

PNEUMATIC PROPORTIONAL VALVES






Product Index



control	pipe connections							pad mount	pressure range (bar)	flow at 6 bar l/min (ANR)	filtration (µm)	hysteresis	vacuum	safety	technology	special feature	ATEX	type	illustration	series	page
	pressure	flow	M5	1/8	1/4	3/8	1/2														
●				☒	☒	☒		☒	0-3 0-6 0-10	470 5200	50	< 1%		pression maintenue		digital control		SENTRONIC ^{LP}		617	1
●				☒	☒	☒		☒	0-3 0-6 0-10	470-1300	50	< 1%				digital electronics		SENTRONIC ^D		608 609	7
●				☒	☒		☒	☒	0-50	up to 5600	50	< 0,5%	●	pressure released	poppet	digital electronics	☒	SENTRONIC ^{PLUS}		614	13
●				☒	☒		☒	☒	0-50	up to 5600	50	< 0,5%	●			with external pneumatic pressure supply	☒	SENTRONIC ^{PLUS}		614	19
●					☒				0-3 0-6 0-10	1200	-	< 0,5%		pressure hold pressure release	pilot + booster	high-definition with digital control		SENTRONIC ^{HD}		616	25
	●					☒			0 - 8	20-500	-	< 2%		pressure released	poppet	with integrated control electronics		FLOWTRONIC ^D		607	33
●							☒		0-40	0 to 1700	50	< 0,5%		pressure released	spool	digital electronics		Servotronic Digital		615	35

00258GB-2017/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

All leaflets are available on: www.asco.com

control	pipe connections							pad mount	pressure range (bar)	flow at 6 bar l/min (ANR)	filtration (µm)	hysteresis	safety	technology	type	illustration	series	page	
	pressure	flow	4	M5	1/8	1/4	3/8												1/2
Mini piezo-valve																			
●														multi-layer piezo ceramics	Piezotronic		630	31	
Proportional solenoid valve																			
●													pressure released		without control electronics		602	29	
Accessories																			
●	●														Control device for proportional solenoid valve control	CONTROL <i>D</i>		603	37
																Digital control unit		908	39
																Electronic proportional control unit		908	41

FEATURES

- **SENTRONIC^{LP}** stands for:
 - Low power consumption (3,8 W)
 - Digital communication and control
 - Display (integrated) with function buttons (option)
 - Pilot operated proportional valve
- 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.
- RoHS, REACH compliant.

GENERAL

Fluids	Air or neutral gas filtered at 50 µm, without condensate, lubricated or unlubricated, class 5 according to ISO 8573-1:2010 [7:4:4]
Max. allowable pressure (MAP)	At least 1 bar above the maximum outlet pressure
Pressure range	0-3 bar, 0-6 bar, 0-10 bar
Fluid temperature	0°C to +60°C
Ambient temperature	0°C to +50°C
Flow (Qv at 6 bar)	470 NI/min - 5200 NI/min
Setpoint	0 - 10 V (impedance 100 kΩ) 0 - 20 mA / 4 - 20 mA (impedance 250 Ω)
Hysteresis	1% of span
Linearity	1% of span
Repeatability	1% of span
Minimum setpoint	100 mV (0,2 mA/4,2mA) with shutoff function
Minimum outlet pressure	1% of span
Failsafe behaviour	Pressure hold on loss of power, without control

CONSTRUCTION

Body	Aluminium
Internal parts	POM (polyacetal)
Seals	NBR (nitrile)

ELECTRICAL CHARACTERISTICS

nominal diameter DN	stabilised voltage *	max. power (W)	max. current (mA)	insulation class	degree of protection	electrical connection
4, 8, 15	24VDC	3,8 W (< 1 W compensate)	160	H	IP 65	5-pin M12 connector (to be ordered separately)

* Max. ripple: 10 %

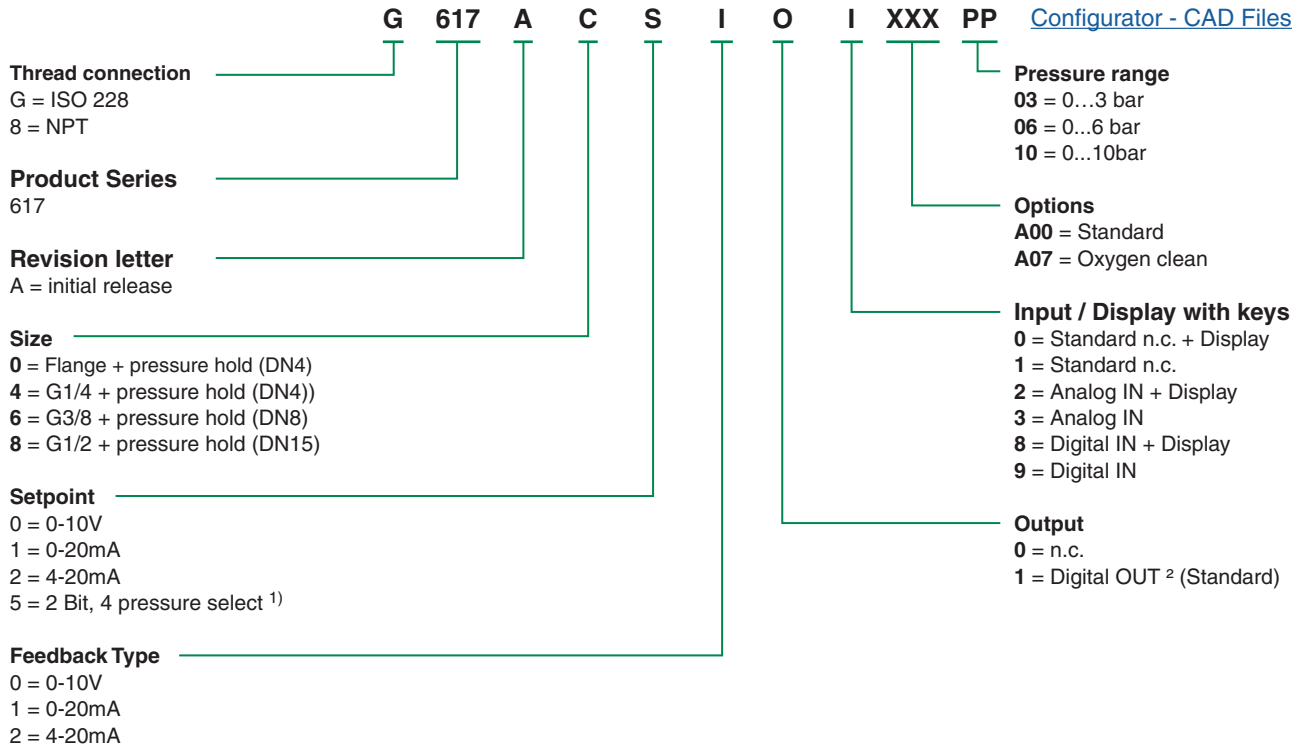
SPECIFICATIONS

pipe size	orifice size (mm)	flow	
		coefficient Kv (Nm ³ /h)	at 6 bar (NI/min)
G 1/4	4	0,43	470
G 3/8	8	1,2	1300
G 1/2	15	4,8	5200

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



CATALOGUE NUMBER



1) only Digital IN, no Digital OUT 2) no Digital IN possible

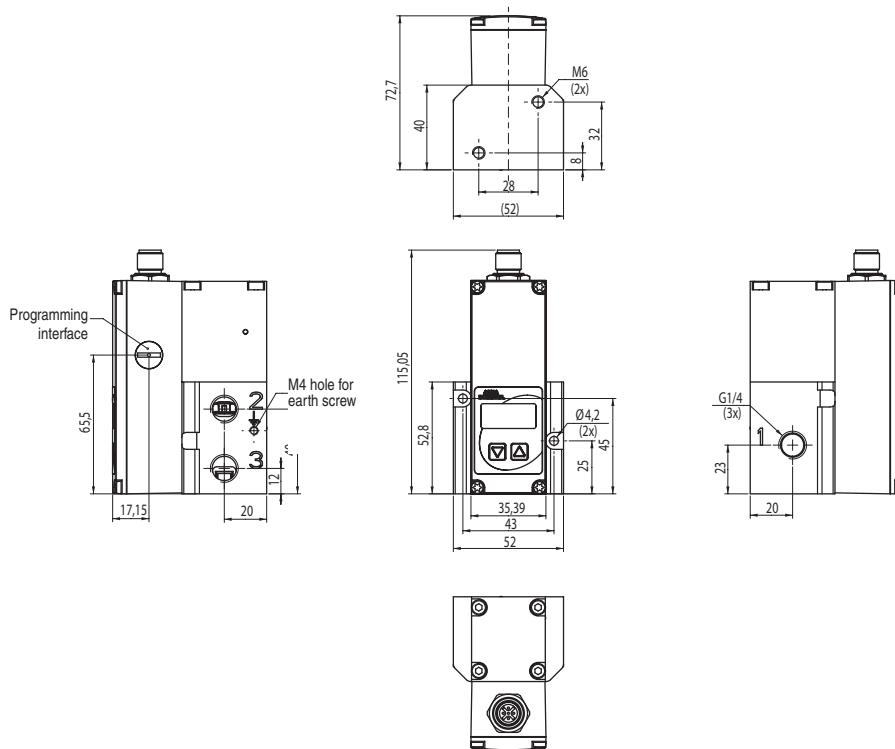
DIMENSIONS (mm), WEIGHT (kg)

[Configurator - CAD Files](#)

Inline version

DN 4

Weight: 0,49 kg



DIMENSIONS (mm), WEIGHT (kg)

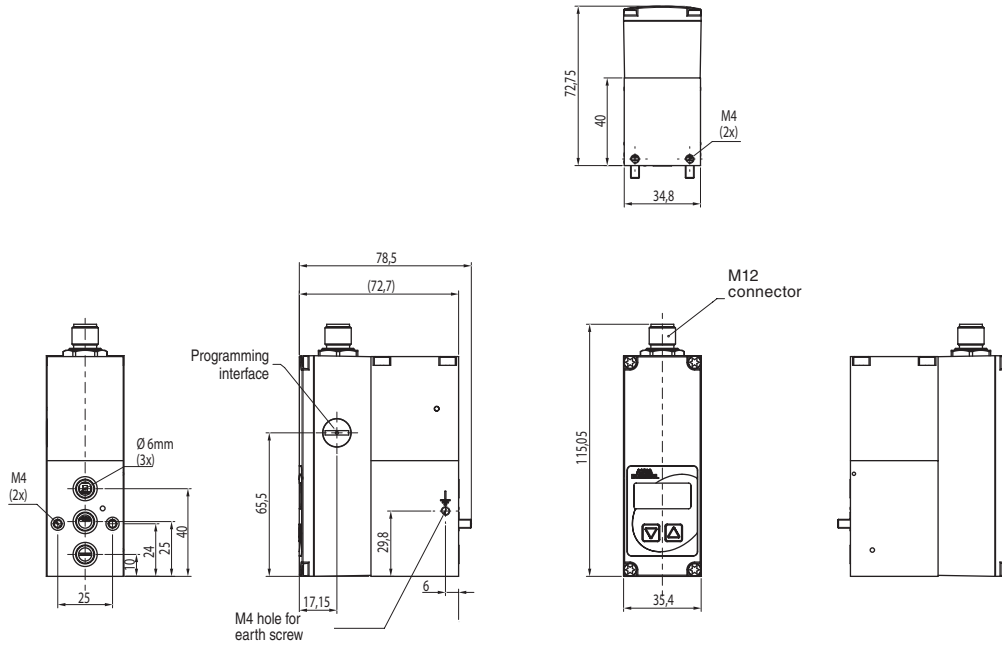


[Configurator - CAD Files](#)

Subbase version

DN 4

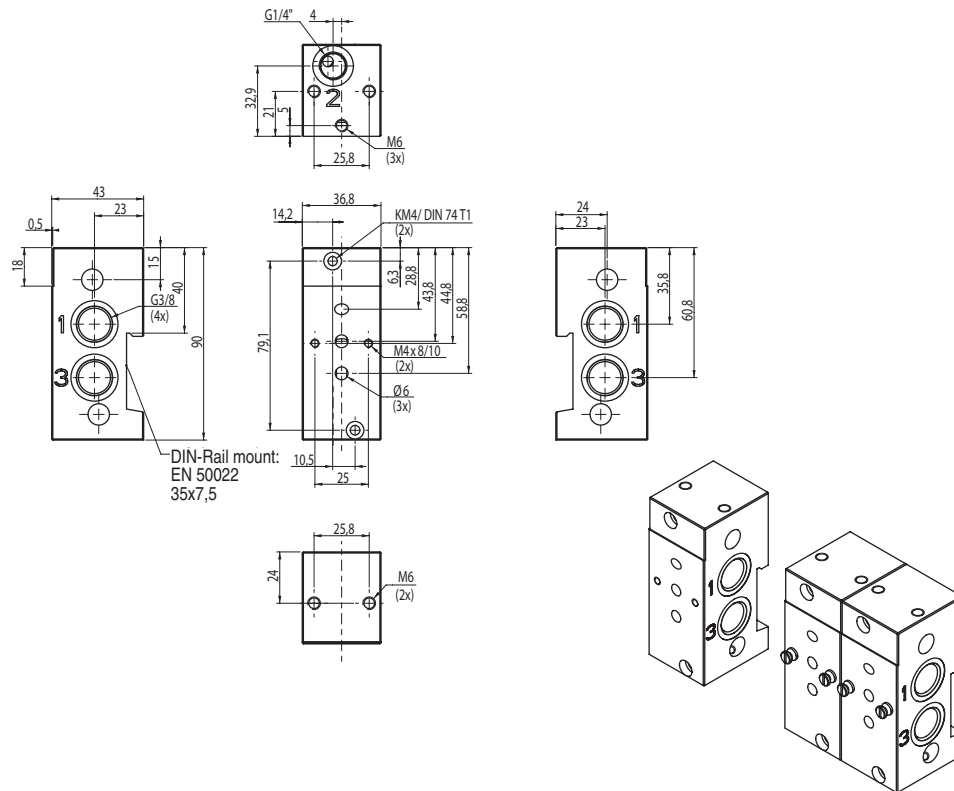
Weight: 0,49 kg



DN 4

Joinable subbase

Weight: 0,3 kg



01454GE-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

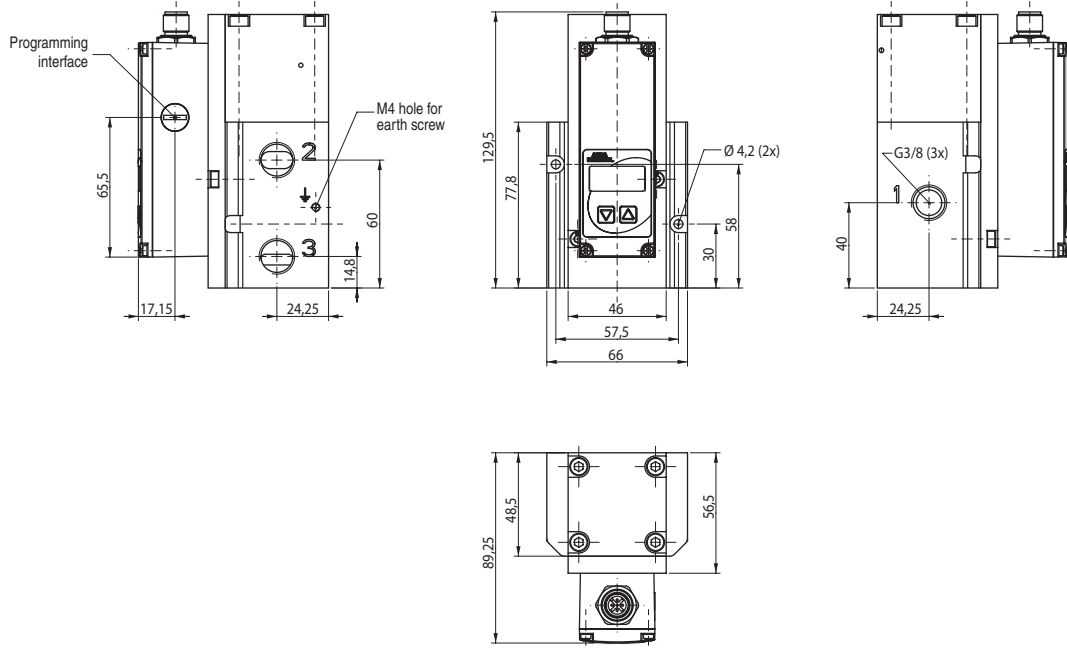
DIMENSIONS (mm), WEIGHT (kg)



[Configurator - CAD Files](#)

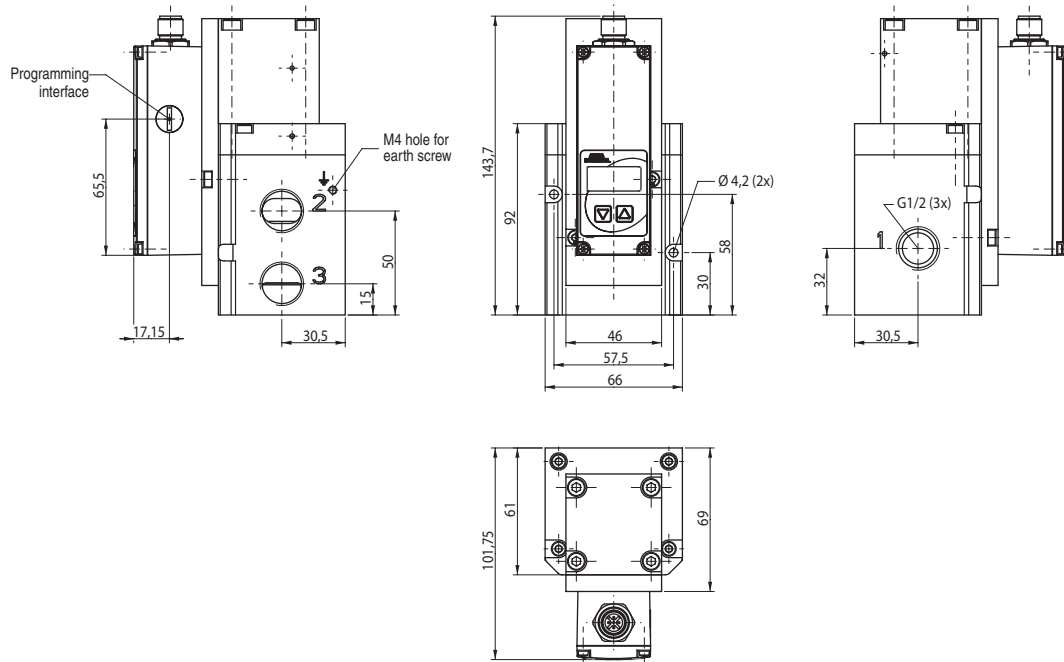
DN 8

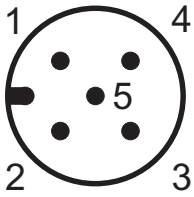
Weight: 0,93 kg



DN 15

Weight: 1,33 kg



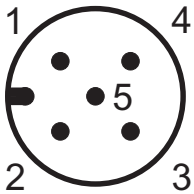
CONNECTOR PINNING / CABLE WIRING


View from soldering side

Pin	Description	5-wire cable (2m)	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) ¹⁾	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.

