



Type 8692 can be combined with...



Type 2301

Globe control valve



Type 2300

Angle-seat control valve



Type 2103

Diaphragm control valve



Hygienic process control valves

Digital electropneumatic Positioner for the integrated mounting on process control valves

- 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.

Technical data	
Material	Body Cover Sealing
	PPS, stainless steel PC EPDM
Power supply	24 VDC +/- 10%
Residual ripple	max. 10%
Setpoint setting	0/4 to 20mA and 0 to 5/10 V
Output 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 (<40µm particle size)
Particle density	Class 5 (<10mg/m ³)
Pressure condensation point	Class 3 (<-20°C)
Oil concentration	Class 5 (<25mg/m ³)
Ambient temperature	0 to +55°C
Pilot air ports	Threaded ports G1/8 stainless steel or Push-in connectors (Ø6mm and 1/4" tube)
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	
Actuator series ELEMENT 23XX	Low air flow rate : Ø Actuator 70 / 90 mm High air flow rate: Ø Actuator 130 mm
Actuator series CLASSIC 27XX	Low air flow rate : Ø Actuator 80 / 100 mm High air flow rate: Ø Actuator 125 / 175 / 225 mm
Position detection module	Contact-free, wear-free
Stroke range valve spindle	3 to 45 mm
Installation	as required, preferably with actuator in upright position
Protection class	IP65 and IP67 acc. to EN 60529
Power consumption	< 5 W
Electrical connection	
Multipole connection	M12, 8-pins or 4-pins
Cable gland	2xM16x1,5 (cable-Ø10mm) on terminal screws (1,5 mm ²)
Bus communication	Profibus DPV1, DeviceNet
Protection class	3 according to VDE 0580
Conformity	CE acc. to EMV2004/108/EG

¹⁾ The supply pressure has to be 0,5 - 1 bar above the minimum required pilot pressure for the valve actuator.

Ordering information for TopControl-Control valve systems

A complete TopControl-Control valve system consists of a TopControl Type 8692 and a process valve Type 23XX/2103. The following information is necessary for the selection of a complete control valve:

- **Item no.** of the Positioner TopControl **Type 8692** without process valve, see ordering chart on p. 3
- **Item no.** of the selected process valve **Type 23XX/2103** (see separate datasheets, e.g. 2300, 2301 or 2103)

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

When you 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 of variations of control valves

8692 Positioner TopControl

Required process valve, example



More info.

2301
Globe Control
Valve



More info.

2300
Angle-Seat
Control Valve



More info.

2103
Control
Diaphragm
Valve



**Complete control valve
with required body and
port connection**



Valve system
Continuous ELEMENT
Type 8802-GD-I
2301 + 8692



Valve system
Continuous ELEMENT
Type 8802-YG-I
2300 + 8692



Valve system
Continuous ELEMENT
Type 8802-DF-I
2103 + 8692



More info.

**Customised attachment
to third party actuators***

*please see datasheet 8681/
ELEMENT installation kits to
3rd party process valves or
contact your sales office for
related drawings or individual
engineering support]

Ordering chart Type 8692 (other versions on request)

Control function pilot valve system	Communication	Electrical connection	Analogue feedback	Analogue feedback + 2 binary outputs	Binary input	Item No.	
						Item no. Pilot air ports threaded G1/8"	Item no. Pilot air ports Push-in (tube Ø 6mm and 1/4")
Actuator series ELEMENT types 23xx actuator size Ø70/90mm							
Low air flow rate single acting	No	Cable gland	No	No	Yes	227 290	227 291
			4 - 20 mA	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		227 296	
Low air flow rate double acting	No	Cable gland	No	No	Yes	227 274	227 275
			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		227 280
Actuator series ELEMENT types 23xx actuator size Ø130mm							
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	Yes	Yes		227 319
	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
						223 777*	
DeviceNet		No	No	No		227 322	
Actuator series CLASSIC types 27xx actuator size Ø80/100mm							
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
No			No	No	247 245	227 312	
DeviceNet		No	No	No		227 284	
Low air flow rate double acting	No	Cable gland	No	No	Yes	227 283	227 284
			No	Yes	Yes		227 285
	No	Multipole	No	No	Yes	227 286	227 287
			No	Yes	Yes		227 288
	Profibus DPV1	Multipole	No	No	No		227 586*
			No	No	No		
	DeviceNet		No	No	No		
Actuator series CLASSIC types 27xx actuator size Ø125/175/225mm							
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
No			No	No	239 114	228 231	
DeviceNet		No	No	No			

