General

These are 2 stage valves actuated electro-pneumatically. A serie 300 directly operated solenoid valve actuates pneumatically the principal power distributor. This integrated system allows configurations of systems requiring very little space. The pilot air is normally taken from the inlet port (autofeed) and the only actuating signal is electric.
The range of the solenoid valves, as far as dimensions and mechanical construction, is similar to series 200. We have therefore solenoid valves G 1/8", G 1/4", G 1/2" and G 1" with identical pneumatic characteristics that are, however, actuated electrically. They have a balanced spool, insentive to presence or absence of pressure. They are constructed in 3 and 5 way with 1 solenoid (monostable) or 2 solenoids (bistable) and also 5 ways 3 positions with closed centres, open centres and pressured centres.

If should be noted that the autofeed of the electric pilot requires always inlet through port 1 and if a 3 ways normally open configuration is desired, it is necessary to switch the operators.
In the tables showing individual valves, the quick reference tables show the output in Nl/min at a inlet pressure of 6 bar and a pressure drop of 1 bar. All information was obtained using standards CETOP RP 50P.

Solenoid valves G 1/8" and G 1/4" can be equipped with microsolenoids as well as standard solenoids and they can be mounted in line or in 90 degrees on distributors. Please note that while the microsolenoid can be mounted in any direction, standard solenoid requires mounting as inticated in the photographs and diagrams.

The order codes pertain only to the solenoid valve with mechanical actuator "M2" or solenoid "S*" already assembled (see Series 300, section 1). (M2 coils are not included and have to be ordered separately).

Coils for M2 and solenoids "S" c UL us homologated are available (see Series 300).

Construction characteristics

Body	Aluminium
Operators	Aluminium Technopolymer for spring botton plate G 1/8", G1/4", G 1/2" and aluminium for G 1"
Spools	Stainless steel / Technopolymer fpt Series T488
Seals	NBR Polyurethane compound for oil free applications G 1/8", G 1/4" and G 1/2"
Spacers	Technopolymer (aluminium for G1")
Spring	Stainless steel or spring steel

Use and maintenance

These valves have an average life of 15 million cycles depending on the application and air quality, filtered and lubricated air using specified lubricants will dramatically reduce the wear of the seals and ensures long and trouble free operation.
Please ensure that the valve is being used according with the manufacturers specification, such as air pressure and temperature and that exhaust ports 3 & 5 are protected against the possible ingress of dirt or debris.
Repair kits including the spool complete with seals are available for overhauling the valves; however, although this is a simple operation it should be carried out by a competent person.

ATTENTION: use hydraulic oil class H for lubrication such as MAGNA GC 32 (Castrol).

2

Solenoid - Spring

3/2

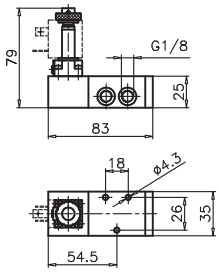
Ordering code

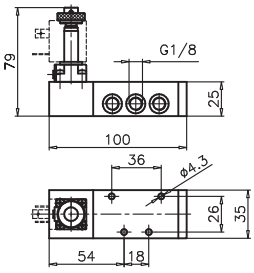
468.T.0.1.M2

T	TYPE
	32=3 ways
	52=5 ways

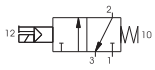
5/2

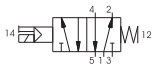
Solenoid - Spring





Weight gr. 240
Minimum working pressure 2,5 bar





Weight gr. 240
Minimum working pressure 2,5 bar

Operational characteristics

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 ÷ +50	540 Nl/min	mm 6	G 1/8"

Solenoid - Differential

3/2

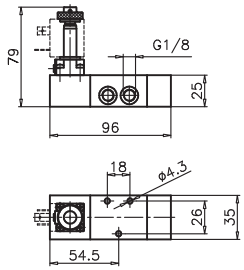
Ordering code

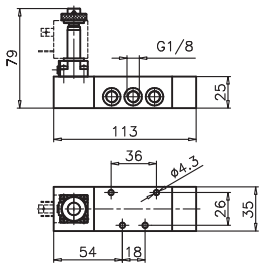
468.T.0.12.M2

T	TYPE
	32=3 ways
	52=5 ways

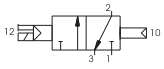
5/2

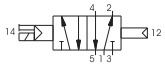
Solenoid - Differential





Weight gr. 280
Minimum working pressure 2,5 bar





Weight gr. 320
Minimum working pressure 2,5 bar

Operational characteristics

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 ÷ +50	540 Nl/min	mm 6	G 1/8"

Solenoid - Solenoid

3/2

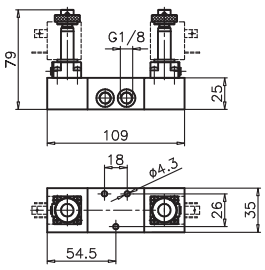
Ordering code

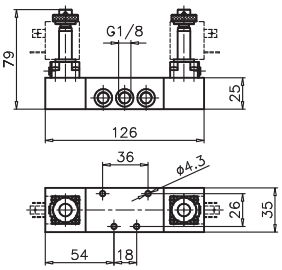
468.T.0.0.M2

T	TYPE
	32=3 ways
	52=5 ways

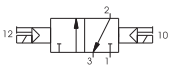
5/2

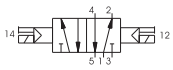
Solenoid - Solenoid





Weight gr. 370
Minimum working pressure 2 bar





Weight gr. 410
Minimum working pressure 2 bar

Operational characteristics

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 ÷ +50	540 Nl/min	mm 6	G 1/8"

