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).

The polyurethane seals are available for oil free operation. In this case, the ordering code becomes:
438...S5 and **478...M2 become G 1/8" - 434...S5** and **474...M2 become G 1/4" - 432...S5 becomes G 1/2"**

Important: on this type of valves a temperature higher then 40°C along with water or high humidity are causing a progressive reduction of mechanical characteristics of the seals. This chemical reaction (hydrolysis) duration depends by the ambient temperature and in some cases the seal becomes brittle and falls to pieces.
The valves equipped with polyurethane seals are not suitable for tropical climate.

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

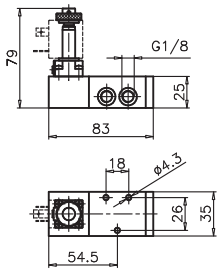
Ordering code

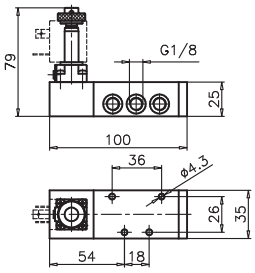
468.T.0.1.M2

T	TYPE
	32 = 3 ways
	52 = 5 ways

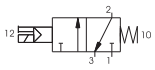
5/2

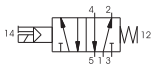
Solenoid - Spring





Weight gr. 240
Minimum working pressure 2,5 bar





Weight gr. 240
Minimum working pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	540 Nl/min	mm 6	G 1/8"

Solenoid - Differential

3/2

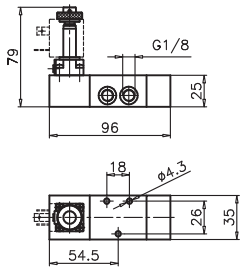
Ordering code

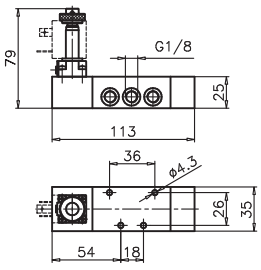
468.T.0.12.M2

T	TYPE
	32 = 3 ways
	52 = 5 ways

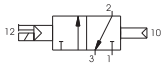
5/2

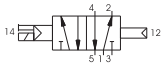
Solenoid - Differential





Weight gr. 280
Minimum working pressure 2,5 bar





Weight gr. 320
Minimum working pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	540 Nl/min	mm 6	G 1/8"

Solenoid - Solenoid

3/2

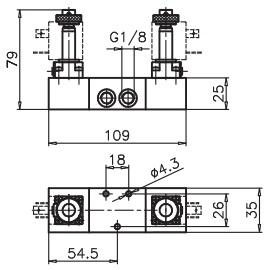
Ordering code

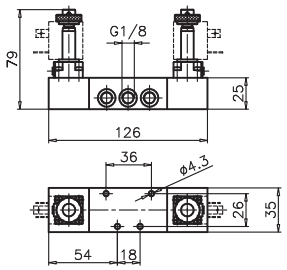
468.T.0.0.M2

T	TYPE
	32 = 3 ways
	52 = 5 ways

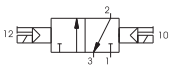
5/2

Solenoid - Solenoid





Weight gr. 370
Minimum working pressure 2 bar



Weight gr. 410
Minimum working pressure 2 bar

Operational characteristic	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	Min. -5°C Max. +50°C	540 Nl/min	mm 6	G 1/8"

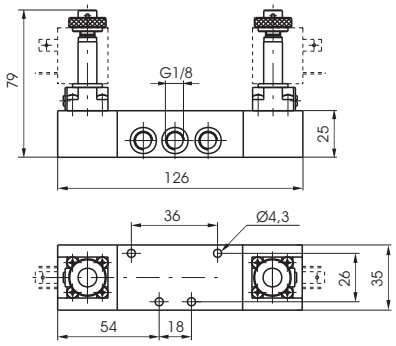
Solenoid - Solenoid

5/3

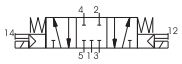
Ordering code

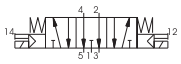
468.53.Ⓕ.0.0.M2

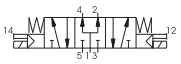
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres



Weight gr. 420
Minimum working pressure 3 bar







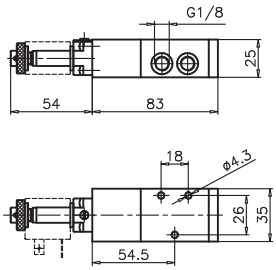
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	410 Nl/min	mm 6	G 1/8"

3/2 Solenoid - Spring

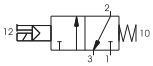
Ordering code

468/1.Ⓣ.0.1.M2

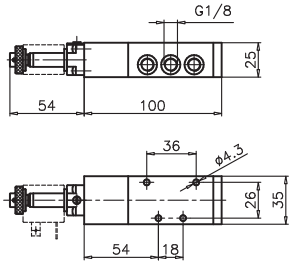
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways



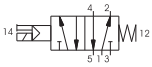
Weight gr. 240
Minimum working pressure 2,5 bar



Solenoid - Spring 5/2



Weight gr. 280
Minimum working pressure 2,5 bar



Operational characteristic	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	Min. -5°C Max. +50°C	540 Nl/min	mm 6	G 1/8"

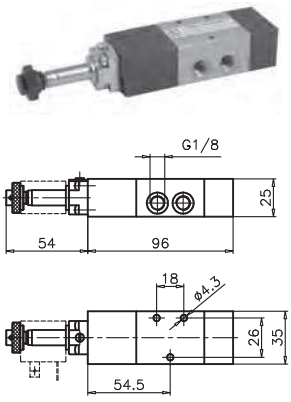
2

3/2 Solenoid - Differential

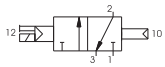
Ordering code

468/1.Ⓣ.0.12.M2

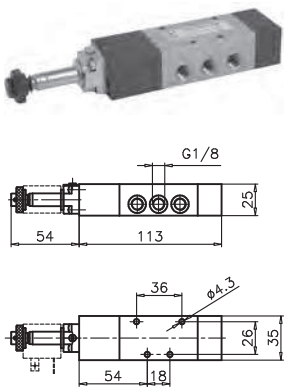
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways



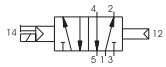
Weight gr. 280
Minimum working pressure 2,5 bar



Solenoid - Differential 5/2



Weight gr. 320
Minimum working pressure 2,5 bar



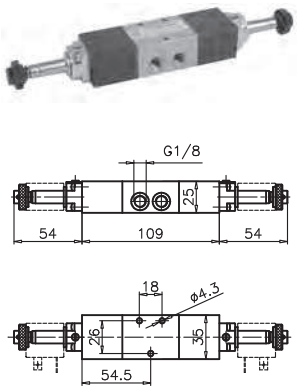
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	540 Nl/min	mm 6	G 1/8"

3/2 Solenoid - Solenoid

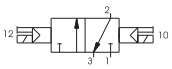
Ordering code

468/1.Ⓣ.0.0.M2

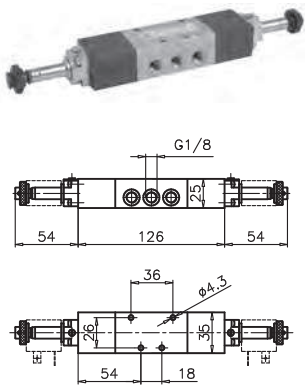
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways



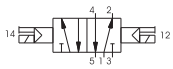
Weight gr. 370
Minimum working pressure 2 bar



Solenoid - Solenoid 5/2



Weight gr. 410
Minimum working pressure 2 bar



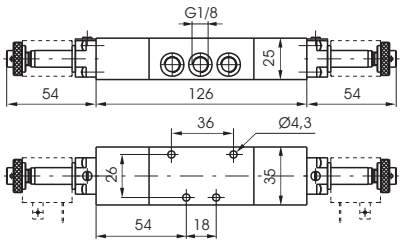
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	540 Nl/min	mm 6	G 1/8"

Solenoid - Solenoid 5/3

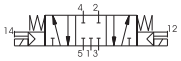
Ordering code

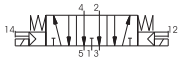
468/1.53.Ⓕ.0.0.M2

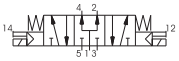
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres



Weight gr. 420
Minimum working pressure 3 bar







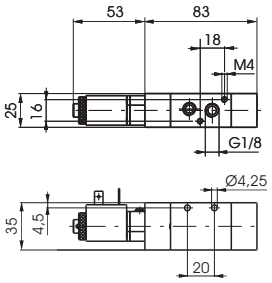
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	410 Nl/min	mm 6	G 1/8"

3/2 Solenoid - Spring

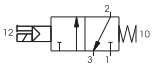
Ordering code

488.Ⓣ.0.1.Ⓢ

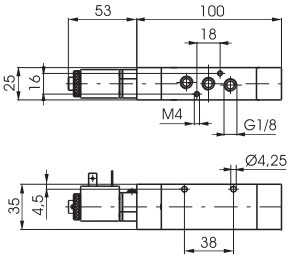
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓢ	TENSION CODE
	M11 = 24 V D.C.
	M56 = 24 V - 50/60 Hz
	M57 = 110 V - 50/60Hz
	M58 = 220V - 50/60Hz



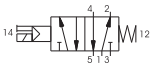
Weight gr. 220
Minimum working pressure 2,5 bar



Solenoid - Spring 5/2



Weight gr. 260
Minimum working pressure 2,5 bar



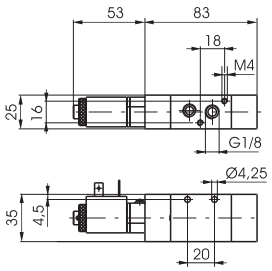
Operating Characteristics	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"

3/2 Solenoid - Differential

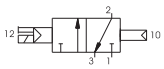
Ordering code

488.Ⓣ.0.12.Ⓢ

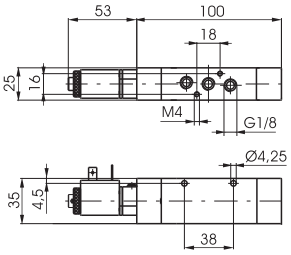
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓢ	TENSION CODE
	M11 = 24 V D.C.
	M56 = 24 V - 50/60 Hz
	M57 = 110 V - 50/60Hz
	M58 = 220V - 50/60Hz



