

PROPORTIONAL VALVE FOR PRESSURE CONTROL DIGITAL ELECTRONIC *SENTRONIC^D*



P302-GB-R4a

PRESSURE CONTROL

SENTRONICD: A new generation of DIGITAL electronic pressure regulators:

DIRECT OPERATED: precise control and quick response times

DYNAMIC: short stabilising periods and low oscillation frequency

Gives you full control over the parameters used inside the valve:

- Manual control: the incorporated DISPLAY and the two push-buttons enable pressure readout, pressure manual set-point and LED diagnosis
- Computer control:
 - Parameters features: this flexibility allows you to adapt the valve to your application and optimise its response time, accuracy and pressure control
 - Valve diagnosis: read valve information such as serial number and valve temperature, and watch the operation time. Read valve status and perform test functions for installation and service.
- Storage of parameters: once the optimal parameters are determined, you can store them in a project file for your personal use, or you may forward the file to our Product Support Department for future serial production.

With the **Data acquisition Software** and RS 232 interface, it's now possible to adapt the controller to the control loop in an optimal way. Adjusted valve status can be read out.

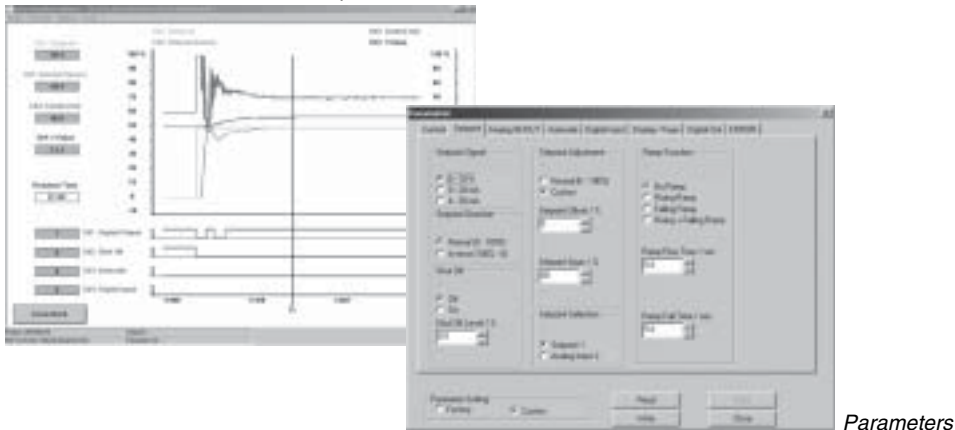
The adaptation of the PID parameters to the loop control is adjustable with **DaS** and the result can be seen immediately with the scope function. The transients are logged by the scope function and can be read out immediately.



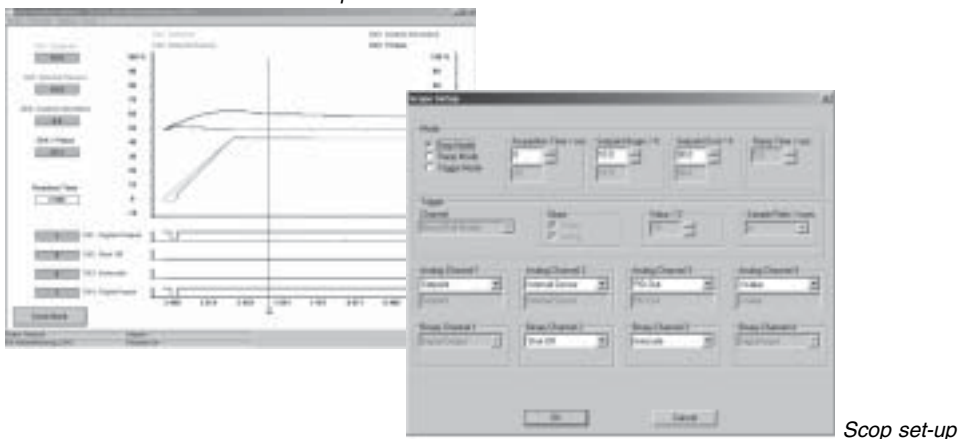
FULL CONTROL WITH THE *Das* SOFTWARE

Signal generator and scope function

Step test function



Ramp test function



Series
608 / 609

SENTRONIC^D DIGITAL ELECTRONIC PRESSURE REGULATOR

Threaded versions DN4: G1/8, G1/4 - DN8: G1/4, G3/8 or subbase mounted

GENERAL

Sentronic^D is a highly dynamical 3-way proportional valve with digital control.