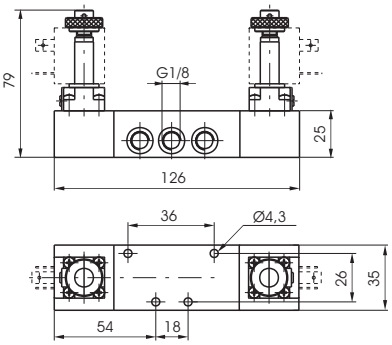
Solenoid - Solenoid

5/3

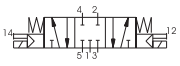
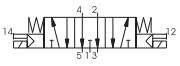
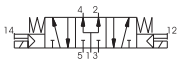
Ordering code

468.53.Ⓕ.0.0.M2

	FUNCTION
Ⓕ	31=Closed centres
	32=Open centres
	33=Pressured centres



Weight gr. 420
Minimum working pressure 3 bar

Operational characteristics

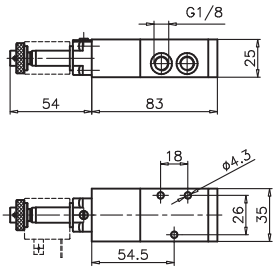
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 ÷ +50	410 Nl/min	mm 6	G 1/8"

3/2 Solenoid - Spring

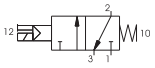
Ordering code

468/1.Ⓣ.0.1.M2

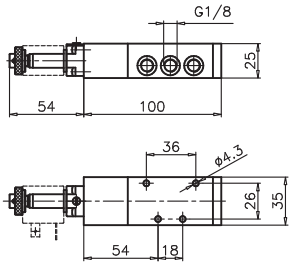
	TYPE
Ⓣ	32=3 ways
	52=5 ways



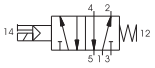
Weight gr. 240
Minimum working pressure 2,5 bar



Solenoid - Spring 5/2



Weight gr. 280
Minimum working pressure 2,5 bar



Operational characteristics

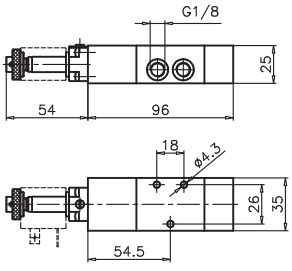
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 ÷ +50	540 Nl/min	mm 6	G 1/8"

3/2 Solenoid - Differential

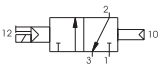
Ordering code

468/1.Ⓣ.0.12.M2

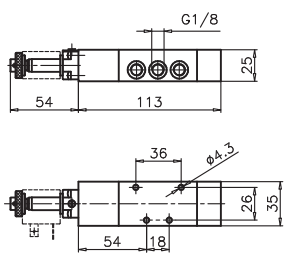
	TYPE
Ⓣ	32=3 ways
	52=5 ways



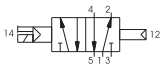
Weight gr. 280
Minimum working pressure 2,5 bar



Solenoid - Differential 5/2



Weight gr. 320
Minimum working pressure 2,5 bar

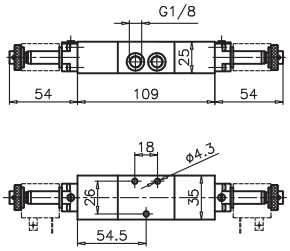


Operational characteristics

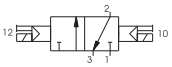
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 ÷ +50	540 Nl/min	mm 6	G 1/8"

2

3/2 Solenoid - Solenoid



Weight gr. 370
Minimum working pressure 2 bar

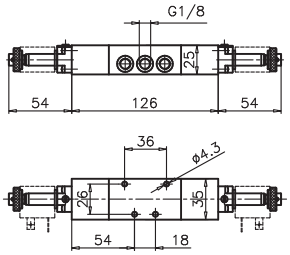


Ordering code

468/1.Ⓣ.0.0.M2

	TYPE
Ⓣ	32=3 ways
	52=5 ways

5/2 Solenoid - Solenoid



Weight gr. 410
Minimum working pressure 2 bar

Operational characteristics

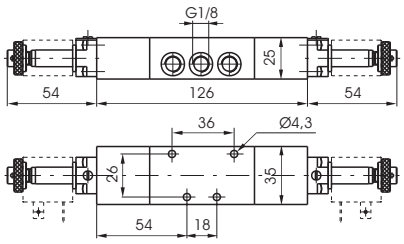
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 ÷ +50	540 Nl/min	mm 6	G 1/8"

5/3 Solenoid - Solenoid

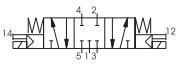
Ordering code

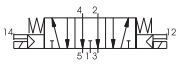
468/1.53.Ⓕ.0.0.M2

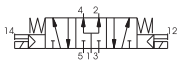
	FUNCTION
Ⓕ	31=Closed centres
	32=Open centres
	33=Pressured centres



Weight gr. 420
Minimum working pressure 3 bar







Operational characteristics

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 ÷ +50	410 Nl/min	mm 6	G 1/8"