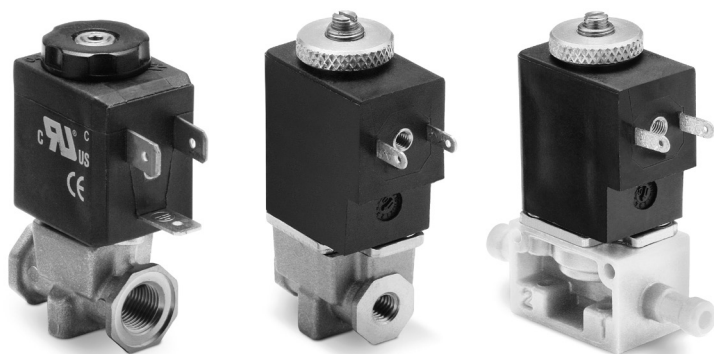


Series AP

directly operated proportional valves

2/2-way proportional valves, NC

Sizes: 16 - 22 mm



Series AP directly operated 2/2-way proportional solenoid valves, NC, with nominal diameters range from 0.8 to 2.4 mm, can be used where an open loop flow control is required, with gas mixtures, to control free flows or blows, or emptying chambers using vacuum.

Series AP proportional valves have been manufactured to optimize and reduce friction and stick-slip effects. The output flow is proportional to the control signal. As they can work also in vacuum, a minimum working pressure is not required.

- » Available in two sizes: 16 and 22 mm
- » PWM or current operation
- » Open loop flow control
- » Also suitable for use with vacuum
- » Size 16mm also available with body in PVDF

2

CONTROL

GENERAL DATA

Function	2/2 NC			
Operation	proportional directly operated			
Ports	M5 - G1/8			
Nominal diameter (ø)	see table			
Nominal flow (Qn - Kv)	see table			
Maximum operating pressure	see table			
Hysteresis	16 mm size < 7%		22 mm size < 5%	
Repeatability	16 mm size < 5%		22 mm size < 3%	
Operating temperature	0 + 60°C			
Medium	filtered compressed air, unlubricated, according to ISO 8573-1 class 3.4.3, inert gas			
Installation	in any position			
Materials	body = brass / PVDF (for size 16mm only) seals = NBR			
	GP7	GPH	U711	U712
Nominal resistance	193 ohm	48 ohm	85 ohm	22 ohm
Rated current	125 mA	250 mA	271 mA	0.542 mA

While choosing the valve characteristics and in order to reach the highest performances, it is important to know that there must be a pressure difference of 90% at least between the inlet and the outlet. For example: inlet P 10 bar - outlet P max 1 bar up to free flow.

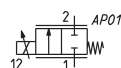
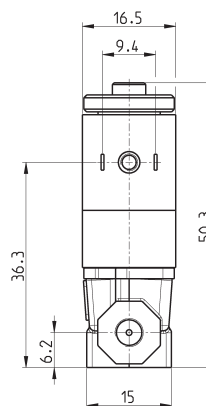
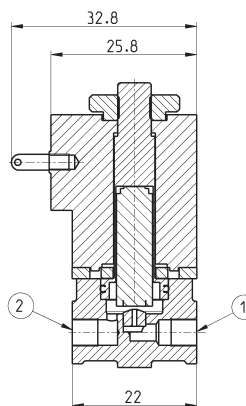
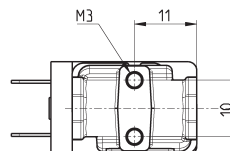
CODING EXAMPLE

AP	-	7	2	1	1	-	L	R	2	-	G	7	11
----	---	---	---	---	---	---	---	---	---	---	---	---	----

AP	SERIES												
7	BODY: 6 = Size 16 mm 7 = Size 22 mm												
2	NUMBER OF WAYS: 2 = 2-way												
1	VALVE FUNCTION: 1 = NC												
1	PORTS: 0 = M5 (for size 16 mm only) 1 = G1/8 (for size 22 mm only) L = barbed fittings (for body in PVDF only, size 16 mm)												
L	NOMINAL DIAMETER: D = \varnothing 0.8 mm (for size 16 mm only) F = \varnothing 1 mm H = \varnothing 1.2 mm L = \varnothing 1.6 mm N = \varnothing 2 mm (for size 22 mm only) Q = \varnothing 2.4 mm (for size 22 mm only)												
R	SEALS MATERIAL: R = NBR												
2	BODY MATERIAL: 2 = brass 3 = PVDF (for size 16 mm only)												
G	ENCAPSULATING MATERIAL: G = PA (for size 16 mm only) U = PET (for size 22 mm only)												
7	SOLENOID DIMENSIONS: P = 16x26 DIN EN 175301-803-C (for size 16 mm only) 7 = 22x22 DIN 43650 B (for size 22 mm only)												
11	SOLENOID VOLTAGE: H = 12 V DC 3 W (for size 16 mm only) 7 = 24 V DC 3 W (for size 16 mm only) 11 = 24 V DC 6.5 W (for size 22 mm only) 12 = 12 V DC 6.5 W (for size 22 mm only)												