Sentronic^D stands for:

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

A special feature of the Sentronic^D 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. The valve's outlet pressure can also be adjusted over the integrated display and the function buttons.

SPECIFICATIONS

FLUIDS	: Air or neutral gas, filtered 50 µm, without condensate, lubricated or not
PORTS	: G1/8-G1/4-G3/8, see table below
MAX. INLET PRESSURE	: see table below
TEMPERATURE / FLUID	: 0°C,+60 °C
TEMPERATURE / AMBIENT	: 0°C, +50 °C
ELECTRICAL SETPOINT	: 0...10 Volts (impedance 100 kΩ) 0...20 mA /4...20 mA (impedance 250 Ω)
HYSTERESIS	: <1% of span
LINEARITY	: <0.5% of span
REPEATABILITY	: <0.5% of span
MINIMUM SETPOINT	: 100mV (0,2 mA/4,2mA) with shutoff function
MINIMUM OUTLET PRESSURE	: 1% of span

CONSTRUCTION

Direct operated poppet valve

Body: Aluminium

Internal parts: POM

Seals: NBR and FPM

ELECTRICAL CHARACTERISTICS

Nominal diameter DN (mm)	Stabilized voltage *	Max. power (W)	Max. current (mA)	Insulation class	Degree of protection	Electrical connection
4	24 V = $\pm 10\%$	21	850	H	IP 65	5 pin M12 connector
8		40	1650			

* Max. ripple: 10 %

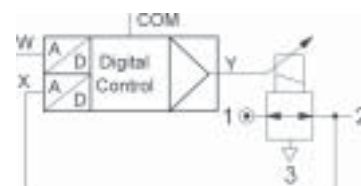
CHOICE OF EQUIPMENT

Ø connection	Ø Nominal diameter DN (mm)	Flow	
		K _v coefficient (Nm ³ /h)	l/min (SRA)
G 1/8 G 1/4	4	0,25	470
G 1/4 G 3/8	8	0,7	1300

Test conditions according to ISO 8778: temperature: 20 °C, relative inlet pressure: 6 bar, relative outlet pressure: 5 bar

CODE:

	NNN	C	P	S	A	D	E
NNN: Nominal diameter	608 = DN 4mm 609 = DN 8mm						
C: Connection		0 = G 1/8 (DN4), G 1/4 (DN 8) 1 = G 1/4 (DN 4), G 3/8 (DN 8) 2 = Subbase G 1/8 (DN 4), G 1/4 (DN 8) 5 = NPT 1/8 (DN 4), NPT 1/4 (DN 8) 6 = NPT 1/4 (DN 4), NPT 3/8 (DN 8)					
P: Pressure range			max. inlet pressure (bar)				
	1 = 0 - 10 bar		13				
	3 = 0 - 3 bar		6				
	6 = 0 - 6 bar		9				
S: Setpoint				0 = 0 ... 10 Volts 1 = 0 ... 20 mA 2 = 4 ... 20 mA			
E: Display							0 = without display 1 = with display
D: Digital output							1 = Pressure switch output PNP $\pm 5\%$
A: Analog output							1 = Setpoint output 0...10 Volt 2 = Setpoint output 0...20 mA 3 = Setpoint output 4...20 mA



