Series F300

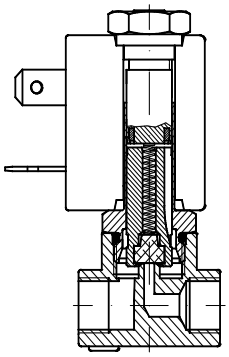
General

F300 series includes a vast range of solenoid valves in brass and stainless steel designed to control air, water, steam and all fluids that are compatible with the materials used for bodies and seals. The solenoid valves are 2 or 3-way, normally closed, normally open, general service, direct acting or servo-assisted, with connections available in NPT & BSP threads from G1/8" up to G3", with a working pressure range from vacuum to 100 bar. Solenoid valves are available with coils that conform to CESI 03 ATEX 344 certification for explosive environments. Our technical office ensures the highest standard of skill and understanding for the widest variety of applications, ensuring that the best possible solutions are found.

Version manifactured

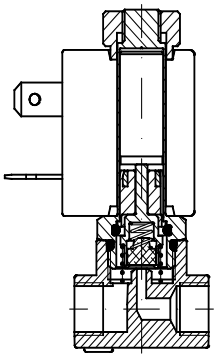
Solenoid valves direct action 2-way: 2-way solenoid valves have an input connection and an output connection machined in the valve body, the orifice being intercepted by the poppet moved by the core tube.

They can be **normally closed (2/2 N.C.)**, in this case the fluid is intercepted by the poppet at rest, with electricity applied, the input orifice is opened and the media reaches the intended use.



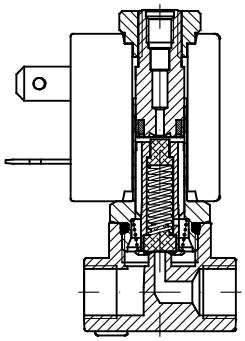
They can be **normally open (2/2 N.O.)**, in this case at rest the orifice remains open without electricity applied, the media reaches the intended use. When electricity is applied the input orifice closes.

Performance in both cases depends solely on the magnetic field produced by the solenoid coil. The solenoid valves can also work at zero pressure.



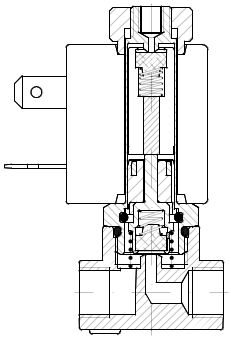
Solenoid valves direct action 3-way: 3-way solenoid valves have an input and an output connection in the valve body and an exhaust connection fitted in the stem of the core tube. The input and exhaust orifices are intercepted directly by the poppet fitted within the core tube.

They can be **normally closed (3/2 N.C.)** and in this case, at rest, the incoming fluid is intercepted by the poppet and output port in connected to the exhaust port. Applying electrical power, the input orifice is opened and feed is supplied to the output. Exhaust is closed.



They can be **normally open (3/2 N.O.)** and in this case, at rest, the input orifice is open without electricity applied, the media reaches the intended use. Exhaust is closed.
Applying power, the input orifice closes and the output discharges through the exhaust port.

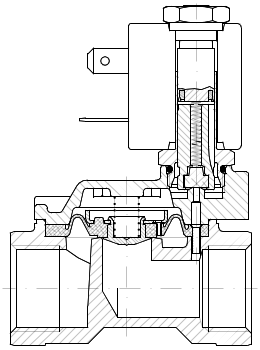
Performance in both cases depends solely on the magnetic field produced by the solenoid coil.
The solenoid valves can also work at zero pressure.



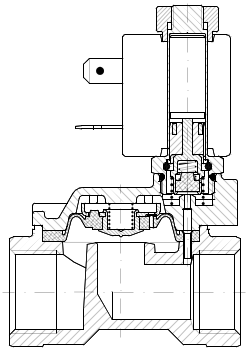
Servo-assisted solenoid valves

Large-sized passage orifices increase the value of the static pressure which has to be overcome by the magnetic field produced by the coil.
These solenoid valves are used to control high-pressure values with large diameter bores.
In these models, the fluid helps in the opening or closing of the main poppet.

They can be **normally closed (2/2 N.C.)** and have an input and a utilisation connection machined into the valve body and at rest the fluid is intercepted by the main poppet, which can be either diaphragm or a piston. In this condition, the fluid acts on both faces of the main plunger though a pinhole contributing to closure of the poppet.
Applying electrical power, the secondary, or pilot, orifice opens leading to the exhaust of the fluid, which acts to close the main poppet.
Greater force is thus applied when opening, the poppet is raised from the orifice and allows the media to flows to the output.
In these versions, performance does not depend solely on the magnetic field produced by the coil; a minimum input pressure is also needed so as to move the diaphragm or the piston overcoming its rigidity and to keep it raised from the main orifice (Δp minimum performance).



They can be **normally open (2/2 N.O.)** and have an input and output connection machined into the valve body, and at rest the core tube communicates with output, a minimum-pressure difference between the feed and the output causes the main poppet to rise, leading to it opening. Applying electrical power, the secondary orifice closes and equilibrium between the pressure on the two faces of the main poppet is reinstated, and so it returns to its closed position on the main orifice.
In this version a minimum working pressure is also needed.



Sealing materials

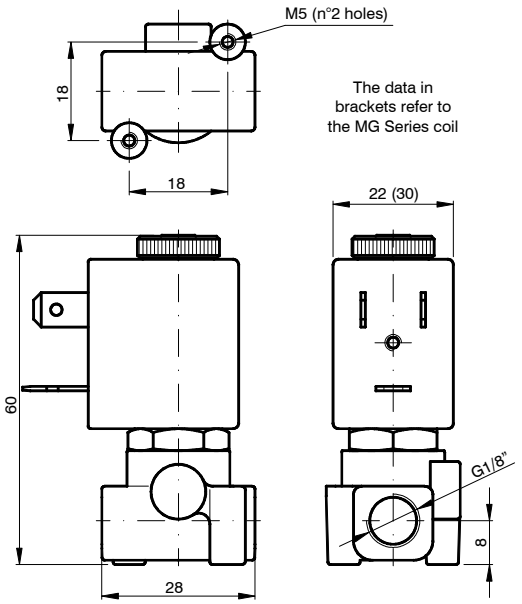
Designation	Trade names	General characteristics	Field of use
FPM (Fluorocarbon)	VITON TECNOFLON FLUOREL	A synthetic hexa-fluoropropylene-based elastomer. Excellent resistance to high temperatures. Excellent resistance to ozone, oxygen, mineral oils, synthetic hydraulic fluids, fuels, hydrocarbons and many chemical products. Not specific for superheated steam.	For general use up to 140 °C

Resistance to fluids

The table below serves to general information relating to the compatibility between FPM (fluorocarbon) and a number of neutral fluids. Where there are corrosive fluids, in order to establish compatibility, it is important to be aware of all the data relating to use: temperature, concentration and composition of the fluid.

Fluid	
Ethyl acetate	Not compatible
Acetylene	Compatible
Vinegar	Not compatible
Acetone	Not compatible
Calcareous water	Compatible
Hot water <75 °C	Compatible
Hot water and steam <140 °C	Not compatible
Water with glycol	Compatible
Deionised water	Compatible
Demineralised water	Compatible
Hydrogen peroxide	Compatible
Soapy water	Compatible
Carbon dioxide (liquid)	Not compatible
Dry carbon dioxide (gas)	Compatible
Argon	Compatible
Nitrogen	Compatible
Petrol/Gasoline	Compatible
Benzol	Not compatible
Butane	Compatible
Chloroform	Not compatible
Ethyl Chloride	Compatible
Methyl chloride	Not compatible
Helium	Compatible
Heptane	Compatible
Hexane	Compatible
Ethane	Compatible
Ethanol	Not compatible
Formaldehyde	Compatible
Freon	Not compatible
Natural gas	Compatible
Diesel oil	Compatible
Glycerine	Compatible
Ethylene glycol	Compatible
Hydrogen	Compatible
Isobutane	Compatible
Isopentane	Compatible
Methane	Compatible
Methanol	Not compatible
Calcium monoxide	Compatible
Neon	Compatible
Nitrobenzene	Not compatible
Mineral oil	Compatible
Oxygen	Compatible
Pentane-n	Compatible
Propanol-n	Compatible
Propane-n	Compatible
Carbon sulphide	Not compatible
Toluene	Compatible
Dry trichloroethylene	Compatible
Xylene	Compatible

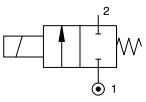
F3105 - 2-way solenoid valve N.C. brass body, with G connection (ISO 228) - 1/8”



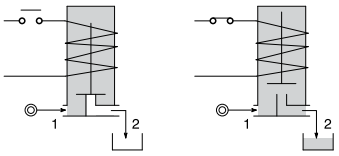
CODE “V”= FPM seals	G connection (ISO 228) ❷= Connection	Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			❶= Solenoid coil		Temperature range (°C)
	A			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3105❷V12❶	1/8”	1,2	0,04	0	25	25	12	8	6,5	MI	22	-10 ... +140
F3105❷V15❶		1,5	0,06		16	16						
F3105❷V20❶		2	0,09		12	10						
F3105❷V25❶		2,5	0,14		8	5,5						
F3105❷V31❶		3,1	0,19		5	2						
F3105❷V40❶		4	0,35		4	1,5						

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3105❷V25❶ => F3105AV25MI58:
2-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, orifice 2,5 mm, solenoid coil 230 VAC (50-60 Hz) (MI58, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol



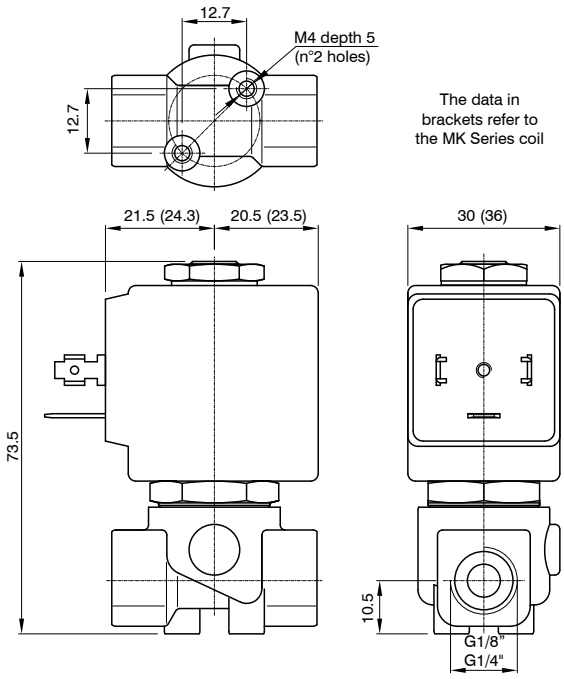
Diagram



Construction characteristics
- Brass body - Brass guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies **OPTIONS (on request):** - Manual override - Chemical nickel plating surface treatment - Stainless steel guide tube - For use with oxygen - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C

Technical characteristics	
Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Indifferent
Weight (g) with solenoid coil MI series	130
Weight (g) with solenoid coil MG series	180

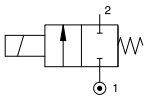
F3106 - 2-way solenoid valve N.C. brass body, with G connection (ISO 228) - 1/8" and 1/4"



