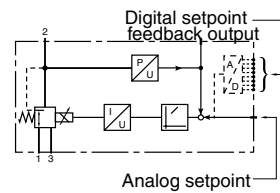


PROPORTIONAL VALVES

SENTRONIC

with integrated control electronics



3 Ports
Series
833-
354

GENERAL

Fluids : Air or neutral gas, filtered at 50 µm, condensate-free, lubricated or unlubricated
Ports : G1/8 - G1/4 - G1/2 - G1
Maximum allowable pressure (MAP) : See table below
Control range : See table below
Temperatur fluid : 0 °C to 60 °C
ambient : 0 °C to 40 °C
Setpoint - analog : 0 - 10 V (impedance 100 KΩ)
 0 - 20 mA (impedance 500 Ω)
 4 - 20 mA (impedance 500 Ω)
- digital (option) : 8 bits + memory function (Hold)
 8 bits + pressure reset (Enable)
Hysteresis : 1 % of span
Linearity / pressure measurement : ± 0,5 % of span
Repeatability : ± 0,5 % of span



CONSTRUCTION

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

ASSEMBLY POSITION

any

ELECTRICAL CHARACTERISTICS

nominal diameter DN (mm)	voltage *	max. power (W)	max. current (mA)	insulation class	degree of protection	electrical connection
3	24 V = +/-10%	12	500	F	IP 65	7-pin connector (16-pin digital) DIN 43651
6		24	1000			
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 1/8	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

8 3 3 - 3 5 4 A S I D P P

A: VERSION (ports), body

0 = DN6 (G 1/4), Alu
 1 = DN12 (G 1/2), Alu³⁾
 2 = DN20 (G 1), Alu
 3 = DN6 (ISO 1), Alu
 4 = DN6 (NPT 1/4"), Alu
 5 = DN12 (NPT 1/2"), Alu
 6 = DN20 (NPT 1"), Alu
 7 = DN3 (G 1/8), brass
 8 = DN6 (G 1/4), brass
 9 = DN3 (NPT 1/8"), brass
 A = DN6 (NPT 1/4"), brass
 C = DN6 (G 1/4), VA
 H = DN6 (G 1/4), brass²⁾

S: SETPOINT

0 = 0 ... 10 V
 1 = 0 ... 20 mA
 2 = 4 ... 20 mA
 3 = Digital input 8 bits with HOLD, 24V level¹⁾
 4 = Digital input 8 bits with pressure reset¹⁾

I: FEEDBACK

0 = WITHOUT
 1 = Feedback output 0 ... 10 V
 2 = Feedback output 0 ... 20 mA¹⁾
 3 = Feedback output 4 ... 20 mA¹⁾
 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)
40 = 0 - 100 mbar	2
50 = 0 - 500 mbar	2
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 ⁴⁾	18
20 = 0 - 20 bar ⁴⁾	22
3H = 0 - 30 bar ⁵⁾	40
5H = 0 - 50 bar ⁵⁾	60

Vacuum (relative)
 V1 = 0 ... -1 bar
 shut-off valve
 V2 = 0 ... -1 bar
 bypass version

⁴⁾Only for DN3 and DN6
⁵⁾Only for DN6, brass

D: PRESSURE SWITCH

0 = WITHOUT
 1 = ± 5 %, PNP, feedback=setpoint

Note:

¹⁾ Only one option possible (G1/8), max. 2 options possible (G 1/4 ... G 1)