* Profibus connection 2x M12 (bus IN / bus OUT)

i Further versions on request

Inductive proximity switch for end position feedback



Ordering chart adapter kit (has to be ordered separately)

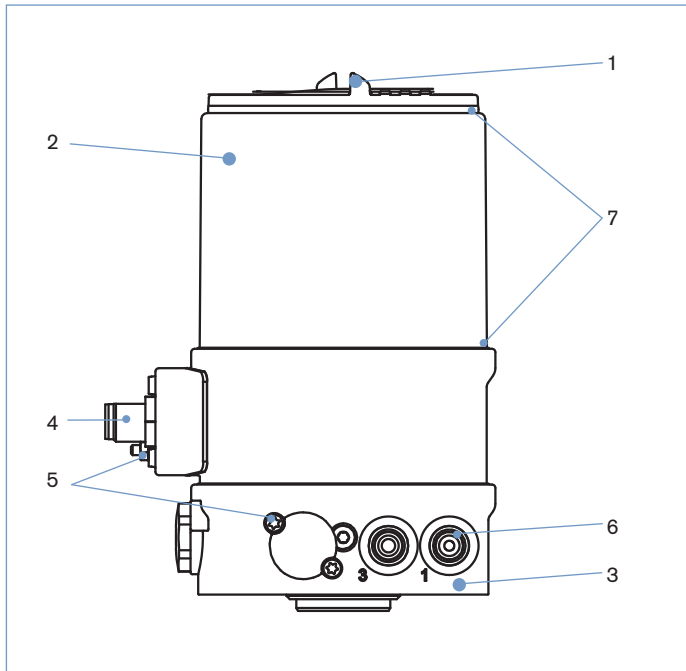
Description	Actuator size	Control function	Item no.
Adapter kit ELEMENT types 23xx	Ø70 / 90 / 130 mm	universal	679 917
Adapter kit CLASSIC types 27xx	Ø80 mm	universal	679 931
	Ø100 mm	universal	679 932
	Ø125 mm	A (NO), B (NC)	679 934
	Ø175/225 mm	A (NO), B (NC)	679 935

For installation kits to 3rd party process valves please see datasheet installation kits for hygienic process valves or contact your sales office for related drawings or individual engineering support

Ordering chart accessories

Description	Item no.
M12 socket, 8-pins, 2m assembled cable	919 061
M12 socket, 8-pins, 5m assembled cable	919 267
Silencer G1/8	780 779
Silencer, push-in connector	902 662
Sensor puck (spare part)	682 240
USB interface for serial communication	227 093