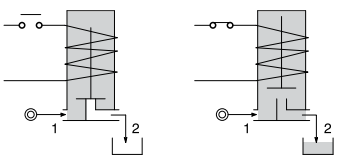
CODE "V"= FPM seals	G connection (ISO 228) ©= Connection		Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			ⒷSolenoid coil		Temperature range (°C)
	A	B			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3106©V10Ⓑ	1/8"	1/4"	1	0,04	0	80	80	20	15	10	MG	30	-10 ... +140
F3106©V12Ⓑ			1,2	0,05		60	60						
F3106©V15Ⓑ			1,5	0,07		30	26						
F3106©V20Ⓑ			2	0,1		22	20						
F3106©V25Ⓑ			2,5	0,15		16	14						
F3106©V30Ⓑ			3	0,25		15	10						
F3106©V35Ⓑ			3,5	0,32		10	8						
F3106©V40Ⓑ			4	0,36		8	5						
F3106©V45Ⓑ			4,5	0,41		6,5	3,5						
F3106©V52Ⓑ	/		5,2	0,47		4	1,8						
F3106©V64Ⓑ	/		6,4	0,64		3	1						
F3106©V10Ⓑ	1/8"	1/4"	1	0,04		100	100	40	30	27	MK	36	
F3106©V12Ⓑ			1,2	0,05		100	100						
F3106©V15Ⓑ			1,5	0,07		80	80						
F3106©V20Ⓑ			2	0,1		50	40						
F3106©V25Ⓑ			2,5	0,15		35	33						
F3106©V30Ⓑ			3	0,25		25	24						
F3106©V35Ⓑ			3,5	0,32		20	19						
F3106©V40Ⓑ			4	0,36		16	15						
F3106©V45Ⓑ			4,5	0,41		14	13						
F3106©V52Ⓑ	/		5,2	0,47		10	9						
F3106©V64Ⓑ	/		6,4	0,64		5	4,5						

N.B. For use with steam, maximum admitted pressure PS is 9 bar (relative pressure) with seals in PTFE and 2.5 bar with seals in EPDM.
Example: F3106©V52Ⓑ => F3106BV52MG58:
2-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/4", FPM seals, 5,2 mm orifice, solenoid coil 230 VAC (50-60 Hz) (MG58, size 30 for more information, please refer to the section "*Solenoid coils - Series F300*").

Pneumatic symbol



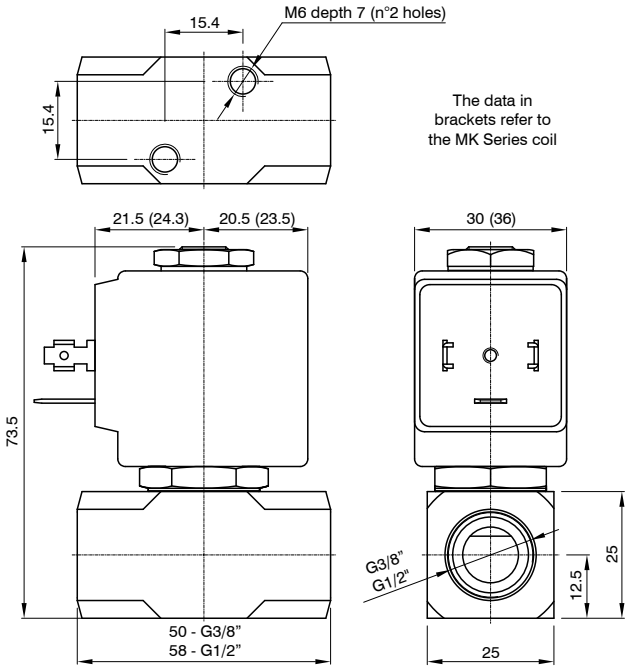
Diagram



Construction characteristics
- Brass body - AISI 303 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies **OPTIONS (on request):** - Manual override - Chemical nickel plating surface treatment - Stainless steel seat insert (up to Ø4,5) - For use with oxygen - cULus certified solenoid coils - Versions for use with fluid temperature at -40 °C - PTFE - EPDM seals

Technical characteristics	
Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Ambient temperature: with class H solenoid coil (°C)	-10 ... +80
Mounting position	Indifferent
Weight (g) with solenoid coil MG series	300
Weight (g) with solenoid coil MK series	380

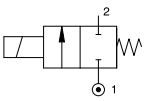
F3106 - 2-way solenoid valve N.C. brass body, with G connection (ISO 228) - 3/8" and 1/2"



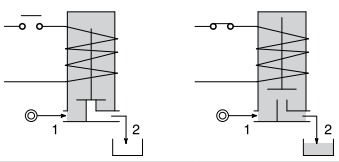
CODE "V"= FPM seals	G connection (ISO 228) ⓒ= Connection		Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			ⓔ= Solenoid coil		Temperature range (°C)
	C	D			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3106ⓒV10ⓔ	3/8"	1/2"	1	0,04	0	80	80	20	15	10	MG	30	-10 ... +140
F3106ⓒV12ⓔ			1,2	0,05		60	60						
F3106ⓒV15ⓔ			1,5	0,07		30	26						
F3106ⓒV20ⓔ			2	0,1		22	20						
F3106ⓒV25ⓔ			2,5	0,15		16	14						
F3106ⓒV30ⓔ			3	0,25		15	10						
F3106ⓒV35ⓔ			3,5	0,32		10	8						
F3106ⓒV40ⓔ			4	0,36		8	5						
F3106ⓒV45ⓔ			4,5	0,41		6,5	3,5						
F3106ⓒV52ⓔ			5,2	0,47		4	1,8						
F3106ⓒV64ⓔ			6,4	0,64		3	1						
F3106ⓒV10ⓔ	3/8"	1/2"	1	0,04		100	100	40	30	27	MK	36	
F3106ⓒV12ⓔ			1,2	0,05		100	100						
F3106ⓒV15ⓔ			1,5	0,07		80	80						
F3106ⓒV20ⓔ			2	0,1		50	40						
F3106ⓒV25ⓔ			2,5	0,15		35	33						
F3106ⓒV30ⓔ			3	0,25		25	24						
F3106ⓒV35ⓔ			3,5	0,32		20	19						
F3106ⓒV40ⓔ			4	0,36		16	15						
F3106ⓒV45ⓔ			4,5	0,41		14	13						
F3106ⓒV52ⓔ			5,2	0,47		10	9						
F3106ⓒV64ⓔ			6,4	0,64		5	4,5						

N.B. For use with steam, maximum admitted pressure PS is 9 bar (relative pressure) with seals in PTFE and 2.5 bar with seals in EPDM.
Example: F3106ⓒV52ⓔ => F3106DV52MK5:
2-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/2", FPM seals, 5,2 mm orifice, solenoid coil 24 VDC (MK5, size 36 for more information, please refer to the section "*Solenoid coils - Series F300*").

Pneumatic symbol



Diagram



Construction characteristics

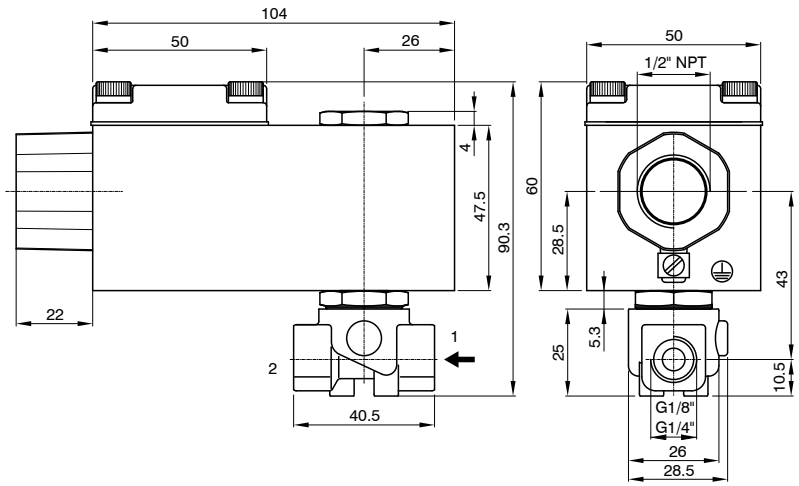
- Brass body
- AISI 303 stainless steel guide tube
- AISI 430FR stainless steel mobile and fixed core
- AISI 302 stainless steel springs
- FPM sealing assemblies

OPTIONS (on request):
- Chemical nickel plating surface treatment
- For use with oxygen
- Stainless steel seat insert (up to Ø4,5)
- cULus certified solenoid coils
- Versions for use with fluid temperature at -40 °C
- PTFE - EPDM seals

Technical characteristics

Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Ambient temperature: with class H solenoid coil (°C)	-10 ... +80
Mounting position	Indifferent
Weight (g) with solenoid coil MG series	360
Weight (g) with solenoid coil MK series	440

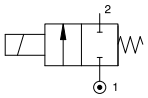
FX3106 - 2-way solenoid valve N.C. brass body, with G connection (ISO 228) with certified housing: Ex d IIC T6 or T5 or T4 Gb - 1/8" and 1/4"



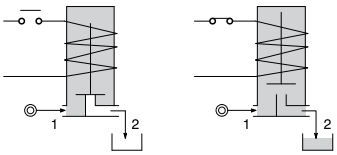
CODE "V"= FPM seals	G connection (ISO 228) ❶= Connection		Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption		❸= Solenoid coil	Temperature range (°C)
	A	B			Min	Max AC	Max DC	AC Holding (VA)	DC (W)		
FX3106❶V10❸	1/8"	1/4"	1	0,04	0	80	80	12	8	A6B= 24 Volt (AC 50-60 Hz) A6E= 220/230 Volt (AC 50-60 Hz) A60= 12 Volt (DC) A61= 24 Volt (DC)	-10 ... +80
FX3106❶V12❸			1,2	0,05		60	60				
FX3106❶V15❸			1,5	0,07		30	26				
FX3106❶V20❸			2	0,1		22	20				
FX3106❶V25❸			2,5	0,15		16	14				
FX3106❶V30❸			3	0,25		15	10				
FX3106❶V35❸			3,5	0,32		10	8				
FX3106❶V40❸	/		4	0,36		8	5				
FX3106❶V45❸	/		4,5	0,41		6,5	3,5				
FX3106❶V52❸	/		5,2	0,47		4	1,8				
FX3106❶V64❸	/		6,4	0,64		3	1				

N.B. The solenoid valve is suited for intercepting only fluids that are NOT potentially explosive.
Example: FX3106❶V35❸ => FX3106BV35A60:
2-way solenoid valve normally closed, direct acting poppet type with certified housing: Ex d IIC T6 or T5 or T4 Gb, with G connection (ISO 228) 1/4", FPM seals, 3,5 mm orifice, solenoid coil 12 VDC (A60).