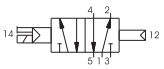
Weight gr. 220
Minimum working pressure 2,5 bar



Solenoid - Differential 5/2



Weight gr. 260
Minimum working pressure 2,5 bar



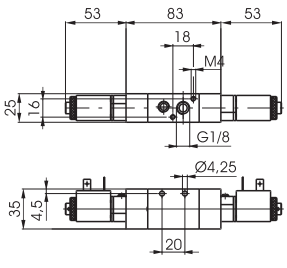
Operating Characteristics	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"

3/2 Solenoid - solenoid

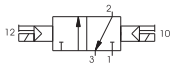
Ordering code

488.Ⓣ.0.0.Ⓢ

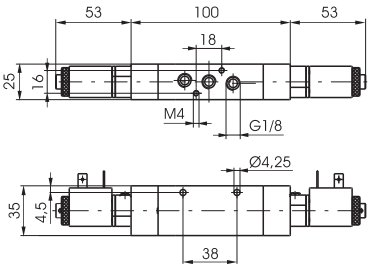
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓢ	TENSION CODE
	M11 = 24 V D.C.
	M56 = 24 V - 50/60 Hz
	M57 = 110 V - 50/60Hz
	M58 = 220V - 50/60Hz



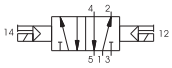
Weight gr. 320
Minimum working pressure 2 bar



Solenoid - solenoid 5/2



Weight gr. 360
Minimum working pressure 2 bar



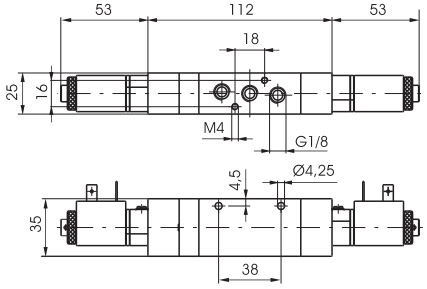
Operating Characteristics	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"

Solenoid - solenoid

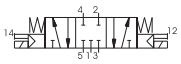
Ordering code

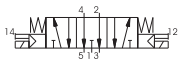
488.53.Ⓕ.0.0.Ⓢ

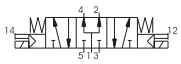
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres
Ⓢ	TENSION CODE
	M11 = 24 V D.C.
	M56 = 24 V - 50/60 Hz
	M57 = 110 V - 50/60Hz
	M58 = 220V - 50/60Hz



Weight gr. 400
Minimum working pressure 3 bar

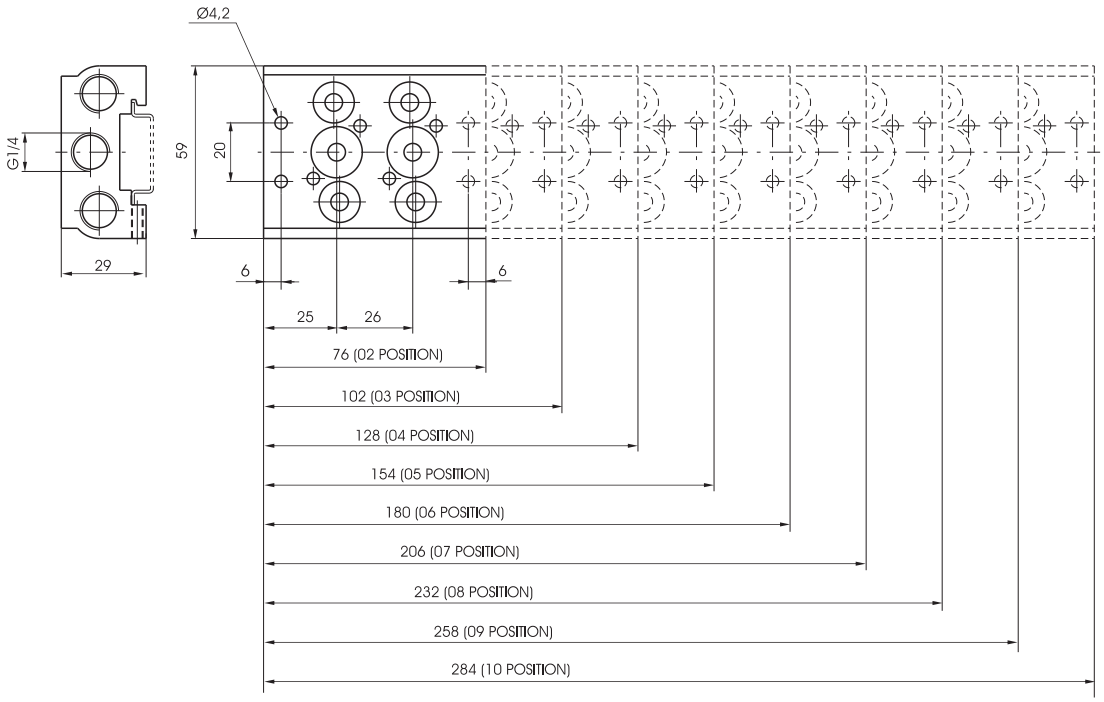






Operating Characteristics	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	410 Nl/min	mm 6	G 1/8"

Manifolds



Ordering code

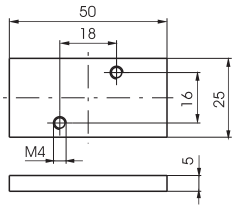
488.Ⓟ

Ⓟ	POSITION
	02 = 2 pos. (220 gr)
	03 = 3 pos. (290 gr)
	04 = 4 pos. (360 gr)
	05 = 5 pos. (430 gr)
	06 = 6 pos. (500 gr)
	07 = 7 pos. (570 gr)
	08 = 8 pos. (640 gr)
	09 = 9 pos. (710 gr)
	10 = 10 pos. (780 gr)

Closing plate

Ordering code

488.00



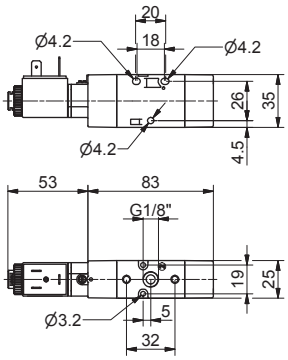
Solenoid - spring (Self-feeding)

3/2
5/2

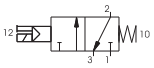
Ordering code

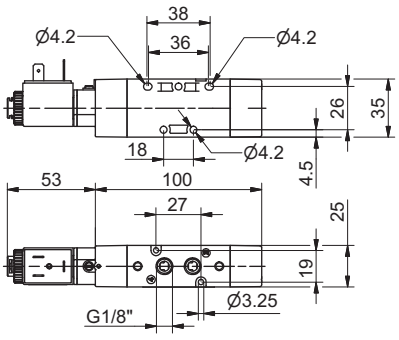
T488.Ⓣ.0.1.Ⓥ

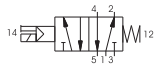
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	M9 = 24 V D.C. (rating power 2 W)
	M11 = 24 V D.C. (rating power 3,8 W)
	M56 = 24 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M57 = 110 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M58 = 220 V 50/60 Hz (starting power 9 VA, rating power 6 VA)



Weight gr. 160
Minimum working pressure 2,5 bar







Weight gr. 190
Minimum working pressure 2,5 bar

Operating 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	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"

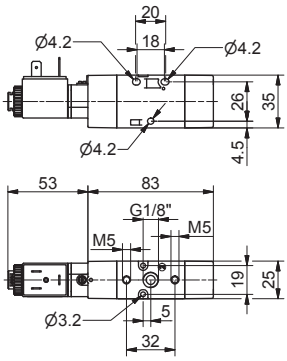
Solenoid - spring (External feeding)

3/2
5/2

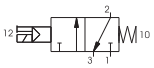
Ordering code

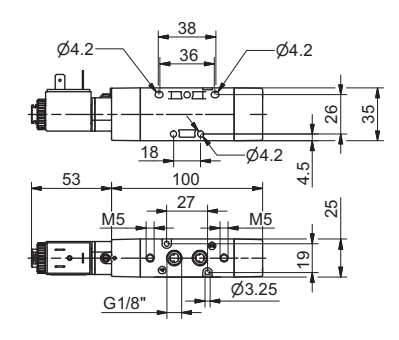
T488.Ⓣ.0.1E.Ⓥ

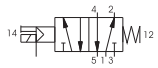
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	M9 = 24 V D.C. (rating power 2 W)
	M11 = 24 V D.C. (rating power 3,8 W)
	M56 = 24 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M57 = 110 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M58 = 220 V 50/60 Hz (starting power 9 VA, rating power 6 VA)



Weight gr. 160
Minimum working pressure 2,5 bar







Weight gr. 190
Minimum working pressure 2,5 bar

Operating Characteristics	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"	M5

2

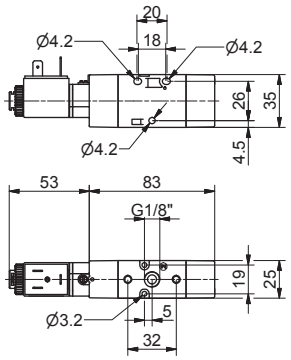
Solenoid - Differential (Self-feeding)

3/2
5/2

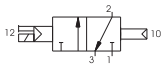
Ordering code

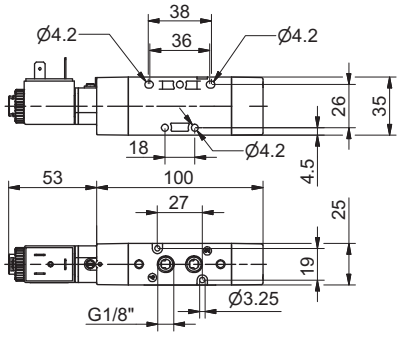
T488.Ⓣ.0.12.Ⓥ

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	M9 = 24 V D.C. (rating power 2 W)
	M11 = 24 V D.C. (rating power 3,8 W)
	M56 = 24 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M57 = 110 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M58 = 220 V 50/60 Hz (starting power 9 VA, rating power 6 VA)