¹⁾ Analog input when using cascade control

CONNECTOR PINNING / 2BIT - SETPOINT


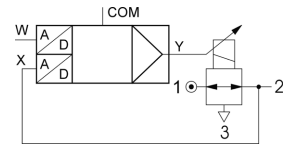
Pin	Description
1	24 V voltage supply
2	Input signal 1 (LSB)
3	Supply ground
4	Input signal 2 (MSB)
5	unused

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 2 m; 5x0,25 mm ² , straight connector	88100726
Supply cable 2 m; 5x0,25 mm ² , right-angle connector	88100727
Supply cable 5 m, 6 x 0,56 mm ² , straight connector	88100728
Supply cable 5 m, 6 x 0,56 mm ² , right-angle connector	88100729
Supply cable 10 m, 6 x 0,56 mm ² , straight connector	88100730
Supply cable 10 m, 6 x 0,56 mm ² , right-angle connector	88100731
Supply cable (2Bit - Setpoint) 3 m, straight connector	TC0403MMETA04000
Supply cable (2Bit - Setpoint) 5 m, straight connector	TC0405MMETA04000
Supply cable (2Bit - Setpoint) 3 m, right-angle connector	TD0403MMETA04000
Supply cable (2Bit - Setpoint) 5 m, right-angle connector	TD0405MMETA04000
RS 232 cable converter; 2 m cable with 9-pin Sub-D (plug connector)	88100732
USB interface, 1 m cable	N5093030010000
Joinable subbases for 617 DN4 with pressure supply G 3/8"	N5078180000000

PROPORTIONAL VALVES

SENTRONIC^D - G 1/8 to G 3/8 tapped body or G 1/8 - G 1/4 subbase mounted body with digital pressure control



3 ports
Series
608
609

FEATURES

- 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.

GENERAL

Fluids	Air or neutral gases filtered at 50 µm, without condensate, lubricated or unlubricated
Maximum allowable pressure (MAP)	6 to 13 bar
Pressure range	0-3 bar, 0-6 bar, 0-10 bar
Fluid temperature	0°C to +60°C
Ambient temperature	0°C to +50°C
Flow (Qv at 6 bar)	470 to 1300 l/min (ANR)
Setpoint	0 - 10 V (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	100 mV (0,2 mA/4,2mA) with shutoff function
Minimum outlet pressure	1% of span



CONSTRUCTION

Body	aluminium
Internal parts	POM (polyacetal)
Seals	NBR (nitrile) and FPM (fluoroelastomer)

ELECTRICAL CHARACTERISTICS

nominal diameter DN (mm)	stabilised voltage *	max. power (W)	max. current (mA)	insulation class	degree of protection	electrical connection
4	24 V = +/-10%	21	850	H	IP 65	5-pin M12 connector (not supplied)
8		40	1650			

* 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 G 1/4	4	0,43	470
G 1/4 G 3/8	8	1,2	1300

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

CATALOGUE NUMBER

NNN C P S A D E

[Configurator - CAD Files](#)

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. allowable pressure (MAP)
1 = 0 - 10 bar 13 bar
3 = 0 - 3 bar 6 bar
6 = 0 - 6 bar 9 bar

S: Setpoint
0 = 0 - 10 V
1 = 0 - 20 mA
2 = 4 - 20 mA

E: Display
0 = without display
1 = with display

D: Digital output
1 = Pressure switch output
PNP ± 5 %

A: Analog output
1 = Feedback output 0 - 10 V
2 = Feedback output 0 - 20 mA
3 = Feedback output 4 - 20 mA

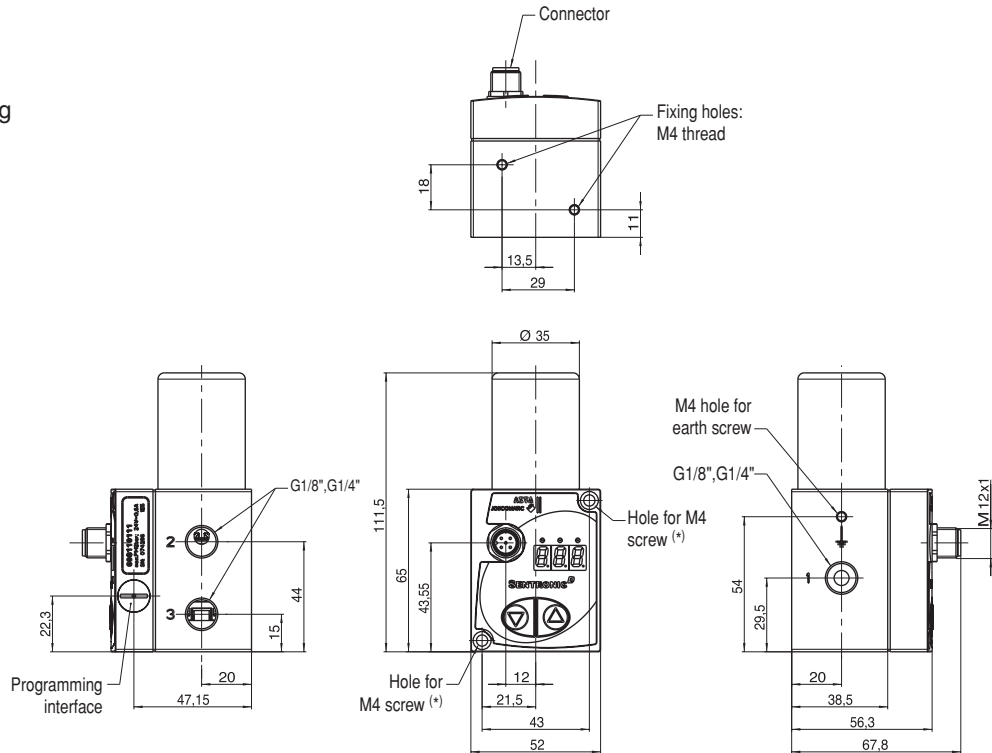
DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

Inline version

DN 4

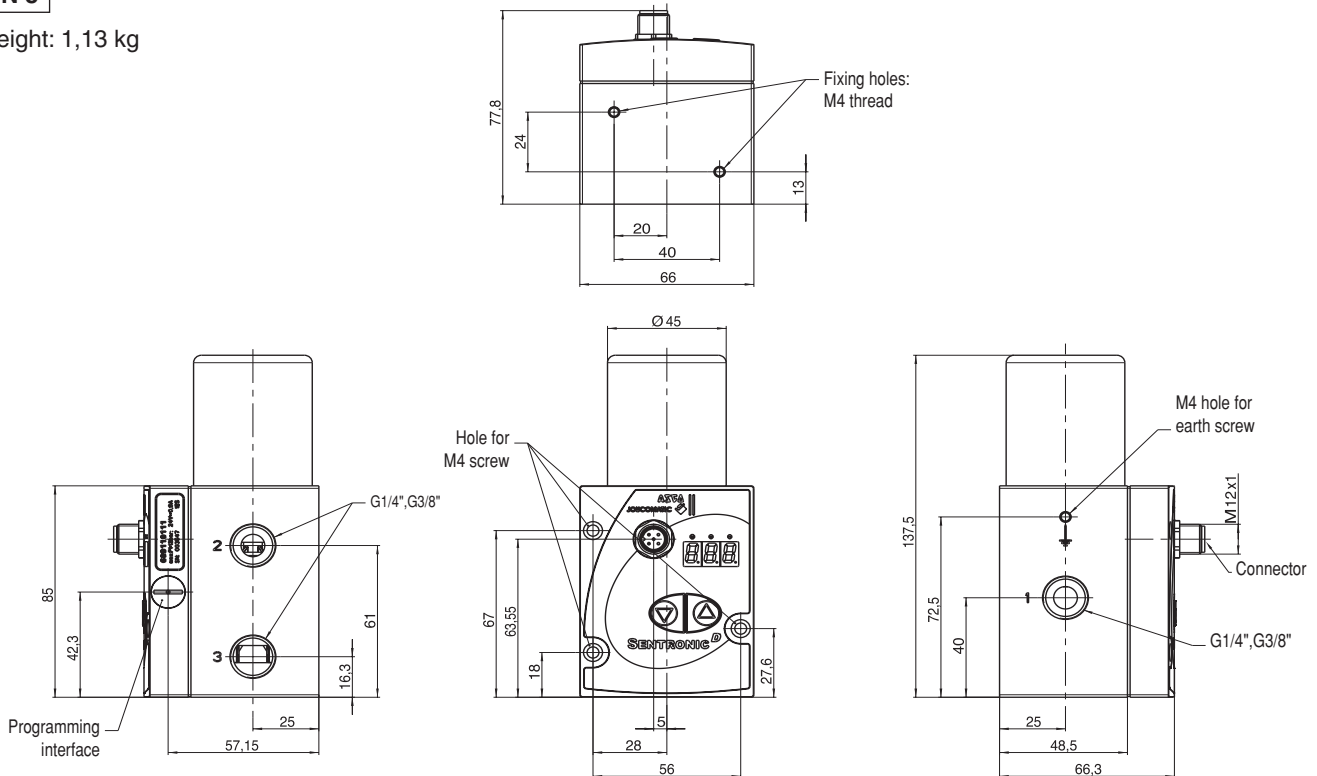
Weight: 0,56 kg




(*) Remove the pre-installed screws to use the through holes to mount the valve.

DN 8

Weight: 1,13 kg



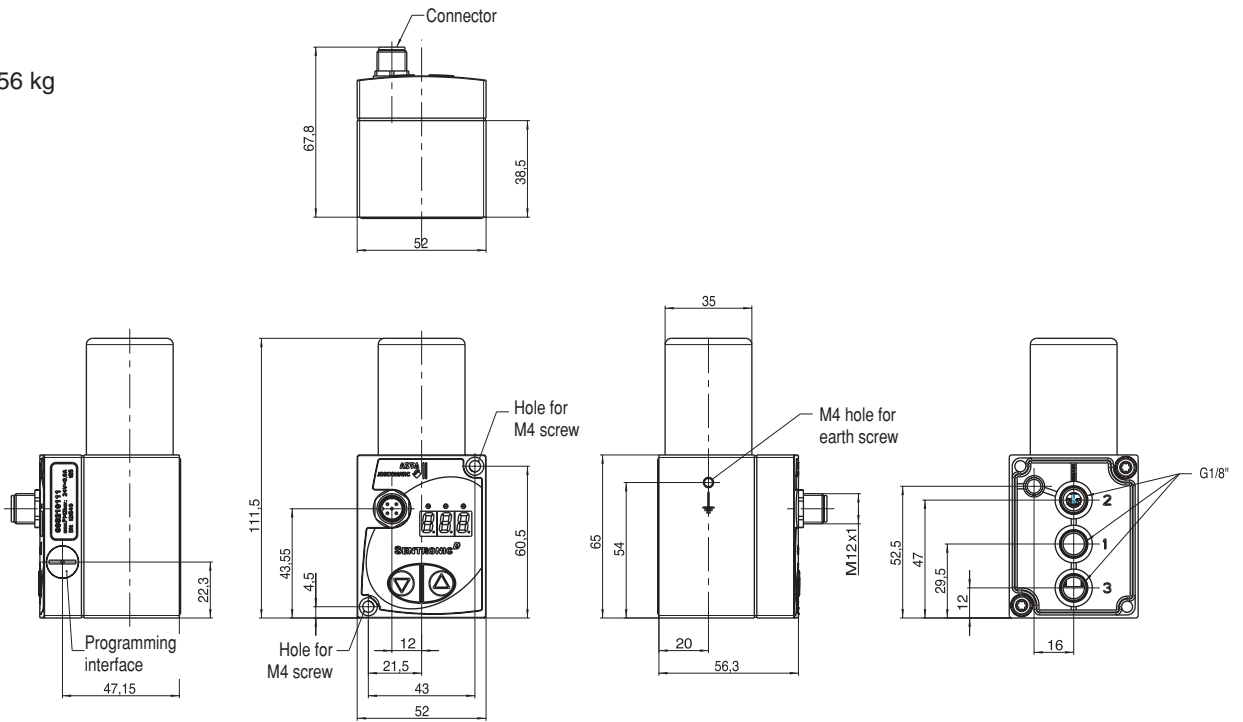
DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

Subbase version

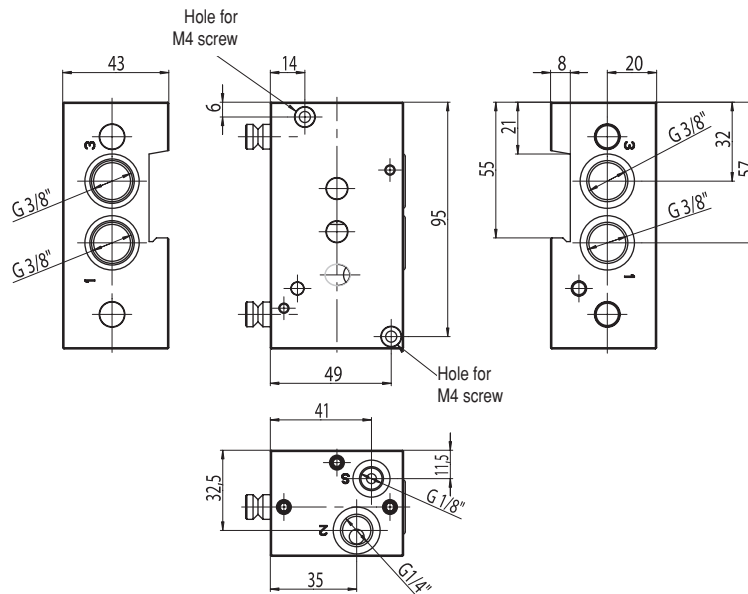
DN 4


Weight: 0,56 kg



DN 4

Subbase



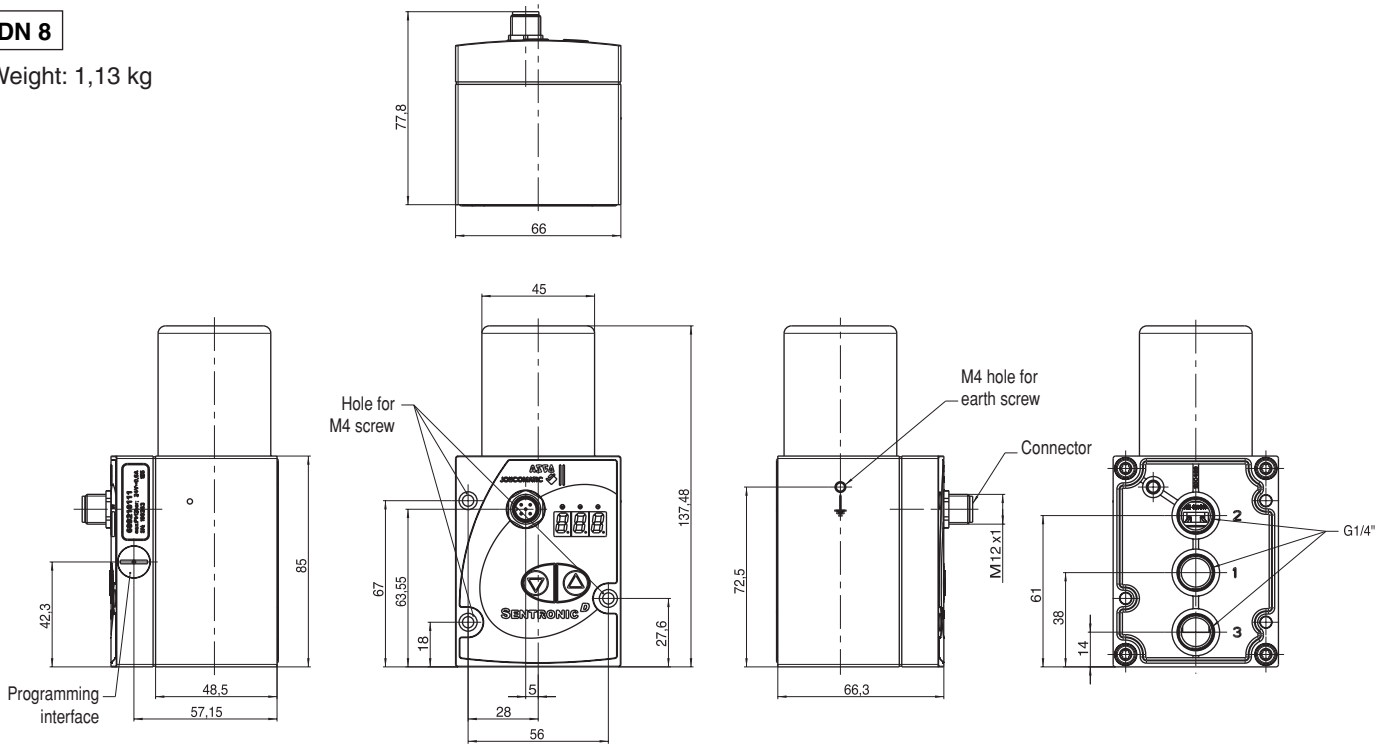
DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