Pneumatic symbol

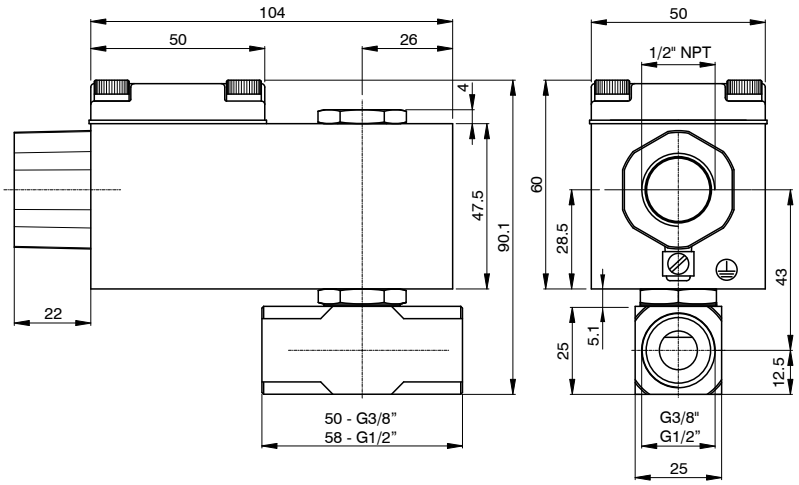


Diagram



Construction characteristics	Technical characteristics	
- Brass body - Red light alloy housing - 1/2" NPT electrical connection (M20x1,5 on request) - FPM sealing assemblies	Maximum admitted pressure (bar)	100
	Maximum fluid viscosity (mm^2/s)	25cSt
	Ambient temperature (°C)	-40 ... +60
OPTIONS (on request): - Manual override - Chemical nickel plating surface treatment - Stainless steel seat insert (up to Ø4,5) - Stainless steel solenoid coil housing	Mounting position	Vertical with solenoid coil upwards
	Weight (g)	600

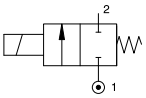
FX3106 - 2-way solenoid valve N.C. brass body, with G connection (ISO 228) with certified housing: Ex d IIC T6 or T5 or T4 Gb - 3/8 and "1/2"



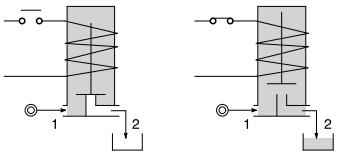
CODE "V"= FPM seals	G connection (ISO 228) ©= Connection		Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption		®= Solenoid coil	Temperature range (°C)
	C	D			Min	Max AC	Max DC	AC Holding (VA)	DC (W)		
FX3106©V10®	3/8"	1/2"	1	0,04	0	80	80	12	8	A6B= 24 Volt (AC 50-60 Hz) A6E= 220/230 Volt (AC 50-60 Hz) A60= 12 Volt (DC) A61= 24 Volt (DC)	-10 ... +80
FX3106©V12®			1,2	0,05		60	60				
FX3106©V15®			1,5	0,07		30	26				
FX3106©V20®			2	0,1		22	20				
FX3106©V25®			2,5	0,15		16	14				
FX3106©V30®			3	0,25		15	10				
FX3106©V35®			3,5	0,32		10	8				
FX3106©V40®			4	0,36		8	5				
FX3106©V45®			4,5	0,41		6,5	3,5				
FX3106©V52®			5,2	0,47		4	1,8				
FX3106©V64®			6,4	0,64		3	1				

N.B. The solenoid valve is suited for intercepting only fluids that are NOT potentially explosive.
Example: FX3106©V52® => FX3106DV52A60:
2-way solenoid valve normally closed, direct acting poppet type with certified housing: Ex d IIC T6 or T5 or T4 Gb, with G connection (ISO 228) 1/2", FPM seals, 5,2 mm orifice, solenoid coil 12 VDC (A60).

Pneumatic symbol



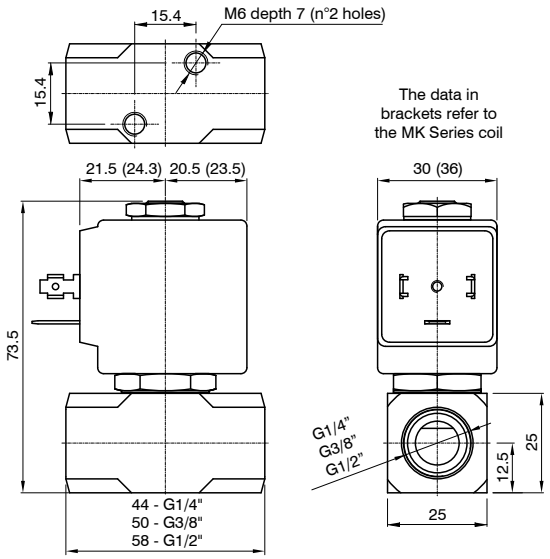
Diagram



Construction characteristics
- Brass body - Red light alloy housing - 1/2" NPT electrical connection (M20x1,5 on request) - FPM sealing assemblies **OPTIONS (on request):** - Chemical nickel plating surface treatment - Stainless steel seat insert (up to Ø4,5) - Stainless steel solenoid coil housing

Technical characteristics	
Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature (°C)	-40 ... +60
Mounting position	Vertical with solenoid coil upwards
Weight (g)	660

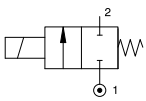
F3110 - 2-way solenoid valve N.C. stainless steel body, with G connection (ISO 228) - 1/4" ... 1/2"



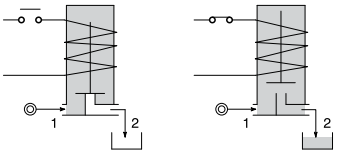
CODE "V"= FPM seals	G connection (ISO 228) ©= Connection			Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			ⒷSolenoid coil		Temperature range (°C)
	B	C	D			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3110©V10Ⓑ	1/4"	3/8"	1/2"	1	0,04	0	80	80	20	15	10	MG	30	-10 ... +140
F3110©V12Ⓑ				1,2	0,05		60	60						
F3110©V15Ⓑ				1,5	0,07		30	26						
F3110©V20Ⓑ				2	0,1		22	20						
F3110©V25Ⓑ				2,5	0,15		16	14						
F3110©V30Ⓑ				3	0,25		15	10						
F3110©V35Ⓑ				3,5	0,32		10	8						
F3110©V40Ⓑ				4	0,36		8	5						
F3110©V45Ⓑ				4,5	0,41		6,5	3,5						
F3110©V52Ⓑ				5,2	0,47		4	1,8						
F3110©V64Ⓑ				6,4	0,64		3	1						
F3110©V10Ⓑ	1/4"	3/8"	1/2"	1	0,04		100	100	40	30	27	MK	36	
F3110©V12Ⓑ				1,2	0,05		100	100						
F3110©V15Ⓑ				1,5	0,07		80	80						
F3110©V20Ⓑ				2	0,1		50	40						
F3110©V25Ⓑ				2,5	0,15		35	33						
F3110©V30Ⓑ				3	0,25		25	24						
F3110©V35Ⓑ				3,5	0,32		20	19						
F3110©V40Ⓑ				4	0,36		16	15						
F3110©V45Ⓑ				4,5	0,41		14	13						
F3110©V52Ⓑ				5,2	0,47		10	9						
F3110©V64Ⓑ				6,4	0,64		5	4,5						

N.B. For use with steam, maximum admitted pressure PS is 9 bar (relative pressure) with seals in PTFE and 2.5 bar with seals in EPDM.
Example: F3110©V25Ⓑ => F3110BV25MG5:
2-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/4", FPM seals, 2,5 mm orifice, solenoid coil 24 VDC (MG5, size 30 for more information, please refer to the section "*Solenoid coils - Series F300*").

Pneumatic symbol



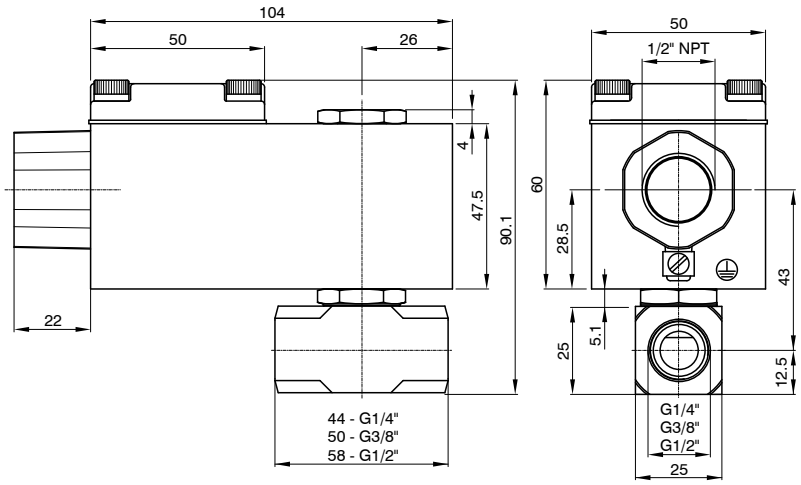
Diagram



Construction characteristics
- AISI 303 stainless steel body - AISI 303 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies **OPTIONS (on request):** - Silver advance ring - For use with oxygen - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C - PTFE - EPDM seals

Technical characteristics	
Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Ambient temperature: with class H solenoid coil (°C)	-10 ... +80
Mounting position	Indifferent
Weight (g) with solenoid coil MG series	360
Weight (g) with solenoid coil MK series	440

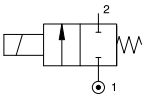
FX3110 - 2-way solenoid valve N.C. stainless steel body, with G connection (ISO 228) with certified housing: Ex d IIC T6 or T5 or T4 Gb - 1/4" ... 1/2"



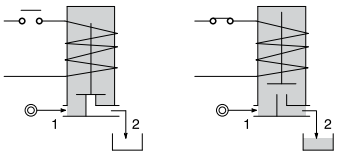
CODE "V"= FPM seals	G connection (ISO 228) ⓒ= Connection			Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption		Ⓑ= Solenoid coil	Temperature range (°C)
	B	C	D			Min	Max AC	Max DC	AC Holding (VA)	DC (W)		
FX3110ⓒV10Ⓑ	1/4"	3/8"	1/2"	1	0,04	0	80	80	12	8	A6B= 24 Volt (AC 50-60 Hz) A6E= 220/230 Volt (AC 50-60 Hz) A60= 12 Volt (DC) A61= 24 Volt (DC)	-10 ... +80
FX3110ⓒV12Ⓑ				1,2	0,05		60	60				
FX3110ⓒV15Ⓑ				1,5	0,07		30	26				
FX3110ⓒV20Ⓑ				2	0,1		22	20				
FX3110ⓒV25Ⓑ				2,5	0,15		16	14				
FX3110ⓒV30Ⓑ				3	0,25		15	10				
FX3110ⓒV35Ⓑ				3,5	0,32		10	8				
FX3110ⓒV40Ⓑ				4	0,36		8	5				
FX3110ⓒV45Ⓑ				4,5	0,41		6,5	3,5				
FX3110ⓒV52Ⓑ				5,2	0,47		4	1,8				
FX3110ⓒV64Ⓑ				6,4	0,64		3,5	1				

N.B. The solenoid valve is suited for intercepting only fluids that are NOT potentially explosive.
Example: FX3110ⓒV52Ⓑ => FX3110DV52A60:
2-way solenoid valve normally closed, direct acting poppet type with certified housing: Ex d IIC T6 or T5 or T4 Gb, with G connection (ISO 228) 1/2", FPM seals, 5,2 mm orifice, solenoid coil 12 VDC (A60).