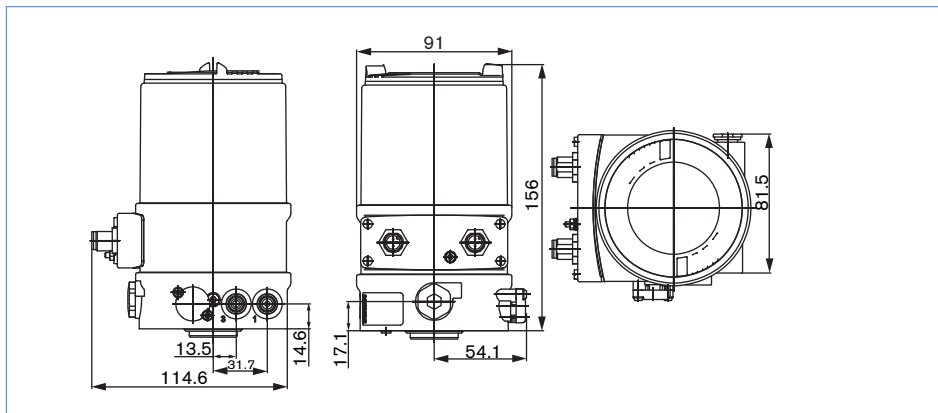
Materials



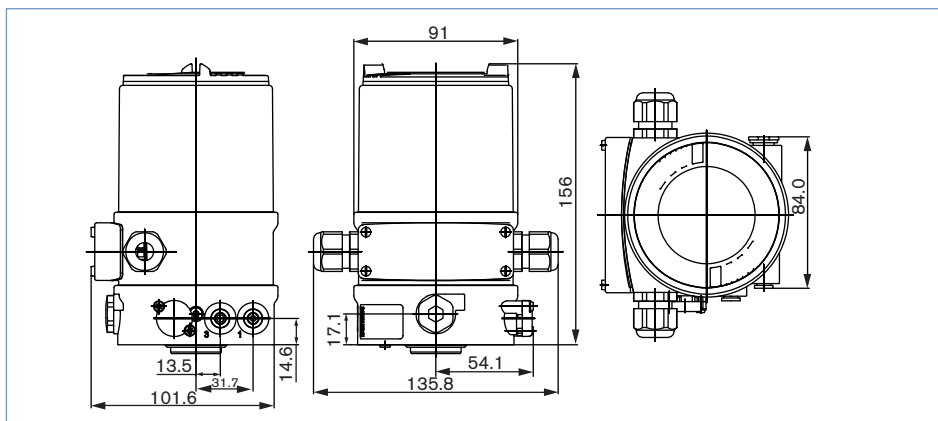
1 Cover	PC
2 Body casing	Stainless steel
3 Basic body	PPS
4 Plug M12	Stainless steel
5 Screws	Stainless steel
6 Push-in connector	POM/stainless steel
Threaded ports G1/8	Stainless steel
7 Sealing	EPDM

Dimensions [mm]

