

Digital electropneumatic Positioner for the integrated mounting on process control valves

8692

- Compact stainless steel design
- Graphic display with backlight
- Easy start-up by automatic X-Tune function
- Comprehensive range of additional software functions
- Internal control air routing
- Profibus DPV1 or DeviceNet communication (option)



The compact Positioner, Type 8692, is optimised 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.

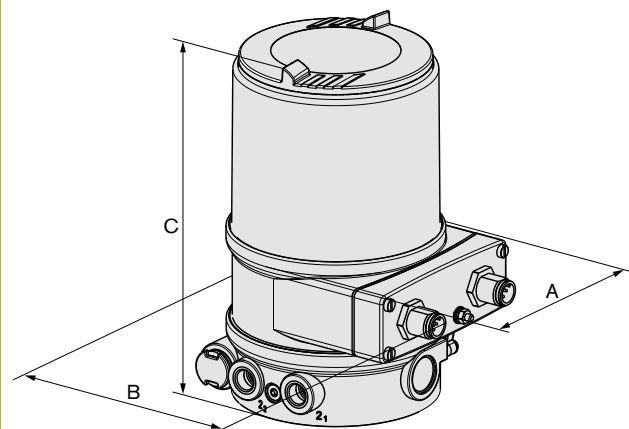
The control air channel is integrated in the actuator without external tubings. The easy handling and the selection of additional software functions are done either on a big backlit graphic display and keypad or over a PC interface.

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 intrinsic compressed air consumption. Communication interfaces such as Profibus DPV1 or DeviceNet and analogue as well as binary feedback can also be chosen.

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. Combined with Bürkert ELEMENT actuators the unique pilot valve system enables a compressed air recycling that avoids actuator chambers contamination from the environment.

Dimensions [mm]