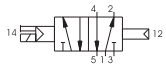


Weight gr. 160
Minimum working pressure 2,5 bar





Weight gr. 190
Minimum working pressure 2,5 bar



Operating 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	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"

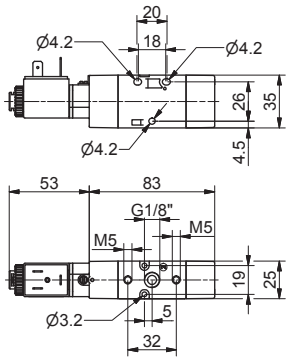
Solenoid - Differential (External feeding)

3/2
5/2

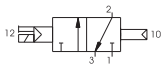
Ordering code

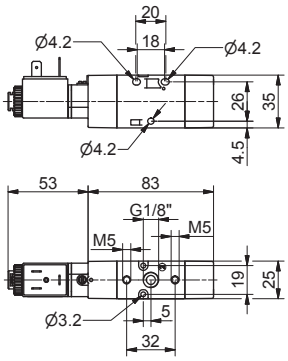
T488.Ⓣ.0.12E.Ⓥ

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	M9 = 24 V D.C. (rating power 2 W)
	M11 = 24 V D.C. (rating power 3,8 W)
	M56 = 24 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M57 = 110 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M58 = 220 V 50/60 Hz (starting power 9 VA, rating power 6 VA)

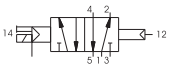


Weight gr. 160
Minimum working pressure 2,5 bar





Weight gr. 190
Minimum working pressure 2,5 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"	M5

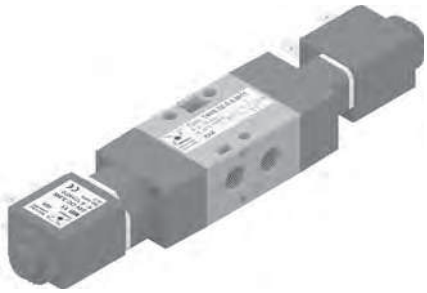
Solenoid - Solenoid (Self-feeding)

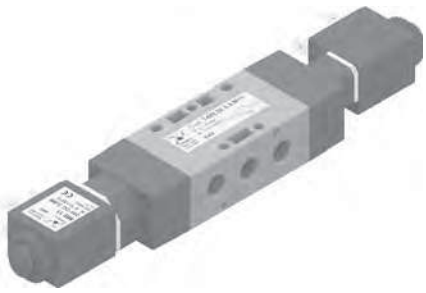
3/2
5/2

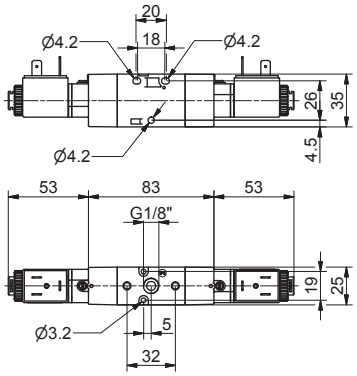
Ordering code

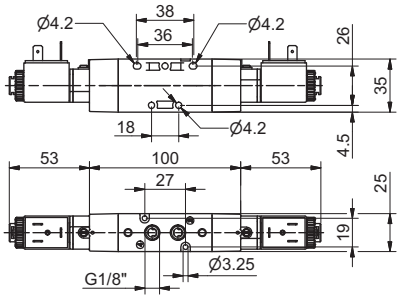
T488.Ⓣ.0.0.Ⓥ

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	M9 = 24 V D.C. (rating power 2 W)
	M11 = 24 V D.C. (rating power 3,8 W)
	M56 = 24 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M57 = 110 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M58 = 220 V 50/60 Hz (starting power 9 VA, rating power 6 VA)

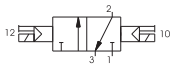








Weight gr. 250
Minimum working pressure 2 bar



Weight gr. 290
Minimum working pressure 2 bar

Operating 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	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"

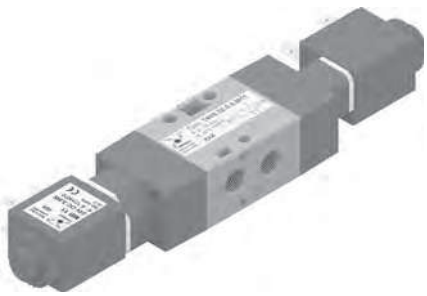
Solenoid - Solenoid (External feeding)

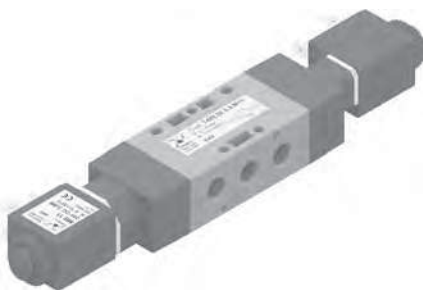
3/2
5/2

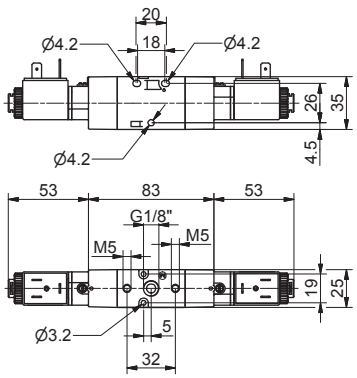
Ordering code

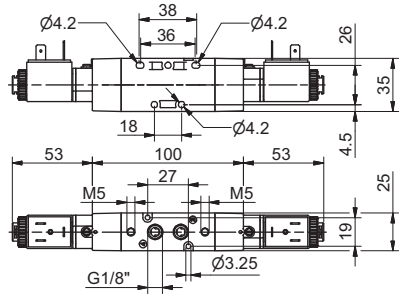
T488.Ⓣ.0.0E.Ⓥ

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	M9 = 24 V D.C. (rating power 2 W)
	M11 = 24 V D.C. (rating power 3,8 W)
	M56 = 24 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M57 = 110 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M58 = 220 V 50/60 Hz (starting power 9 VA, rating power 6 VA)

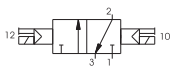








Weight gr. 250
Minimum working pressure 2 bar



Weight gr. 290
Minimum working pressure 2 bar

Operating Characteristics	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	620 Nl/min	mm 6	G 1/8"	M5

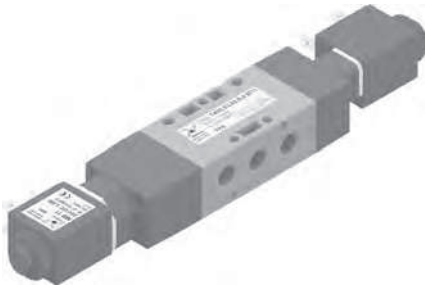
Solenoid - Solenoid (Self-feeding)

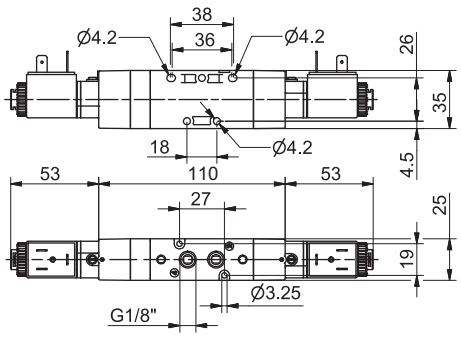
5/3

Ordering code

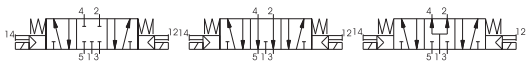
T488.53.Ⓕ.0.0.Ⓥ

Ⓕ	FUNCTION
	31 = Closed centres
	32 = Opened centres
	33 = Pressured centres
Ⓥ	VOLTAGE
	M9 = 24 V D.C. (rating power 2 W)
	M11 = 24 V D.C. (rating power 3,8 W)
	M56 = 24 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M57 = 110 V 50/60 Hz (starting po-
	M58 = 220 V 50/60 Hz (starting power 9 VA, rating power 6 VA)





Weight gr. 330
Minimum working pressure 3 bar



Operating 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	Min. -5°C Max. +50°C	410 Nl/min	mm 6	G 1/8"

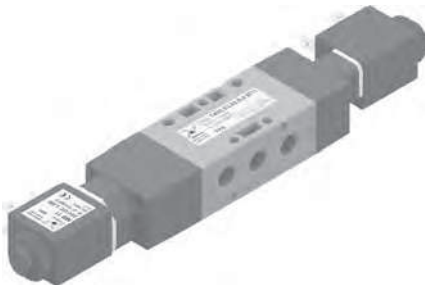
Solenoid - Solenoid (External feeding)

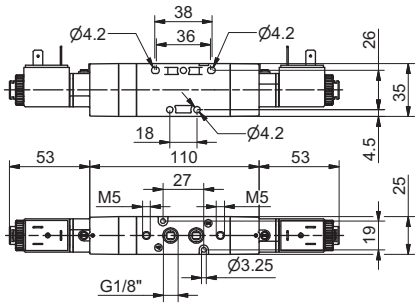
5/3

Ordering code

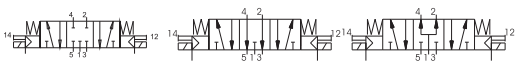
T488.53.Ⓕ.0.0E.Ⓥ

Ⓕ	FUNCTION
	31 = Closed centres
	32 = Opened centres
	33 = Pressured centres
Ⓥ	VOLTAGE
	M9 = 24 V D.C. (rating power 2 W)
	M11 = 24 V D.C. (rating power 3,8 W)
	M56 = 24 V 50/60 Hz (starting power 9 VA, rating power 6 VA)
	M57 = 110 V 50/60 Hz (starting po-
	M58 = 220 V 50/60 Hz (starting power 9 VA, rating power 6 VA)