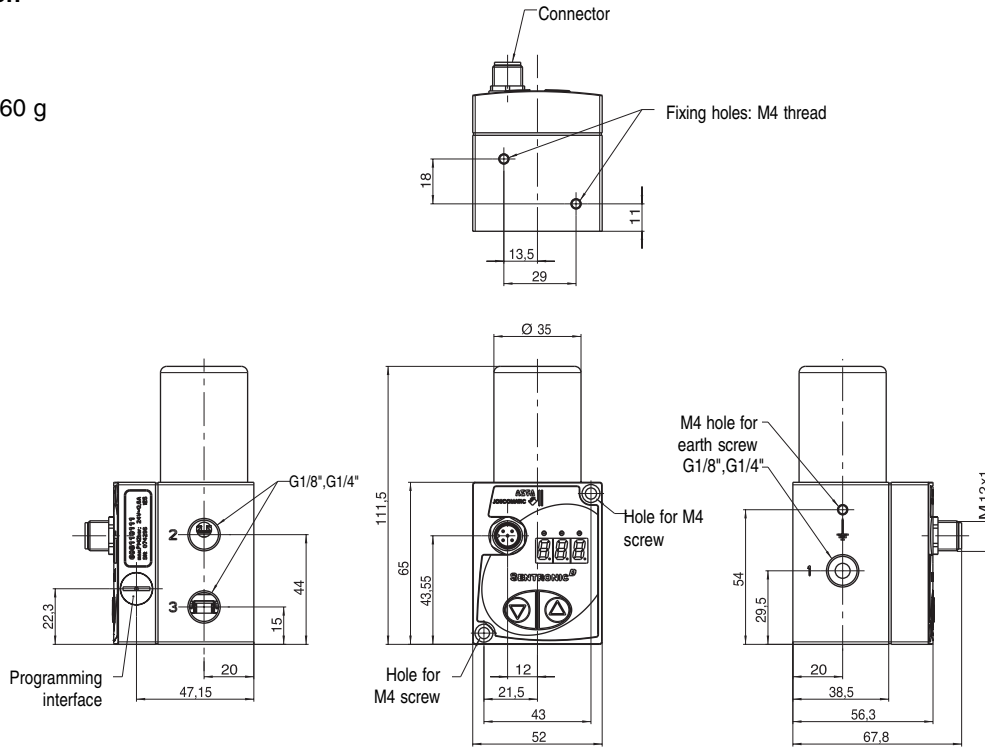
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DIMENSIONS AND WEIGHTS