Version Multipole connector



A	B	C
91	114.6	156

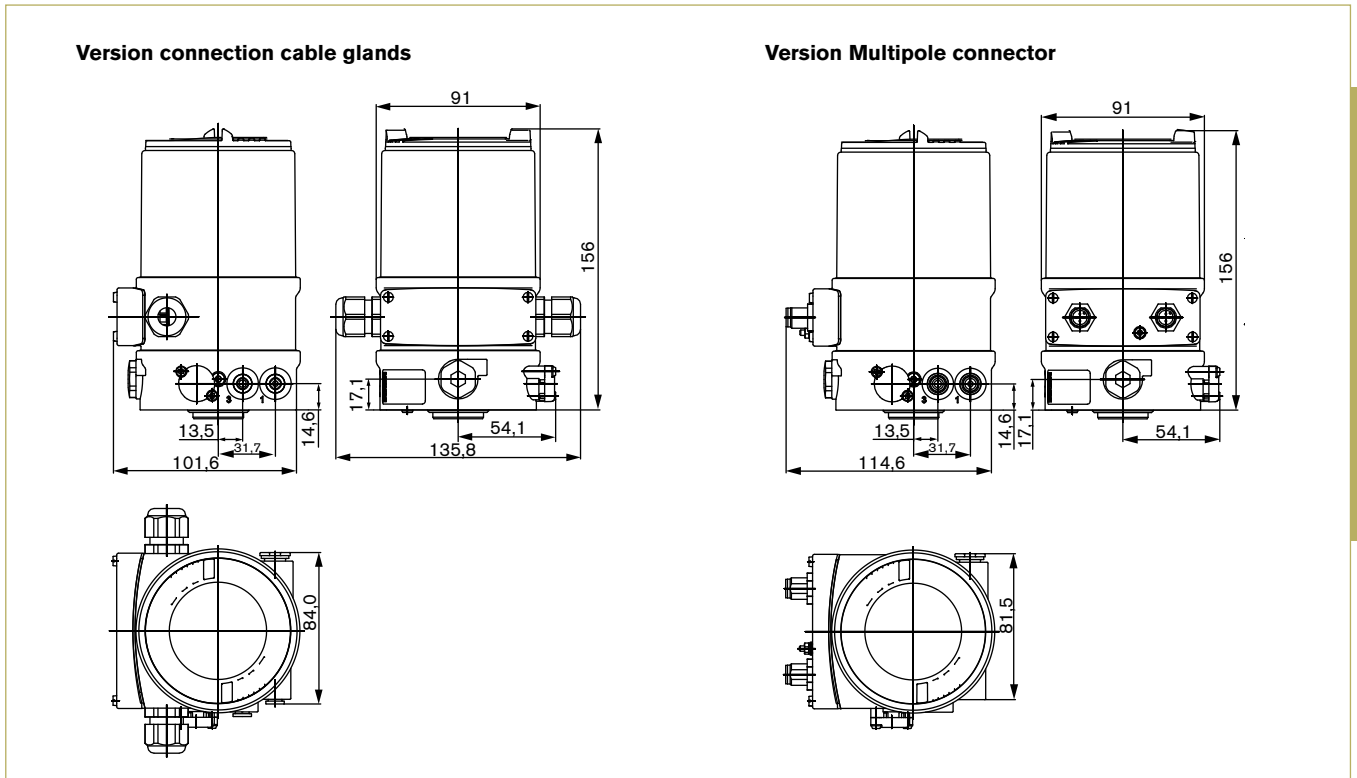
Technical data

Material	
Body	PPS, stainless steel
Cover	PC
Sealing	EPDM
Power supply	24 V DC +/-10%
Residual ripple	Max. 10%
Setpoint setting	0/4-20 mA and 0 to 5/10 V
Input resistance	0/4 to 20 mA: 180 Ω 0 to 5/10 V: 19 k Ω
Control medium	Neutral gases, air DIN ISO 8573-1
Dust concentration	Class 5 (<40 µm particle size)
Particle density	Class 5 (<10 mg/m ³)
Pressure condensation point	Class 3 (<-20 °C)
Oil concentration	Class 5 (<25 mg/m ³)
Ambient temperature	0 °C to +55 °C
Control air ports	Threaded ports G 1/8" stainless steel or push-in connectors (Ø 6 mm and 1/4" tube)
Supply pressure	Low air flow rate 0-7 bar ¹⁾ High air flow rate 3-7 bar

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

Air input filter	Exchangeable (mesh aperture ~0.1 mm)
Actuator system	Actuator series ELEMENT Low air flow rate: Ø Actuator 70 / 90 mm 23XX High air flow rate: Ø Actuator 130 mm Actuator series CLASSIC Low air flow rate: Ø Actuator 80 / 100 mm 27XX High air flow rate: Ø Actuator 125 / 175 / 225 mm
Position detection module	Contact-free, wear-free
Stroke range valve spindle	3-28 mm (3-45 mm on request)
Installation	as required, preferably with actuator in upright position
Type of protection	IP65/67 acc. to EN 60529 (NEMA 4x in preparation)
Power consumption	< 5 W
Electrical connection	M12, 8-pin or 4-pin Cable gland 2xM16x1.5 (Cable Ø10 mm) on terminal screws (1.5 mm ²)
Bus communication	Profibus DPV1, DeviceNet
Protection class	3 acc. to VDE 0580
Conformity	EMV2004/108/EG

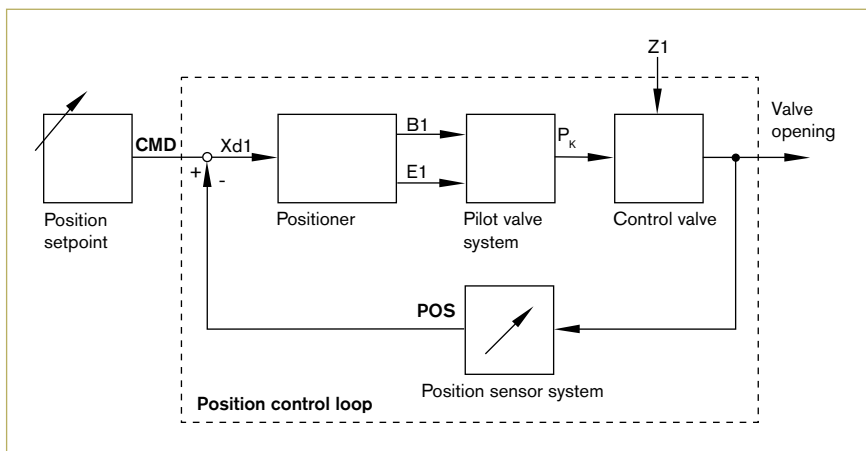
Dimensions [mm]