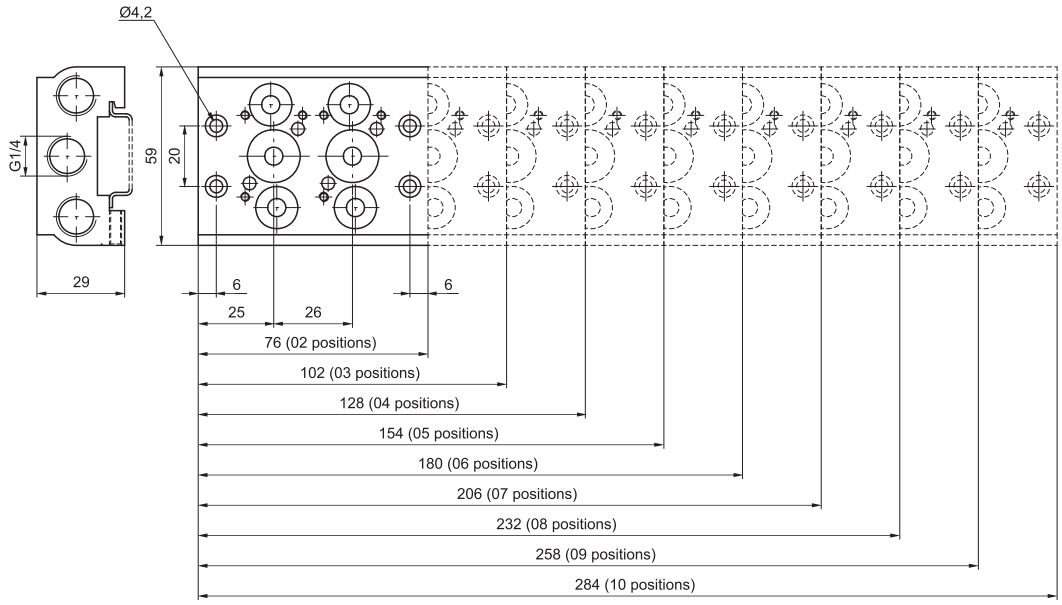


Weight gr. 330
Minimum working pressure 3 bar



Operating Characteristics	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	410 Nl/min	mm 6	G 1/8"	M5

Collectors



Ordering code

T488.Ⓟ

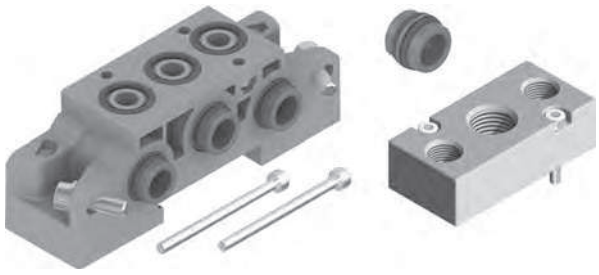
Ⓟ	N. POSITIONS
	02 = 2 pos. (Weight 220 gr.)
	03 = 3 pos. (Weight 290 gr.)
	04 = 4 pos. (Weight 360 gr.)
	05 = 5 pos. (Weight 430 gr.)
	06 = 6 pos. (Weight 500 gr.)
	07 = 7 pos. (Weight 570 gr.)
	08 = 8 pos. (Weight 640 gr.)
	09 = 9 pos. (Weight 710 gr.)
	10 = 10 pos. (Weight 780 gr.)

Modular collectors

Ordering code

T488.Ⓣ

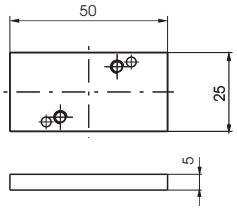
Ⓣ	TYPE
	01 = Single complete base
	01K = Complete modular bases (batches of 20 pieces)
	30K = Hollow bush, complete with O-rings (Nr. 50 pieces)
	31K = Blank bush, complete with O-rings (Nr. 50 pieces)
	32K =Intermediate air intake with screw (Nr. 5 pieces)
	33 = Screw to suite solenoid valves (Nr. 50 pieces)
	34 = Screw for joning bases (Nr. 50 pieces)
	35 = Washer for screw for joning bases (Nr. 50 pieces)
	36 = O-ring seal (Nr. 50 pieces)



Closing plate

Ordering code

T488.00



Weight gr. 25

2

Solenoid - Spring

3/2

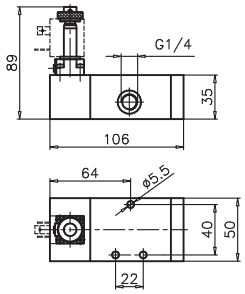
Ordering code

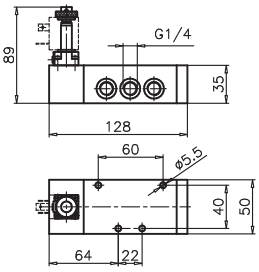
464.T.0.1.M2

T	TYPE
	32 = 3 ways
	52 = 5 ways

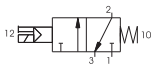
5/2

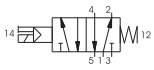
Solenoid - Spring





Weight gr. 530
Minimum working pressure 2,5 bar





Weight gr. 625
Minimum working pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	1360 Nl/min	mm 8	G 1/4"

Solenoid - Differential

3/2

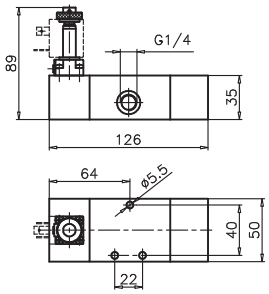
Ordering code

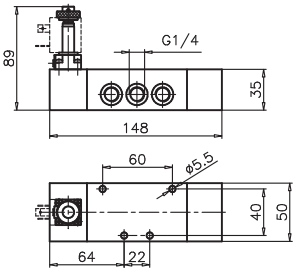
464.T.0.12.M2

T	TYPE
	32 = 3 ways
	52 = 5 ways

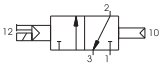
5/2

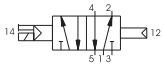
Solenoid - Differential





Weight gr. 650
Minimum working pressure 2,5 bar





Weight gr. 740
Minimum working pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	1360 Nl/min	mm 8	G 1/4"

Solenoid - Solenoid

3/2

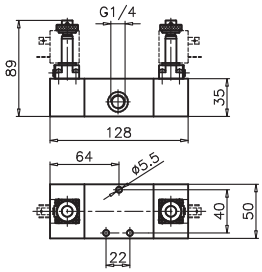
Ordering code

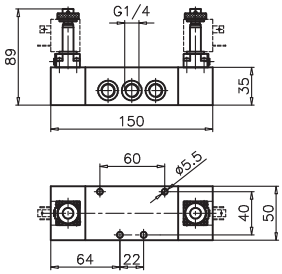
464.T.0.0.M2

T	TYPE
	32 = 3 ways
	52 = 5 ways

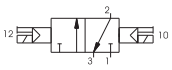
5/2

Solenoid - Solenoid





Weight gr. 730
Minimum working pressure 2 bar



Weight gr. 820
Minimum working pressure 2bar

Operational characteristic	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	Min. -5°C Max. +50°C	1360 Nl/min	mm 8	G 1/4"

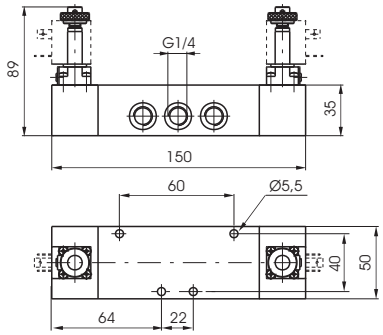
Solenoid - Solenoid

5/3

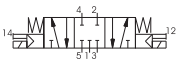
Ordering code

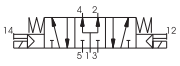
464.53.Ⓕ.0.0.M2

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



Weight gr. 820
Minimum working pressure 3 bar





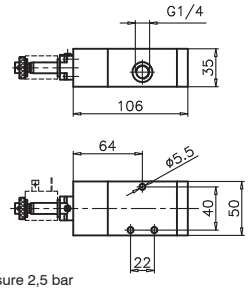
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10	Min. -5°C Max. +50°C	1280 Nl/min	mm 8	G 1/4"

3/2 Solenoid - Spring

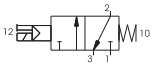
Ordering code

464/1.Ⓣ.0.1.M2

	TYPE
Ⓣ	32 = 3 ways
	52 = 5 ways

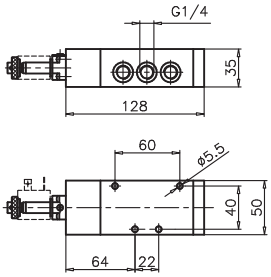


Weight gr. 530
Minimum working pressure 2,5 bar

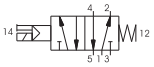


Solenoid - Spring

5/2



Weight gr. 625
Minimum working pressure 2,5 bar



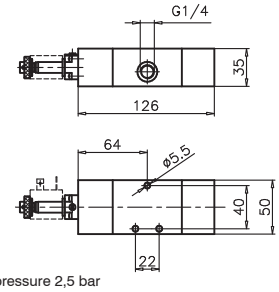
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1360 Nl/min	mm 8	G 1/4"

3/2 Solenoid - Differential

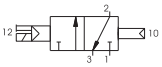
Ordering code

464/1.Ⓣ.0.12.M2

	TYPE
Ⓣ	32 = 3 ways
	52 = 5 ways

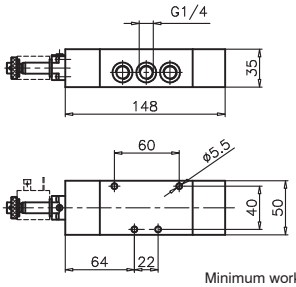


Weight gr. 650
Minimum working pressure 2,5 bar

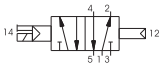


Solenoid - Differential

5/2



Weight gr. 740
Minimum working pressure 2,5 bar

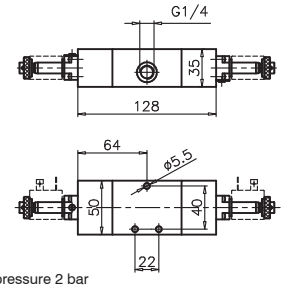


Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1360 Nl/min	mm 8	G 1/4"

