



ASCO
JOUCOMATIC

PROPORTIONAL VALVES

SENTRONIC *Digital* Electronic pressure regulator



3/2
Series
833-357

GENERAL

SENTRONIC DIGITAL is a highly dynamical 3-way proportional valve with digital control, also for use in potentially explosive atmospheres according to ATEX Directive 94/9/EC.

SENTRONIC DIGITAL stands for:

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

A special feature of the **SENTRONIC DIGITAL** 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.

SPECIFICATIONS

Fluids	: Air or neutral gas, filtered at 50 µm, condensate-free, lubricated or unlubricated
Ports	: G1/8 - G1/4 - G1/2 - G1
Max. operating pressure	: See table below
Control range	: See table below
Temperature / fluid	: 0...60 °C
Temperature / ambient	: 0...60 °C
Setpoint	- analog

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
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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
6	24 V = +/-10%	24	1000	F	IP 65	5-pin M12 connector
12		34	1400			
20		44	1800			

* Max. ripple: 10 %

SPECIFICATIONS

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

CATALOGUE NUMBER

8 3 3 - 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 ²⁾	8 = DN6 (G 1/4), brass
2 = DN20 (G 1), Alu	A = DN6 (NPT 1/4"), brass
3 = DN6 (ISO 1), Alu	C = DN6 (G 1/4), VA
4 = DN6 (NPT 1/4"), Alu	H = DN6 (G 1/4), brass ¹⁾
5 = DN12 (NPT 1/2"), Alu	

S: SETPOINT

0 = 0 ... 10 V
1 = 0 ... 20 mA
2 = 4 ... 20 mA

I: FEEDBACK

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

PP: PRESSURE RANGE

Relative pressure	Max. inlet pressure (bar)	Vacuum (relative)
40 = 0 - 100 mbar	2	V1 = 0 ... -1 bar
50 = 0 - 500 mbar	2	Shut-off valve
60 = 0 - 1 bar	2	V2 = 0 ... -1 bar
02 = 0 - 2 bar	3	Bypass version
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 ³⁾	18	
20 = 0 - 20 bar ³⁾	22	
3H = 0 - 30 bar ⁴⁾	40	
5H = 0 - 50 bar ⁴⁾	60	

³⁾Only for DN6

⁴⁾Only for DN6, brass

D: DIGITAL OUTPUT

1 = Pressure switch output
PNP ± 5 %

Notes:

¹⁾ Only for pressure ranges from 30 to 50 bar

²⁾ Up to max. 10 bar

Other versions available on request.



All leaflets are available on: www.ascojoucomatic.com

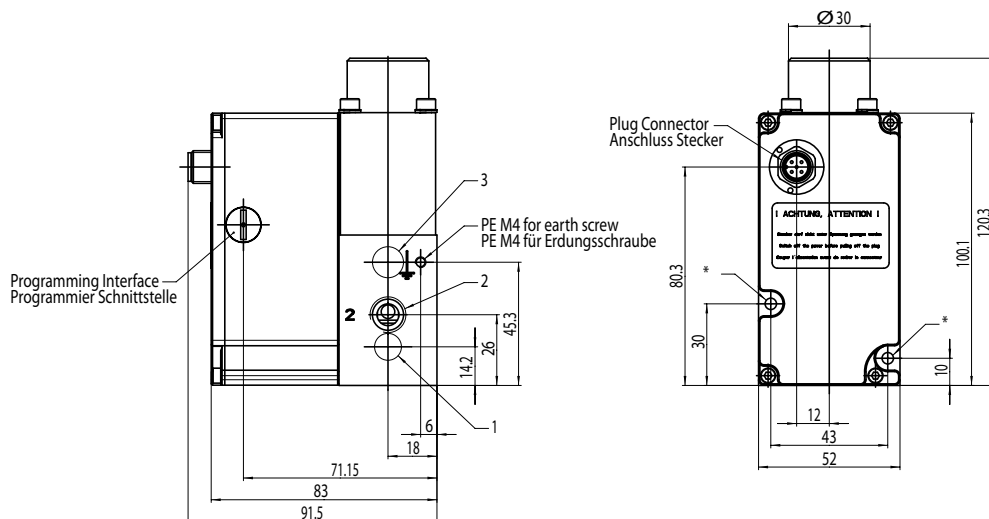
Pneutrol International Ltd are Platinum Distributors for ASCO Numatics