Series AP proportional valves - size 16mm

For the use with vacuum connect the line to connection 2.

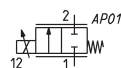
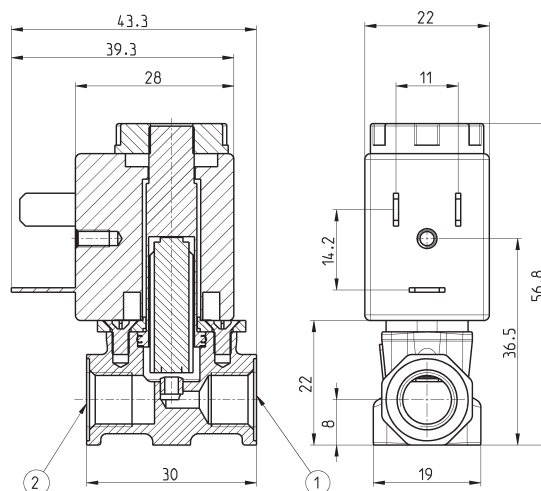
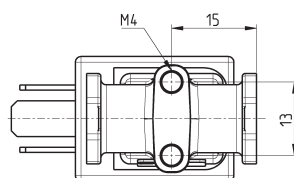


Mod.	Port 1	Port 2	Function	Orifice \varnothing (mm)	Kv (l/min)	P Max (bar)
AP-6210-DR2-GP*	M5	M5	2/2 NC	0.8	0.4	10
AP-6210-FR2-GP*	M5	M5	2/2 NC	1	0.5	8
AP-6210-HR2-GP*	M5	M5	2/2 NC	1.2	0.65	6
AP-6210-LR2-GP*	M5	M5	2/2 NC	1.6	1.2	4

* choose the desired voltage

Series AP proportional valves - size 22mm

For the use with vacuum connect the line to connection 2.



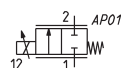
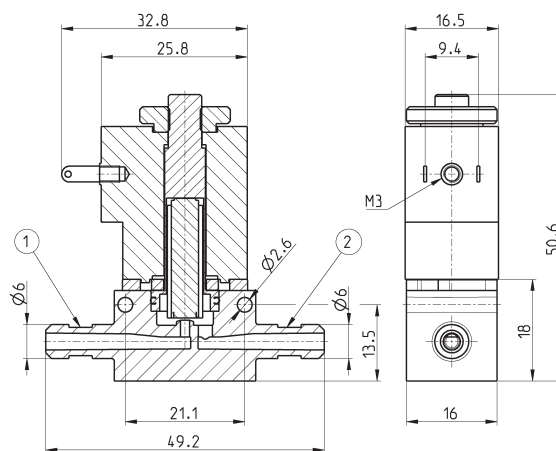
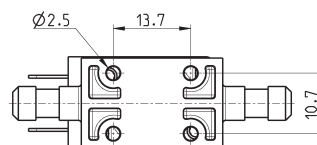
* choose the desired voltage

Mod.	Port 1	Port 2	Function	Orifice ø (mm)	Kv (l/min)	P Max (bar)
AP-7211-FR2-U7*	G1/8	G1/8	2/2 NC	1	0.5	10
AP-7211-HR2-U7*	G1/8	G1/8	2/2 NC	1.2	0.65	8
AP-7211-LR2-U7*	G1/8	G1/8	2/2 NC	1.6	1.0	6
AP-7211-NR2-U7*	G1/8	G1/8	2/2 NC	2	1.6	5
AP-7211-QR2-U7*	G1/8	G1/8	2/2 NC	2.4	2.0	4

Series AP proportional valves, size 16mm - body in PVDF

New

For the use with vacuum connect the line to connection 2.