²⁾ Only for pressure ranges from 30 to 50 bar

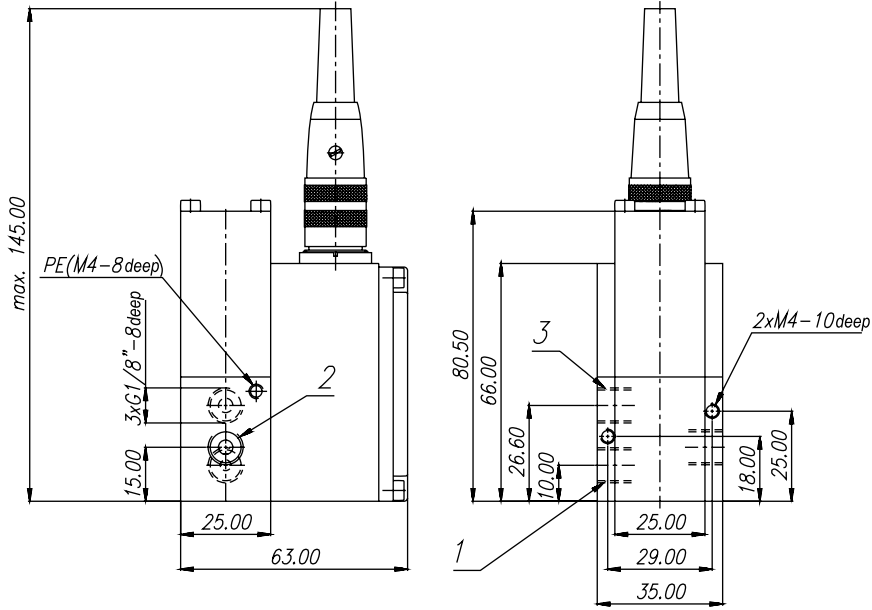
³⁾ Up to max. 10 bar

Other versions on request

DIMENSIONS (mm), WEIGHT (kg)