Subbase version

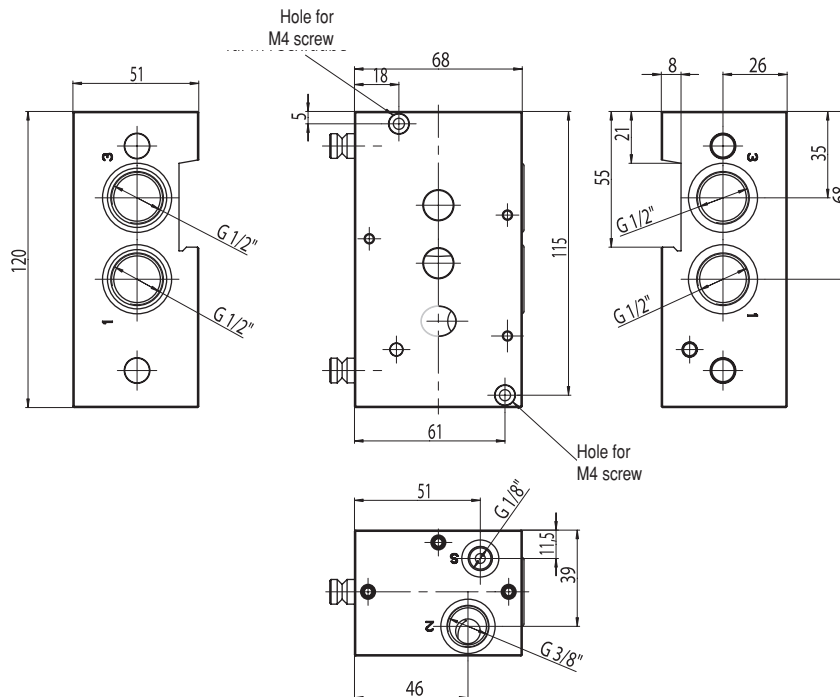
DN 8

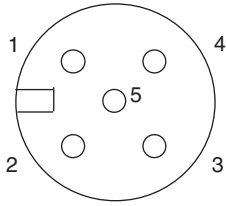
Weight: 1,13 kg



DN 8

Subbase



CONNECTOR PINNING / CABLE WIRING


pin	description	5-wire cable (2m)	6-wire cable (5m, 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	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 2 m, 2 x 0,25 mm ² , straight connector	88100726
Supply cable 2 m, 2 x 0,25 mm ² , right-angle connector	88100727
Supply cable 5 m, 6 x 0,56 mm ² , straight connector	88100728
Supply cable 5 m, 6 x 0,56 mm ² , right-angle connector	88100729
Supply cable 10 m, 6 x 0,56 mm ² , straight connector	88100730
Supply cable 10 m, 6 x 0,56 mm ² , right-angle connector	88100731
RS 232 cable converter; 2m cable with 9-pin Sub-D (plug connector)	88100732
RS 232 cable converter; 2 m cable with 9-pin Sub-D (screw connector)	88100970
Joinable subbase for 608 (DN 4 mm) with G 3/8", common supply and exhaust	35500558
Joinable subbase for 609 (DN 8 mm) with G 1/2", common supply and exhaust	35500559
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

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 gases, 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

Fluid temperature

0...60 °C

Ambient temperature

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

Ex II 2D Ex tb IIC T135 °C Db
Ex II 3G Ex nA IIC T4 Gc, 0 ≤ Ta ≤ +50 °C

EC type examination certificate no.:

IBExU07ATEX1173

CONSTRUCTION

Body

Direct operated poppet valve

Internal parts

See table below

Seals

Stainless steel and brass
FPM and NBR

ELECTRICAL CHARACTERISTICS

nominal diameter DN	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 or 7-pin DIN connector
6		24 ²⁾	1000 ²⁾			
12		34	1400			
20		44	1800			

* Max. ripple: 10 %

SPECIFICATIONS

pipe size	orifice size (mm)	flow	
		coefficient Kv (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

B A S I D P P

[Configurator - CAD Files](#)

B: CONTROL PANEL

- D = M12 with display - non-explosionproof
- E = M12 without display - explosionproof (ATEX)
- F = DIN connector, 7-pin, with display - non-explosionproof
- G = DIN connector, 7-pin without display - non-explosionproof

A: VERSION (ports), body

- | | |
|--------------------------|--------------------------------------|
| 0 = DN6 (G 1/4), Alu | 7 = DN3 (G 1/8), Brass |
| 1 = DN12 (G 1/2), Alu | 8 = DN6 (G 1/4), Brass |
| 2 = DN20 (G 1), Alu | 9 = DN3 (NPT 1/8), Brass |
| 4 = DN6 (NPT 1/4"), Alu | A = DN6 (NPT 1/4"), Brass |
| 5 = DN12 (NPT 1/2"), Alu | C = DN6 (G 1/4), St. steel |
| 6 = DN20 (NPT 1"), Alu | H = DN6 (G 1/4), Brass ²⁾ |

S: SETPOINT

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

I: FEEDBACK

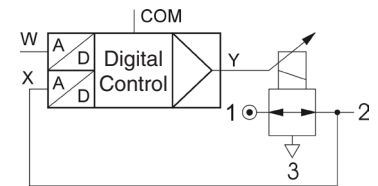
- 1 = Feedback output 0 ... 10 Volt
- 2 = Feedback output 0 ... 20 mA
- 3 = Feedback output 4 ... 20 mA
- 4 = Feedback input 0 ... 10 Volt
- 5 = Feedback input 0 ... 20 mA
- 6 = Feedback input 4 ... 20 mA

PP: PRESSURE RANGE

Relative pressure	Max. allowable pressure (bar)	Vacuum (relative)
40 = 0 - 100 mbar	2	V1 = 0 ... -1 bar shut-off valve
50 = 0 - 500 mbar	2	(vacuum at port 3)
60 = 0 - 1 bar	2	V2 = 0 ... -1 bar bypass version
02 = 0 - 2 bar	3	V3 = 0 ... -1 bar shut-off valve
03 = 0 - 3 bar	8	(vacuum at port 1)
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 %



Notes:

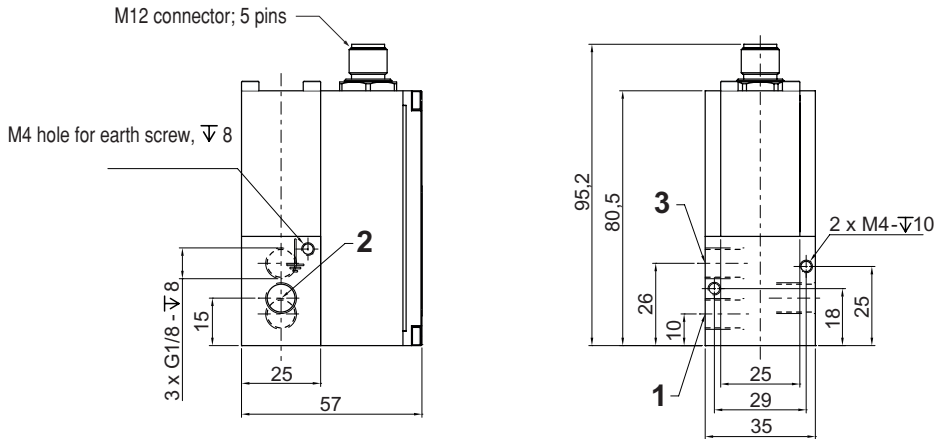
- ¹⁾ Only for DN3 and DN 6
 - ²⁾ Only for DN6, brass / 1,8 A 44 W
- Other versions available on request.

DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

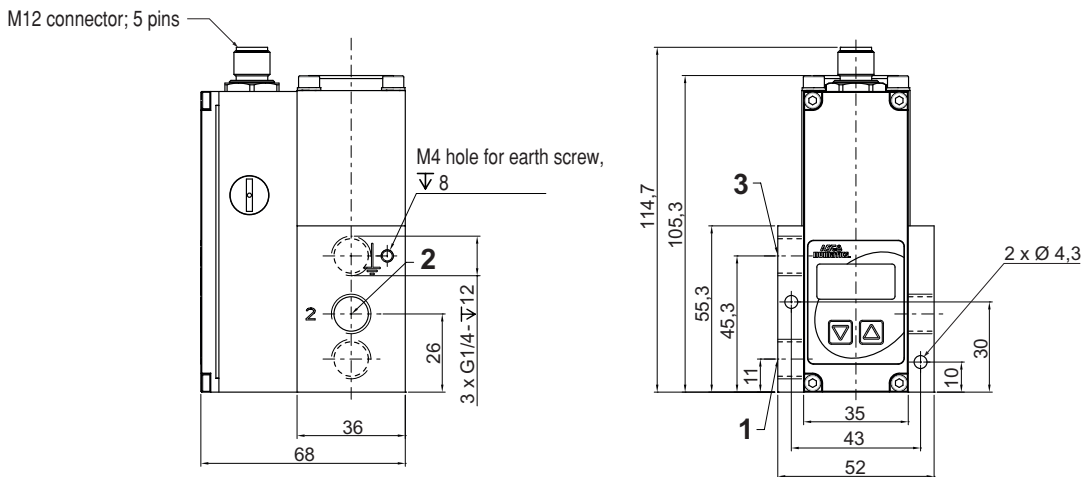
G 1/8

Weight: 0,550 kg



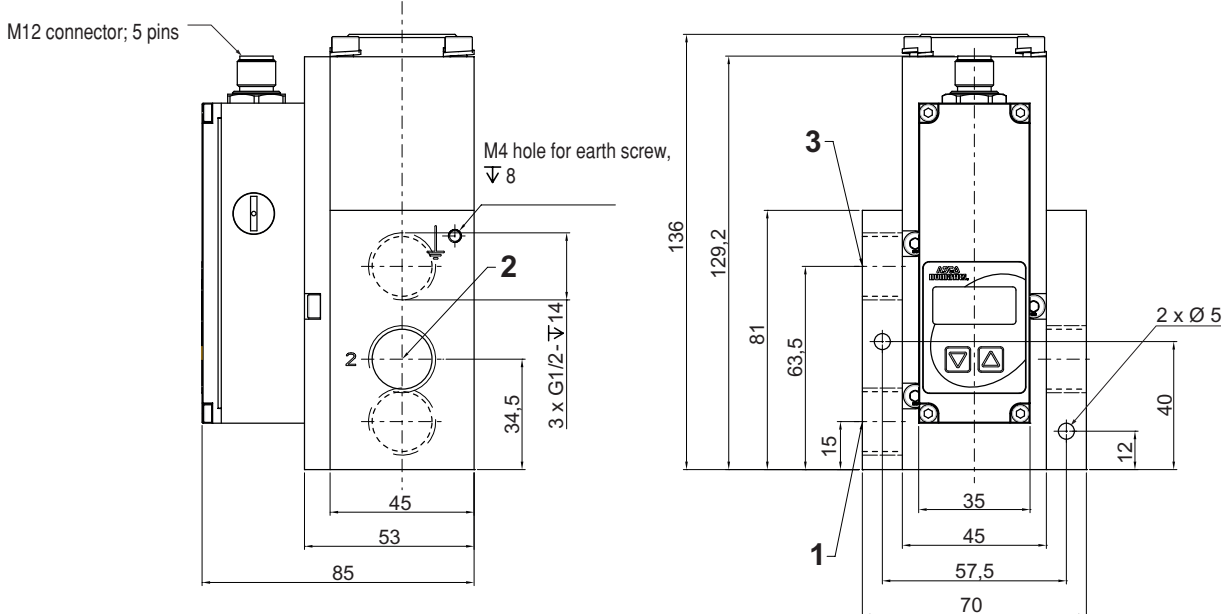
G 1/4

Weight: 0,850 kg aluminium / 1,540 kg brass



G 1/2

Weight: 1,650 kg

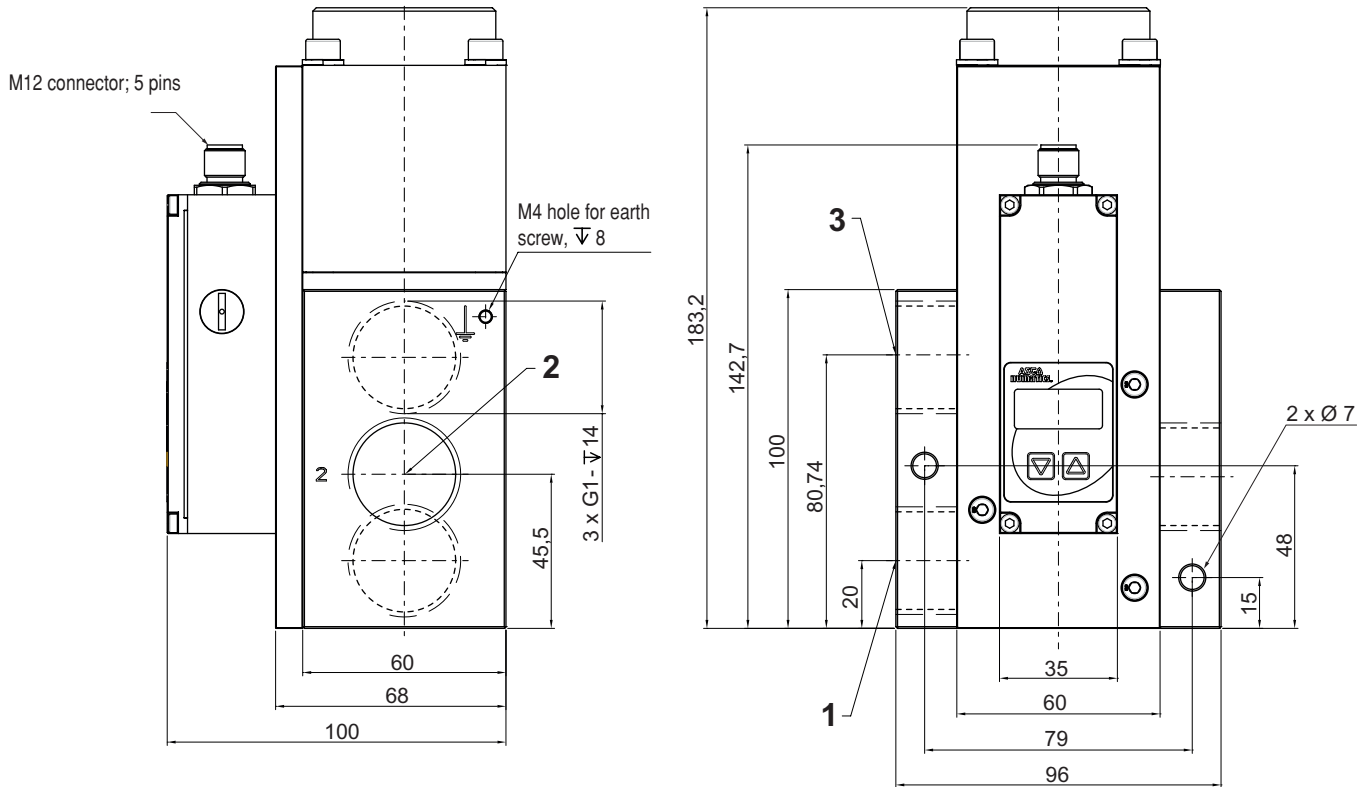


DIMENSIONS (mm), WEIGHT (kg)

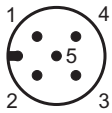
[Configurator - CAD Files](#)

G 1

Weight: 3,400 kg




CONNECTOR PINNING / CABLE WIRING



Pin	Description	5-wire cable (2 m)	6-wire cable (5 m, 10 m)
1	24 V 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 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.

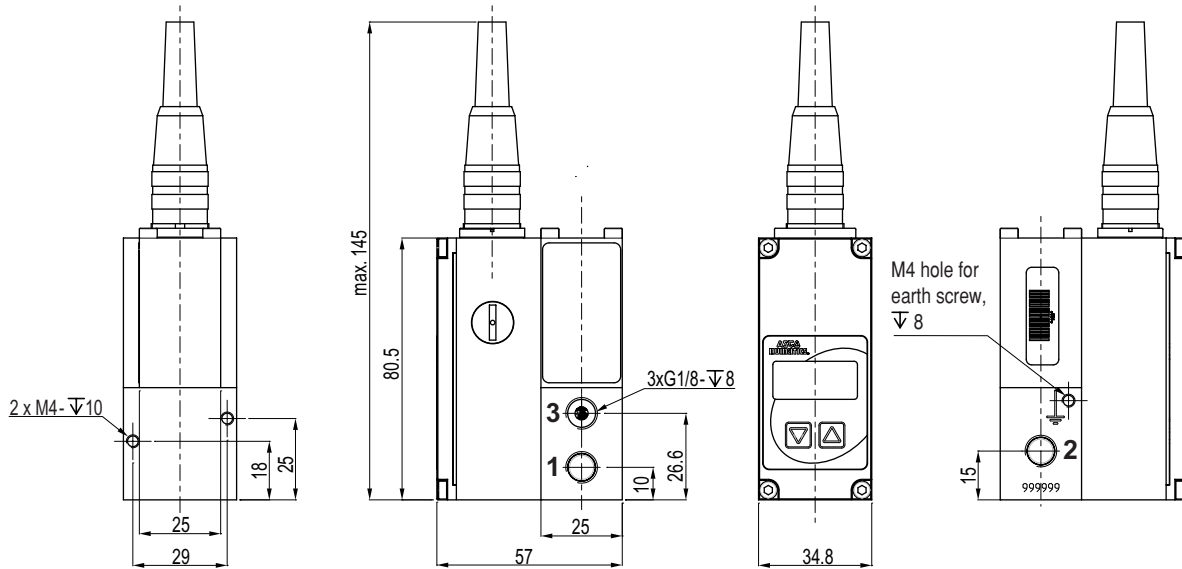
01432GB-2016/R01 Availability, design and specifications are subject to change without notice. All rights reserved.

DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

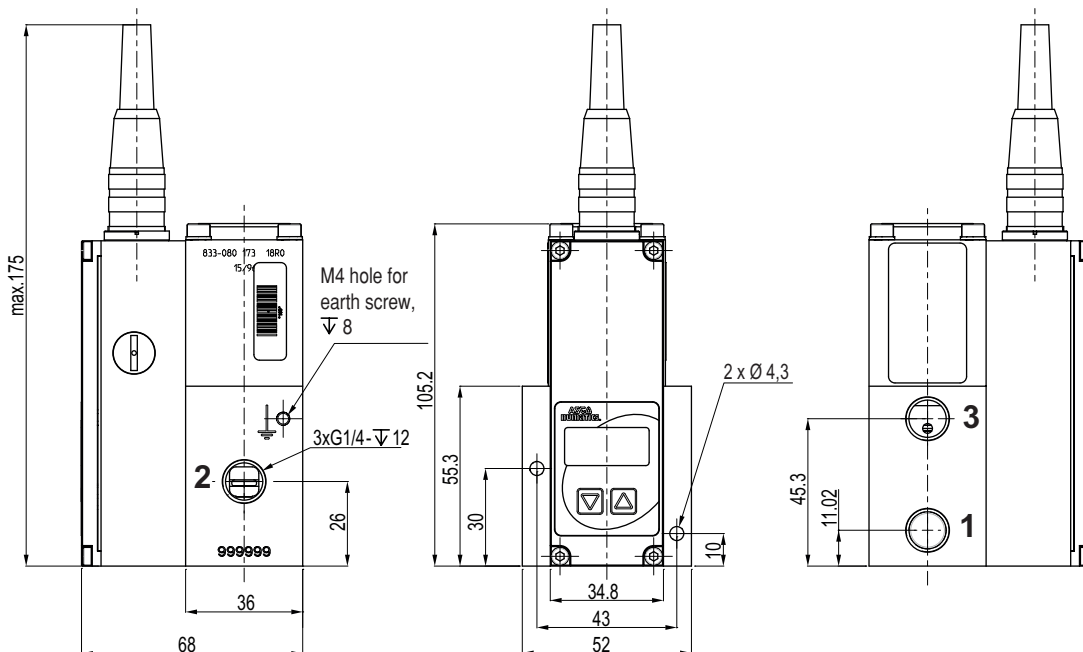
G 1/8


Weight: 0,550 kg



G 1/4

Weight: 0,850 kg aluminium / 1,540 kg brass

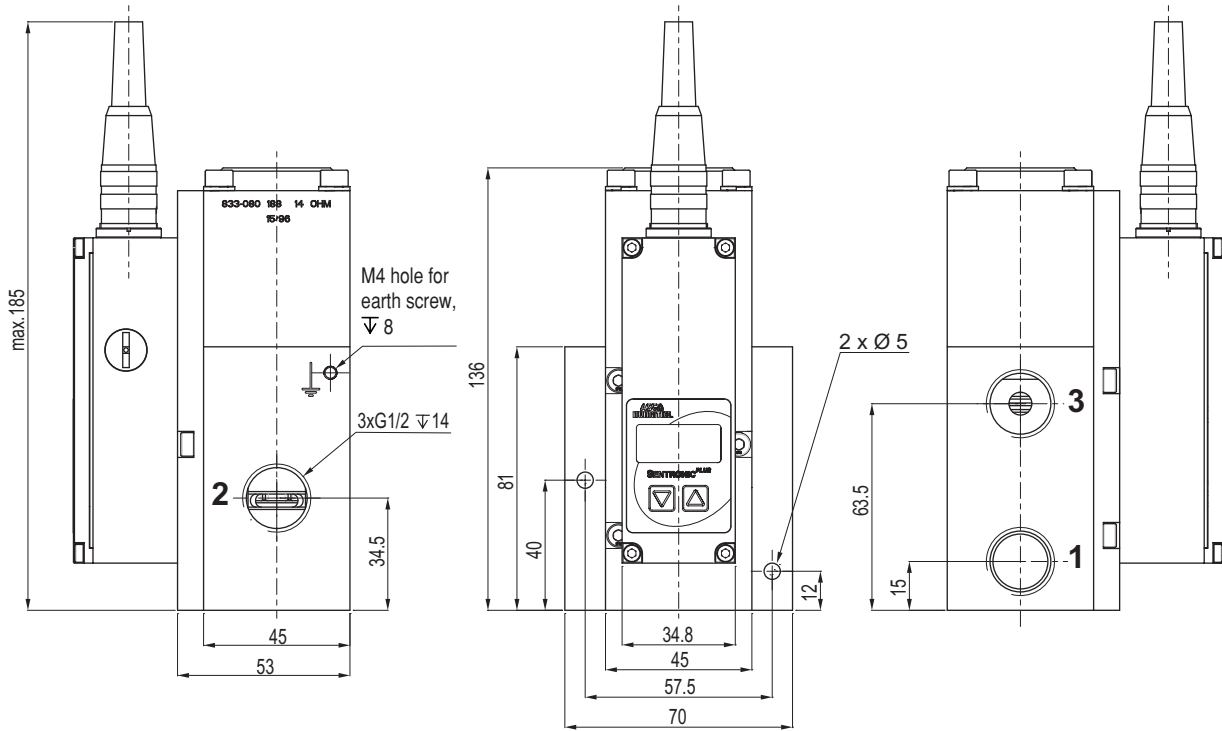


DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

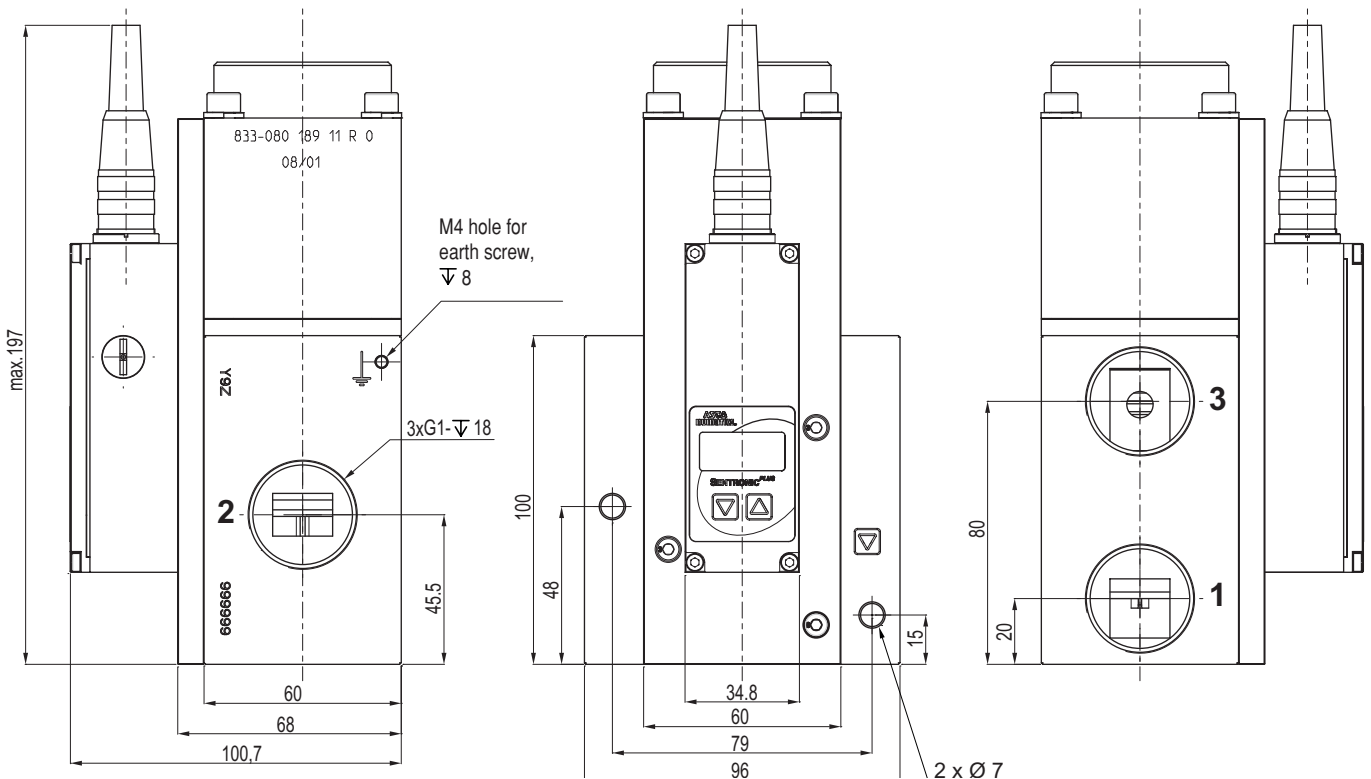
G 1/2

Weight: 1,650 kg



G 1

Weight: 3,400 kg



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 2 m; 5x0,25 mm ² ; straight connector	88100726
Supply cable 2 m; 5x0,25 mm ² ; right-angle connector	88100727
Supply cable 5 m; 6x0,50 mm ² ; straight connector	88100728
Supply cable 5 m; 6x0,50 mm ² ; right-angle connector	88100729
Supply cable 10 m; 6x0,50 mm ² ; straight connector	88100730
Supply cable 10 m; 6x0,50 mm ² ; right-angle connector	88100731
RS 232 cable converter; 2 m cable with 9-pin Sub-D (plug connector)	88100732
RS 232 cable converter; 2 m cable with 9-pin Sub-D (screw connector)	88100970
DaS Light: Data Acquisition Software for SENTRONIC^{PLUS} - basic parameters - CD-ROM	99100110
DaS Expert: Data Acquisition Software for SENTRONIC^{PLUS} - full parameters - CD-ROM	99100111

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 gases, 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

Fluid temperature

0...60 °C

Ambient temperature

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

Ex II 2D Ex tb IIC T135 °C Db
Ex II 3G Ex nA IIC T4 Gc, 0 ≤ Ta ≤ +50 °C

EC type examination certificate no.:

IBExU07ATEX1173

CONSTRUCTION

Body

Direct operated poppet valve

Internal parts

See table below

Seals

Stainless steel and brass
FPM and NBR

ELECTRICAL CHARACTERISTICS

nominal diameter DN	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 or 7-pin DIN connector
6		24 ²⁾	1000 ²⁾			
12		34	1400			
20		44	1800			

* Max. ripple: 10 %

SPECIFICATIONS

pipe size	orifice size (mm)	flow	
		coefficient Kv (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 9

B A S I D P P

[Configurator - CAD Files](#)

B: CONTROL PANEL

- D = M12 with display - non-explosionproof
- E = M12 without display - explosionproof (ATEX)
- F = DIN connector, 7-pin, with display - non-explosionproof
- G = DIN connector, 7-pin without display - non-explosionproof

A: VERSION (ports), body

- | | |
|--------------------------|--------------------------------------|
| 0 = DN6 (G 1/4), Alu | 7 = DN3 (G 1/8), Brass |
| 1 = DN12 (G 1/2), Alu | 8 = DN6 (G 1/4), Brass |
| 2 = DN20 (G 1), Alu | 9 = DN3 (NPT 1/8), Brass |
| 4 = DN6 (NPT 1/4"), Alu | A = DN6 (NPT 1/4"), Brass |
| 5 = DN12 (NPT 1/2"), Alu | C = DN6 (G 1/4), St. steel |
| 6 = DN20 (NPT 1"), Alu | H = DN6 (G 1/4), Brass ²⁾ |

S: SETPOINT

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

I: FEEDBACK

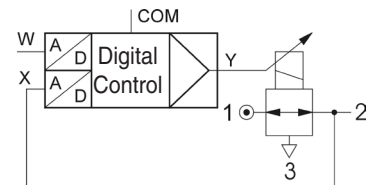
- 1 = Feedback output 0 ... 10 Volt
- 2 = Feedback output 0 ... 20 mA
- 3 = Feedback output 4 ... 20 mA

PP: PRESSURE RANGE

Relative pressure	Max. allowable pressure (bar)	Vacuum (relative)
40 = 0 - 100 mbar	2	V1 = 0 ... -1 bar shut-off valve
50 = 0 - 500 mbar	2	(vacuum at port 3)
60 = 0 - 1 bar	2	
02 = 0 - 2 bar	3	V2 = 0 ... -1 bar bypass version
03 = 0 - 3 bar	8	
05 = 0 - 5 bar	8	
06 = 0 - 6 bar	12	V3 = 0 ... -1 bar shut-off valve
10 = 0 - 10 bar	12	(vacuum at port 1)
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 %



Notes:

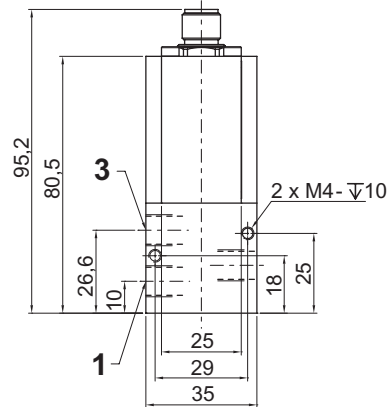
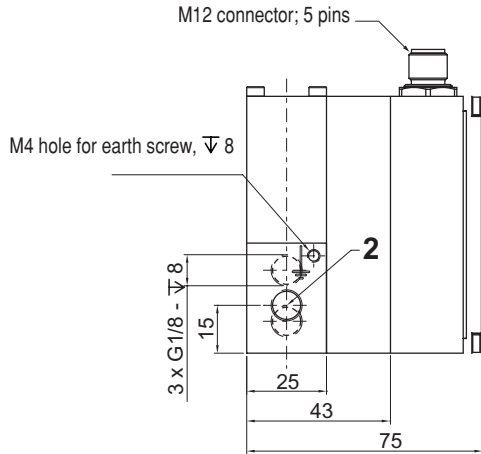
- ¹⁾ Only for DN3 and DN 6
 - ²⁾ Only for DN6, brass / 1,8 A 44 W
- Other versions available on request.

DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

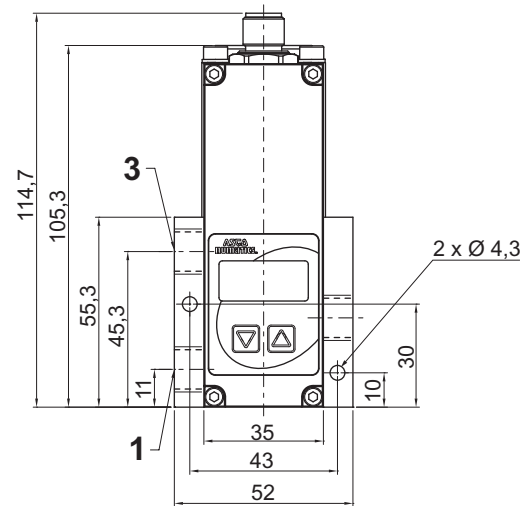
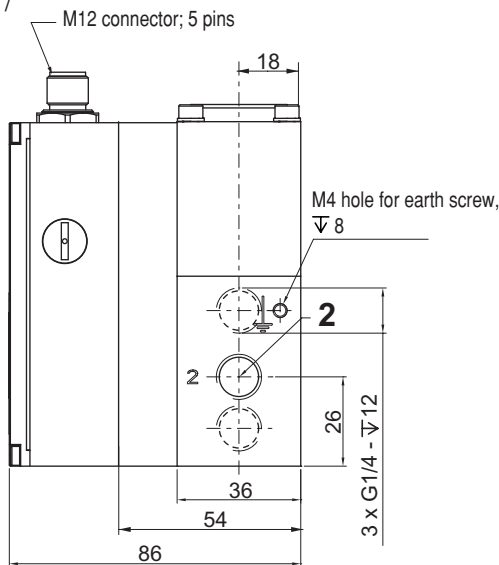
G 1/8

Weight: 0,700 kg



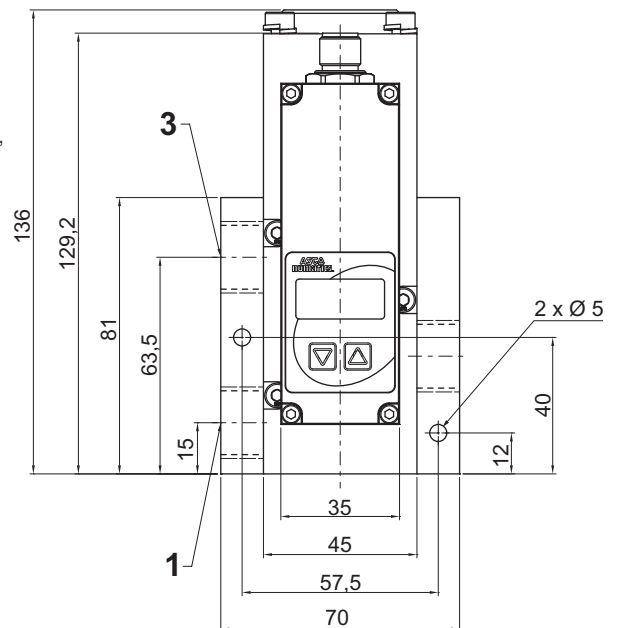
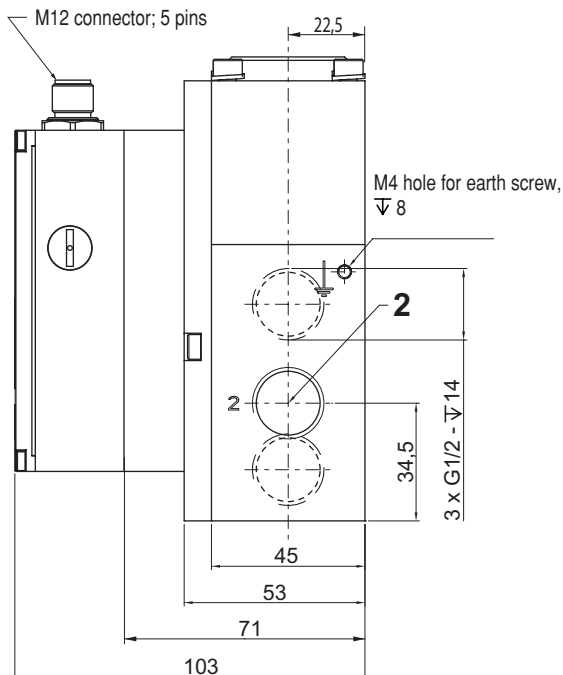
G 1/4

