

FEATURES

SENTRONIC^{PLUS} is a highly dynamical 3-way proportional valve with digital control.

SENTRONIC^{PLUS} stands for:

- Digital communication and control
- Direct operated valve
- Dynamic behaviour (high speed)

A special feature of the SENTRONIC^{PLUS} is its DaS software supplied for optimum adjustment over PC and viewing of setpoint and feedback signals. Other functions are valve diagnostics, parameter setting and maintenance.

GENERAL

Fluids : Air or neutral gas, filtered at 50 µm, condensate-free, lubricated or unlubricated
Ports : G1/8 - G1/4 - G1/2 - G1
Max. allowable pressure : See table below
Pressure range : See table below
Temperature / fluid : 0...60 °C
Temperature / ambient : 0...60 °C
Setpoint - analog : 0 - 10 V (impedance 100 KΩ)
 0 - 20 mA/4 - 20 mA (impedance 250 Ω)

Hysteresis : 0,5 % of span
Linearity / pressure measurement : ± 0,5 % of span
Repeatability : ± 0,5 % of span

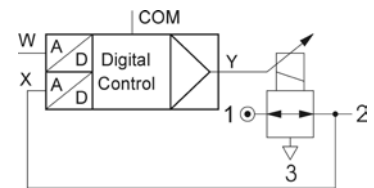
EXPLOSION SAFETY

Safety code : II 2D Ex tDA21 IP65 T135°C, for use in Zone 21
 : II 3G Ex nA II T4, for use in Zone 2

EC type examination certificate no. : IBExU07ATEX1173

CONSTRUCTION

Direct operated poppet valve
 Body: See table below
 Internal parts: Stainless steel and brass
 Seals: FPM and NBR



ELECTRICAL CHARACTERISTICS

nominal diameter DN (mm)	stabilised voltage *	max. power (W)	max. current (mA)	insulation class	degree of protection	electrical connection
3	24 V = 24 V = +/-10%	12	500	F	IP65	5-pin M12 connector
6		24	1000			
12		34	1400			
20		44	1800			

* Max. ripple: 10 %

SPECIFICATIONS

Ø ports	Ø orifice DN (mm)	flow	
		K _v coefficient (Nm ³ /h)	at 6 bar (l/min - ANR)
G 1/8	3	0,18	210
G 1/4	6	0,60	700
G 1/2	12	1,20	1400
G 1	20	4,80	5600

CATALOGUE NUMBER

6 1 4 3 5 7 A S I D P P

A: VERSION (ports), body

- | | |
|--------------------------|------------------------------------|
| 0 = DN6 (G 1/4), Alu | 6 = DN20 (NPT 1"), Alu |
| 1 = DN12 (G 1/2), Alu | 7 = DN3 (G 1/8), Ms |
| 2 = DN20 (G 1), Alu | 8 = DN6 (G 1/4), Ms |
| 3 = DN6 (ISO 1), Alu | 9 = DN3 (NPT 1/8), Ms |
| 4 = DN6 (NPT 1/4"), Alu | A = DN6 (NPT 1/4"), Ms |
| 5 = DN12 (NPT 1/2"), Alu | C = DN6 (G 1/4), VA |
| | H = DN6 (G 1/4), Ms ²) |

S: SETPOINT

- 0 = 0 ... 10 Volt
 1 = 0 ... 20 mA
 2 = 4 ... 20 mA

I: FEEDBACK

- 1 = Feedback output 0 ... 10 Volt
 2 = Feedback output 0 ... 20 mA
 3 = Feedback output 4 ... 20 mA
 4 = Feedback input 0 ... 10 Volt
 5 = Feedback input 0 ... 20 mA
 6 = Feedback input 4 ... 20 mA

PP: PRESSURE RANGE

Relative pressure	Max. allowable pressure (bar)	Vacuum (relative)
40 = 0 - 100 mbar	2	V3 = 0 ... -1 bar
50 = 0 - 500 mbar	2	Shut-off valve
60 = 0 - 1 bar	2	
02 = 0 - 2 bar	3	
03 = 0 - 3 bar	8	
05 = 0 - 5 bar	8	
06 = 0 - 6 bar	12	
10 = 0 - 10 bar	12	
12 = 0 - 12 bar	14	
16 = 0 - 16 bar ¹⁾	18	
20 = 0 - 20 bar ¹⁾	22	
3H = 0 - 30 bar ²⁾	40	
5H = 0 - 50 bar ²⁾	60	