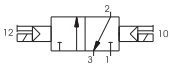
2

2

3/2 Solenoid - Solenoid



Weight gr. 730
Minimum working pressure 2 bar

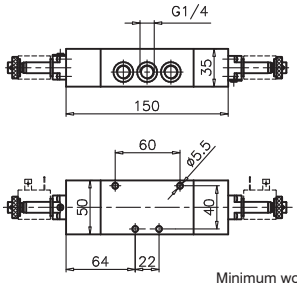


Ordering code

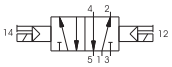
464/1.Ⓣ.0.0.M2

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways

5/2 Solenoid - Solenoid



Weight gr. 820
Minimum working pressure 2 bar



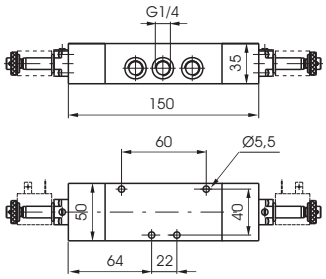
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1360 Nl/min	mm 8	G 1/4"

5/3 Solenoid - Solenoid

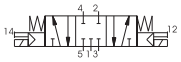
Ordering code

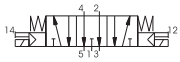
464/1.53.Ⓕ.0.0.M2

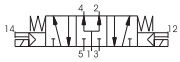
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres



Weight gr. 820
Minimum working pressure 3 bar







Operational characteristic	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	Min. -5°C Max. +50°C	1280 Nl/min	mm 8	G 1/4"

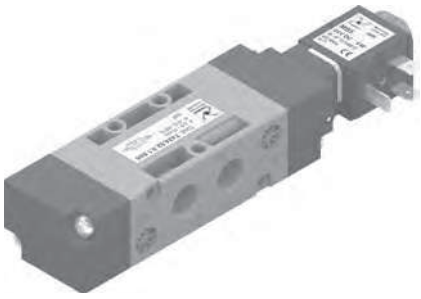
Solenoid - Spring (self-feeding)

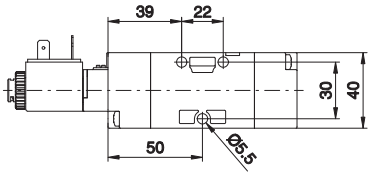
3/2
5/2

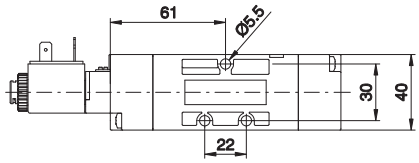
Ordering code

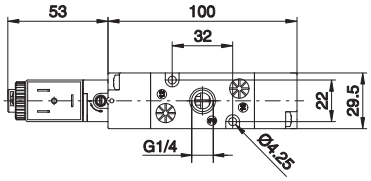
T424.Ⓣ.0.1.Ⓥ

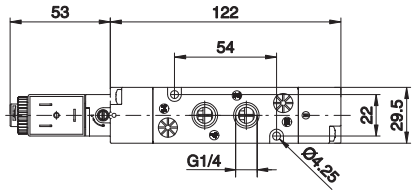
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	B04 = 12 V DC
	B05 = 24 V DC
	B09 = 24 V DC (2 W)
	B56 = 24 V 50-60 Hz
	B57 = 110 V 50-60 Hz
	B58 = 220 V 50-60 Hz



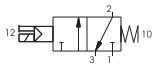


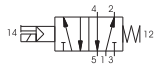






Weight gr. 205
Minimum operating pressure 2,5 bar





Weight gr. 235
Minimum operating pressure 2,5 bar

Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Ø Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1050 Nl/min	mm 8,5	G 1/4"

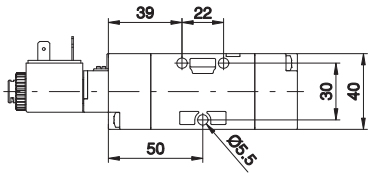
Solenoid - Spring (external feeding)

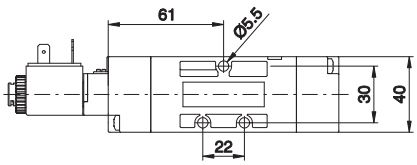
3/2
5/2

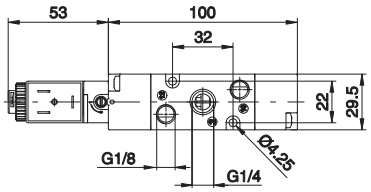
Ordering code

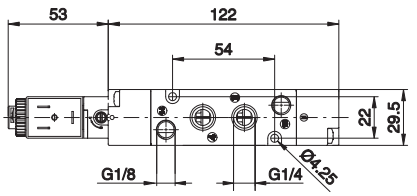
T424.Ⓣ.0.1.E.Ⓥ

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	B04 = 12 V DC
	B05 = 24 V DC
	B09 = 24 V DC (2 W)
	B56 = 24 V 50-60 Hz
	B57 = 110 V 50-60 Hz
	B58 = 220 V 50-60 Hz

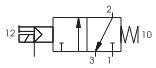


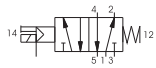






Weight gr. 205
Minimum operating pressure 2,5 bar





Weight gr. 235
Minimum operating pressure 2,5 bar

Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Ø Orifice size (mm)	Working ports size	Pilot ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1050 Nl/min	mm 8,5	G 1/4"	G 1/8"

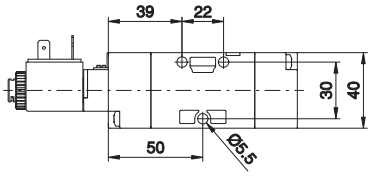
Solenoid - Differential (self-feeding)

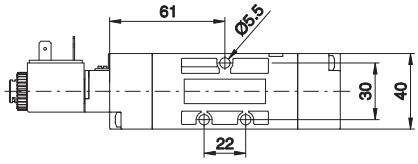
3/2
5/2

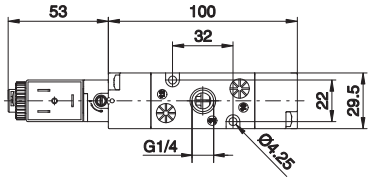
Ordering code

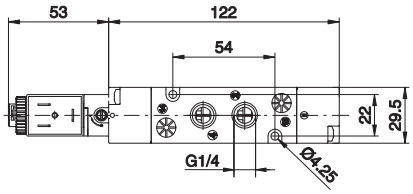
T424.Ⓣ.0.12.Ⓥ

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	B04 = 12 V DC
	B05 = 24 V DC
	B09 = 24 V DC (2 W)
	B56 = 24 V 50-60 Hz
	B57 = 110 V 50-60 Hz
	B58 = 220 V 50-60 Hz

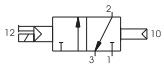


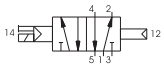






Weight gr. 205
Minimum operating pressure 2 bar





Weight gr. 235
Minimum operating pressure 2 bar

Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Ø Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1050 Nl/min	mm 8,5	G 1/4"

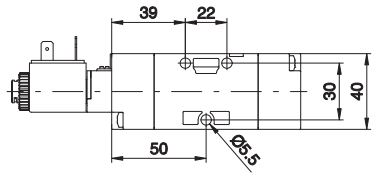
Solenoid - Differential (external feeding)

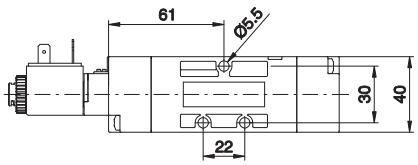
3/2
5/2

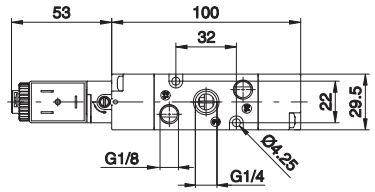
Ordering code

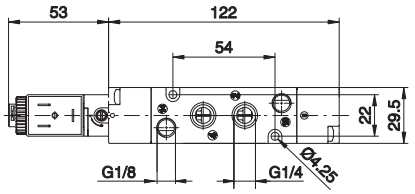
T424.Ⓣ.0.12.E.Ⓥ

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	B04 = 12 V DC
	B05 = 24 V DC
	B09 = 24 V DC (2 W)
	B56 = 24 V 50-60 Hz
	B57 = 110 V 50-60 Hz
	B58 = 220 V 50-60 Hz

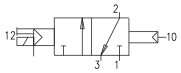


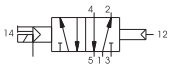






Weight gr. 205
Minimum operating pressure 2 bar





Weight gr. 235
Minimum operating pressure 2 bar

Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Ø Orifice size (mm)	Working ports size	Pilot ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1050 Nl/min	mm 8,5	G 1/4"	G 1/8"

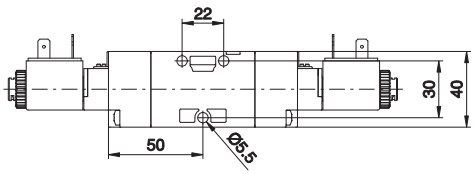
Solenoid - Solenoid (self-feeding)

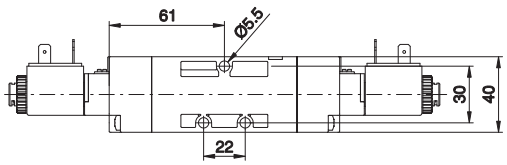
3/2
5/2

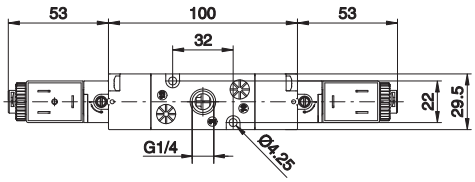
Ordering code

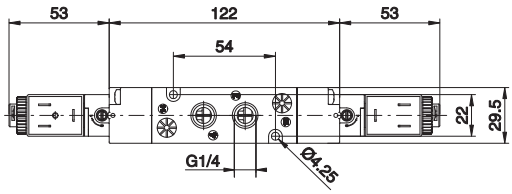
T424.Ⓣ.0.0.Ⓥ

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	B04 = 12 V DC
	B05 = 24 V DC
	B09 = 24 V DC (2 W)
	B56 = 24 V 50-60 Hz
	B57 = 110 V 50-60 Hz
	B58 = 220 V 50-60 Hz