Pneumatic symbol



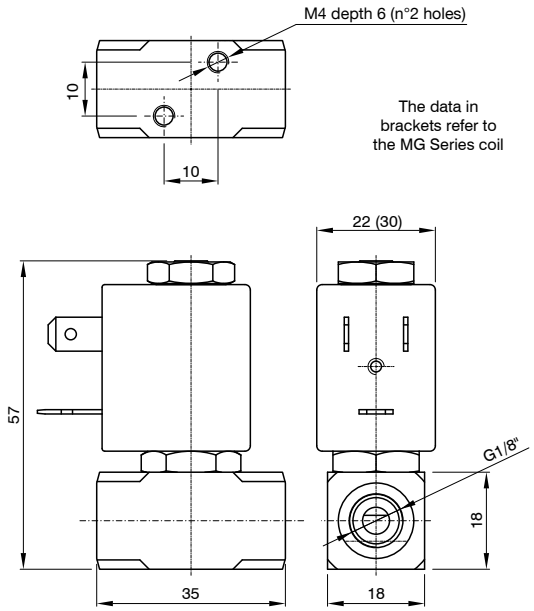
Diagram



Construction characteristics
- AISI 303 stainless steel body - AISI 303 stainless steel guide tube - AISI 302 stainless steel springs - Red light alloy or stainless steel housing - 1/2" NPT electrical connection (M20x1,5 on request) - FPM sealing assemblies

Technical characteristics	
Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature (°C)	-40 ... +60
Mounting position	Vertical with solenoid coil upwards
Weight (g)	660

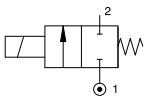
F3111 - 2-way solenoid valve N.C. stainless steel body, with G connection (ISO 228) - 1/8”



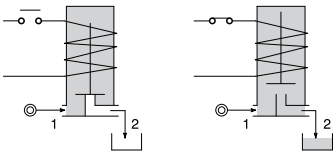
CODE “V”= FPM seals	G connection (ISO 228) ⓒ= Connection	Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			ⓑ= Solenoid coil		Temperature range (°C)
	A			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3111ⓒV12ⓑ	1/8”	1,2	0,04	0	25	25	12	8	6,5	MI	22	-10 ... +140
F3111ⓒV15ⓑ		1,5	0,06		16	16						
F3111ⓒV20ⓑ		2	0,09		12	10						
F3111ⓒV25ⓑ		2,5	0,14		8	5,5						
F3111ⓒV31ⓑ		3,1	0,19		5	2						
F3111ⓒV20ⓑ	1/8”	2	0,09		25	15	15	11	5	MG	30	
F3111ⓒV25ⓑ		2,5	0,14		16	8						
F3111ⓒV31ⓑ		3,1	0,19		8	4						

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3111ⓒV25ⓑ => F3111AV25MI58:
2-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, 2,5 mm orifice, solenoid coil 230 VAC (50-60 Hz) (MI58, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol



Diagram

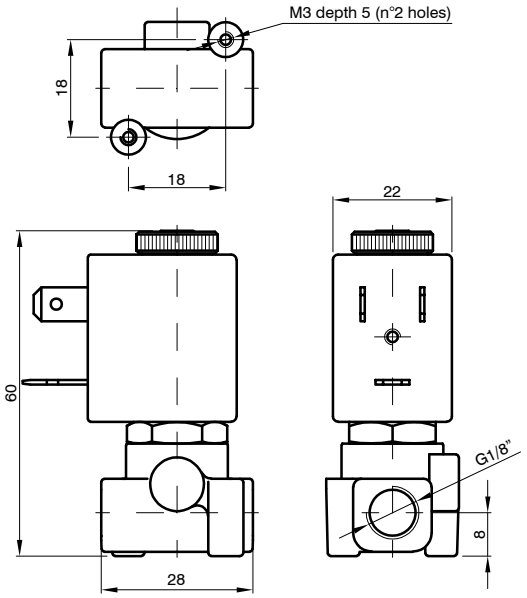


Construction characteristics
- AISI 303 stainless steel body - AISI 303 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies **OPTIONS (on request):** - Silver advance ring - For use with oxygen - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C

Technical characteristics	
Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Indifferent
Weight (g) with solenoid coil MI series	150
Weight (g) with solenoid coil MG series	200

F3115 - 2-way solenoid valve brass body, with G connection (ISO 228) bistable impulse drive - 1/8”

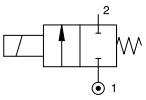
The bistable function is achieved by the use of a polarized permanent magnet energizing the coil with a DC current for at least 15ms in the reverse direction of the preceding impulse.



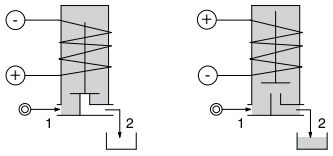
CODE “V”= FPM seals	G connection (ISO 228) ❷= Connection	Orifice (mm)	KV (m^3/h)	Differential pressure (bar)		Power consumption	❸= Solenoid coil		Temperature range (°C)
	A			Min	Max	DC (W)	Series	Size	
F3115❷V12❸	1/8”	1,2	0,04	0	12	2	MI/DC	22	-10 ... +120
F3115❷V15❸		1,5	0,06		8	2			
					20	5			
F3115❷V20❸		2	0,09		3	2			
					12	5			
F3115❷V25❸		2,5	0,14		1	2			
					5	5			
					8	6,5			
F3115❷V31❸		3,1	0,19		2	5			
					3,5	6,5			

Example: F3115❷V25❸ => F3115AV25MI5:
2-way solenoid valve, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, 2,5 mm orifice, solenoid coil 24 VDC (MI5, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol

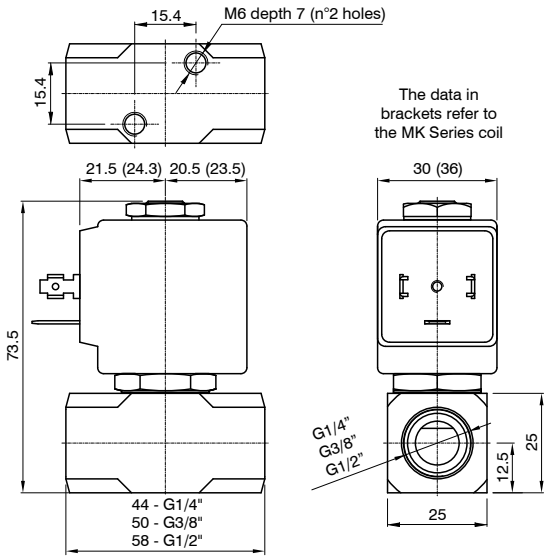


Diagram



Construction characteristics	Technical characteristics	
- Brass body - Brass guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies	Maximum admitted pressure (bar)	50
	Maximum fluid viscosity (mm^2/s)	25cSt
	Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
	Mounting position	Indifferent
OPTIONS (on request): - Chemical nickel plating surface treatment - Stainless steel guide tube - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC	Weight (g)	140

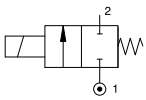
F3170 - 2-way solenoid valve N.C. stainless steel body, with G connection (ISO 228) - 1/4" ... 1/2"



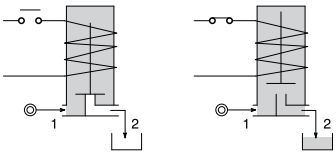
CODE "V"= FPM seals	G connection (ISO 228) ⓒ= Connection			Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			ⓑ= Solenoid coil		Temperature range (°C)
	B	C	D			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3170ⓒV10ⓑ	1/4"	3/8"	1/2"	1	0,04	0	80	80	20	15	10	MG	30	-10 ... +140
F3170ⓒV12ⓑ				1,2	0,05		60	60						
F3170ⓒV15ⓑ				1,5	0,07		30	26						
F3170ⓒV20ⓑ				2	0,1		22	20						
F3170ⓒV25ⓑ				2,5	0,15		16	14						
F3170ⓒV30ⓑ				3	0,25		15	10						
F3170ⓒV35ⓑ				3,5	0,32		10	8						
F3170ⓒV40ⓑ				4	0,36		8	5						
F3170ⓒV45ⓑ				4,5	0,41		6,5	3,5						
F3170ⓒV10ⓑ	1/4"	3/8"	1/2"	1	0,04		100	100	40	30	27	MK	36	
F3170ⓒV12ⓑ				1,2	0,05		100	100						
F3170ⓒV15ⓑ				1,5	0,07		80	80						
F3170ⓒV20ⓑ				2	0,1		50	40						
F3170ⓒV25ⓑ				2,5	0,15		35	33						
F3170ⓒV30ⓑ				3	0,25		25	24						
F3170ⓒV35ⓑ				3,5	0,32		20	19						
F3170ⓒV40ⓑ				4	0,36		16	15						
F3170ⓒV45ⓑ				4,5	0,41		14	13						

N.B. For use with steam, maximum admitted pressure PS is 9 bar (relative pressure) with seals in PTFE and 2.5 bar with seals in EPDM.
Example: F3170ⓒV25ⓑ => F3170BV25MG5:
2-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/4", FPM seals, 2,5 mm orifice, solenoid coil 24 VDC (MG5, size 30 for more information, please refer to the section "*Solenoid coils - Series F300*").

Pneumatic symbol



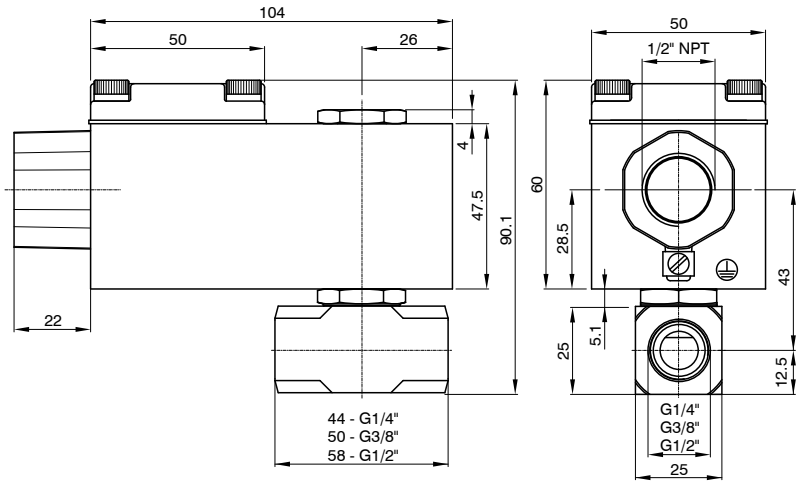
Diagram



Construction characteristics
- AISI 316 stainless steel body - AISI 316 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 316 stainless steel springs - Silver advance ring - FPM sealing assemblies **OPTIONS (on request):** - For use with oxygen - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C - PTFE - EPDM seals

Technical characteristics	
Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Ambient temperature: with class H solenoid coil (°C)	-10 ... +80
Mounting position	Indifferent
Weight (g) with solenoid coil MG series	360
Weight (g) with solenoid coil MK series	440

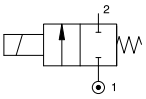
FX3170 - 2-way solenoid valve N.C. stainless steel body, with G connection (ISO 228) with certified housing: Ex d IIC T6 or T5 or T4 Gb - 1/4" ... 1/2"



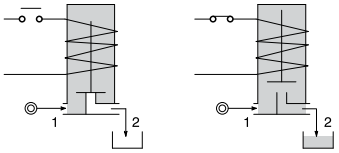
CODE "V"= FPM seals	G connection (ISO 228) ⓒ= Connection			Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption		ⓑ= Solenoid coil	Temperature range (°C)
	B	C	D			Min	Max AC	Max DC	AC Holding (VA)	DC (W)		
FX3170ⓒV10ⓑ	1/4"	3/8"	1/2"	1	0,04	0	80	80	12	8	A6B= 24 Volt (AC 50-60 Hz) A6E= 220/230 Volt (AC 50-60 Hz) A60= 12 Volt (DC) A61= 24 Volt (DC)	-10 ... +80
FX3170ⓒV12ⓑ				1,2	0,05		60	60				
FX3170ⓒV15ⓑ				1,5	0,07		30	26				
FX3170ⓒV20ⓑ				2	0,1		22	20				
FX3170ⓒV25ⓑ				2,5	0,15		16	14				
FX3170ⓒV30ⓑ				3	0,25		15	10				
FX3170ⓒV35ⓑ				3,5	0,32		10	8				
FX3170ⓒV40ⓑ				4	0,36		8	5				
FX3170ⓒV45ⓑ				4,5	0,41		6,5	3,5				

N.B. The solenoid valve is suited for intercepting only fluids that are NOT potentially explosive.
Example: FX3170ⓒV45ⓑ => FX3170DV45A60:
2-way solenoid valve normally closed, direct acting poppet type with certified housing: Ex d IIC T6 or T5 or T4 Gb, with G connection (ISO 228) 1/2", FPM seals, 4,5 mm orifice, solenoid coil 12 VDC (A60).

