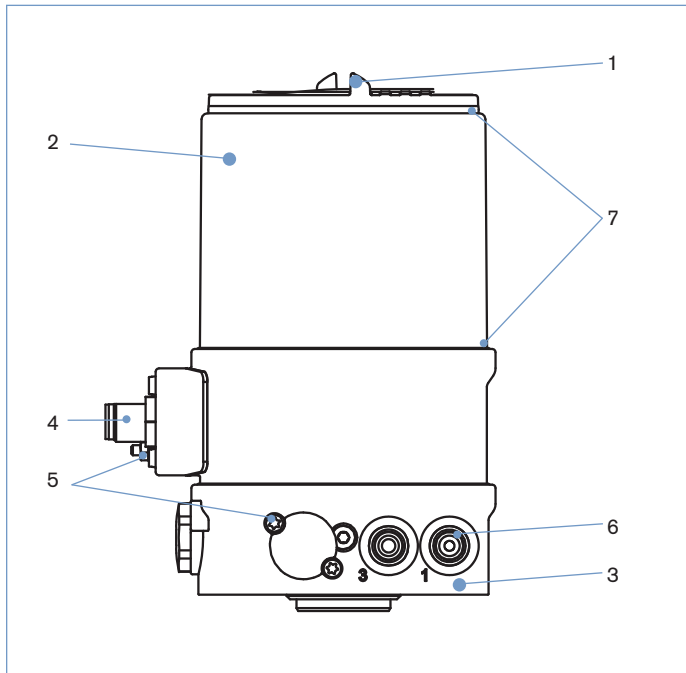


Dimensions clamp end ASME BPE



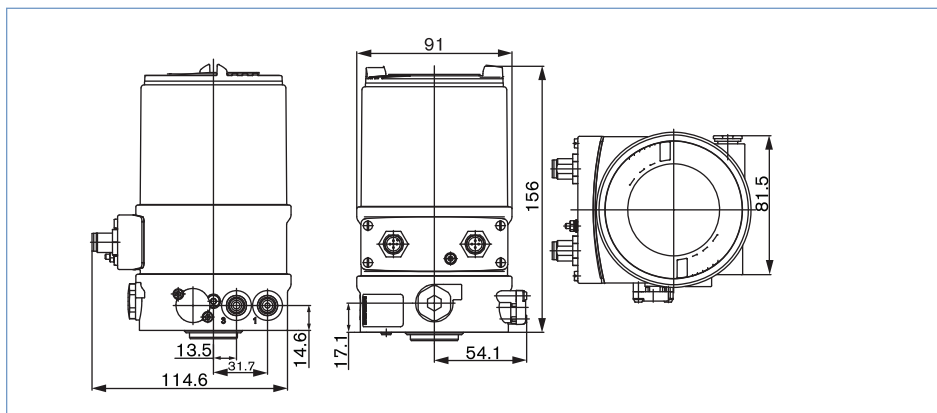
8692 Positioner

Materials



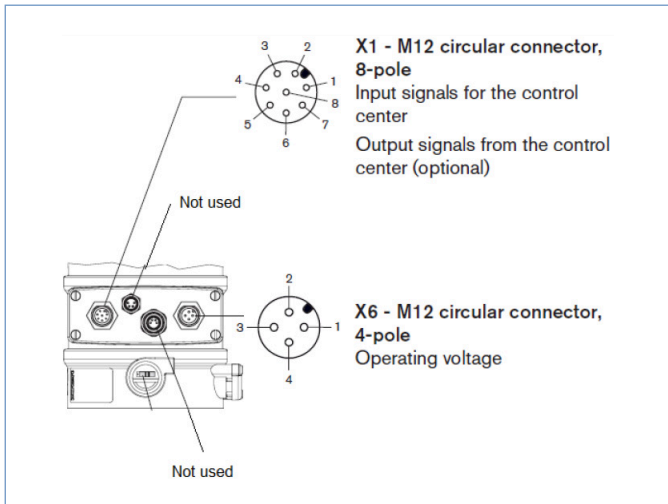
1 Cover	PC
2 Body casing	Stainless steel
3 BASIC body	PPS
4 Plug M12	Stainless steel
5 Screws	Stainless steel
6 Threaded ports G 1/8	Stainless steel
7 Sealing	EPDM

Dimensions [mm] Version connection Multipole



Electrical installation

Designation of the circular plug-in connectors:



X1-M12 circular connector, 8-pole

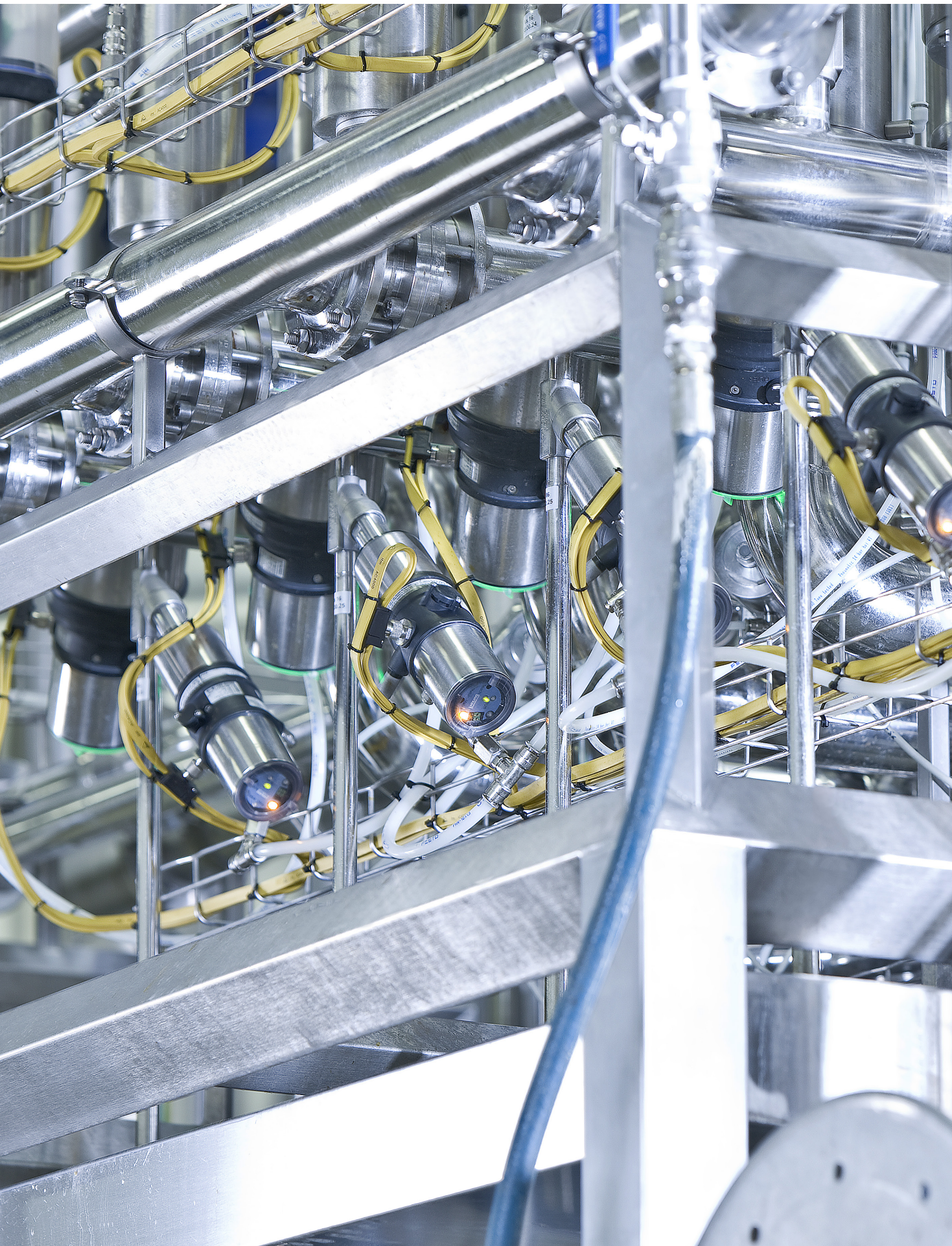
Pin	Wire color*	Assignment
Input signals of the control centre (e.g. PLC)		
8	red	Set-point value + (0/4 ... 20 mA / 0 ... 5/10 V)
7	blue	Set-point value GND
1	white	Binary input +
Output signals to the control centre (e.g. PLC) (required for analogue output and/or binary output option only)		
6	pink	Analog position feedback +
5	gray	Analog position feedback GND
4	yellow	Binary output 1
3	green	Binary output 2
2	brown	Binary outputs GND
* The indicated colors refer to the connection cable available as an accessory (919061).		

Tab. 3: X1 - M12 circular connector, 8-pole

X6-M12 circular connector, 4-pole

Pin	Wire color*	Assignment
1	brown	Operating voltage + 24 V DC
3	blue	Operating voltage GND
* The indicated colors refer to the connection cable available as an accessory (918038).		

Tab. 4: X6 - M12 circular connector, 4-pole (operating voltage)



Type 2300 Angle-Seat Valve



Teflon Seats					
NPT Size	8802#	TUBE Size	ASME BPE 8802#	CLAMP Size	8802#
0.50	336 492	0.50	336 509	0.50	337 343
0.75	336 494	0.75	336 511	0.75	337 344
1.00	336 495	1.00	336 512	1.00	337 346
1.50	336 496	1.50	337 313	1.50	337 373
2.00	336 504	2.00	337 314	2.00	333 086
2.50	336 508	2.50	337 315	2.50	337 375

Stainless Seats					
NPT Size	8802#	TUBE Size	ASME BPE 8802#	CLAMP Size	8802#
0.50	337 376	0.50	337 391	0.50	336 461
0.75	467 877	0.75	337 395	0.75	337 420
1.00	337 378	1.00	337 402	1.00	338 033
1.50	467 878	1.50	337 408	1.50	338 034
2.00	467 874	2.00	336 458	2.00	338 036
2.50	337 287	2.50	337 412	2.50	333 091

Ordering chart accessories

Description	Item no.
M12 socket, 8-pins, 5m assembled cable	919 267
M12 socket, 4-pins, 5m assembled cable	918038
Silencer G1/8 (spare part)	788934
Sensor puck (spare part)	682 240
G1/8 X 1/4" push tube connector (spare part)	98132544

All valve systems come pre-assembled and tested. 1/4" push tube connections and air mufflers are also included.

One M12 socket, 8-pin cable and one M12 socket, 4-pin is required. See accessories chart for ID#.

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