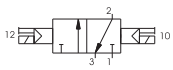


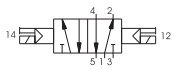






Weight gr. 240
Minimum operating pressure 2 bar





Weight gr. 270
Minimum operating pressure 2 bar

Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Ø Orifice size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1050 Nl/min	mm 8,5	G 1/4"

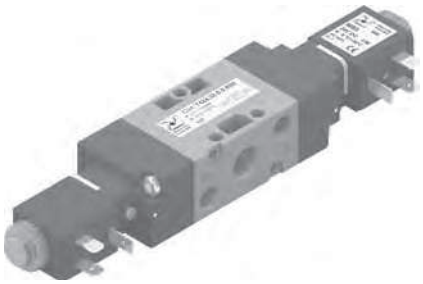
Solenoid - Solenoid (external feeding)

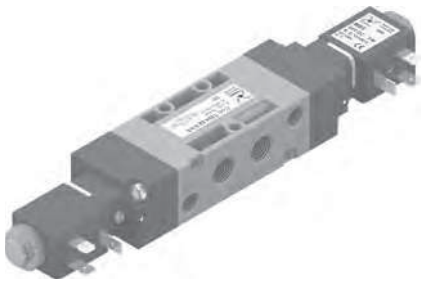
3/2
5/2

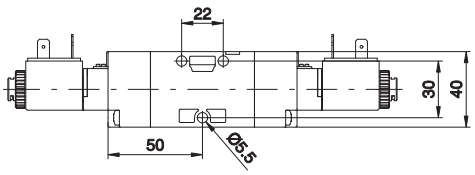
Ordering code

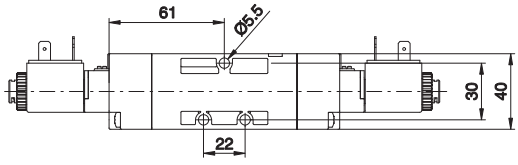
T424.Ⓣ.0.0.E.Ⓥ

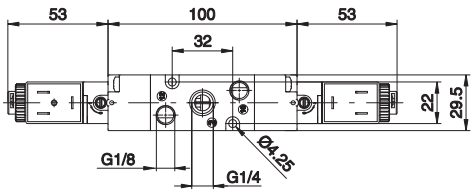
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VOLTAGE
	B04 = 12 V DC
	B05 = 24 V DC
	B09 = 24 V DC (2 W)
	B56 = 24 V 50-60 Hz
	B57 = 110 V 50-60 Hz
	B58 = 220 V 50-60 Hz

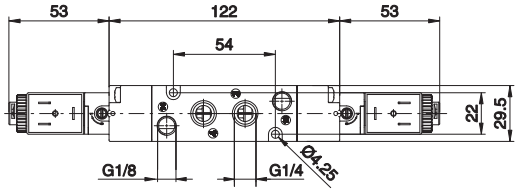




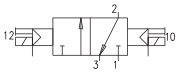


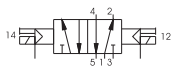






Weight gr. 240
Minimum operating pressure 2 bar





Weight gr. 270
Minimum operating pressure 2 bar

Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Ø Orifice size (mm)	Working ports size	Pilot ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1050 Nl/min	mm 8,5	G 1/4"	G 1/8"

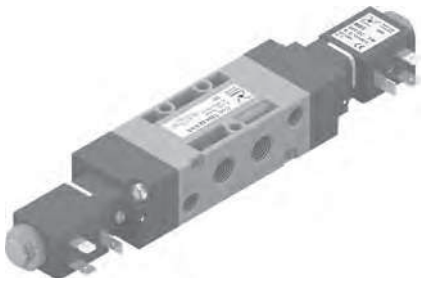
Solenoid - Solenoid (self-feeding)

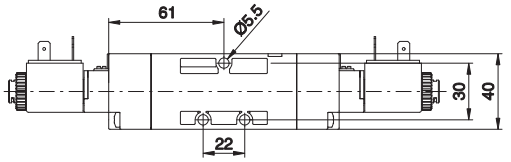
5/3

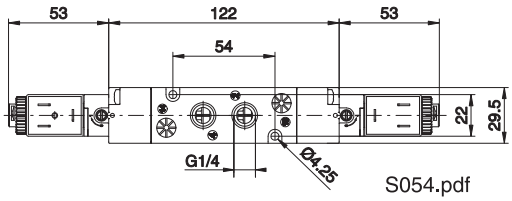
Ordering code

T424.53.Ⓕ.0.0.Ⓥ

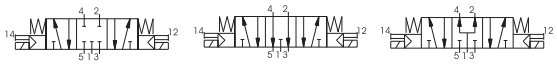
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres
Ⓥ	VOLTAGE
	B04 = 12 V DC
	B05 = 24 V DC
	B09 = 24 V DC (2 W)
	B56 = 24 V 50-60 Hz
	B57 = 110 V 50-60 Hz
	B58 = 220 V 50-60 Hz







S054.pdf S055.pdf



Weight gr. 295
Minimum operating pressure 3 bar

Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Ø Orientation size (mm)	Working ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	900 Nl/min	mm 8,5	G 1/4"

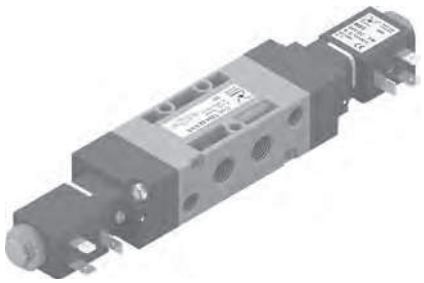
Solenoid - Solenoid (external feeding)

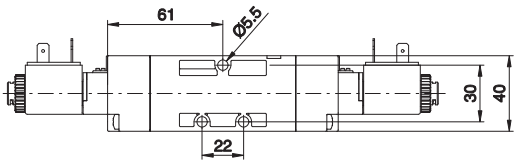
5/3

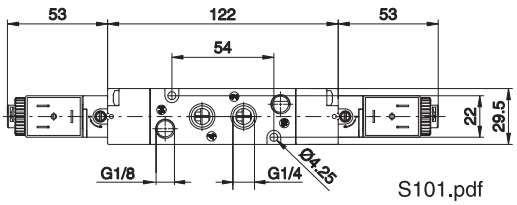
Ordering code

T424.53.Ⓕ.0.0.E.Ⓥ

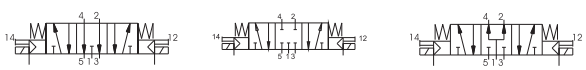
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres
Ⓥ	VOLTAGE
	B04 = 12 V DC
	B05 = 24 V DC
	B09 = 24 V DC (2 W)
	B56 = 24 V 50-60 Hz
	B57 = 110 V 50-60 Hz
	B58 = 220 V 50-60 Hz







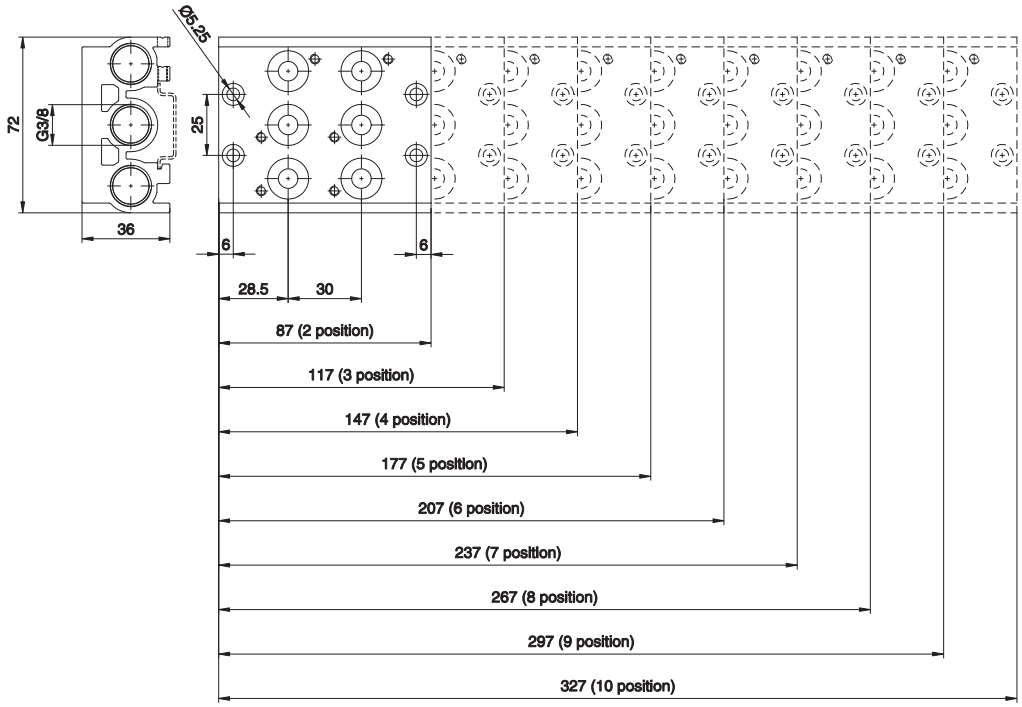
S101.pdf S126.pdf



Weight gr. 295
Minimum operating pressure 3 bar

Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Ø Orientation size (mm)	Working ports size	Pilot ports size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	900 Nl/min	mm 8,5	G 1/4"	G 1/8"

Manifold



Ordering code

T424.Ⓟ

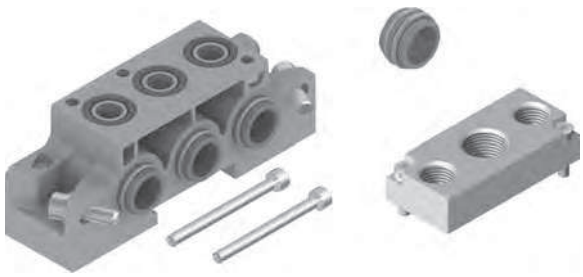
Ⓟ	N. POSITIONS
	02 = 2 pos. (weight 350 gr.)
	03 = 3 pos. (weight 420 gr.)
	04 = 4 pos. (weight 560 gr.)
	05 = 5 pos. (weight 670 gr.)
	06 = 6 pos. (weight 770 gr.)
	07 = 7 pos. (weight 880 gr.)
	08 = 8 pos. (weight 980 gr.)
	09 = 9 pos. (weight 1090 gr.)
	10 = 10 pos. (weight 1200 gr.)