D: DIGITAL OUTPUT

- 1 = Pressure switch output
 PNP ± 5 %

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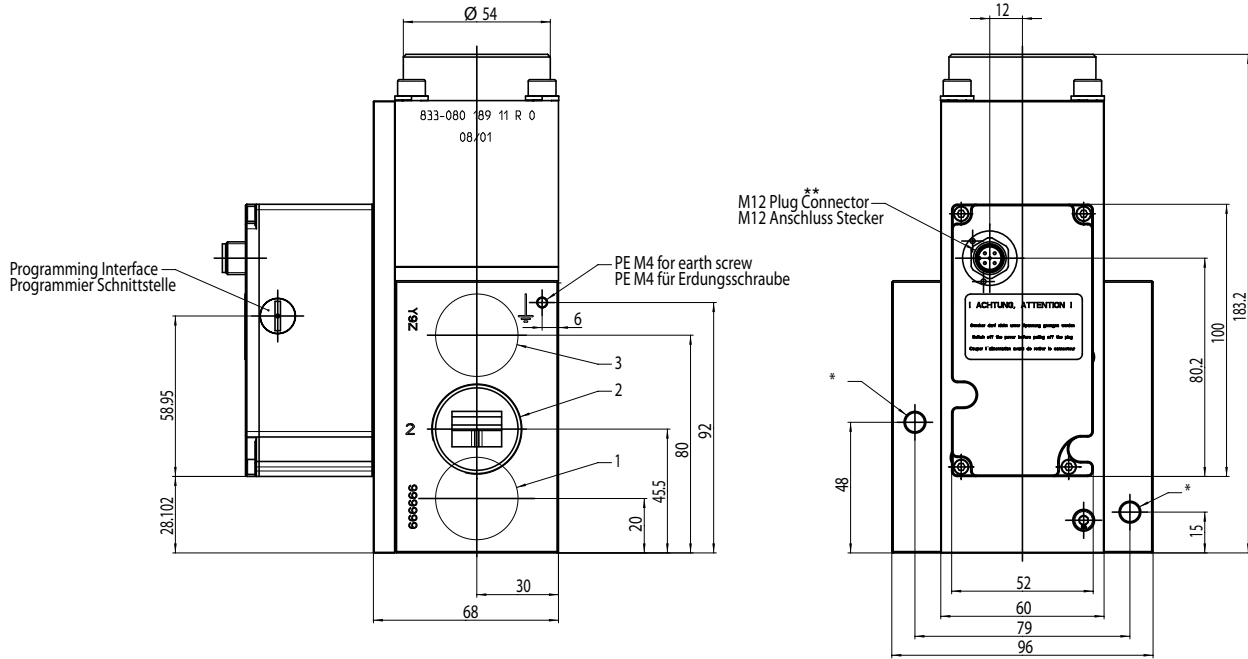
Notes:

- ¹⁾ Only for DN3 and DN 6
²⁾ Only for DN6, Ms
 Other versions available on request.

DIMENSIONS (mm), WEIGHT (kg) 

G 1

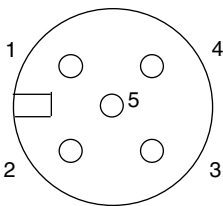
Weight: 3,900 kg



* Thread M8 - depth 15 (on opposite side); tapped through-hole for M6 screw.

** The exhaust connection on the 0-16 bar version is at the bottom of the valve.

CONNECTOR PINNING / CABLE WIRING



Pin	Description	5-wire cable (2 m)	6-wire cable (5 m, 10 m)
1	24V voltage supply	brown	brown
2	Analog setpoint input	white	white
3	Supply ground	blue	green
	Analog ground *	-	yellow
4	Analog output (Feedback)	black	pink
5	Digital output (Pressure switch)	grey	grey
Body	EMV screen	Shield	Shield

※: A 6-wire cable with separate analog ground is used for cable lengths over 2 m to set off the voltage drop for the setpoint.

ACCESSORIES

description	catalogue number
Straight M12 female connector, 5 pins, with screw terminals	88100256
Right-angle M12 female connector, 5 pins, with screw terminals	88100725
Supply cable 2m; 5x0,25 mm ² ; straight connector	88100726
Supply cable 2m; 5x0,25 mm ² ; right-angle connector	88100727
Supply cable 5m; 6x0,50 mm ² ; straight connector	88100728
Supply cable 5m; 6x0,50 mm ² ; right-angle connector	88100729
Supply cable 10m; 6x0,50 mm ² ; straight connector	88100730
Supply cable 10m; 6x0,50 mm ² ; right-angle connector	88100731
RS 232 cable converter; 2m cable with 9-pin Sub-D (plug connector)	88100732
RS 232 cable converter; 2m cable with 9-pin Sub-D (screw connector)	88100970
<i>DaS Light</i> : Data Acquisition Software for SENTRONIC^{PLUS} - basic parameters - CD-ROM	99100110
<i>DaS Expert</i> : Data Acquisition Software for SENTRONIC^{PLUS} - full parameters - CD-ROM	99100111