Pneumatic symbol



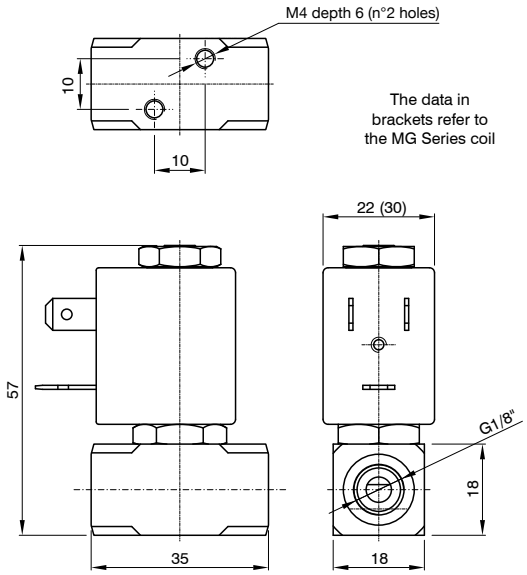
Diagram



Construction characteristics
- AISI 316 stainless steel body - AISI 316 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - Silver advance ring - AISI 316 stainless steel springs - Red light alloy or stainless steel housing - 1/2" NPT electrical connection (M20x1,5 on request) - FPM sealing assemblies

Technical characteristics	
Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature (°C)	-40 ... +60
Mounting position	Vertical with solenoid coil upwards
Weight (g)	660

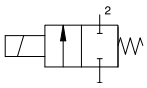
F3171 - 2-way solenoid valve N.C. stainless steel body, with G connection (ISO 228) - 1/8”



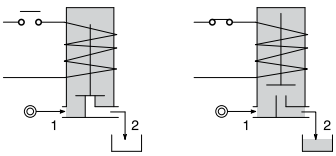
CODE “V”= FPM seals	G connection (ISO 228) ❸= Connection	Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			❷= Solenoid coil		Temperature range (°C)
	A			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3171❸V12❷	1/8”	1,2	0,04	0	25	25	12	8	6,5	MI	22	-10 ... +140
F3171❸V15❷		1,5	0,06		16	16						
F3171❸V20❷		2	0,09		12	10						
F3171❸V25❷		2,5	0,14		8	5,5						
F3171❸V31❷		3,1	0,19		5	2						
F3171❸V20❷	1/8”	2	0,09		25	15	15	11	5	MG	30	
F3171❸V25❷		2,5	0,14		16	8						
F3171❸V31❷		3,1	0,19		8	4						

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3171❸V25❷ => F3171AV25MI58:
2-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, 2,5 mm orifice, solenoid coil 230 VAC (50-60 Hz) (MI58, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol



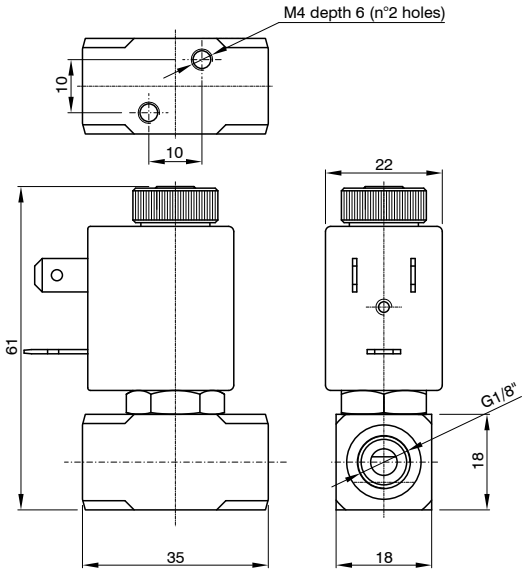
Diagram



Construction characteristics
- AISI 316 stainless steel body - AISI 316 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - Silver advance ring - AISI 316 stainless steel springs - FPM sealing assemblies
OPTIONS (on request): - For use with oxygen - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C

Technical characteristics	
Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Indifferent
Weight (g) with solenoid coil MI series	150
Weight (g) with solenoid coil MG series	200

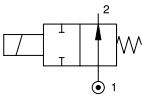
F3271 - 2-way solenoid valve N.O. stainless steel body, with G connection (ISO 228) - 1/8”



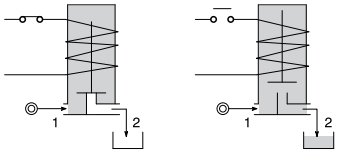
CODE “V”= FPM seals	G connection (ISO 228) ⓒ= Connection	Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			ⓔ= Solenoid coil		Temperature range (°C)
	A			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3271ⓒV12ⓔ	1/8”	1,2	0,04	0	19	19	12	8	6,5	MI	22	-10 ... +140
F3271ⓒV15ⓔ		1,5	0,06		14	14						
F3271ⓒV20ⓔ		2	0,09		8	8						
F3271ⓒV25ⓔ		2,5	0,14		4,5	4,5						
F3271ⓒV31ⓔ		3,1	0,19		2,5	2,5						

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3271ⓒV25ⓔ => F3271AV25MI58:
2-way solenoid valve normally open, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, 2,5 mm orifice, solenoid coil 230 VAC (50-60 Hz) (MI58, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol



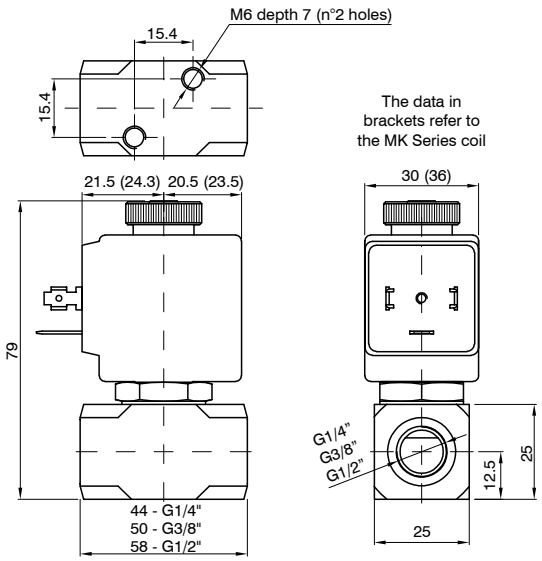
Diagram



Construction characteristics
- AISI 316 stainless steel body - AISI 316 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - Silver advance ring - AISI 316 stainless steel springs - FPM sealing assemblies
OPTIONS (on request): - For use with oxygen - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C

Technical characteristics	
Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Indifferent
Weight (g)	150

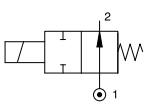
F3210 - 2-way solenoid valve N.O. stainless steel body, with G connection (ISO 228) - 1/4" ... 1/2"



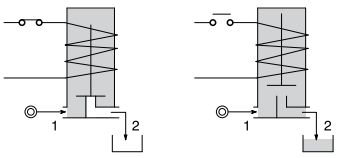
CODE "V"= FPM seals	G connection (ISO 228) ❷= Connection			Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			❸= Solenoid coil		Temperature range (°C)
	B	C	D			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3210❷V15❸	1/4"	3/8"	1/2"	1,5	0,07		23							
F3210❷V20❸				2	0,1		17							
F3210❷V25❸				2,5	0,15		12							
F3210❷V30❸				3	0,25		9							
F3210❷V35❸				3,5	0,32		7	/	20	15	/	MG/AC	30	
F3210❷V40❸				4	0,36		5,5							
F3210❷V45❸				4,5	0,41		4,5							
F3210❷V52❸				5,2	0,47		3							
F3210❷V15❸	1/4"	3/8"	1/2"	1,5	0,07			18						
F3210❷V20❸				2	0,1			11						
F3210❷V25❸				2,5	0,15			7						
F3210❷V30❸				3	0,25			6,5						
F3210❷V35❸				3,5	0,32	0	/	4	/	/	10	MG/DC	30	-10 ... +140
F3210❷V40❸				4	0,36			3,5						
F3210❷V45❸				4,5	0,41			3						
F3210❷V52❸				5,2	0,47			2,2						
F3210❷V15❸	1/4"	3/8"	1/2"	1,5	0,07		23	23						
F3210❷V20❸				2	0,1		17	17						
F3210❷V25❸				2,5	0,15		12	12						
F3210❷V30❸				3	0,25		9	9						
F3210❷V35❸				3,5	0,32		7	7	40	30	27	MK (AC/DC)	36	
F3210❷V40❸				4	0,36		5,5	5,5						
F3210❷V45❸				4,5	0,41		4,5	4,5						
F3210❷V52❸				5,2	0,47		3	3						
F3210❷V64❸				6,4	0,64		3,5	3,5						

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3210❷V25❸ => F3210BV25MG5:
2-way solenoid valve normally open, direct acting poppet type with G connection (ISO 228) 1/4", FPM seals, 2,5 mm orifice, solenoid coil 24 VDC (MG5, size 30 for more information, please refer to the section "*Solenoid coils - Series F300*").

Pneumatic symbol



Diagram



Construction characteristics

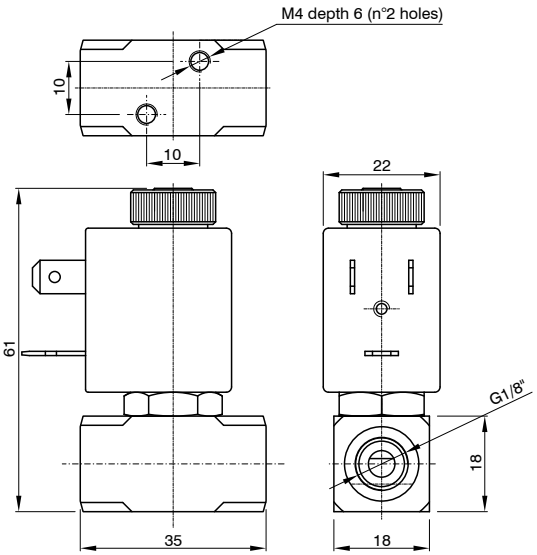
- AISI 303 stainless steel body
- AISI 303 stainless steel guide tube
- AISI 430FR stainless steel mobile and fixed core
- AISI 302 stainless steel springs
- FPM sealing assemblies

OPTIONS (on request):
- Silver advance ring
- For use with oxygen
- c UL us certified solenoid coils
- Versions for use with fluid temperature at -40 °C
- Manual override

Technical characteristics

Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Ambient temperature: with class H solenoid coil (°C)	-10 ... +80
Mounting position	Indifferent
Weight (g) with solenoid coil MG series	300
Weight (g) with solenoid coil MK series	380

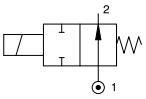
F3211 - 2-way solenoid valve N.O. stainless steel body, with G connection (ISO 228) - 1/8”



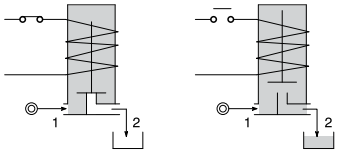
CODE “V”= FPM seals	G connection (ISO 228) ⓒ= Connection	Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			ⓑ= Solenoid coil		Temperature range (°C)
	A			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3211ⓒV12ⓑ	1/8”	1,2	0,04	0	19	19	12	8	6,5	MI	22	-10 ... +140
F3211ⓒV15ⓑ		1,5	0,06		14	14						
F3211ⓒV20ⓑ		2	0,09		8	8						
F3211ⓒV25ⓑ		2,5	0,14		4,5	4,5						
F3211ⓒV31ⓑ		3,1	0,19		2,5	2,5						

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3211ⓒV25ⓑ => F3211AV25MI58:
2-way solenoid valve normally open, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, 2,5 mm orifice, solenoid coil 230 VAC (50-60 Hz) (MI58, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol



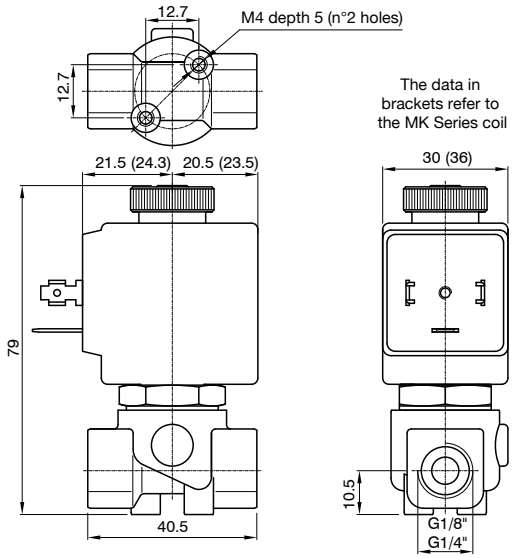
Diagram



Construction characteristics
- AISI 303 stainless steel body - AISI 303 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies
OPTIONS (on request): - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC - For use with oxygen - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C - Manual override

Technical characteristics	
Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Indifferent
Weight (g)	150

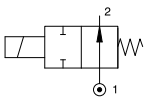
F3206 - 2-way solenoid valve N.O. brass body, with G connection (ISO 228) - 1/8" and 1/4"



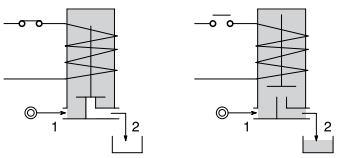
CODE "V"= FPM seals	G connection (ISO 228) ⓒ= Connection		Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			ⓑ= Solenoid coil		Temperature range (°C)
	A	B			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3206ⓒV15ⓑ	1/8"	1/4"	1,5	0,07	0	23	/	20	15	/	MG/AC	30	-10 ... +140
F3206ⓒV20ⓑ			2	0,1		17							
F3206ⓒV25ⓑ			2,5	0,15		12							
F3206ⓒV30ⓑ			3	0,25		8							
F3206ⓒV35ⓑ			3,5	0,32		7							
F3206ⓒV40ⓑ			4	0,36		5,5							
F3206ⓒV45ⓑ			4,5	0,41		4,5							
F3206ⓒV52ⓑ			5,2	0,47		3							
F3206ⓒV15ⓑ	1/8"	1/4"	1,5	0,07		/	18	/	/	10	MG/DC	30	
F3206ⓒV20ⓑ			2	0,1			11						
F3206ⓒV25ⓑ			2,5	0,15			7						
F3206ⓒV30ⓑ			3	0,25			6,5						
F3206ⓒV35ⓑ			3,5	0,32			4						
F3206ⓒV40ⓑ			4	0,36			3,5						
F3206ⓒV45ⓑ			4,5	0,41			3						
F3206ⓒV52ⓑ			5,2	0,47			2,2						
F3206ⓒV15ⓑ	1/8"	1/4"	1,5	0,07		23	23	40	30	27	MK (AC/DC)	36	
F3206ⓒV20ⓑ			2	0,1		17	17						
F3206ⓒV25ⓑ			2,5	0,15		12	12						
F3206ⓒV30ⓑ			3	0,25		8	8						
F3206ⓒV35ⓑ			3,5	0,32		7	7						
F3206ⓒV40ⓑ			4	0,36		5,5	5,5						
F3206ⓒV45ⓑ			4,5	0,41		4,5	4,5						
F3206ⓒV52ⓑ			5,2	0,47		3	3						
F3206ⓒV64ⓑ			6,4	0,64		3,5	3,5						

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3206ⓒV25ⓑ => F3206BV25MG5:
2-way solenoid valve normally open, direct acting poppet type with G connection (ISO 228) 1/4", FPM seals, 2,5 mm orifice, solenoid coil 24 VDC (MG5, size 30 for more information, please refer to the section "*Solenoid coils - Series F300*").

Pneumatic symbol



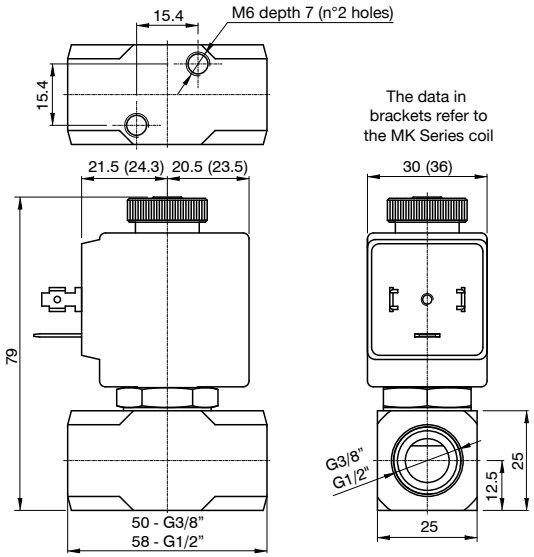
Diagram



Construction characteristics
- Brass body - Brass guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies **OPTIONS (on request):** - Stainless steel guide tube - Chemical nickel plating surface treatment - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C - Manual override

Technical characteristics	
Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Ambient temperature: with class H solenoid coil (°C)	-10 ... +80
Mounting position	Indifferent
Weight (g) with solenoid coil MG series	300
Weight (g) with solenoid coil MK series	380

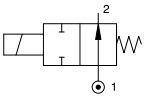
F3206 - 2-way solenoid valve N.O. brass body, with G connection (ISO 228) - 3/8" and 1/2"



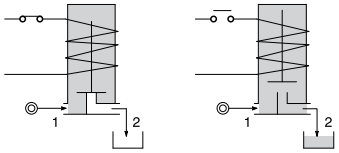
CODE "V"= FPM seals	G connection (ISO 228) ©= Connection		Orifice (mm)	KV (m^3/h)	Differential pressure (bar)			Power consumption			Ⓑ= Solenoid coil		Temperature range (°C)
	C	D			Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
F3206©V15Ⓑ	3/8"	1/2"	1,5	0,07	0	23	/	20	15	/	MG/AC	30	-10 ... +140
F3206©V20Ⓑ			2	0,1		17							
F3206©V25Ⓑ			2,5	0,15		12							
F3206©V30Ⓑ			3	0,25		9							
F3206©V35Ⓑ			3,5	0,32		7							
F3206©V40Ⓑ			4	0,36		5,5							
F3206©V45Ⓑ			4,5	0,41		4,5							
F3206©V52Ⓑ			5,2	0,47		3							
F3206©V15Ⓑ	3/8"	1/2"	1,5	0,07		/	18	/	/	10	MG/DC	30	
F3206©V20Ⓑ			2	0,1			11						
F3206©V25Ⓑ			2,5	0,15			7						
F3206©V30Ⓑ			3	0,25			6,5						
F3206©V35Ⓑ			3,5	0,32			4						
F3206©V40Ⓑ			4	0,36			3,5						
F3206©V45Ⓑ			4,5	0,41			3						
F3206©V52Ⓑ			5,2	0,47			2,2						
F3206©V15Ⓑ	3/8"	1/2"	1,5	0,07		23	23	40	30	27	MK (AC/DC)	36	
F3206©V20Ⓑ			2	0,1		17	17						
F3206©V25Ⓑ			2,5	0,15		12	12						
F3206©V30Ⓑ			3	0,25		9	9						
F3206©V35Ⓑ			3,5	0,32		7	7						
F3206©V40Ⓑ			4	0,36		5,5	5,5						
F3206©V45Ⓑ			4,5	0,41		4,5	4,5						
F3206©V52Ⓑ			5,2	0,47		3	3						
F3206©V64Ⓑ			6,4	0,64		3,5	3,5						

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3206©V25Ⓑ => F3206DV25MG5:
2-way solenoid valve normally open, direct acting poppet type with G connection (ISO 228) 1/2", FPM seals, 2,5 mm orifice, solenoid coil 24 VDC (MG5, size 30 for more information, please refer to the section "*Solenoid coils - Series F300*").

Pneumatic symbol



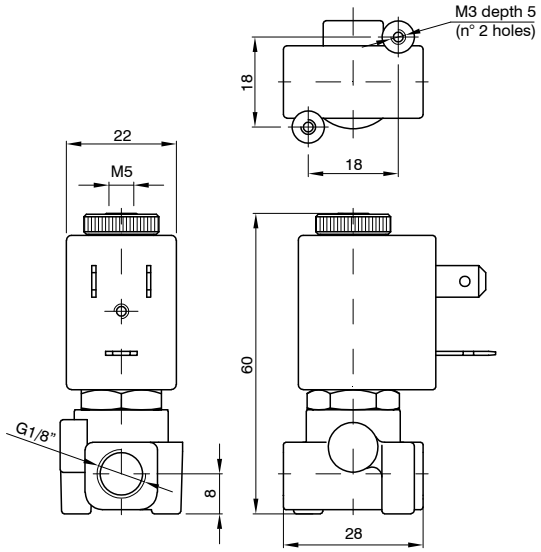
Diagram



Construction characteristics
- Brass body - Brass guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies **OPTIONS (on request):** - Stainless steel guide tube - Chemical nickel plating surface treatment - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C - Manual override

Technical characteristics	
Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Ambient temperature: with class H solenoid coil (°C)	-10 ... +80
Mounting position	Indifferent
Weight (g) with solenoid coil MG series	300
Weight (g) with solenoid coil MK series	380

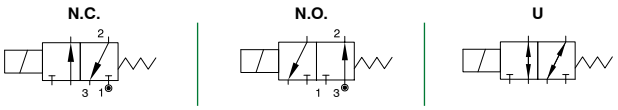
F3305 - 3-way solenoid valve brass body, with G connection (ISO 228) - 1/8”



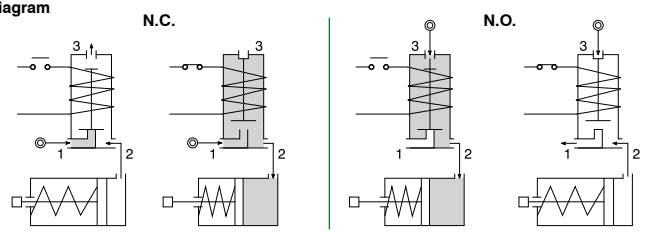
CODE “V”= FPM seals	G connection (ISO 228) Ⓒ= Connection	Orifice (mm)		KV (m^3/h)	Differential pressure (bar)			Power consumption			Ⓑ= Solenoid coil		Temperature range (°C)
	A	Inlet	Exhaust		Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
N.C. - Normally closed													
F3305ⒸV12Ⓑ	1/8”	1,2	1,5	0,04	0	15	15	12	8	6,5	MI	22	
F3305ⒸV15Ⓑ		1,5	1,5	0,06		10	10						
F3305ⒸV20Ⓑ		2	1,7	0,09		6	6						
N.O. - Normally open													-10 ... +140
F3305ⒸV15SⒷ	1/8”	1,5	1,5	0,06	0	10	10	12	8	6,5	MI	22	
F3305ⒸV17SⒷ		1,7	2	0,07		6	6						
U - Universal													
F3305ⒸV15UⒷ	1/8”	1,5	1,5	0,06	0	6	6	12	8	6,5	MI	22	

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3305ⒸV12Ⓑ => F3305AV12MI5:
3-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, 1,2 mm inlet orifice, solenoid coil 24 VDC (MI5, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol



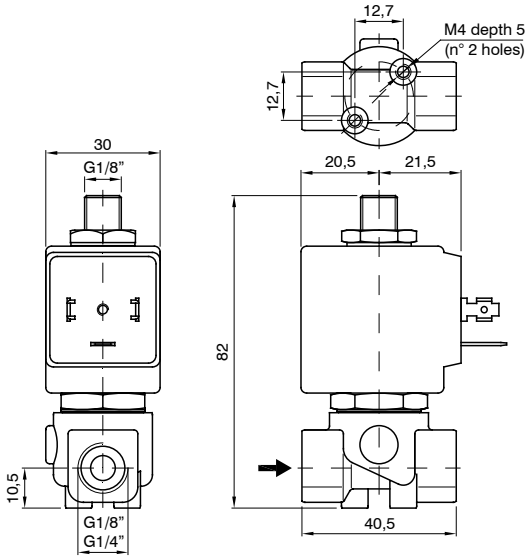
Diagram



Construction characteristics
- Brass body - Brass guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies
OPTIONS (on request): - Stainless steel guide tube - Chemical nickel plating surface treatment - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC - c UL us certified solenoid coils - Exhaust port with hosetail connection - Versions for use with fluid temperature at -40 °C - Manual override