Weight: 1,000 kg aluminium /
1,700 kg brass



G 1/2

Weight: 1,800 kg

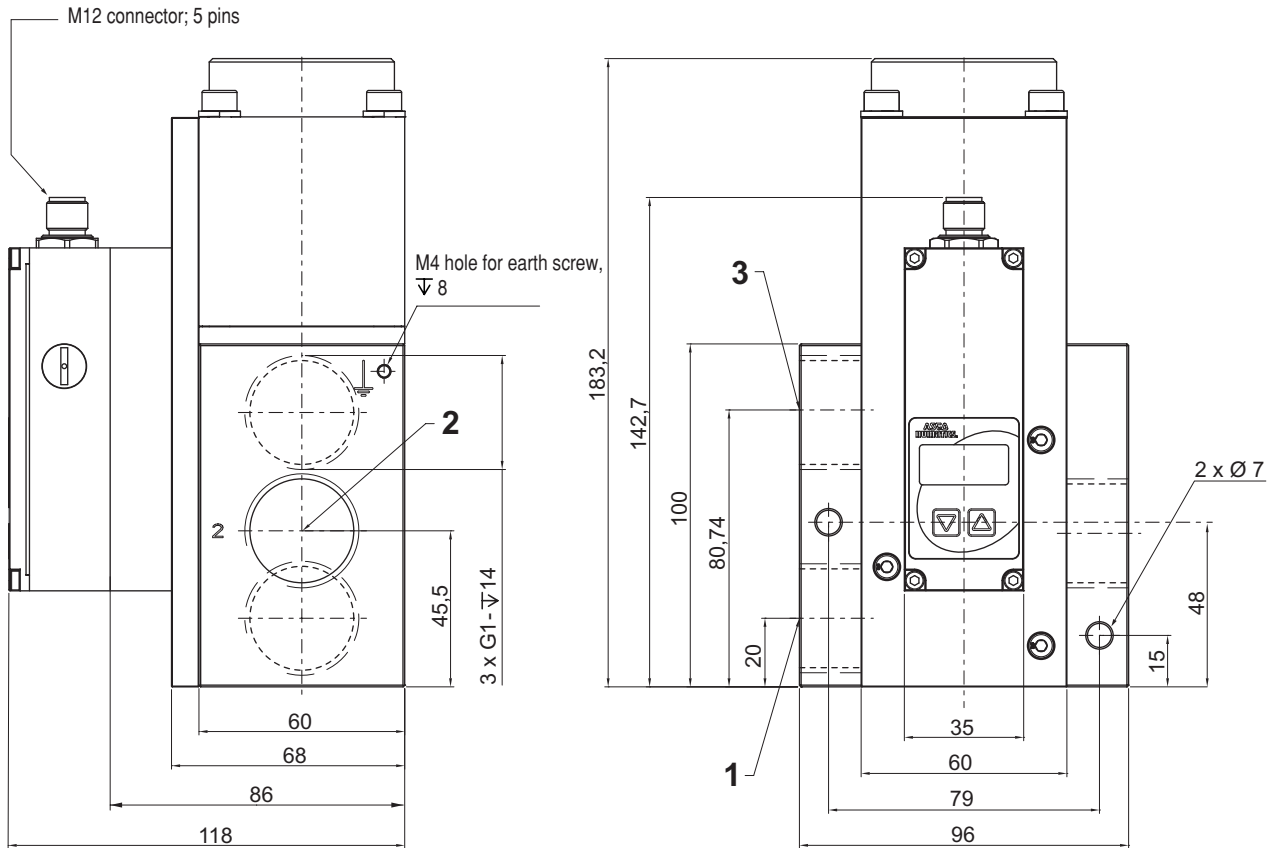


DIMENSIONS (mm), WEIGHT (kg)

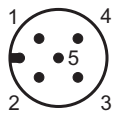
[Configurator - CAD Files](#)

G 1

Weight: 3,550 kg




CONNECTOR PINNING / CABLE WIRING



Pin	Description	5-wire cable (2 m)	6-wire cable (5 m, 10 m)
1	24 V 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 screen	shield	shield

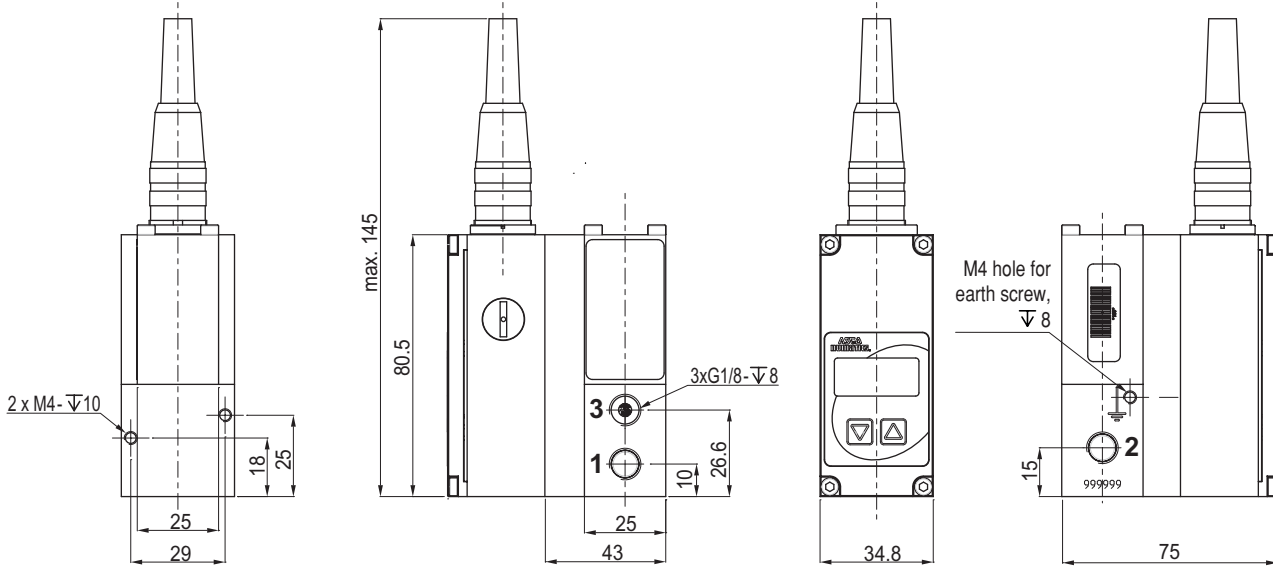
^{*}) A 6-wire cable with separate analog ground is used for cable lengths over 2 m to set off the voltage drop for the setpoint.

DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

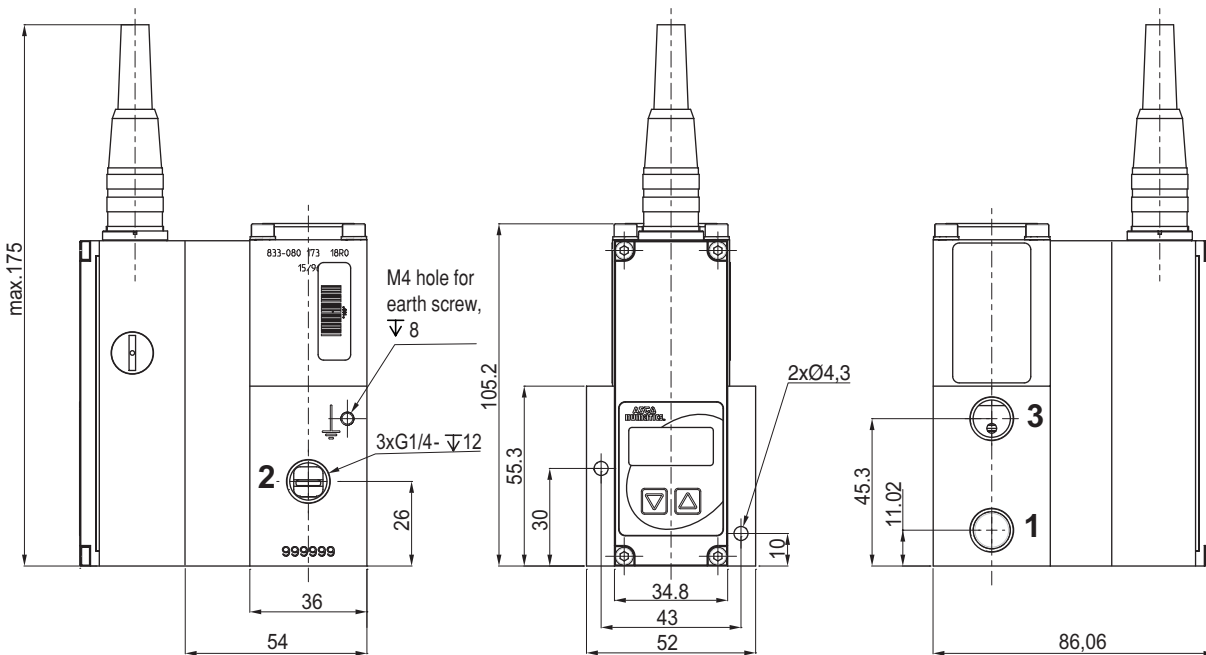
G 1/8


Weight: 0,700 kg



G 1/4

Weight: 1,000 kg aluminium / 1,700 kg brass

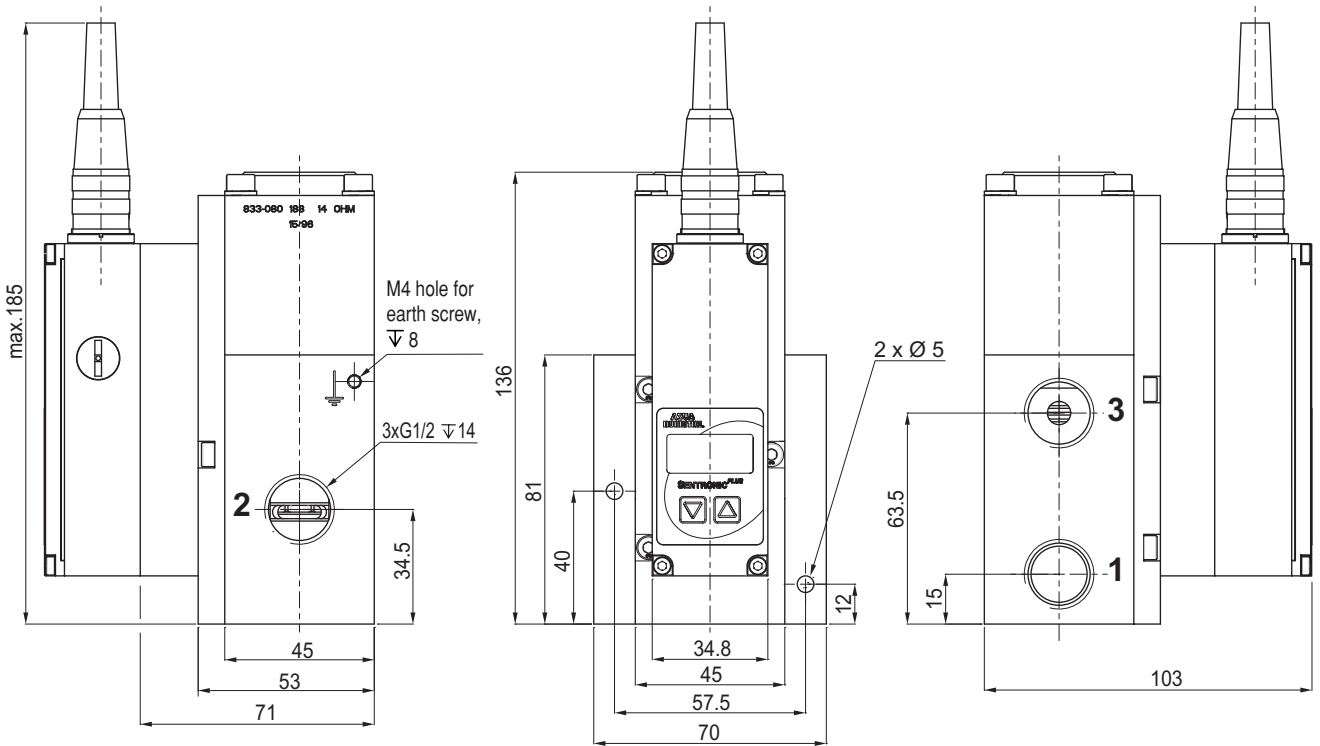


DIMENSIONS (mm), WEIGHT (kg) 

[Configurator - CAD Files](#)

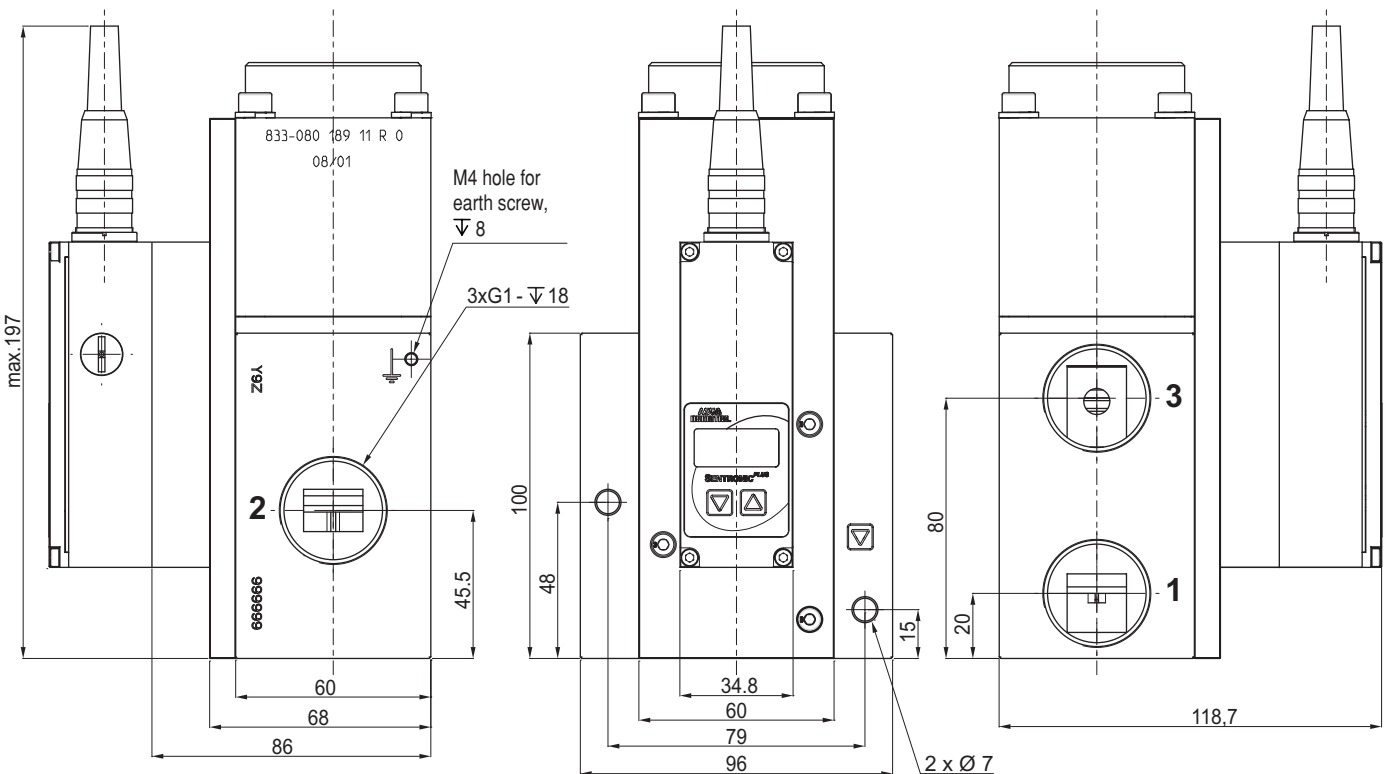
G 1/2

Weight: 1,800 kg



G 1

Weight: 3,550 kg



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 2 m; 5x0,25 mm ² ; straight connector	88100726
Supply cable 2 m; 5x0,25 mm ² ; right-angle connector	88100727
Supply cable 5 m; 6x0,50 mm ² ; straight connector	88100728
Supply cable 5 m; 6x0,50 mm ² ; right-angle connector	88100729
Supply cable 10 m; 6x0,50 mm ² ; straight connector	88100730
Supply cable 10 m; 6x0,50 mm ² ; right-angle connector	88100731
RS 232 cable converter; 2 m cable with 9-pin Sub-D (plug connector)	88100732
RS 232 cable converter; 2 m cable with 9-pin Sub-D (screw connector)	88100970
DaS Light: Data Acquisition Software for SENTRONIC^{PLUS} - basic parameters - CD-ROM	99100110
DaS Expert: Data Acquisition Software for SENTRONIC^{PLUS} - full parameters - CD-ROM	99100111

FEATURES

- SENTRONIC^{HD} is a high-definition 3-way proportional valve with digital control.
- SENTRONIC^{HD} stands for high-definition pressure regulation.
- The [DaS-HD software](#) is supplied to offer optimum adjustment over PC and viewing of all process variables. It allows easy diagnostics, parameter setting and maintenance.