Version connection Multipole

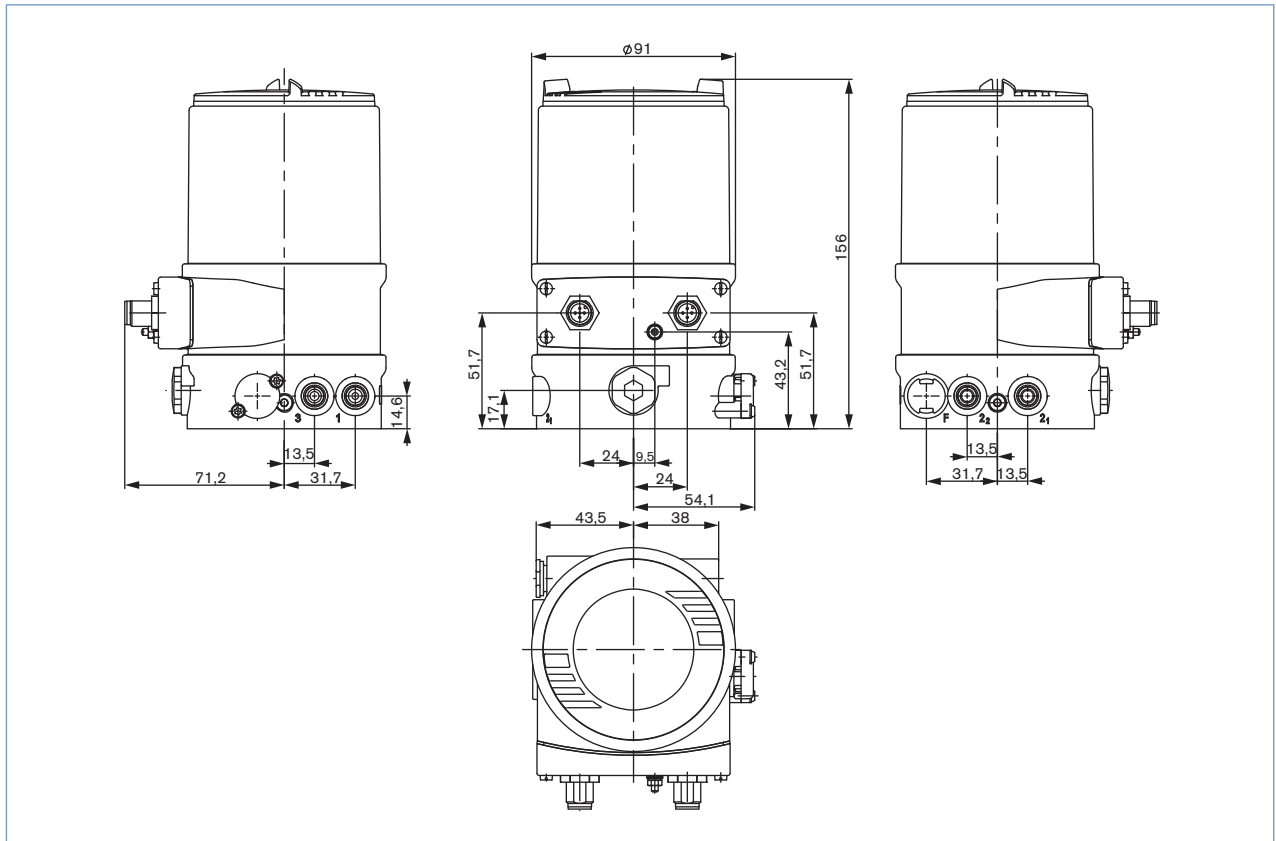


Version connection cable glands

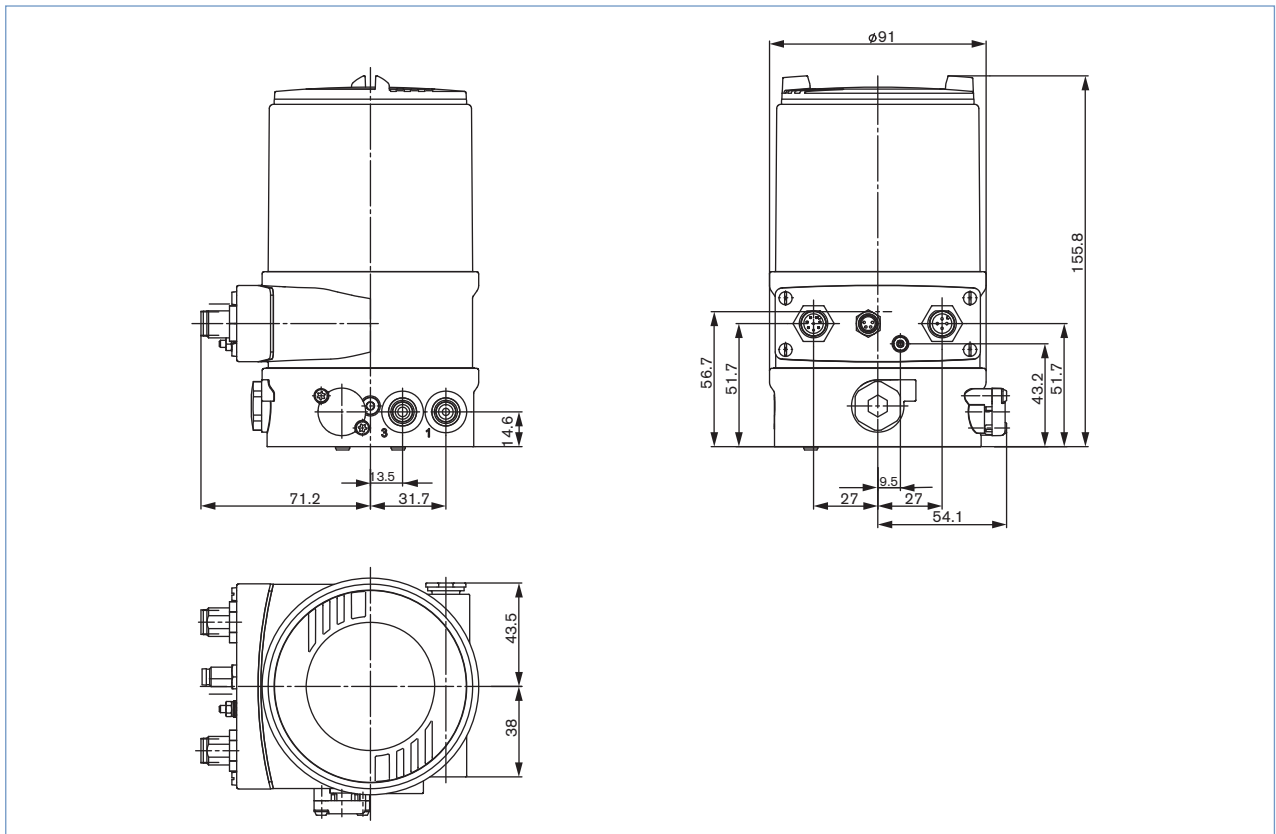


Dimensions [mm]

Mounting on process valve, CLASSIC Types 27xx



Mounting on process valve ELEMENT Types 23xx



Mounting on third party hygienic process valves



More
info.