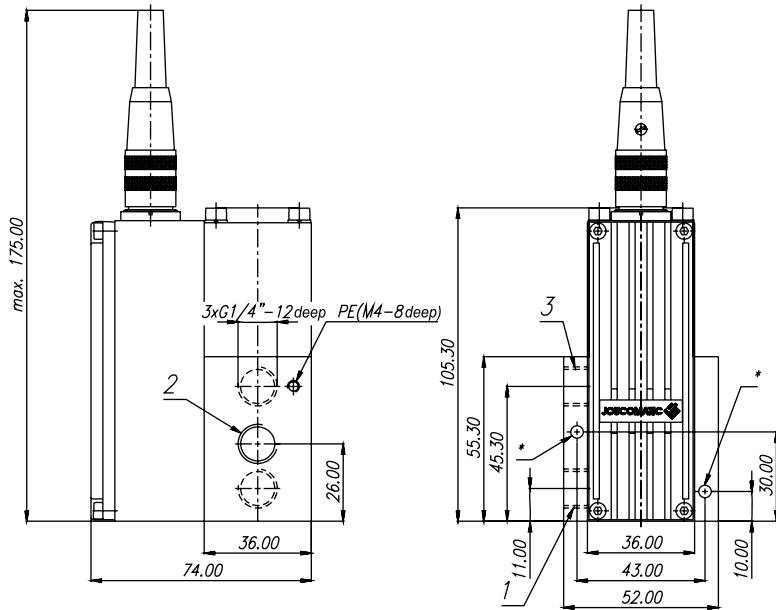
G 1/8

Weight: 0,650 kg



G 1/4

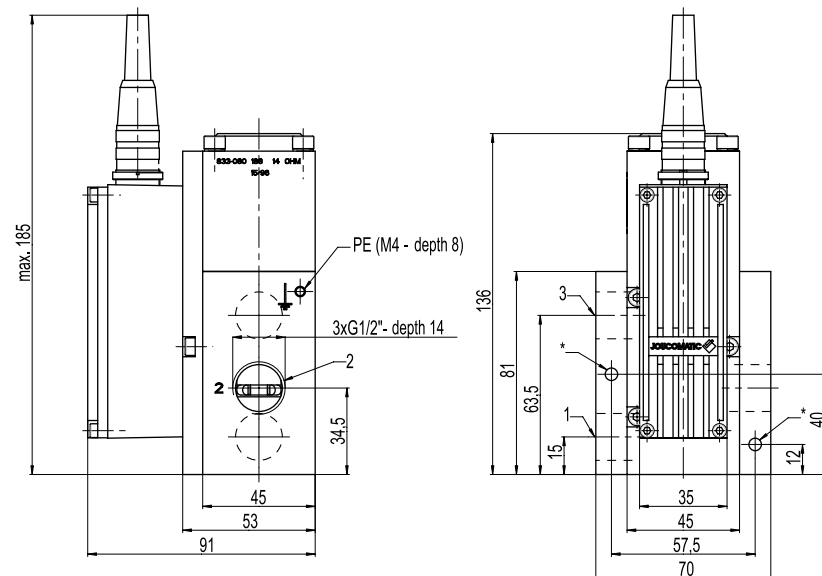
Weight: 0,950 kg



* Thread M6 - depth 10 (on opposite side); tapped through-hole for M4 screw.

G 1/2

Weight: 1,900 kg

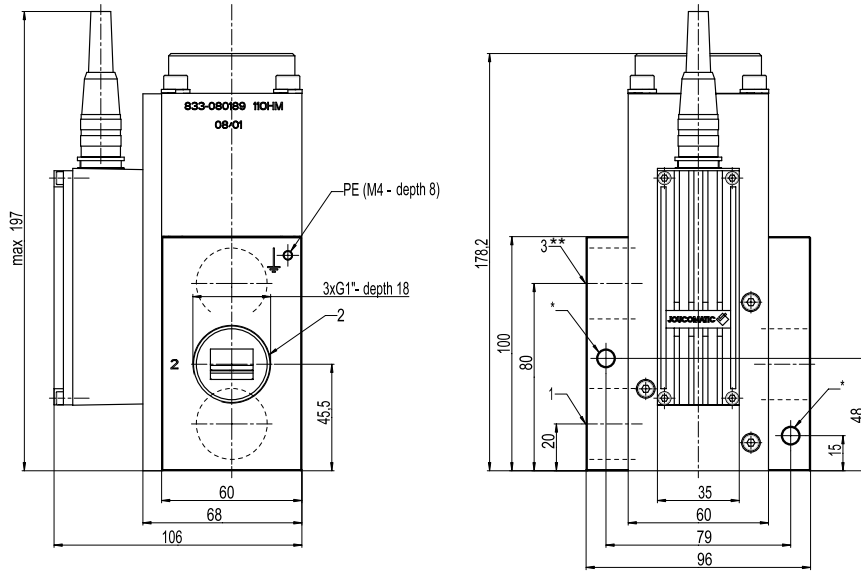


* Thread M6 - depth 10 (on opposite side); tapped through-hole for M4 screw.

DIMENSIONS (mm), WEIGHT (kg)

G 1

Weight: 3,900 kg

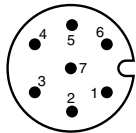


* Thread M8 - depth 15 (on opposite side); tapped through-hole for M6 screw.
 **The exhaust connection on the 0-16 bar version is at the bottom of the valve.

CONNECTOR WIRING

Version: **Analog** setpoint

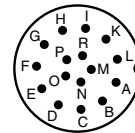
View on solder side of female connector



- 1 - + 24V
 - 2 - GND (24 V)
 - 3 - Setpoint
 - 4 - GND (setpoint)
 - 5 - Output voltage stabilised 12 V (max. 30 mA)
 - 6 - Feedback output pressure - max. 10 mA (option)
 Feedback input for external electrical pressure sensor (option)
 - 7 - Pressure switch output (option)
- Pin 2 must be connected to ground.

Version: **Digital** setpoint

View on solder side of female connector



- A - +24V
- B - GND
- C - Bit 0 (LSB)
- D - Bit 1
- 4 - Bit 2
- F - Bit 3
- G - Bit 4
- H - Bit 5
- I - Bit 6
- K - Bit 7 (MSB)
- L - Memory function (Hold)
 Pressure reset (Enable)
- M - Pressure switch output (option)
- P - Feedback output pressure 0 - 10 V (option)
 Feedback input for external electrical pressure sensor (option)

Availability, design and specifications are subject to change without notice. All rights reserved.