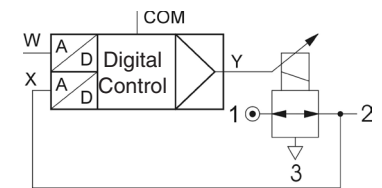
GENERAL

Fluids	Air or neutral gases, condensate-free, lubricated or unlubricated Class 5 to ISO 8573-1
Ports	G1/4
Max. allowable pressure	12 bar
Pressure range	See "PRODUCT CODE" overleaf
Fluid temperature	0...50 °C
Ambient temperature	0...50 °C
Hysteresis	± 0,25 % of span
Linearity / pressure measurement	± 0,25 % of span
Repeatability	± 0,25 % of span



CONSTRUCTION

Body	Aluminium
Internal parts	Stainless steel, brass, aluminium and POM
Seals	FPM
Degree of protection	See table below



ELECTRICAL CHARACTERISTICS

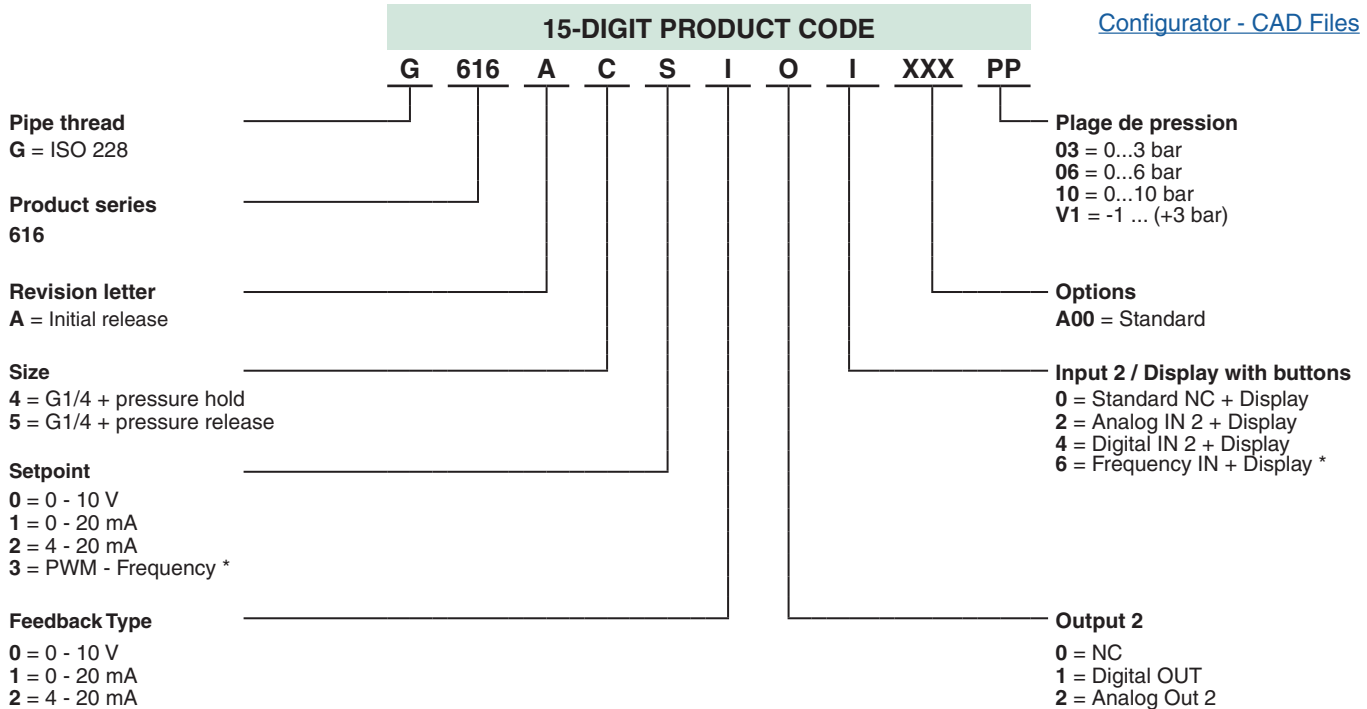
nominal diameter DN	stabilised voltage *	max. power (W)	max. current (mA)	insulation class	degree of protection	electrical connection
6	24 V DC +/-10%	5	240	F	IP65	8-pin M12 connector, A coded (not supplied)

* Max. ripple: 10 %

SPECIFICATIONS

pipe size	orifice size (mm)	flow	
		coefficient Kv (Nm ³ /h)	at 6 bar (l/min - ANR)
G 1/4	6	1,12	1200

HOW TO ORDER

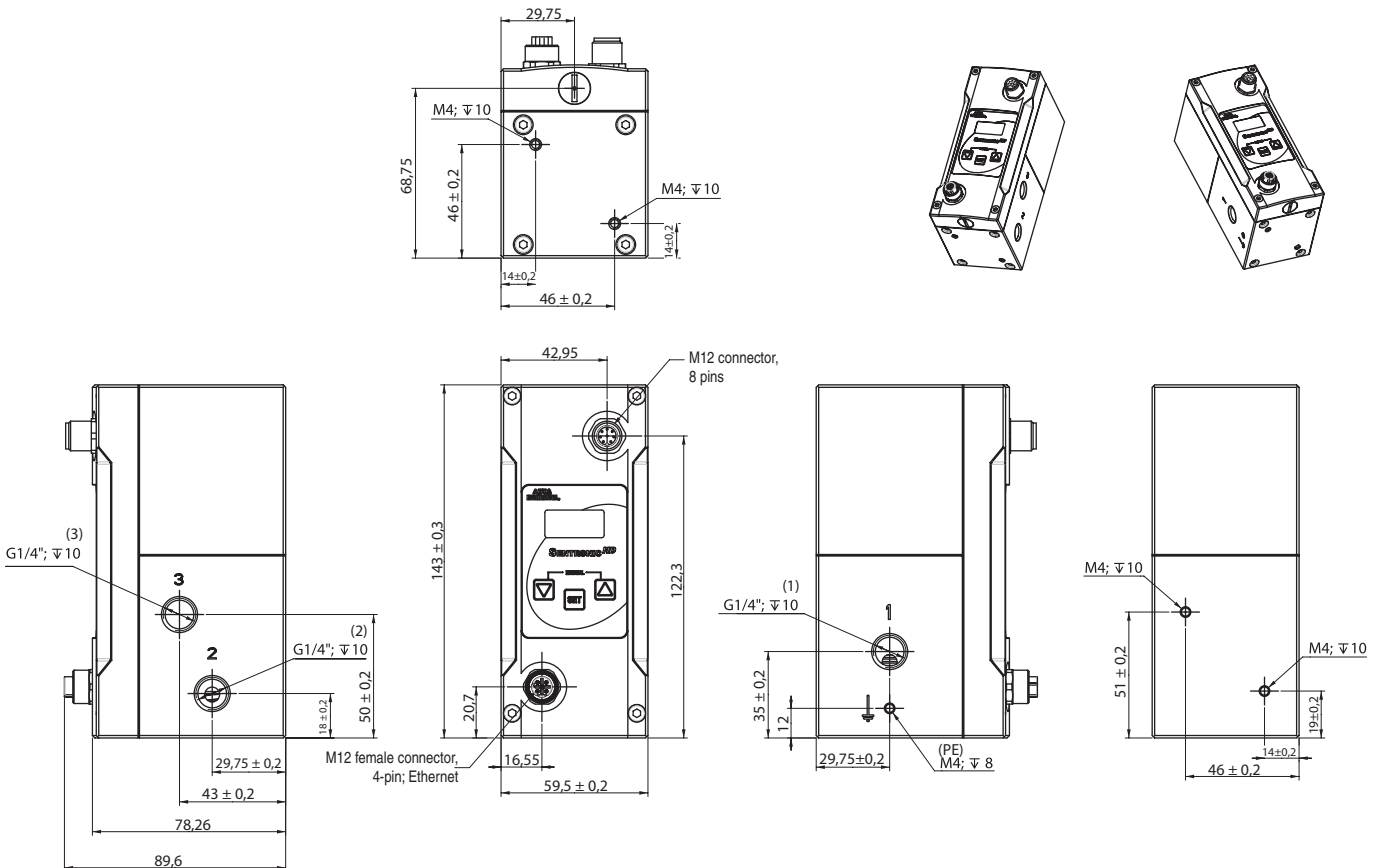


* If Setpoint PMW-Frequency is selected, frequency input is not available at IN 2

DIMENSIONS (mm), WEIGHT (kg)

Weight: 1,6 kg

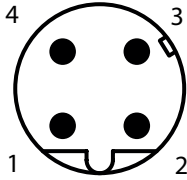
[Configurator - CAD Files](#)



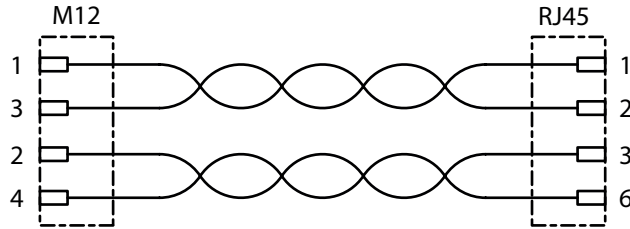
CONNECTOR PINNING / CABLE WIRING

Ethernet TCP/IP programming interface

M12 male connector,
4-pin, D coded

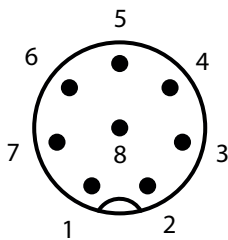


View on male connector
(the device is equipped with a female connector)



*) The use of a shielded cable is recommended.

M12 male connector,
8-pin, A coded



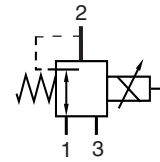
View on valve

Pin	Description	8-wire cable (5 m, 10 m)
1	Digitaler input	white
2	+24 VDC voltage supply	brown
3	Setpoint ground SET-	green
4	Setpoint SET+ (PWM)	yellow
5	Analog input 2 / Digital input 2 / Frequency input	grey
6	Analog output	pink
7	Ground 24VDC	blue
8	Digital output / Analog output 2	red
Body	EMC screen	shield

ACCESSORIES

description	catalogue number
Supply cable 5 m; 8x0,50 mm ² ; straight connector	N43802302700000
Supply cable 10 m; 8x0,50 mm ² ; straight connector	N43802302800000
Supply cable 10 m; 8x0,50 mm ² ; right-angle connector	N43802302900000
Programming cable 2 m; M12 to RJ45 connector	N43802302600000

01453GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.



FEATURES

- Proportional valve without integrated control electronics. The valve can be used in an open control loop with a control unit or in a closed control loop with a CONTROL D control device and an external sensor.
- A modular arrangement of the individual components (proportional valve, control device, sensor) can be of advantage in special applications, e.g. in high ambient temperature environments.

GENERAL

Fluids	Air or neutral gas, filtered at 50 μ m, lubricated or unlubricated
Max. allowable pressure	8 or 16 bar (G1/4) 12 bar (G1/2 - G1)
Pressure range	0-6 or 0-16 bar (G1/4) 0-12 bar (G1/2) - 0-10 bar (G1)
Temperature / fluid	-10°C to +60°C
Temperature / ambient	-10°C to +60°C
Flow (Qv at 6 bar)	700 to 5600 l/min (ANR)



CONSTRUCTION

Body	Aluminium, anodised
Internal parts	Stainless steel and brass
Seals	NBR (nitrile)

ELECTRICAL CHARACTERISTICS

nominal diameter DN (mm)	voltage (stabilised) *	max. power (W)	max. current (mA)	insulation class	protection degree	electrical connection
6	24 V = +/-10%	24	1000	F	IP 65	connector size 30, ISO4400/EN175301-803, form A, rotatable by 90°
12		34	1400			
20		44	1800			

(1) residual ripple: 10 %

SPECIFICATIONS

Ø ports	Ø orifice DN (mm)	flow		control range (bar)	max. inlet pressure (bar)	catalogue no.
		Kv coefficient	at 6 bar (l/min - ANR)			
G 1/4	6	10	700	0 - 6	8	60200002 (2)
				0 - 16	16	60200001
G 1/2	12	20	1400	0 - 12	12	60200004
G 1	20	80	5600	0 - 10	12	60200007

(2) Version with low hysteresis

PRODUCTS SUITABLE FOR CONTROL APPLICATIONS


designation	series	illustration	
CONTROL D	603		see catalogue page
Electronic proportional control unit	908		see catalogue page

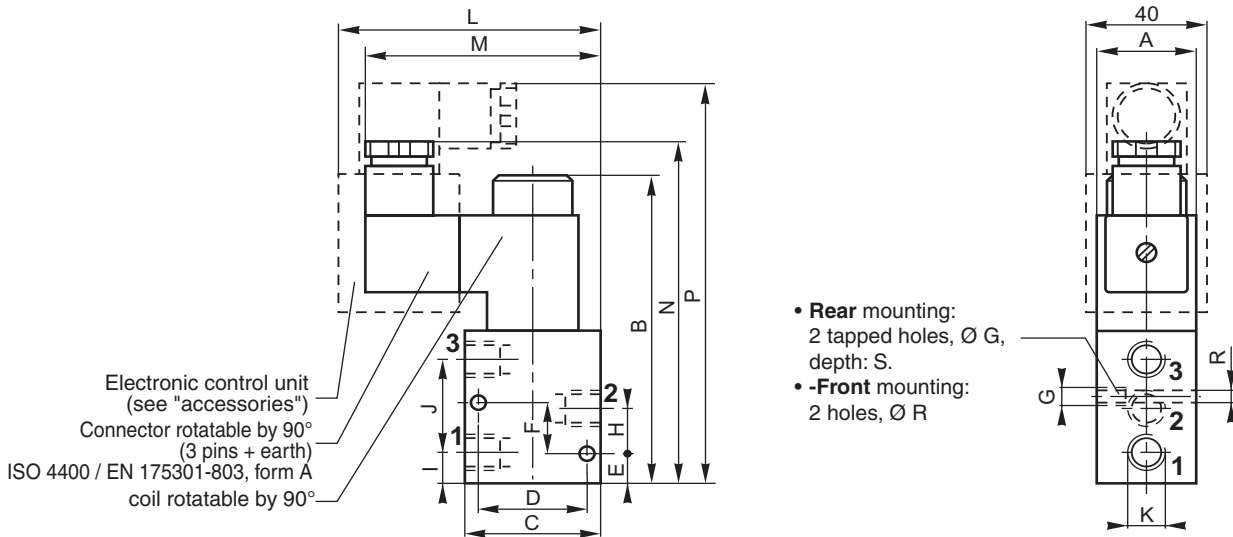
OPTIONS AND ACCESSORIES

- FPM seals - catalogue no. **460594**
- Digital control device CONTROL^D for DIN EN 50022 rail mounting
 - Used as a current regulator in open-loop applications
 - Used with an external sensor for closed-loop applications
- Electronic proportional control unit (908 Series, current adjustment from 0 to 1100 mA).

INSTALLATION

- The valves can be mounted in any position without affecting operation
- The valve body has 2 mounting holes in body
- Threaded pipe connection is standard: G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg) 



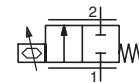
Ø DN	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S	weight
6	35	115	52	43	10	20	M5	16	11	34	G1/4	107	82	123	153	4	10	0,700
12	45	151	70	57,5	12	28	M6	22,5	15	48,5	G1/2	119	96	151	190	4,5	10	1,500
20	60	188	96	79	15	33	M8	30,5	20	60	G1	-	116	184	-	6,5	15	3,300



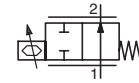
PROPORTIONAL MINI PIEZO-VALVES PIEZOTRONIC

ISO 15218 (CNOMO, size 15) interface
pad mounting body, M5 subbase

NC



NO



2/2
Series
630

FEATURES

- Miniature, ultra-low power consumption (0,004 W), almost no heat dissipation
- Pad mounting proportional mini piezo-valves available with single subbase M5
- Variable flow, proportional to the control signal
- No wearing parts: practically unlimited service life
- No inductive peaks when switching: no circuit protection necessary
- Valves do not require a minimum operating pressure
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure See «SPECIFICATIONS» [1 bar = 100 kPa]
Pneumatic base ISO 15218 (CNOMO E06.36.120N, size 15)
Response time 8 - 15 ms

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas filtered at 5 µm, unlubricated, condensate free, dew point -10°C	0°C to +60°C	NBR (nitrile)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body PPS
Internal parts Piezo ceramics, brass
Seals NBR
Subbases Brass or aluminium

ELECTRICAL CHARACTERISTICS

Connector Spade plug (cable Ø 6-7 mm)
Connector specification DIN 43650, 9,4 mm, form C
 or 2 leads outlet AWG 28, length 1 m
Electrical safety IEC 335
Electrical enclosure protection Moulded IP65 (EN 60529)
Standard voltages (U_N) DC (=): 0 to 40 V

holding current	power ratings			hot/cold =	ambient temperature range (TS)	type ⁽¹⁾
	inrush ~	holding ~				
(mA)	(VA)	(VA)	(W)	(W)	(C°)	
< 100	-	-	-	0,004	0 to +60	01-02

Voltage regulation 0 - 40 V DC
Flow regulation characteristic Hysteresis < 10 to 15%

SPECIFICATIONS

connection	flow coefficient Kv		operating pressure differential (bar)			holding power (W)		catalogue number			
			min.	max. (PS)				without manual operator		with impulse manual operator	
	(m³/h)	(l/min)		air (*)	~	=	connector	leads	connector	leads	
NC - Normally closed											
pad mounting	0,005	0,086	0	-	8	-	0,004	63000075	63000035	63000079	63000039
	0,007	0,12	0	-	4	-	0,004	63000076	63000036	63000080	63000040
NO - Normally open											
pad mounting	0,005	0,086	0	-	8	-	0,004	63000077	63000037	63000081	63000041
	0,007	0,12	0	-	4	-	0,004	63000078	63000038	63000082	63000042

SUBBASES ⁽²⁾

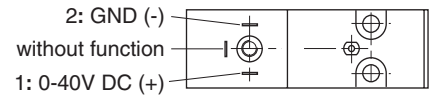
pipe size	mounting type	description	catalogue number	
			aluminium	brass
Single subbase, ISO 15218 (CNOMO E06.36.120N, size 15)				
M5	individual mounting	M5 lateral connection	88263002	30300001

(1) Refer to the dimensional drawings on the following page.
 (2) Multiple subbases, contact us.



ELECTRICAL CONNECTION (Polarized piezo valve)

Version with spade plug connection:



Version with 2 leads:

red wire: +
black wire: -

OPTIONS

- Plug with cable length of 2m (see Solenoids, Coils & Accessories section)

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Mounting on single subbases
- Unlike the on/off type, the proportional version is not equipped with electronics. Please check for correct polarity when connecting the valve. The piezo element will be damaged if the polarity of the connections is inverted. The control system of the user must be used for charging and discharging.