Inline version

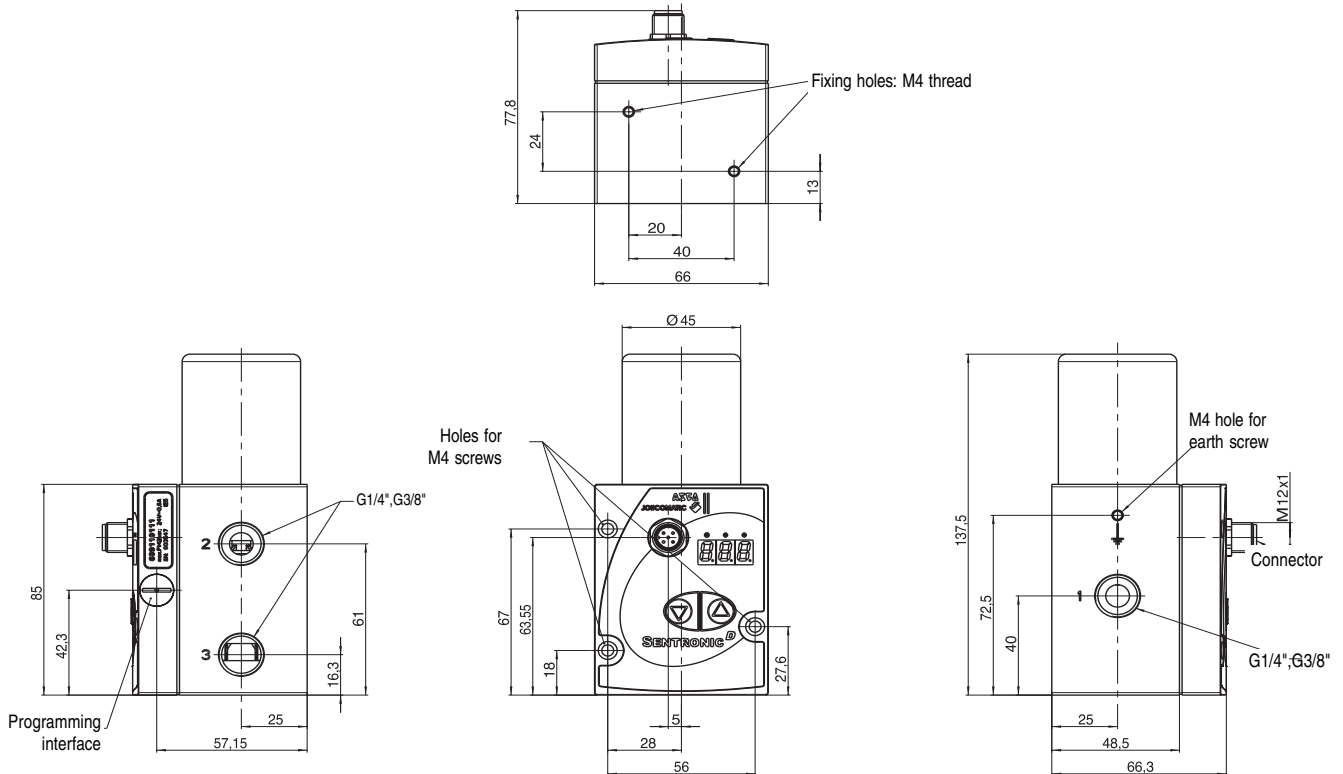
DN 4

Weight: 560 g



DN 8

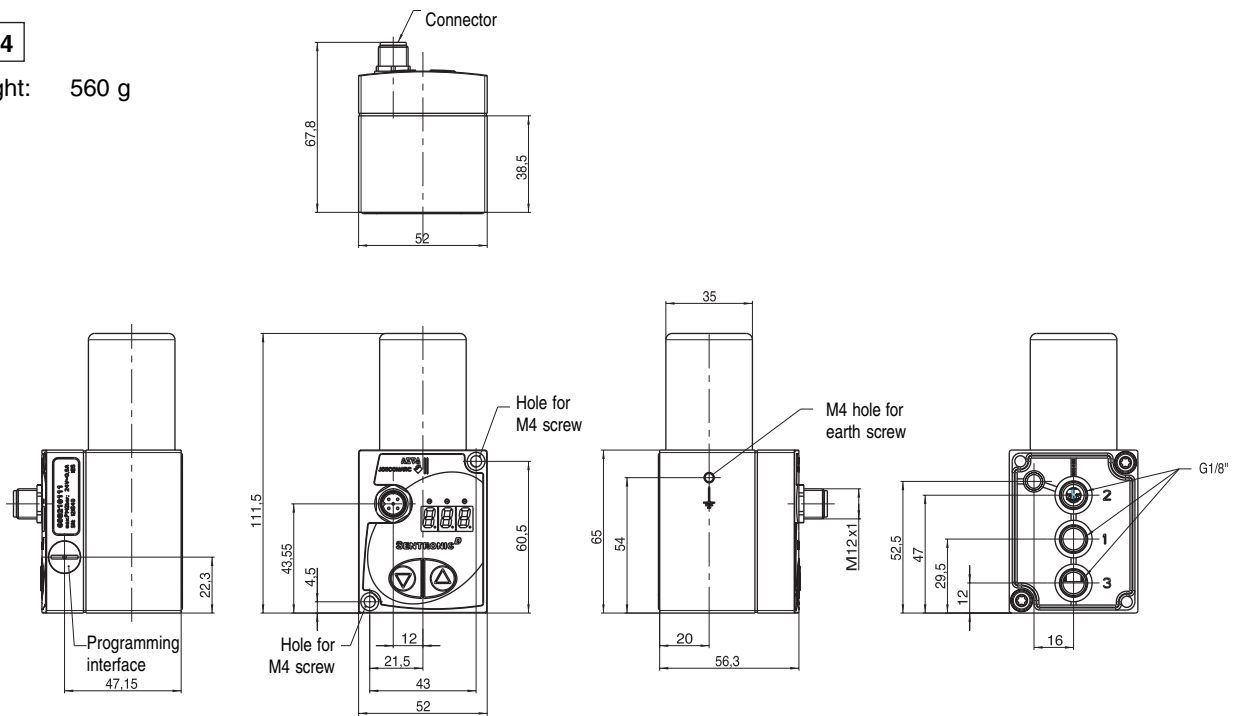
Weight: 1,130 g



Subbase version

DN 4

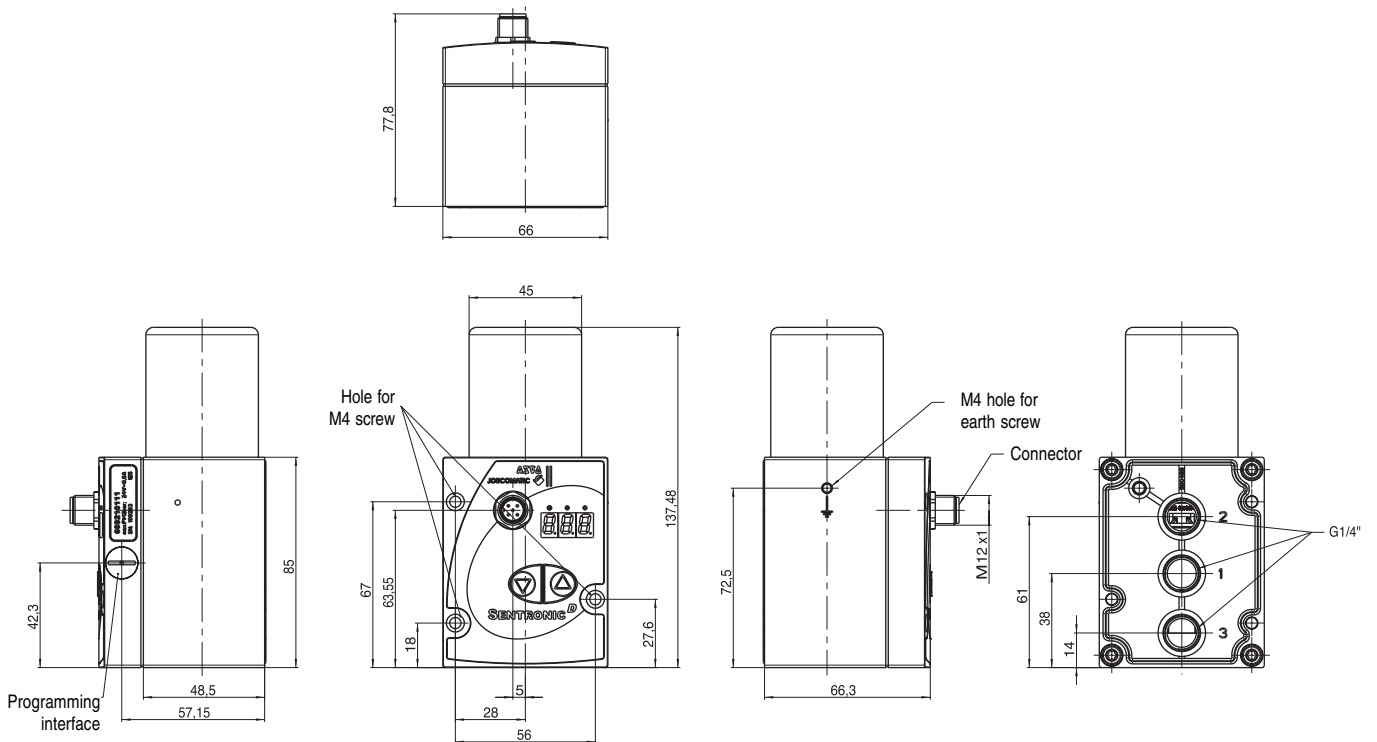
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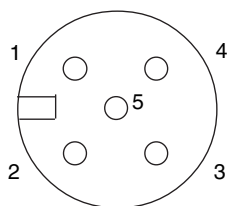
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DN 8

Weight: 1,130 g



CONNECTOR PINNING / CABLE WIRING



Pin	Description	5-wire cable (2m)	6-wire cable (2m, 10m)
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	EMC shield	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	CODES
Straight M12 female connector, 5 pins, with screw terminals	881 00 256
Right-angle M12 female connector, 5 pins, with screw terminals	881 00 725
Supply cable 2m; 5x 0.25 mm ² ; straight connector	881 00 726
Supply cable 2m; 5x 0.25 mm ² ; right-angle connector	881 00 727
Supply cable 5m; 6x 0.56 mm ² ; straight connector	881 00 728
Supply cable 5m; 6x 0.56 mm ² ; right-angle connector	881 00 729
Supply cable 10m; 6x 0.56 mm ² ; straight connector	881 00 730
Supply cable 10m; 6x 0.56 mm ² ; right-angle connector	881 00 731
RS 232 cable converter; 2m cable with 9-pin Sub-D	881 00 732
Joinable subbase for 608 (DN 4mm) with G3/8"; common supply and exhaust	355 00 558
Joinable subbase for 609 (DN 8mm) with G1/2"; common supply and exhaust	355 00 559
DaS Light: Data Acquisition Software for Sentronic^D - basic parameters - diskette	991 00 108
DaS Expert: Data Acquisition Software for Sentronic^D - full parameters - diskette	991 00 109
DaS Light: Data Acquisition Software for Sentronic^D - basic parameters - CD-ROM	991 00 110
DaS Expert: Data Acquisition Software for Sentronic^D - full parameters - CD-ROM	991 00 111

ASCO/JOUCOMATIC reserves the right to alter the availability and specifications without notice.