**Customised attachment
to 3rd party actuators***

*: please see datasheet 8681/ELE-
MENT installation kits to third party
process valves or contact your sales
office for related drawings or individual
engineering support]

Connection options

Connection Multipole

Circular connector M12 - 8-pins (setpoint)

Circular connector M12 - 4-pins (supply)

Circular connector M12 - 8-pins (setpoint)

Pin	Configuration
8	Setpoint + (0/4 - 20 mA / 0 - 5/10 V)
7	Setpoint GND

Circular connector M12 - 8-pins (in / output signal)*

Pin	Configuration
6	Analogue feedback +
5	Analogue feedback GND
4	Binary output 1
3	Binary output 2
2	Binary output GND
1	Binary input +

Circular connector M12 - 4-pins (supply)

Pin	Configuration
1	Operating voltages + 24 VDC
3	Operating voltage GND

* with the option analogue feedback or binary output

Connection cable glands

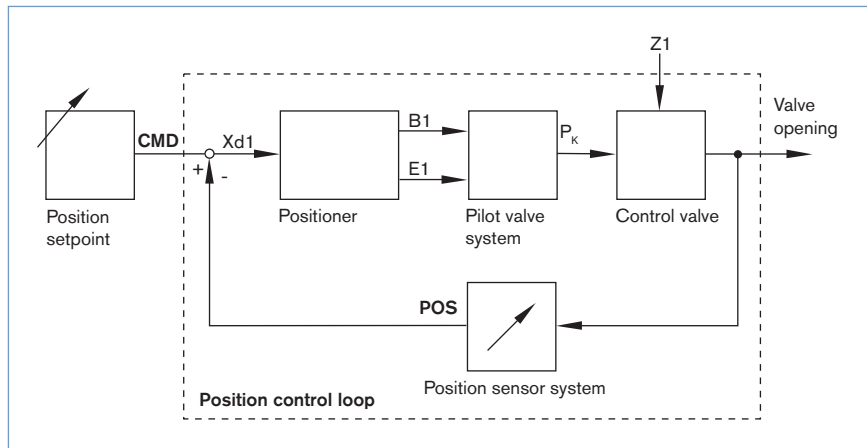
Terminal screws

Clamp	Configuration
11	Setpoint + (0/4 - 20 mA / 0 - 5/10 V)
10	Setpoint GND
14	Operating voltages + 24 VDC
13	Operating voltage GND
12	Binary input +
13	Binary input GND
9*	Analogue position feedback +
8*	Analogue position feedback GND
5*	Binary output 1
6*	Binary output GND
7*	Binary output 2

* with the option analogue feedback or binary output

Signal flow diagram

Position control loop

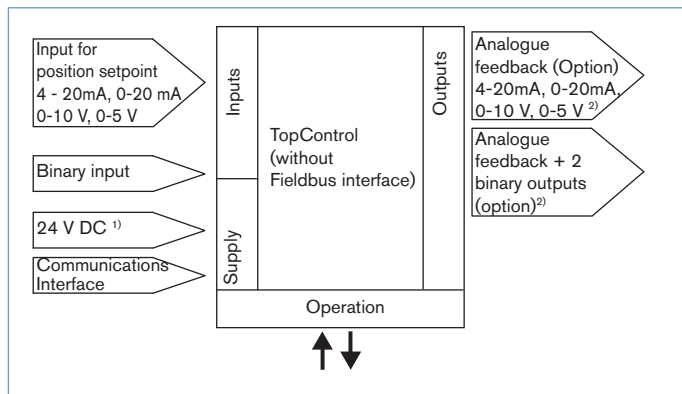


Additional software functions of the TopControl Type 8692

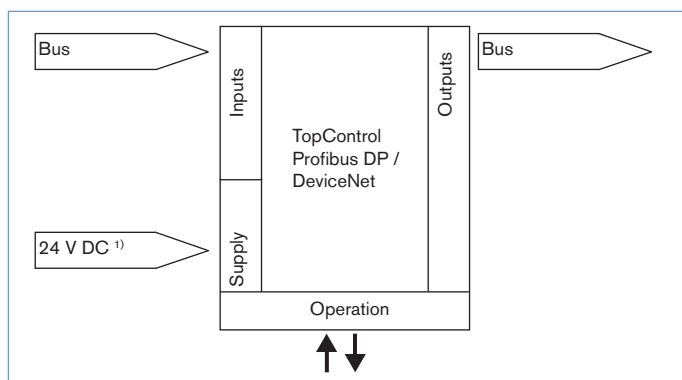
- Automatic start of the control system
- Automatic or manual characteristic curves selection
- Setting of the seal and the maximum stroke threshold respectively
- Parameterization of the Positioner
- Limitation of the stroke range
- Limitation of the manipulating speed
- Setting of the moving direction
- Configuration of the binary input
- Signal range splitting on several controllers
- Configuration of an analogue or 2 binary outputs
- Signal fault detection
- Safety position
- Code protection
- Contrast inversion of the display
- Diagnostic functions

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