Important note: The peak current must be limited by serial resistor greater than 30 ohms

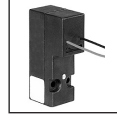
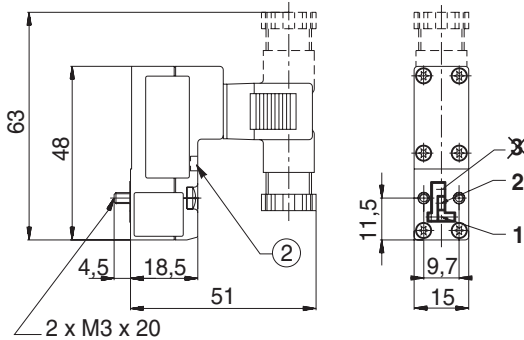
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg)



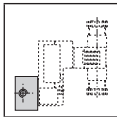
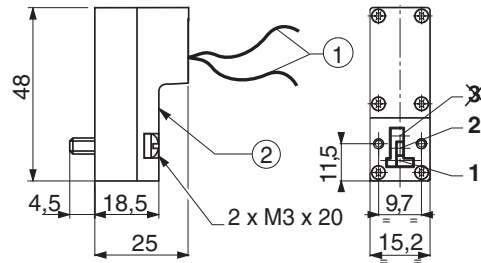
TYPE 01
IEC 335 / DIN 43650
IP65

63000075/76/77/78/79/80/81/82



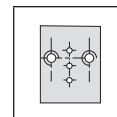
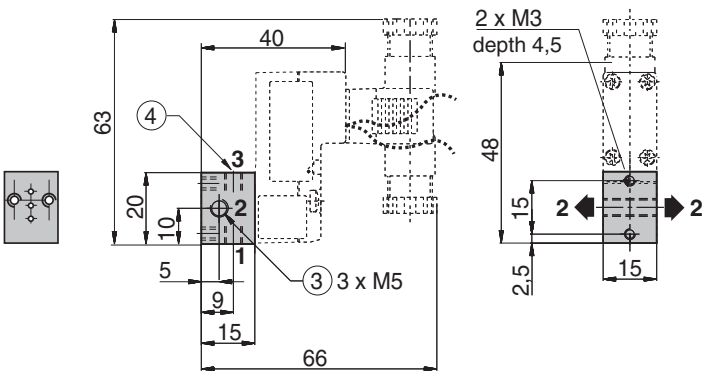
TYPE 02
IEC 335
IP65

63000035/36/37/38/39/40/41/42

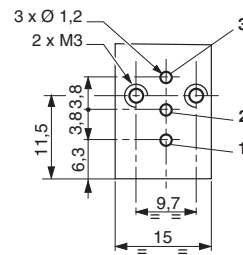


SINGLE SUBBASE M5
Aluminium or brass

88263002 - 30300001



SUBBASE MOUNTING PATTERN
ISO 15218/CNOMO E06.36.120N, size 15



type	catalogue number	weight
01	63000075/76/77/78/79/80/81/82	0,040
02	63000035/36/37/38/39/40/41/42	0,032
-	88263002	0,012
-	30300001	0,034

- ① 2 leads AWG 28, length 1 m
- ② Manual operator location
- ③ Outlet (2) can be connected on the left or on the right of subbase; close the unused port with a Ø M5 plug (supplied)
- ④ Port (3) not used (to be provided with protection)



PROPORTIONAL VALVES FLOWTRONIC^D

with control loop for fast flow control
tapped body, 1/4 - 3/8 - 1/2

2 ports
Series
607



FEATURES

- The FLOWTRONIC^D consists of a fast, direct-acting 2-port proportional valve, a pressure sensor unit and digital control electronics
- Especially designed for applications placing extreme dynamic demands on flow control
- Control and maintenance of constant and even flow, irrespective of outside influences
- Precise measurement of flow with two sensors
- Adaptable to different applications due to the use of digital control electronics that can be configured by PC over a USB interface
- Auto-tune function and ASCO FlowCom PC software provide for quick and easy start-up
- Diagnosis over integrated LEDs or the ASCO FlowCom PC software

GENERAL

Fluid	Air or neutral gases, filtered at 50 µm, without condensate, lubricated or not
Minimum allowable pressure	4 bar
Maximum allowable pressure (MAP)	8 bar
Control range	5 - 2000 l/min (ANR), consult us for other ranges
Fluid temperature	0°C to +50°C
Ambient temperature	0°C to +40°C
Setpoint - analog	0 - 10 V (100 kΩ), 0/4 to 20 mA (resistance 250 Ω)
Feedback - analog	0 - 10 V, 0/4 to 20 mA (max. load 500 Ω)
Flow accuracy	
Hysteresis	± 3%
Linearity	± 3%
Repeatability	± 1,5%
Calibration conditions	
Ambient temperature	22,5°C ±2,5°C
Fluid	Air
Dynamic performance	
Response time	< 200 ms
Other features	Auto-tune, error display by LED

CONSTRUCTION

Body	Aluminium
Internal parts	Aluminium, stainless steel and brass
Seals	NBR (nitrile)

ELECTRICAL CHARACTERISTICS

nominal diameter DN	voltage *	max. power (W)	max. current (mA)	insulation class	degree of protection	electrical connection
2, 3, 5 and 6	24 V = +/-10%	30	1250	H	IP65	- 5 pin M12 connector - USB connection with 4 pin M12 connector
8		44	1800			

* Max. ripple: 10 %

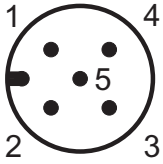
SPECIFICATIONS

pipe size	DN	flow ⁽¹⁾ (l/min - ANR)	max. inlet pressure (bar)	catalogue number					
				with display			without display		
				setpoint / output feedback			setpoint / output feedback		
G				0 - 10 V	0 - 20 mA	4 - 20 mA	0 - 10 V	0 - 20 mA	4 - 20 mA
1/4	2	5 - 50	8	60701073	60701081	60701089	60701074	60701082	60701090
	3	10 - 100	8	60701055	60701063	60701071	60701056	60701064	60701072
		12 - 300	8	60701019	60701027	60701035	60701020	60701028	60701036
	5	20 - 500	8	60701001	60701009	60701017	60701002	60701010	60701018
3/8	6	50 - 1000	8	60701037	60701045	60701053	60701038	60701046	60701054
1/2	8	100 - 2000	8	60701091	60701099	60701107	60701092	60701100	60701108

⁽¹⁾ Measurement without flow restriction at the outlet.

00256GB-2016/R01
Availability, design and specifications are subject to change without notice. All rights reserved.

CONNECTOR PINNING / CABLE WIRING

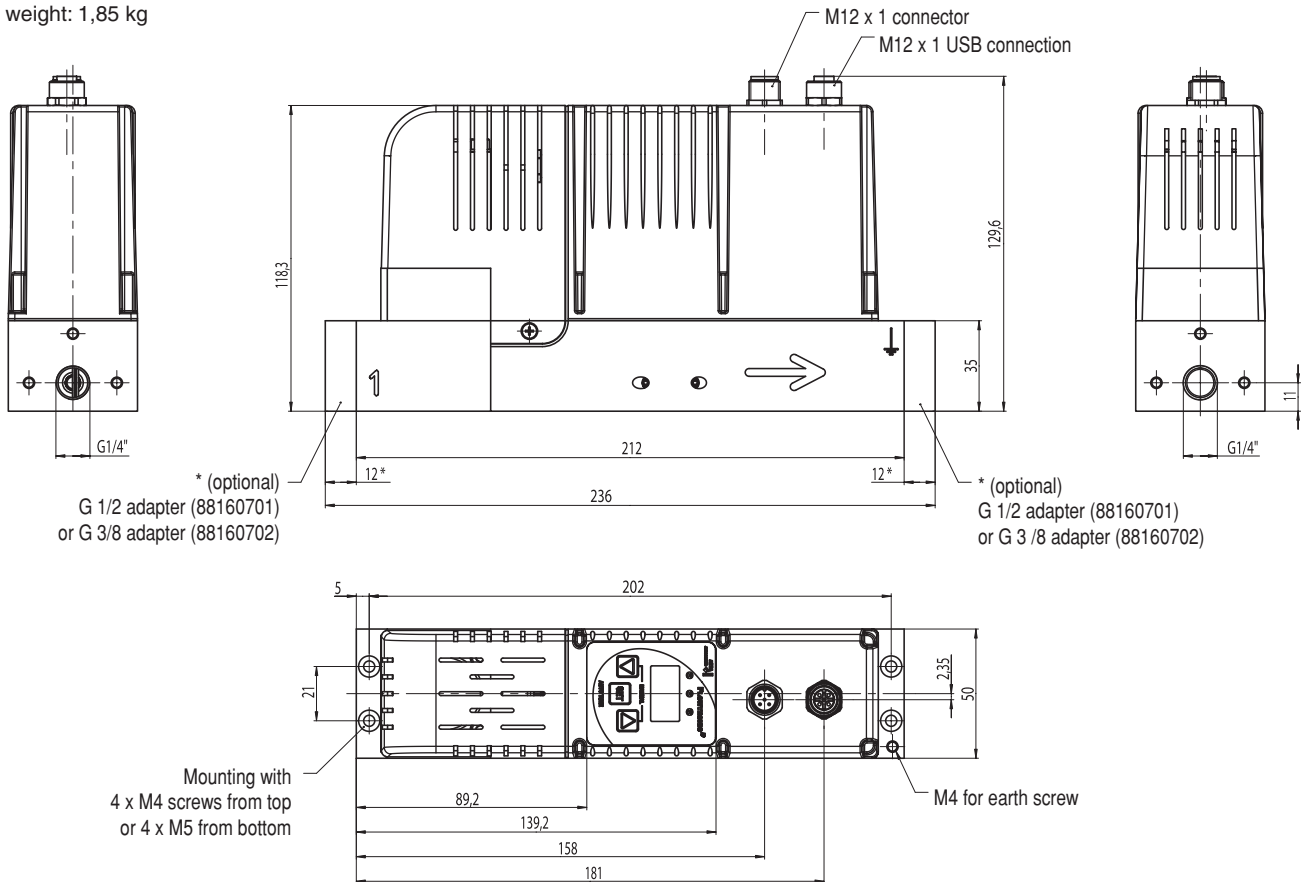


pin	description	5-wire cable (2m)	6-wire cable (5m, 10m)
1	24V voltage supply	brown	brown
2	Analog setpoint input	white	white
3	Supply ground	blue	green
	Analog ground ※		yellow
4	Analog output (feedback)	black	pink
5	Digital output (pressure switch)	grey	grey
Body	EMC shield	shield	shield

※) 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.

DIMENSIONS (mm), WEIGHT (kg)

weight: 1,85 kg



ACCESSORIES

description	catalogue number
FLOWTRONIC ^D software "ASCO-FlowCom-Light" - CD-ROM	88100895
FLOWTRONIC ^D software "ASCO-FlowCom-Expert" - CD-ROM	88100896
USB cable for connection of FLOWTRONIC ^D to PC	88100897
Straight M12 female connector, 5 pins, with screw terminals	88100256
Supply cable 2 m, 5 x 0,25 mm ² , straight connector	88100726
Supply cable 5 m, 6 x 0,56 mm ² , straight connector	88100728
Supply cable 10 m, 6 x 0,56 mm ² , straight connector	88100730

FEATURES

SERVOTRONIC DIGITAL is a highly dynamical 3-way proportional valve with digital control particularly suitable for applications with constant flow.

SERVOTRONIC DIGITAL stands for:

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

A special feature of the **Servotronic 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	: G3/8
Maximum 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

CONSTRUCTION

Direct operated poppet valve
Body: Aluminium
Internal parts: Stainless steel and brass
Seals: FPM and NBR

ELECTRICAL CHARACTERISTICS

nominal diameter DN (mm)	voltage *	max. power (W)	max. current (mA)	insulation class	degree of protection	electrical connection
8	24 V = +/-10%	20	810	F	IP 65	5-pin M12 connector

* Maximum ripple: 10 %

SPECIFICATIONS

Ø ports	Ø orifice DN (mm)	flow	
		K _v coefficient (Nm ³ /h)	at 6 bar (l/min - ANR)
G 3/8	8	1,45	1700

CATALOGUE NUMBER

6 1 5 3 7 0 A S I D P P

A: VERSION (connection), body
7 = Integrated electronics

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

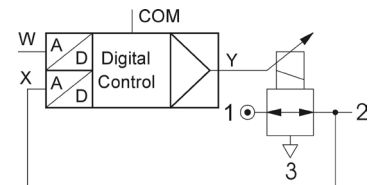
PP: PRESSURE RANGE

Relative pressure	Max. allowable pressure (bar)	Vacuum (relative)
40 = 0 - 100 mbar	2	V3 = 0 ... -1 bar shut-off valve
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 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, Ms

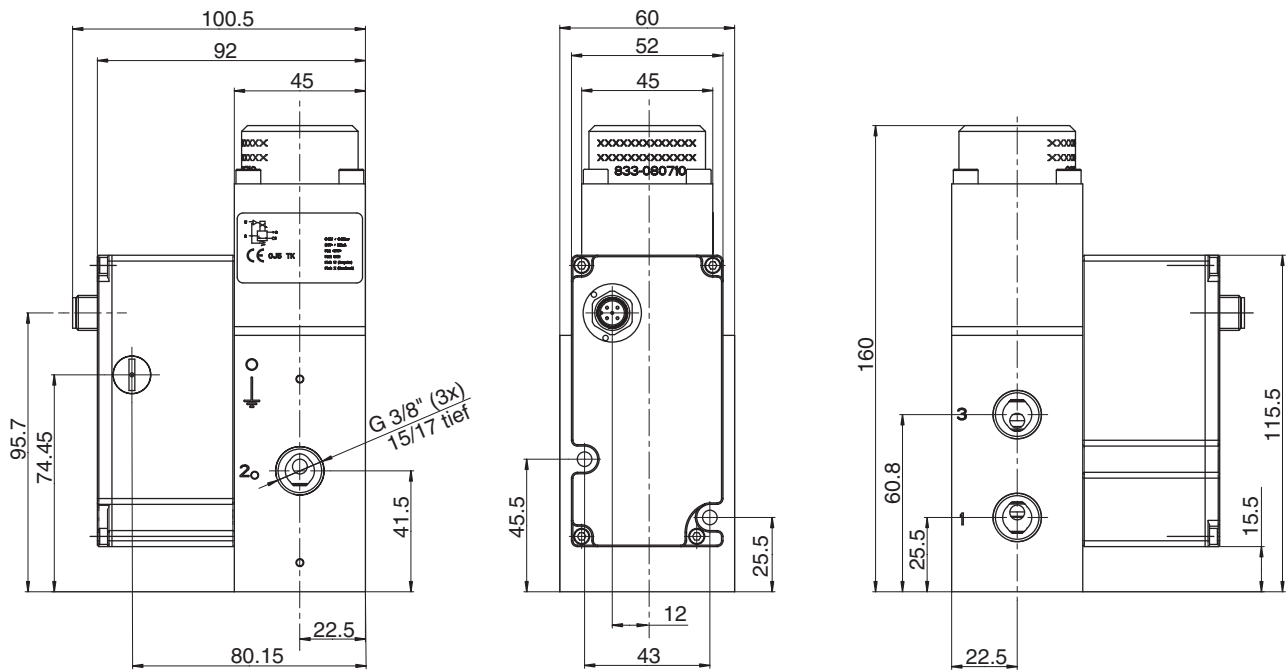
D: DIGITAL OUTPUT

1 = Pressure switch output
PNP ± 5 %

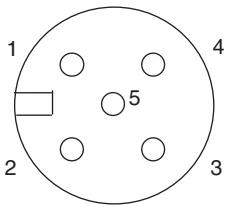


DIMENSIONS (mm), WEIGHT (kg)

Weight: 1,760 kg



CONNECTOR PINNING / CABLE WIRING



pin	description	5-wire cable (2m)	6-wire cable (5m, 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	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 2 m, 5x0,25 mm ² , straight connector	88100726
Supply cable 2 m, 5x0,25 mm ² , right-angle connector	88100727
Supply cable 5 m, 6x0,56 mm ² , straight connector	88100728
Supply cable 5 m, 6x0,56 mm ² , right-angle connector	88100729
Supply cable 10 m, 6x0,56 mm ² , straight connector	88100730
Supply cable 10 m, 6x0,56 mm ² , right-angle connector	88100731
RS-232 cable converter, 2 m cable with 9 pin Sub-D (plug connector)	88100732
RS-232 cable converter, 2 m cable with 9 pin Sub-D (screw connector)	88100970
DaS-Light, Data Acquisition Software for SERVOTRONIC DIGITAL , basic parameters - CD-ROM	99100110
DaS-Expert, Data Acquisition Software for SERVOTRONIC DIGITAL , full parameters - CD-ROM	99100111

All leaflets are available on: www.ascocom

FEATURES

- Control device for **PWM** (pulse-width modulated) proportional solenoid valve control
- Designed for open-loop, closed-loop and **double-loop** (cascaded) control
- Suitable for the control of flow, pressure, temperature, force etc.
- Integrated display and LEDs
- Control parameters adjustable via software (DigiCom, USB interface)
- Auto-Adapt function/button for automatic adjustment of the CONTROL^D control device to the control valve

A special feature of the CONTROL^D is the "ASCO-DigiCom" software supplied for optimum adjustment over PC. Setpoint and feedback values can be viewed at the same time. Other functions are valve diagnostics, parameter setting and maintenance.