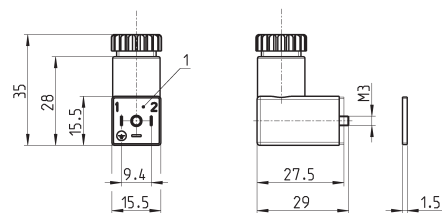
* choose the desired voltage
** pneumatic connection with tube and clamps

Mod.	Port 1	Port 2	Function	Orifice ø (mm)	Kv (l/min)	P Max (bar)
AP-621L-DR3-GP*	Ø6 **	Ø6 **	2/2 NC	0.8	0.4	10
AP-621L-FR3-GP*	Ø6 **	Ø6 **	2/2 NC	1	0.5	8
AP-621L-HR3-GP*	Ø6 **	Ø6 **	2/2 NC	1.2	0.65	6
AP-621L-LR3-GP*	Ø6 **	Ø6 **	2/2 NC	1.6	1.2	4



Connector Mod. 125-800 DIN 43650 pitch 9.4 mm

For size 16 mm only



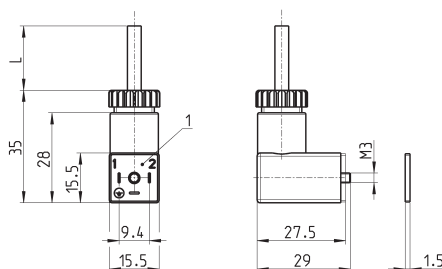
Mod.	description	colour	working voltage	cable holding	tightening torque
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector



Connector Mod. 125-550- DIN 43650 pitch 9.4 mm with cable

For size 16 mm only



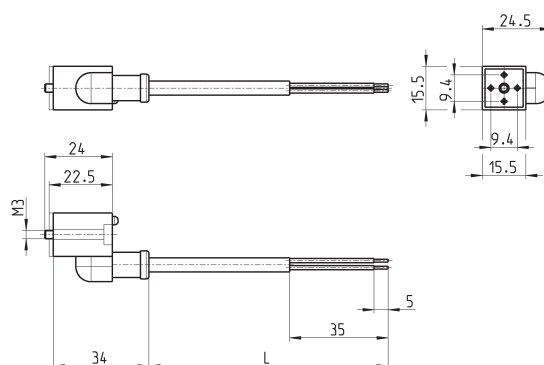
Mod.	description	colour	working voltage	cable length [L]	cable holding	tightening torque
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm

1 = 90° adjustable connector



In-line connectors with cable Mod. 125-553

For size 16 mm only



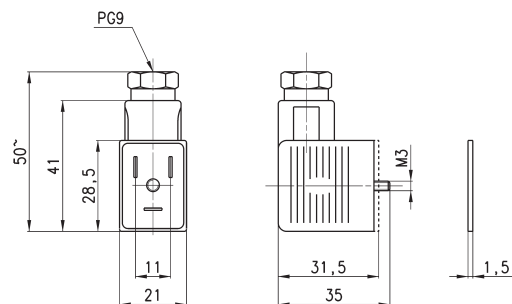
Mod.	description	colour	working voltage	cable length [L]	cable holding	tightening torque
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

Connectors Mod. 122-800 DIN 43650

For size 22 mm only



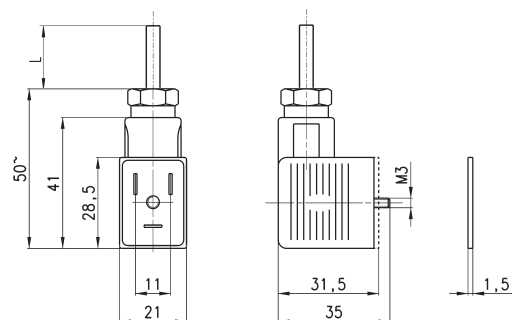
Mod. 122-800EX:
for ATEX certified solenoids mod. U7*EX, with anti-
screwing off screw mod. TORX.



Mod.	description	colour	working voltage	cable holding	tightening torque
122-800	connector, without electronics	black	-	PG9	0.5 Nm
122-800EX	connector, without electronics	black	-	PG9	0.5 Nm

Connectors Mod. 122-550 DIN 43650 with cable

For size 22 mm only



Mod.	description	colour	working voltage	cable length [L]	cable holding	tightening torque
122-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.5 Nm
122-550-5	moulded cable, without electronics	black	-	5000 mm	-	0.5 Nm