Technical characteristics	
Maximum admitted pressure (bar)	50
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Universal
Weight (g)	110

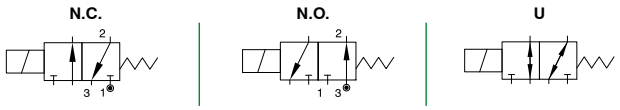
F3306 - 3-way solenoid valve brass body, with G connection (ISO 228) - 1/8" and 1/4"



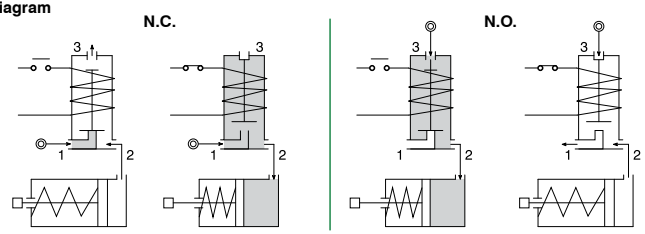
CODE "V"= FPM seals	G connection (ISO 228) ©= Connection		Orifice (mm)		KV (m^3/h)	Differential pressure (bar)			Power consumption			®= Solenoid coil		Temperature range (°C)
	A	B	Inlet	Exhaust		Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
N.C. - Normally closed														
F3306©V15®	1/8"	1/4"	1,5	2,4	0,07	0	20	20	20	15	10	MG	30	-10 ... +140
F3306©V20®			2	2,4	0,11		13	13						
F3306©V25®			2,5	2,4	0,16		10	10						
N.O. - Normally open														
F3306©V25S®	1/8"	1/4"	2,4	2,5	0,16	0	9	9	20	15	10	MG	30	
F3306©V29S®			2,9	3	0,20		6,5	6,5						
U - Universal														
F3306©V25U®	1/8"	1/4"	2,5	2,4	0,16	0	5	4	20	15	10	MG	30	

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3306©V15® => F3306AV15MG5:
3-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/8", FPM seals, 1,5 mm inlet orifice, solenoid coil 24 VDC (MG5, size 30 for more information, please refer to the section "*Solenoid coils - Series F300*").

Pneumatic symbol



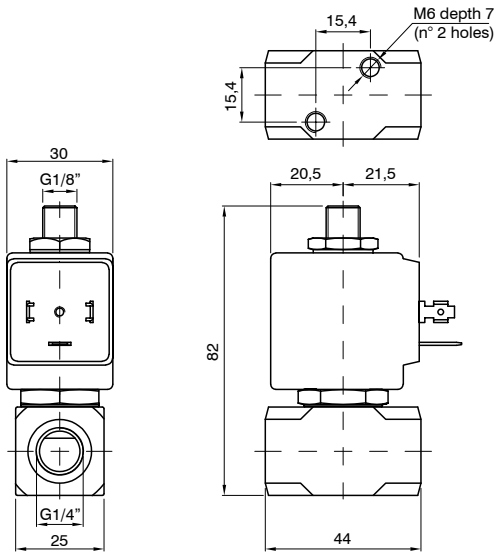
Diagram



Construction characteristics
- Brass body - AISI 303 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies **OPTIONS (on request):** - Manual override - Chemical nickel plating surface treatment - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C

Technical characteristics	
Maximum admitted pressure (bar)	80
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Indifferent
Weight (g)	125

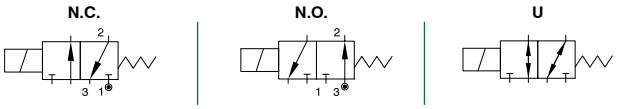
F3310 - 3-way solenoid valve stainless steel body, with G connection (ISO 228) - 1/4”



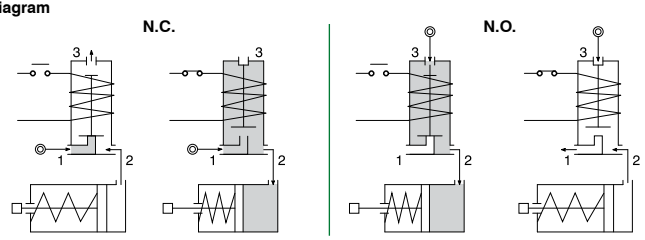
CODE “V”= FPM seals	G connection (ISO 228) ❷= Connection	Orifice (mm)		KV (m^3/h)	Differential pressure (bar)			Power consumption			❸= Solenoid coil		Temperature range (°C)
	B	Inlet	Exhaust		Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
N.C. - Normally closed													-10 ... +140
F3310❷V20❸	1/4”	2	2,4	0,11	0	13	13	20	15	10	MG	30	
F3310❷V25❸		2,5	2,4	0,16		10	10						
N.O. - Normally open													
F3310❷V25S❸	1/4”	2,4	2,5	0,16	0	9	9	20	15	10	MG	30	
F3310❷V29S❸		2,9	3	0,20		6,5	6,5						
U - Universal													
F3310❷V25U❸	1/4”	2,5	2,4	0,16	0	5	4	20	15	10	MG	30	

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3310❷V20❸ => F3310BV20MG5:
3-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/4”, FPM seals, 2 mm inlet orifice, solenoid coil 24 VDC (MG5, size 30 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol



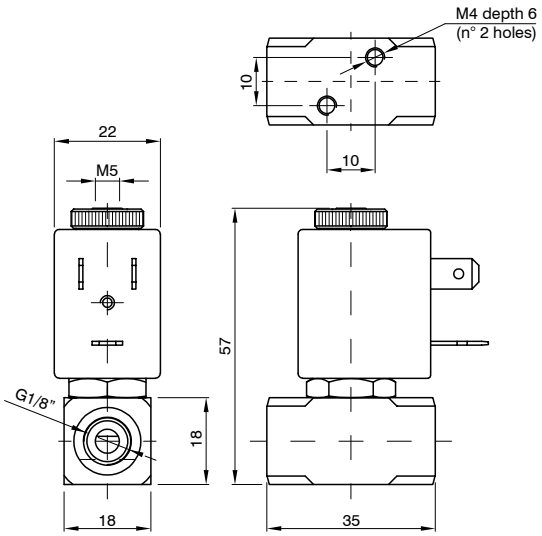
Diagram



Construction characteristics
- AISI 303 stainless steel body - AISI 303 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies
OPTIONS (on request): - Silver advance ring - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C

Technical characteristics	
Maximum admitted pressure (bar)	80
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Indifferent
Weight (g)	360

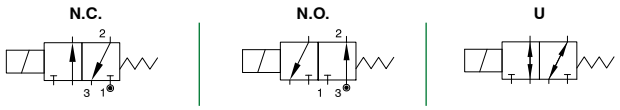
F3311 - 3-way solenoid valve stainless steel body, with G connection (ISO 228) - 1/8”



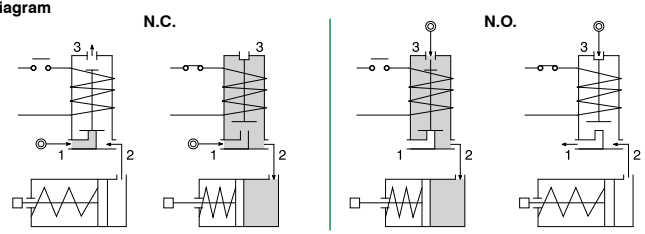
CODE “V”= FPM seals	G connection (ISO 228) ⓒ= Connection	Orifice (mm)		KV (m^3/h)	Differential pressure (bar)			Power consumption			ⓑ= Solenoid coil		Temperature range (°C)
	A	Inlet	Exhaust		Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
N.C. - Normally closed													
F3311ⓒV12ⓑ	1/8”	1,2	1,5	0,04	0	15	15	12	8	6,5	MI	22	-10 ... +140
F3311ⓒV15ⓑ		1,5	1,5	0,06		10	10						
F3311ⓒV20ⓑ		2	1,7	0,09		6	6						
N.O. - Normally open													
F3311ⓒV15Sⓑ	1/8”	1,5	1,5	0,06	0	10	10	12	8	6,5	MI	22	
F3311ⓒV17Sⓑ		1,7	2	0,07		6	6						
U - Universal													
F3311ⓒV15Uⓑ	1/8”	1,5	1,5	0,06	0	6	6	12	8	6,5	MI	22	

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3311ⓒV20ⓑ => F3311AV20MI58:
3-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, 2 mm inlet orifice, solenoid coil 230 VAC (50-60 Hz) (MI58, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol

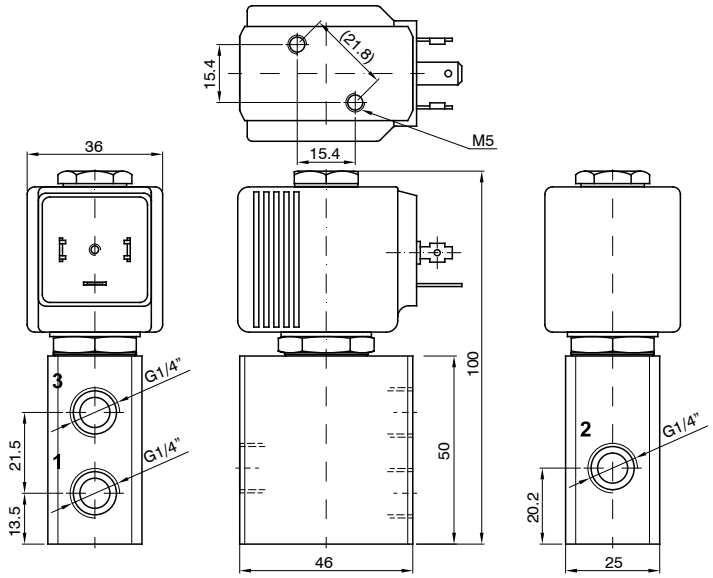


Diagram



Construction characteristics	Technical characteristics	
- AISI 303 stainless steel body - AISI 303 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies	Maximum admitted pressure (bar)	50
	Maximum fluid viscosity (mm^2/s)	25cSt
	Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
	Mounting position	Indifferent
OPTIONS (on request): - Silver advance ring - cULus certified solenoid coils - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC - Exhaust port with hosetail connection - Versions for use with fluid temperature at -40 °C	Weight (g)	150

F332 - 3-way solenoid valve stainless steel or anodised aluminium body, with G connection (ISO 228) - 1/4”