Modular collectors

Ordering code

T424.Ⓣ

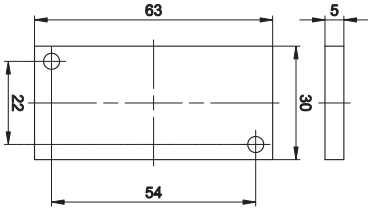
Ⓣ	TYPE
	01 = Single complete base
	01K = Complete modular bases (batches of 15 pieces)
	30K = Hollow bush, complete with O-rings (Nr. 50 pieces)
	31K = Blank bush, complete with O-rings (Nr. 50 pieces)
	32K =Intermediate air intake with screw (Nr. 5 pieces)
	33 = Screw to suite solenoid valves (Nr. 50 pieces)
	34 = Screw for joning bases (Nr. 50 pieces)
	35 = Washer for screw for joning bases (Nr. 50 pieces)
	36 = O-ring seal (Nr. 50 pieces)



Closing plate

Ordering code

T424.00



Weight gr. 25

2

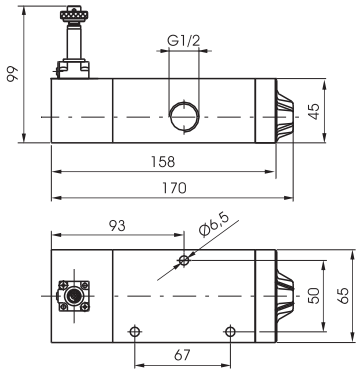
Solenoid - Spring

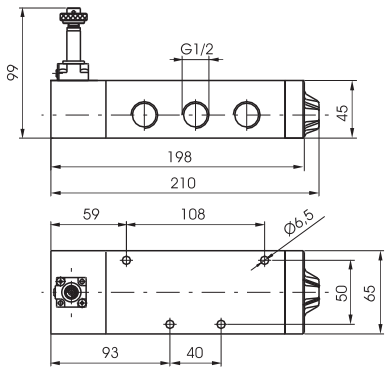
3/2
5/2

Ordering code

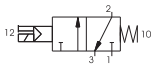
452.Ⓣ.0.1.M2

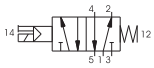
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways





Weight gr. 1152
Minimum working pressure 2,5 bar





Weight gr. 1422
Minimum working pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	3500 Nl/min	mm 15	G 1/2"

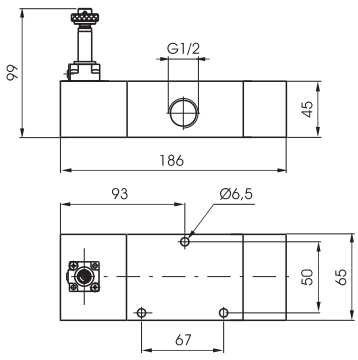
Solenoid - Differential

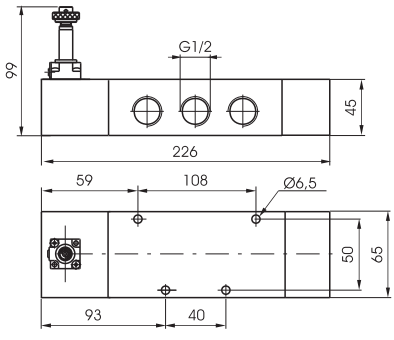
3/2
5/2

Ordering code

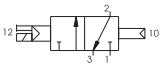
452.Ⓣ.0.12.M2

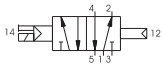
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways





Weight gr. 1422
Minimum working pressure 2,5 bar





Weight gr. 1692
Minimum working pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	3500 Nl/min	mm 15	G 1/2"

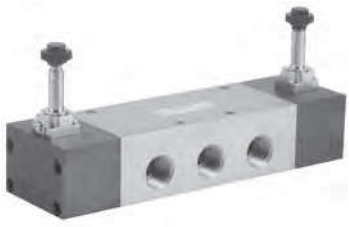
Solenoid - Solenoid

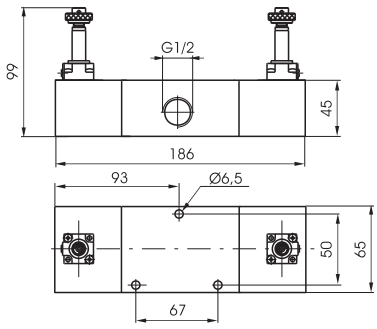
3/2
5/2

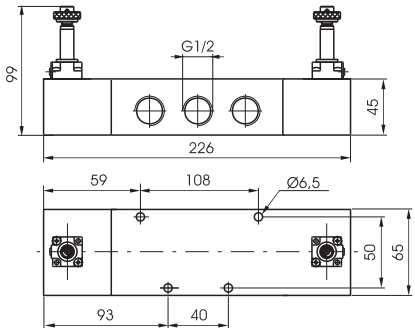
Ordering code

452.Ⓣ.0.0.M2

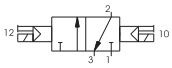
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways

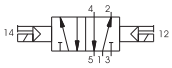






Weight gr. 1474
Minimum working pressure 2 bar





Weight gr. 1744
Minimum working pressure 2 bar

Operational characteristic	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	Min. -5°C Max. +50°C	3500 Nl/min	mm 15	G 1/2"

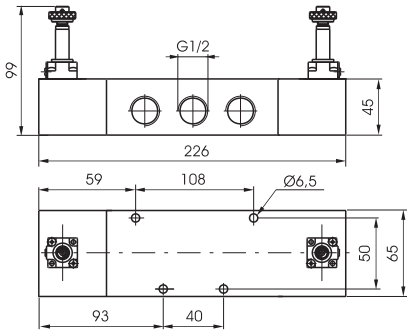
Solenoid - Solenoid

5/3

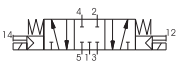
Ordering code

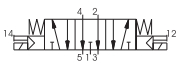
452.53.Ⓕ.0.0.M2

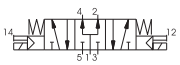
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres



Weight gr. 1744
Minimum working pressure 3 bar







Operational characteristic	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	Min. -5°C Max. +50°C	3500 Nl/min	mm 15	G 1/2"

2

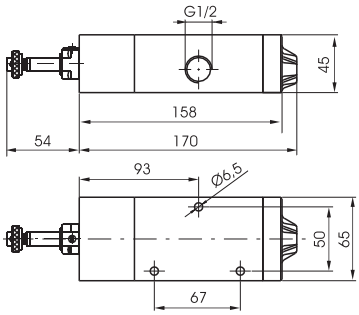
Solenoid - Spring

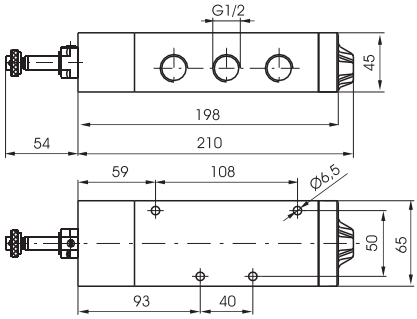
3/2
5/2

Ordering code

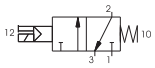
452/1.Ⓣ.0.1.M2

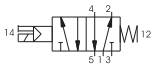
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways





Weight gr. 1330
Minimum working pressure 2,5 bar





Weight gr. 1600
Minimum working pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	3500 Nl/min	mm 15	G 1/2"

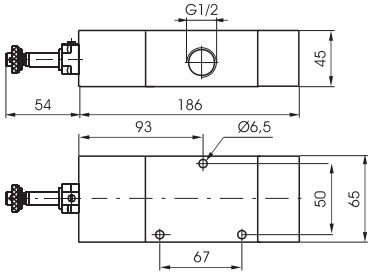
Solenoid - Differential

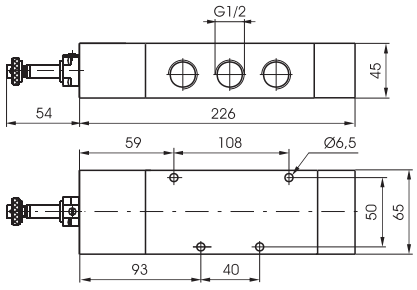
3/2
5/2

Ordering code

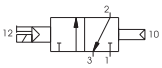
452/1.Ⓣ.0.12.M2

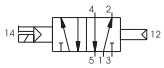
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways





Weight gr. 1600
Minimum working pressure 2,5 bar





Weight gr. 1870
Minimum working pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	3500 Nl/min	mm 15	G 1/2"

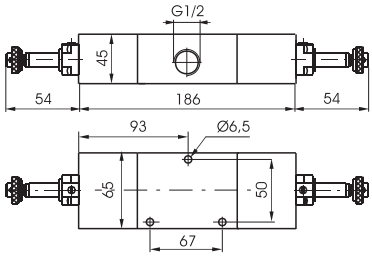
Solenoid - Solenoid

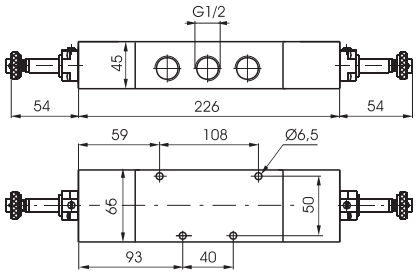
3/2
5/2

Ordering code

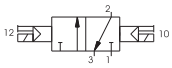
452/1.Ⓣ.0.0.M2

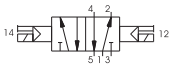
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways





Weight gr. 1830
Minimum working pressure 2 bar





Weight gr. 2100
Minimum working pressure 2 bar

Operational characteristic	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	Min. -5°C Max. +50°C	3500 Nl/min	mm 15	G 1/2"