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DIMENSIONS AND WEIGHT

G 1/4

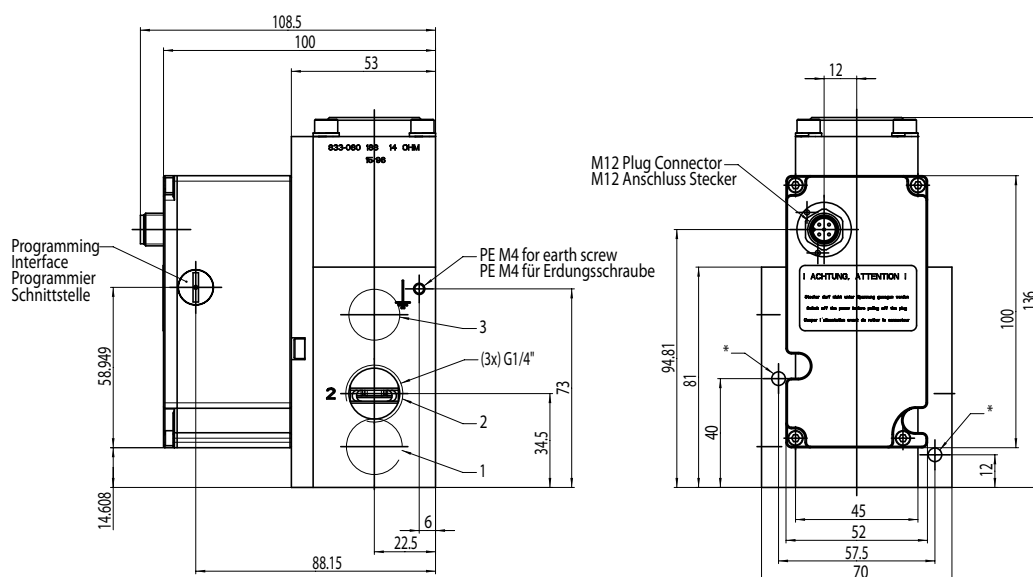
Weight: 0,950 kg



* Thread M5 - depth 10
(on opposite side);
tapped through-hole
for M4 screw.

G 1/2

Weight: 1,900 kg

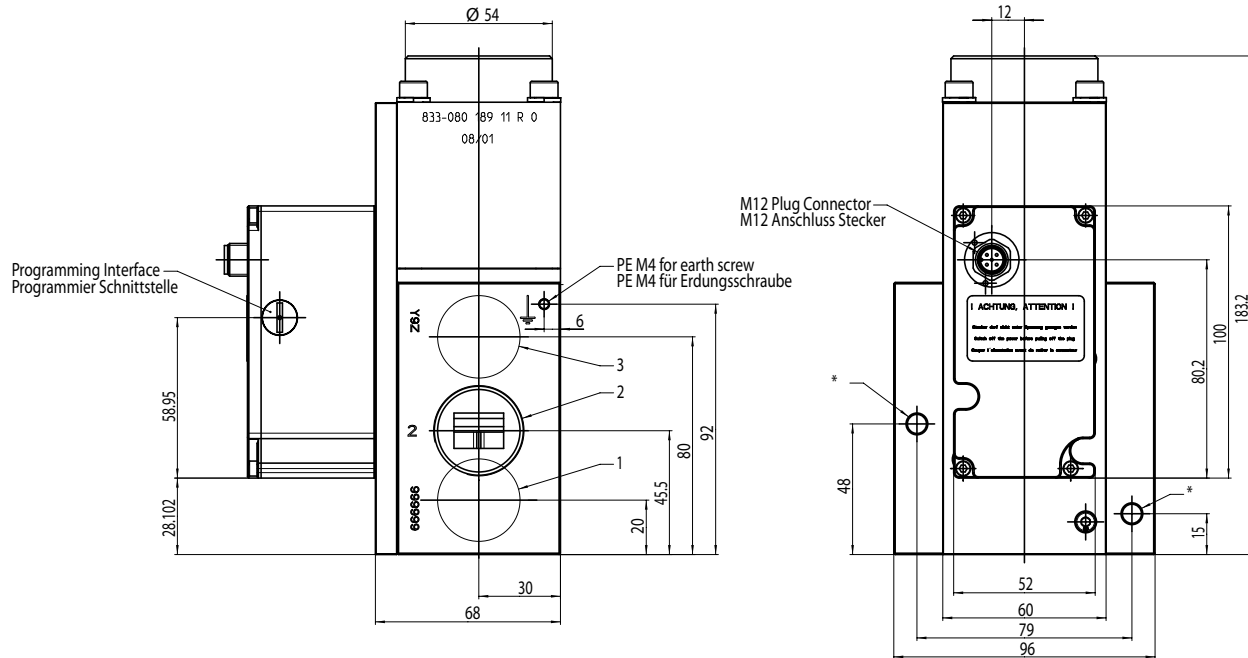


* Thread M5 - depth 10
(on opposite side);
tapped through-hole
for M4 screw.

DIMENSIONS AND WEIGHT

G 1

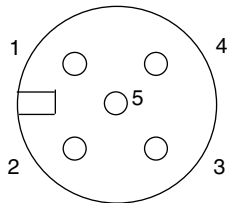
Weight: 3,900 kg



* 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; 5x 0.25 mm ² ; straight connector	88100726
Supply cable 2m; 5x 0.25 mm ² ; right-angle connector	88100727
Supply cable 5m; 6x 0.50 mm ² ; straight connector	88100728
Supply cable 5m; 6x 0.50 mm ² ; right-angle connector	88100729
Supply cable 10m; 6x 0.50 mm ² ; straight connector	88100730
Supply cable 10m; 6x 0.50 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)	833-993708
DaS Light: Data Acquisition Software for SENTRONIC^D - basic parameters - CD-ROM	99100110
DaS Expert: Data Acquisition Software for SENTRONIC^D - full parameters - CD-ROM	99100111