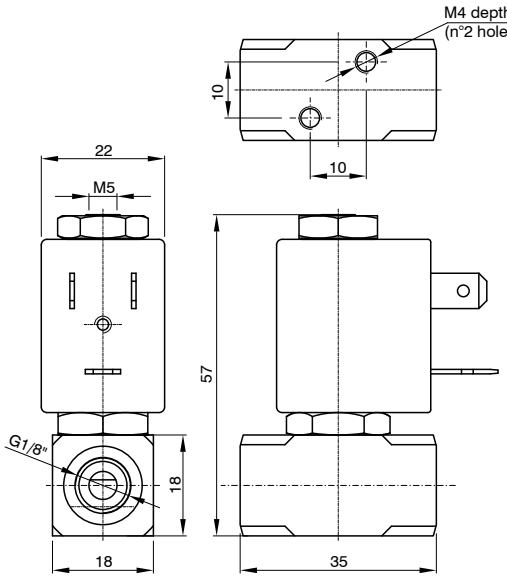
CODE “V”= FPM seals	G connection (ISO 228) Ⓒ= Connection	Orifice (mm)		KV (m^3/h)	Differential pressure (bar)			Power consumption			Ⓑ= Solenoid coil		Temperature range (°C)
	B	Inlet	Exhaust		Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
Anodised aluminium body													
U - Universal													-10 ... +140
F3320ⒸV75Ⓑ	1/4”	7,5	7,5	0,64	0	5	5	40	30	27	MK	36	
N.C. - Normally closed													
F3321ⒸV75Ⓑ	1/4”	7,5	7,5	0,64	0	9	9	40	30	27	MK	36	
N.O. - Normally open													
F3322ⒸV75Ⓑ	1/4”	7,5	7,5	0,64	0	9	9	40	30	27	MK	36	
Stainless steel body													
U - Universal													-10 ... +140
F3323ⒸV75Ⓑ	1/4”	7,5	7,5	0,64	0	5	5	40	30	27	MK	36	
N.C. - Normally closed													
F3324ⒸV75Ⓑ	1/4”	7,5	7,5	0,64	0	9	9	40	30	27	MK	36	
N.O. - Normally open													
F3325ⒸV75Ⓑ	1/4”	7,5	7,5	0,64	0	9	9	40	30	27	MK	36	

Example: F3321ⒸV75Ⓑ => F3321BV75MK5:
3-way solenoid valve normally closed, direct acting poppet type aluminium body with G connection (ISO 228) 1/4”, FPM seals, 7,5 mm inlet orifice, solenoid coil 24 VDC (MK5, size 36 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol

Construction characteristics	Technical characteristics	
- AISI 303 stainless steel or anodised aluminium body - AISI 303 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 302 stainless steel springs - FPM sealing assemblies	Maximum admitted pressure (bar)	50
	Maximum fluid viscosity (mm^2/s)	25cSt
	Ambient temperature: with class H solenoid coil (°C)	-10 ... +80
	Mounting position	Indifferent
	Weight (g)	430

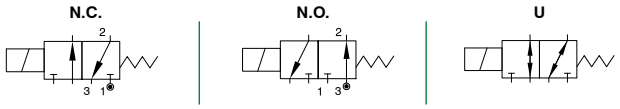
F3371 - 3-way solenoid valve stainless steel body, with G connection (ISO 228) - 1/8”



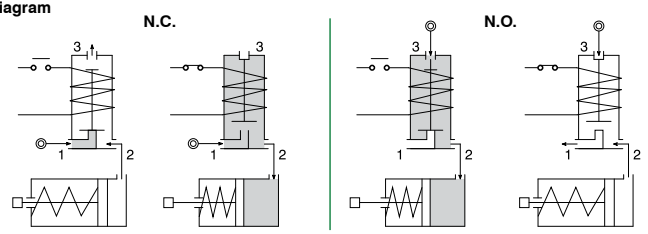
CODE “V”= FPM seals	G connection (ISO 228) Ⓒ= Connection	Orifice (mm)		KV (m³/h)	Differential pressure (bar)			Power consumption			Ⓑ= Solenoid coil		Temperature range (°C)
	A	Inlet	Exhaust		Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
N.C. - Normally closed													
F3371ⒸV12Ⓑ	1/8”	1,2	1,5	0,04	0	15	15	12	8	6,5	MI	22	-10 ... +140
F3371ⒸV15Ⓑ		1,5	1,5	0,06		10	10						
F3371ⒸV20Ⓑ		2	1,5	0,09		6	6						
N.O. - Normally open													
F3371ⒸV15SⒷ	1/8”	1,5	1,5	0,06	0	10	10	12	8	6,5	MI	22	
U - Universal													
F3371ⒸV15UⒷ	1/8”	1,5	1,5	0,06	0	6	6	12	8	6,5	MI	22	

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3371ⒸV12Ⓑ => F3371AV12MI58:
3-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/8”, FPM seals, 1,2 mm inlet orifice, solenoid coil 230 VAC (50-60 Hz) (MI58, size 22 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol

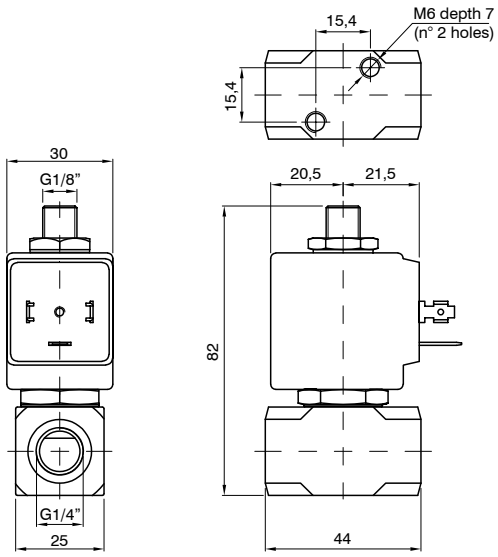


Diagram



Construction characteristics	Technical characteristics	
- AISI 316 stainless steel body - AISI 316 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - Silver advance ring - AISI 316 stainless steel springs - FPM sealing assemblies	Maximum admitted pressure (bar)	50
	Maximum fluid viscosity (mm²/s)	25cSt
	Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
	Mounting position	Indifferent
OPTIONS (on request): - XME solenoid coil for potentially explosive environments to ATEX standards - Ex mb IIC - Exhaust port with hosetail connection - c UL us certified solenoid coils - Versions for use with fluid temperature at -40 °C	Weight (g)	150

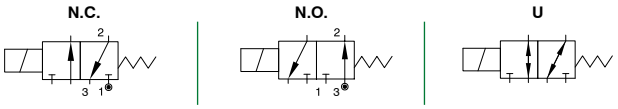
F3370 - 3-way solenoid valve stainless steel body, with G connection (ISO 228) - 1/4”



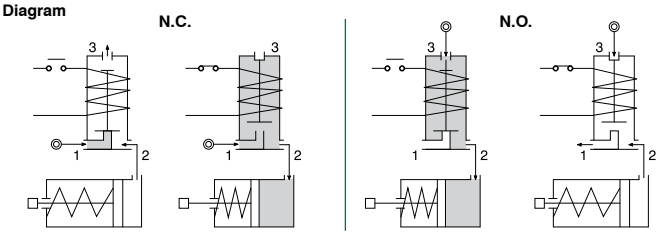
CODE “V”= FPM seals	G connection (ISO 228) ⓒ= Connection	Orifice (mm)		KV (m^3/h)	Differential pressure (bar)			Power consumption			ⓑ= Solenoid coil		Temperature range (°C)
	B	From 1 to 2	From 2 to 3		Min	Max AC	Max DC	AC Inrush (VA)	AC Holding (VA)	DC (W)	Series	Size	
N.C. - Normally closed													-10 ... +140
F3370ⓒV15ⓑ	1/4”	1,5	2,4	0,07	0	16	16	20	15	10	MG	30	
F3370ⓒV20ⓑ		2	2,4	0,11		13	13						
F3370ⓒV25ⓑ		2,5	2,4	0,16		10	10						
N.O. - Normally open													
F3370ⓒV24Sⓑ	1/4”	2,4	2,5	0,16	0	9	9	20	15	10	MG	30	
U - Universal													
F3370ⓒV25Uⓑ	1/4”	2,5	2,4	0,16	0	5	4	20	15	10	MG	30	

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: F3370ⓒV15ⓑ => F3370BV15MG5:
3-way solenoid valve normally closed, direct acting poppet type with G connection (ISO 228) 1/4”, FPM seals, 1,5 mm orifice, from 1 to 2, solenoid coil 24 VDC (MG5, size 30 for more information, please refer to the section “*Solenoid coils - Series F300*”).

Pneumatic symbol



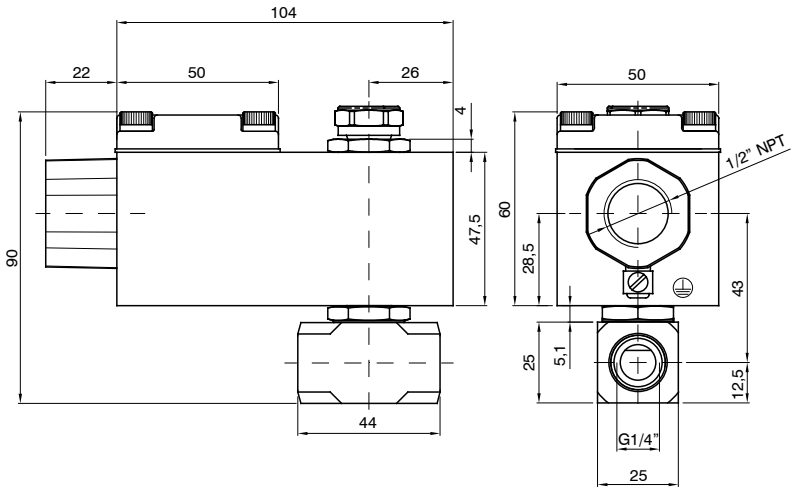
Diagram



Construction characteristics
- AISI 316 stainless steel body - AISI 316 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - Silver advance ring - AISI 316 stainless steel springs - FPM sealing assemblies **OPTIONS (on request):** - For use with oxygen - cULus certified solenoid coils - Versions for use with fluid temperature at -40 °C

Technical characteristics	
Maximum admitted pressure (bar)	80
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature: with class F solenoid coil (°C)	-10 ... +55
Mounting position	Indifferent
Weight (g)	360

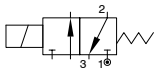
FX3370 - 3-way solenoid valve N.C. stainless steel body, with G connection (ISO 228) with certified housing: Ex d IIC T6 or T5 or T4 Gb - 1/4”



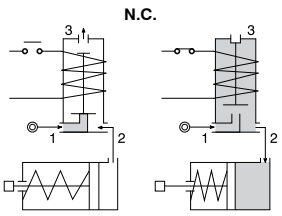
CODE “V”= FPM seals	G connection (ISO 228) ❷= Connection	Orifice (mm)		KV (m^3/h)	Differential pressure (bar)			Power consumption		❸= Solenoid coil	Temperature range (°C)
	B	From 1 to 2	From 2 to 3		Min	Max AC	Max DC	AC Holding (VA)	DC (W)		
FX3370❷V15❸	1/4”	1,5	2,4	0,07	0	16	16	12	8	A6B= 24 Volt (AC 50-60 Hz) A6E= 220/230 Volt (AC 50-60 Hz) A60= 12 Volt (DC) A61= 24 Volt (DC)	-10 ... +80
FX3370❷V20❸		2	2,4	0,11		13	13				
FX3370❷V25❸		2,5	2,4	0,16		10	10				

N.B. For use with steam maximum admitted pressure PS is 2,5 bar (relative pressure).
Example: FX3370❷V15❸ => FX3370BV15A60:
3-way solenoid valve normally closed, direct acting poppet type with certified housing: Ex d IIC T6 or T5 or T4 Gb, with G connection (ISO 228) 1/4”, FPM seals, 1,5 mm orifice, from 1 to 2, solenoid coil 12 VDC (A60).

Pneumatic symbol



Diagram



Construction characteristics
- AISI 316 stainless steel body - AISI 316 stainless steel guide tube - AISI 430FR stainless steel mobile and fixed core - AISI 316 stainless steel springs - Red light alloy housing - 1/2” NPT electrical connection (M20x1,5 on request) - FPM sealing assemblies

Technical characteristics	
Maximum admitted pressure (bar)	80
Maximum fluid viscosity (mm^2/s)	25cSt
Ambient temperature (°C)	-40 ... +60
Mounting position	Vertical with solenoid coil upwards
Weight (g)	650