8692

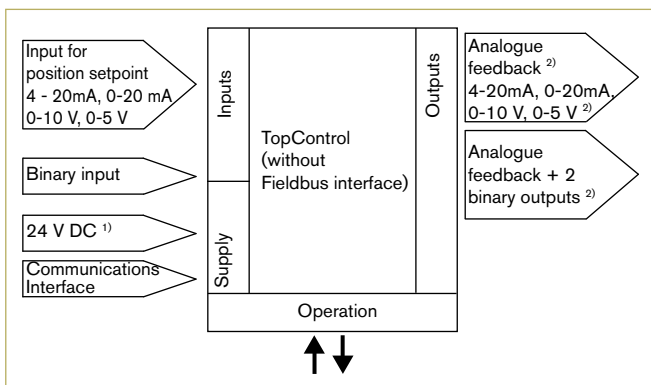
Signal flow diagram

Position control loop

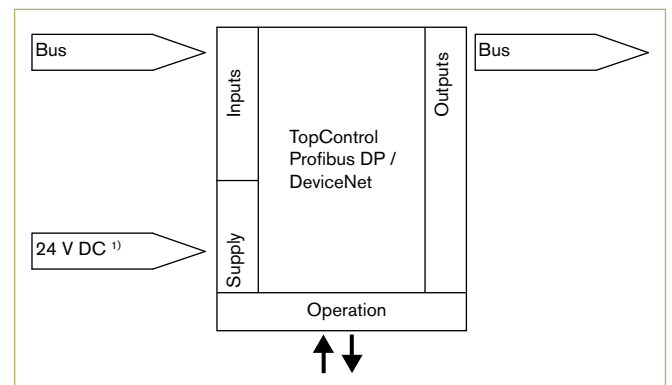


Schematic diagram of the TopControl Type 8692

Without Fieldbus interface



With Profibus DP / DeviceNet



¹⁾ The operating voltage is supplied with a 3-wire unit independent from the setpoint signal.
²⁾ Alternative options

Ordering chart

8692

Control function pilot valve system	Bus- Communication	Electrical connection	Analogue feedback	Analogue feedback + 2 binary outputs	Binary input	Item no.	
						Pilot air ports threaded G 1/8"	Pilot air ports Push-in
Actuator series ELEMENT types 23xx actuator size Ø 70/90 mm							
Low air flow rate single acting	No	Cable gland	No	No	Yes	227 290	227 291
			No	No	Yes	230 898	227 292
			No	Yes	Yes	–	236 957
	No	Multipole	No	No	Yes	226 206	227 293
			4 - 20 mA	No	Yes	246 362	227 294
			No	Yes	Yes	–	227 295
	Profibus DPV1	Multipole	No	No	No	–	227 297
			No	No	No	233 348	227 298
			DeviceNet	No	No	No	–
	Low air flow rate double acting	No	Cable gland	No	No	Yes	227 274
4 - 20 mA				No	Yes	–	227 276
No		Multipole	No	No	Yes	–	227 278
			4 - 20 mA	No	Yes	227 277	227 279
Profibus DPV1		Multipole	No	No	No	–	227 281
			No	No	No	–	227 282
			DeviceNet	No	No	No	–
Actuator series ELEMENT types 23xx actuator size Ø 130 mm							
High air flow rate single acting	No	Cable gland	No	No	Yes	227 316	227 317
			4 - 20 mA	No	Yes	233 347	227 318
	No	Multipole	No	No	Yes	245 016	227 319
			4 - 20 mA	No	Yes	246 363	227 320
			No	Yes	Yes	–	227 321
	Profibus DPV1	Multipole	No	No	No	231 333	227 323
			No	No	No	233 349	223 777
			DeviceNet	No	No	No	–

* Profibus Anschluss 2x M12 (Bus IN / Bus OUT)

Ordering chart (cont.)

Control function pilot valve system	Bus- Communication	Electrical connection	Analogue feedback	Analogue feedback + 2 binary outputs	Binary input	Item no.	
						Pilot air ports threaded G 1/8"	Pilot air ports Push-in
Actuator series CLASSIC types 27xx actuator size Ø 80/100 mm							
Low air flow rate single acting	No	Cable gland	No	No	Yes	227 299	227 302
			4 - 20 mA	No	Yes	227 300	227 303
			No	Yes	Yes	227 301	227 305
	No	Multipole	No	No	Yes	227 306	227 309
			4 - 20 mA	No	Yes	227 307	227 310
			No	Yes	Yes	227 308	227 311
	Profibus DPV1	Multipole	No	No	No	-	227 313
DeviceNet	No		No	No	247 245	227 312	
Low air flow rate double acting	No	Cable gland	No	No	Yes	227 283	227 284
			No	Yes	Yes	-	227 285
	Multipole	No	No	No	Yes	227 286	227 287
			No	Yes	Yes	-	227 288
	Profibus DPV1	Multipole	No	No	No	-	227 586
	DeviceNet		No	No	No		
	Actuator series CLASSIC types 27xx actuator size Ø 125/175/225 mm						
High air flow rate single acting	No	Cable gland	No	No	Yes	227 324	227 327
			4 - 20 mA	No	Yes	227 325	227 328
			No	Yes	Yes	227 326	227 329
	No	Multipole	No	No	Yes	227 330	227 333
			4 - 20 mA	No	Yes	227 331	227 334
			No	Yes	Yes	227 332	227 335
	Profibus DPV1	Multipole	No	No	No	-	227 336
	DeviceNet		No	No	No	239 114	228 231

* Profibus Anschluss 2x M12 (Bus IN / Bus OUT)