GENERAL

Ambient temperature -20°C to +50°C

CONSTRUCTION

Body PA (polyamide)

Degree of protection IP20

Electrical connection Pluggable terminal block (0,08 - 1,5 mm²)

Mounting DIN-EN 50022 rail

ELECTRICAL CHARACTERISTICS

Supply voltage (U_N) 24 V DC ±10 %, max. ripple 10 %
or 12 V DC +15 % -5 %, max. ripple 10 %

Max. current of proportional solenoid valve 2 A

Setpoint input 0 - 10 V DC, 0 - 20 mA, 4 - 20 mA

Sensor input 0 - 10 V DC, 0 - 20 mA, 4 - 20 mA

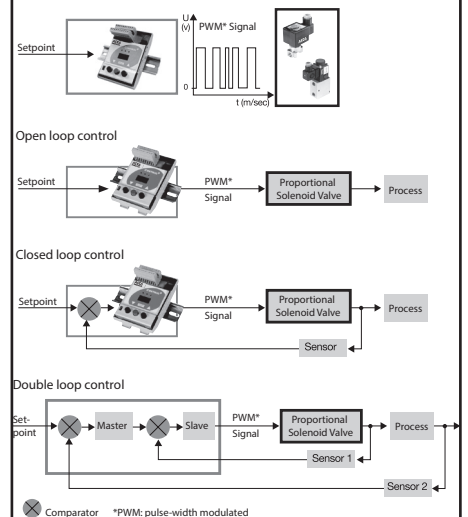
Feedback output 0 - 10 V, 0 / 4 - 20 mA

Ramp ON/OFF

Adjustable switching frequency adjustable between 0,1 and 20 seconds

20 to 2000 Hz

Control^D offers 3 control modes



SPECIFICATIONS

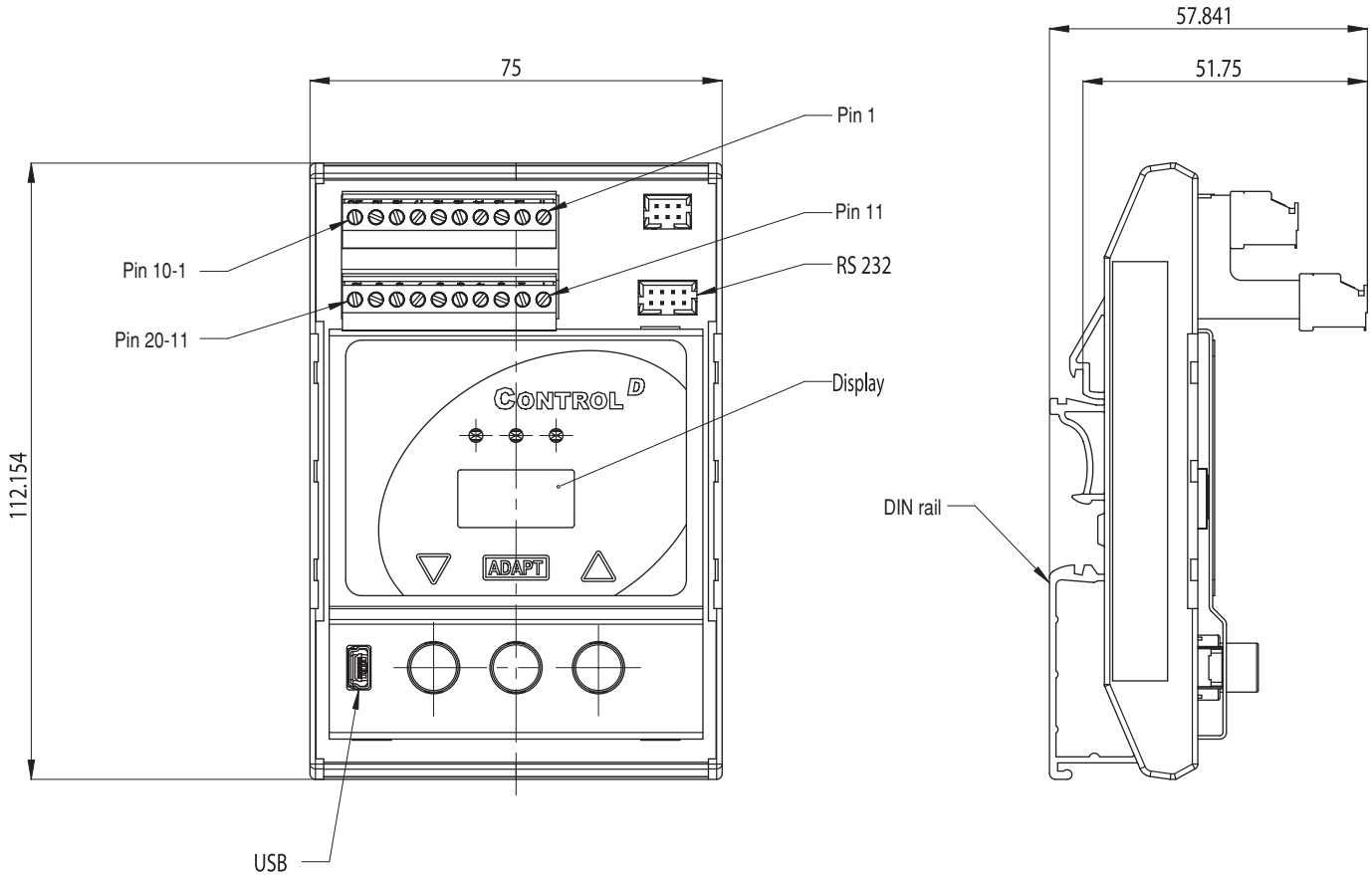
description	catalogue number
CONTROL ^D control device - 12 V DC	60300117
CONTROL ^D control device - 24 V DC	60300118

PROPORTIONAL VALVES SUITABLE FOR CONTROL APPLICATIONS

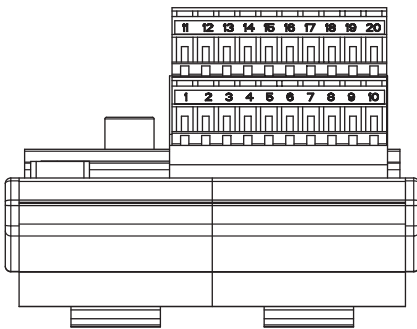
description	series	illustration	catalogue page
3-port proportional valve for pressure control	602		see " Proportional Technology " on: www.asco.com
Posiflow proportional solenoid valves	202-203		See " Proportional Technology " on: www.asco.com

DIMENSIONS (mm), WEIGHT (kg)

weight: 0,153 kg



CONNECTOR PINNING



pin	description	pin	description
1	V DC IN/ + supply	11	Setpoint
2	GND IN/ ground	12	GND setpoint
3	Protective earth PE	13	Digital input
4	Frequency input	14	GND Digital input
5	Sensor supply voltage +	15	Valve / coil connection
6	Analog input 1	16	GND valve
7	GND sensor supply voltage	17	Digital output
8	Sensor supply voltage +	18	GND Digital output
9	Analog input 2	19	GND Analog output
10	GND sensor supply voltage	20	Analog output

ACCESSORIES

description	catalogue number
"ASCO-DigiCom" CONTROL ^D software on CD-ROM (supplied with the controller)	88100893
USB cable for CONTROL ^D to PC connection (to be ordered separately)	88100894

FEATURES

- Converts analog input control signals to coil current of a proportional solenoid valve by means of pulse width modulation
- LED-Display integrated in the connector
- Adjustable UP/DOWN ramp control
- Output coil current independent of coil resistance (temperature) and supply voltage variations
- The electronic circuit is integrated in a standard housing according to DIN EN 175301-803, form A
- Parameter setting via PC interface and programming adapter or, optionally, via the switches integrated in the connector

GENERAL

Nominal voltage 12/24 V DC
Maximum current 1,2 A / 2,5 A

CONSTRUCTION

Housing PA
Cover PA
Screw Zinc plated steel
Seals NBR

ELECTRICAL CHARACTERISTICS

Connector M12, 5 pins
Connector specification DIN EN 175301-803, form A
Electrical safety IEC 335
Electrical enclosure protection IP65 (EN 60529)
Supply voltage 12V ... 30 V DC (incl. ripple)

max. full load current (I_{FL}) (mA)	input control signal		ambient temperature range ($^{\circ}$ C)
	U_c = (V)	I_c (mA)	
1200/2400	0 - 10	4 - 20	-20 to +65

Ramp time Selectable ON/OFF, adjustable from 50 ms to 5 s, UP/DOWN

Adjustable switch frequency 60 - 1500 Hz

SPECIFICATIONS

catalogue number: proportional valves for digital control unit	type ⁽¹⁾	setpoint	catalogue number	
			control unit	adapter
202A001V to 202A087V 203B001V and 203B002V 60200001, 60200002, 60200004	01	0 - 10 V	X90850164500100	-
		4 - 20 mA	X90850164500200	
202A201V to 202A208V 202A510V to 202A513V	02	0 - 10 V	X90850164500100	+ 833-064154
		4 - 20 mA	X90850164500200	

⁽¹⁾ Refer to the dimensional drawings on the following page.

PROPORTIONAL VALVES SUITABLE FOR CONTROL APPLICATIONS

description	series	illustration	catalogue page
3-port proportional valve for pressure control	602		see " Proportional Technology " on: www.asco.com
Posiflow proportional solenoid valves	202 203		See " Proportional Technology " on: www.asco.com



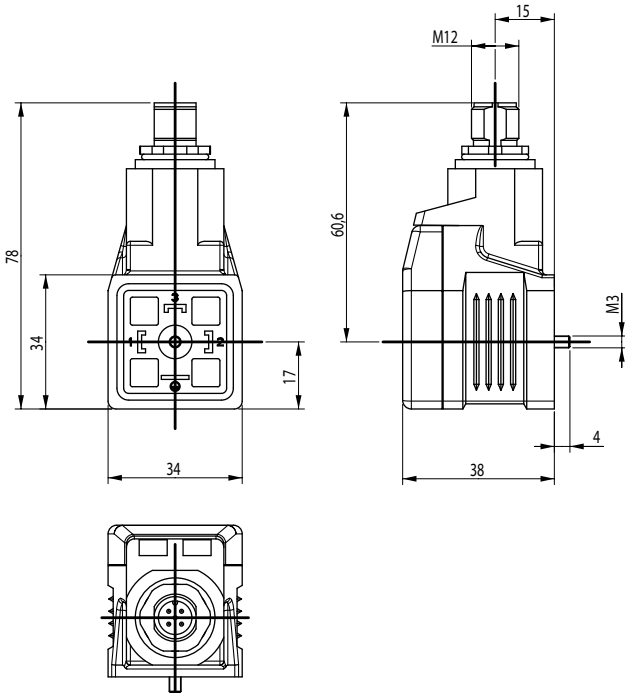
INSTALLATION

- The control unit can be mounted in any position without affecting operation

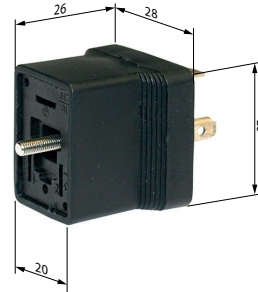
DIMENSIONS (mm), WEIGHT (kg)



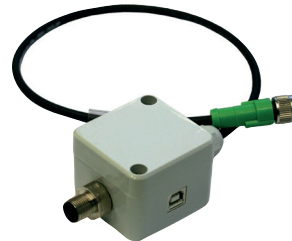
TYPE 01: CONTROL UNIT
0,075 kg



TYPE 02: ADAPTER
from Form A to Form B



PROGRAMMING ADAPTER



INPUT AND OUTPUT SIGNALS

Pin	Supply
1	Voltage supply (see "Electrical Characteristics")
3	Analog ground 0 V (GND)
Analog signals	
2 4	Setpoint input (differential input) The range 0...100 % corresponds to an input voltage of 0...10 V or an input current of 4...20 mA (depending on version used).
Communication	
5	LIN Bus connection The parameters for the device can be set via this connection and our programming adapter.

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 2 m, 2 x 0,25 mm ² , straight connector	88100726
Supply cable 2 m, 2 x 0,25 mm ² , right-angle connector	88100727
Supply cable 5 m, 6 x 0,56 mm ² , straight connector	88100728
Supply cable 5 m, 6 x 0,56 mm ² , right-angle connector	88100729
Supply cable 10 m, 6 x 0,56 mm ² , straight connector	88100730
Supply cable 10 m, 6 x 0,56 mm ² , right-angle connector	88100731
Adapter DIN EN 175301-803 from Form A to Form B for Type 02	833-064154
Programming adapter	X90850164500300

FEATURES

- Converts analog input control signals to coil current of a proportional solenoid valve by means of pulse width modulation
- Switch-off function at less than 2% of the maximum control signal
- Adjustable ramp control
- Output coil current independent of coil resistance (temperature) and supply voltage variations
- Min. and max. output coil current adjustable to required input control signal
- The electronic circuit is integrated in a housing connectable to a 3-terminal spade plug coil connector according to ISO 4400/ EN 175301-803, form A, DIN 43650, 11 mm, industry standard B or DIN 43650, 9,4 mm, industry standard B

GENERAL

Nominal voltage 24 V DC
Maximum current 1100 mA

CONSTRUCTION

Housing PA
Cover PA
Screw Zinc plated steel
Seals NBR

ELECTRICAL CHARACTERISTICS

Connector Spade plug (cable Ø 6-10 mm)
Connector specification ISO 4400 / EN 175301-803, form A ⁽²⁾
Valve connection With 3 terminal plug connection
 Control unit: E908A001 ISO 4400 / EN 175301-803, form A
 Control unit: E908A003 DIN 43650, 11 mm, industry standard B
 Control unit: E908A004 DIN 43650, 9,4 mm, industry standard B (assembled to 200 mm cable)

Electrical safety IEC 335
Electrical enclosure protection IP65 (EN 60529)
Supply voltage DC (=) : 24V ±10 % (U_N), max. ripple 10%

prefix option	max. full load current (I _{FL}) (mA)	input control signal (selectable)			power consumption (electronics) (W)	unit ambient temperature range ⁽²⁾ (C°)	type ⁽¹⁾
		U _c = (V)	I _{CX} (mA)	I _C (mA)			
-	1100	0 - 10	0 - 20	4 - 20	0,8	-10 to +75	01 - 02

Switch-off current < 2 % of max. input control signal
Adjustable offset Upwm 15 - 50 % E.D.
Adjustable full load Upwm 30 - 100 % E.D.
Ramp time Selectable on/off, adjustable 0,1 - 3 sec.
Adjustable switch frequency 40 - 700 Hz

SPECIFICATIONS

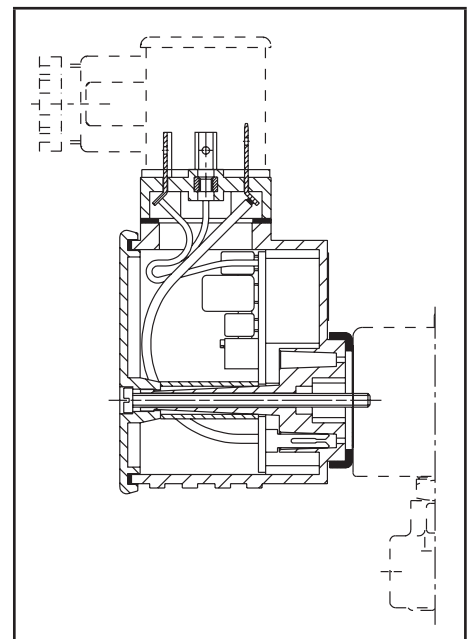
recommended for proportional valve types	type	catalogue number
202A001V to 202A087V 203B001V and 203B002V	01	E908A001
202A201V to 202A208V	02	E908A003
202A101V to 202A104V 202A105V to 202B108V	01	E908A004

⁽¹⁾ Refer to the dimensional drawings on the following page.

⁽²⁾ The connector is supplied with each control unit. **Do not use the standard connector mounted on the POSIFLOW solenoid valves.**

PROPORTIONAL VALVES SUITABLE FOR CONTROL APPLICATIONS

description	series	illustration	catalogue page
3-port proportional valve for pressure control	602		see " Proportional Technology " on: www.asco.com
Posiflow proportional solenoid valves	202 203		See " Proportional Technology " on: www.asco.com



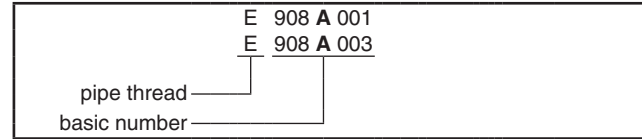
OPTIONS

- ASCO can offer any adaption or modification to the control unit to meet special requests from the users' field

INSTALLATION

- The control unit can be mounted in any position without affecting operation
- The connector to ISO 4400 / EN 175301-803, form A, is supplied with each unit
- Catalogue number E908A004: The 4-terminal connector to ISO 4400 / EN 175301-803, form A, is supplied with each unit. The outlet to the solenoid valve is fitted with a 200 mm long cable with a connector to DIN 43650, 9,4 mm, industry standard B
- Installation and maintenance instructions are included with each control unit

ORDERING EXAMPLES:

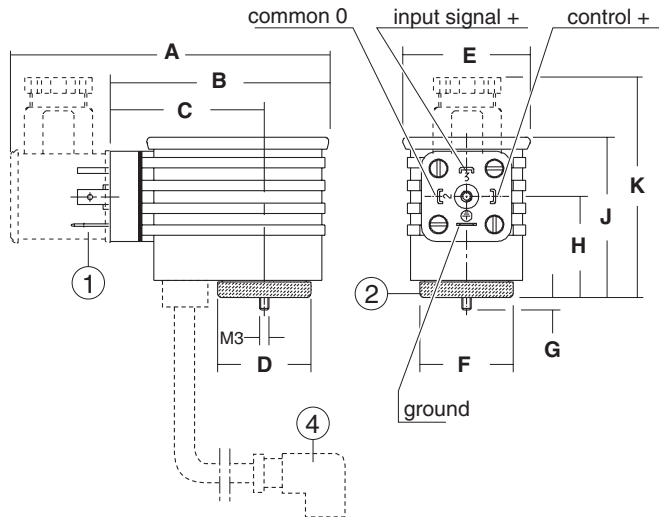


DIMENSIONS (mm), WEIGHT (kg)



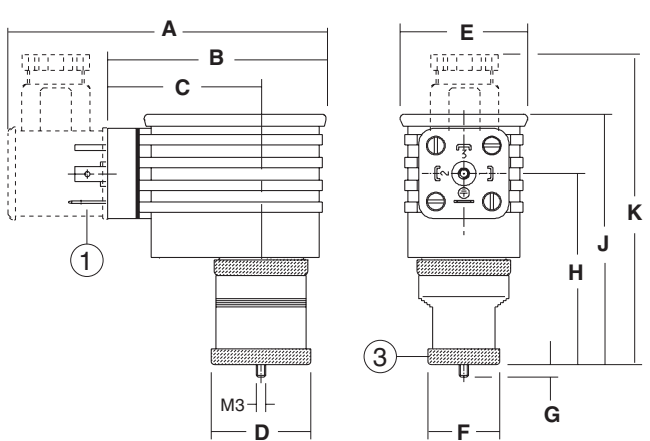
TYPE 01
POSIFLOW control unit
IEC 335 / ISO 4400
IP65

E908A001 - E908A004



TYPE 02
POSIFLOW control unit
IEC 335 / ISO 4400
IP65

E908A003



type	catalogue number	A	B	C	D	E	F	G	H	J	K	weight ⁽¹⁾
01	E908A001/004	98	70	48	30	41	30	4	32	51,5	70	0,1
02	E908A003	98	70	48	32	41	23	4	61	80	98	0,1

⁽¹⁾ Weight without connector.

- ① Supply, 4 terminals, ISO 4400/EN 175301-803, form A
Solenoid valve connection:
- ② 3 terminals, ISO 4400/EN 175301-803, form A
- ③ 3 terminals, DIN 43650, 11 mm, industry standard B
- ④ 3 terminals, DIN 43650, 9,4 mm, industry standard B

VOLTAGE-CURRENT / TIME DIAGRAM