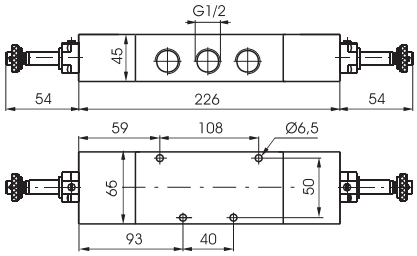
Solenoid - Solenoid

5/3

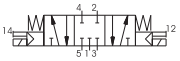
Ordering code

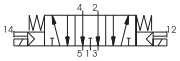
452/1.53.Ⓕ.0.0.M2

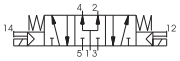
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres



Weight gr. 2100
Minimum working pressure 3 bar







Operational characteristic	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	Min. -5°C Max. +50°C	3500 Nl/min	mm 15	G 1/2"

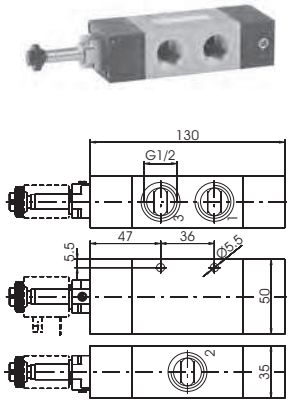
2

3/2 Solenoid - Spring

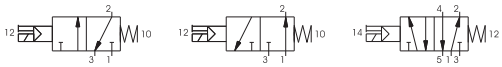
Ordering code

412/2Ⓣ.0.1.Ⓥ

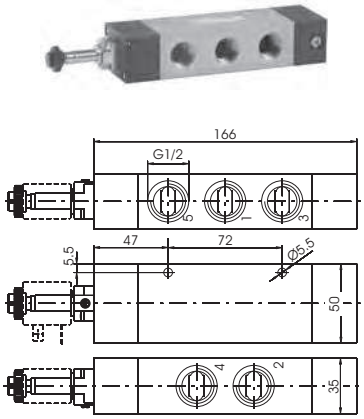
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VARIANT
	C.M2 = 3 ways Normally Closed
	A.M2 = 3 ways Normally Open
	M2 = 5 ways



Weight gr. 578
Minimum working pressure 2,5 bar



Solenoid - Spring 5/2



Weight gr. 700
Minimum working pressure 2,5 bar

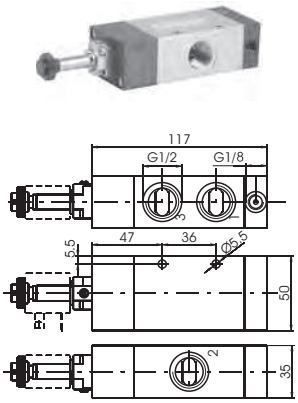
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air or not	10 bar	Min. -5°C	Max. +50°C	3600 Nl/min	mm 15	G 1/2"

3/2 Solenoid - Differential external

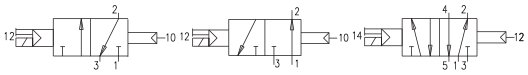
Ordering code

412/2Ⓣ.0.12.Ⓥ

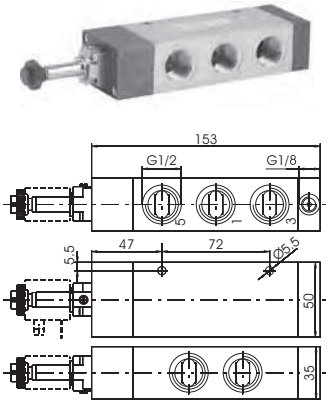
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VARIANT
	C.M2 = 3 ways Normally Closed
	A.M2 = 3 ways Normally Open
	M2 = 5 ways



Weight gr. 522
Minimum working pressure 2,5 bar



Solenoid - Differential external 5/2



Weight gr. 644
Minimum working pressure 2,5 bar

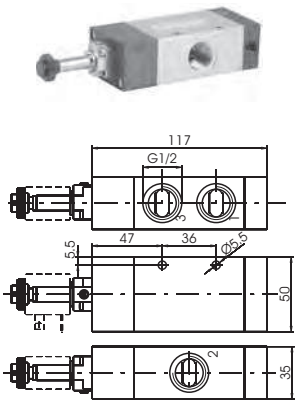
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air or not	10 bar	Min. -5°C	Max. +50°C	3600 Nl/min	mm 15	G 1/2"

3/2 Pneumatic - Differential self aligned

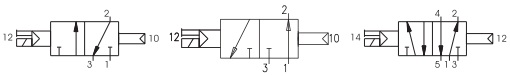
Ordering code

412/2Ⓣ.0.12/1.Ⓥ

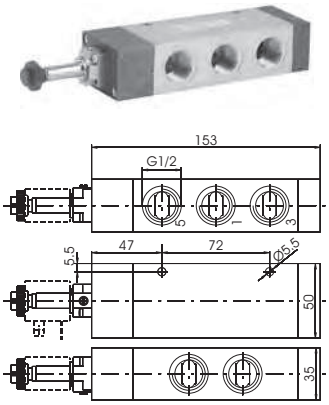
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓥ	VARIANT
	C.M2 = 3 ways Normally Closed
	A.M2 = 3 ways Normally Open
	M2 = 5 ways



Weight gr. 526
Minimum working pressure 2,5 bar



Pneumatic - Differential self aligned 5/2



Weight gr. 648
Minimum working pressure 2,5 bar

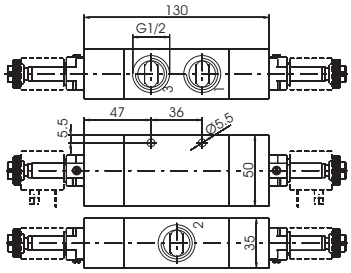
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air or not	10 bar	Min. -5°C	Max. +50°C	3600 Nl/min	mm 15	G 1/2"

3/2 **Solenoid - Solenoid**

Ordering code

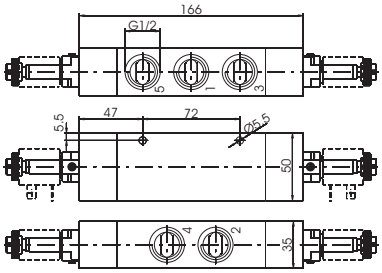
412/2Ⓣ.0.0.M2

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways

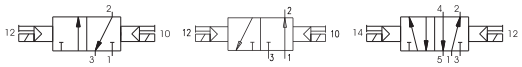


Weight gr. 612
Minimum working pressure 2 bar

Solenoid - Solenoid 5/2



Weight gr. 732
Minimum working pressure 2 bar



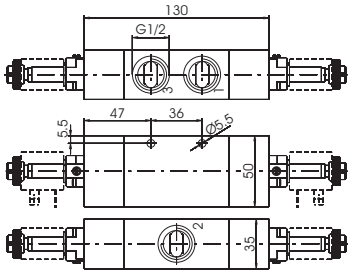
Operational characteristic	Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
	Filtered and lubricated air or not	10 bar	Min. -5°C	Max. +50°C	3600 Nl/min	mm 15	G 1/2"

Solenoid - Solenoid 5/3

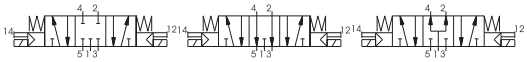
Ordering code

412/2.53.Ⓣ.0.0.M2

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



Weight gr. 794
Minimum working pressure 3 bar



Operational characteristic	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 or not	10 bar	Min. -5°C	Max. +50°C	3300 Nl/min	mm 15	G 1/2"

2

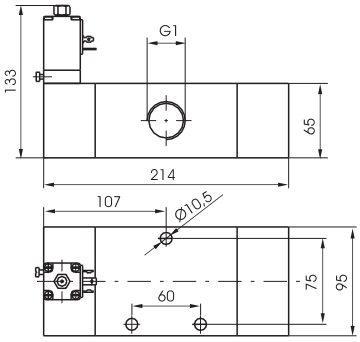
Solenoid - Spring

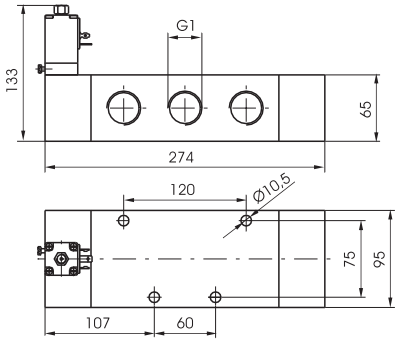
3/2
5/2

Ordering code

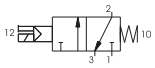
411.Ⓣ.0.1.Ⓢ

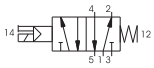
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓢ	SOLENOID CODE
	S = See Solenoid valves "S" type, Series 300





Weight gr. 3400
Minimum piloting pressure 2,5 bar





Weight gr. 4300
Minimum piloting pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	6500 Nl/min	mm 20	G 1"

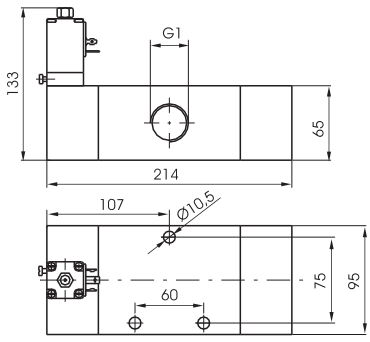
Solenoid - Differential

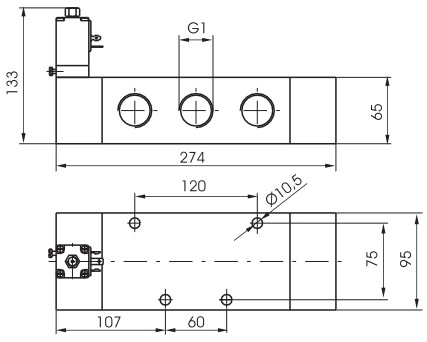
3/2
5/2

Ordering code

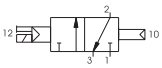
411.Ⓣ.0.12.Ⓢ

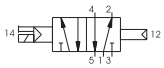
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓢ	SOLENOID CODE
	S = See Solenoid valves "S" type, Series 300





Weight gr. 3400
Minimum piloting pressure 2,5 bar





Weight gr. 4300
Minimum piloting pressure 2,5 bar

Operational characteristic	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	Min. -5°C Max. +50°C	6500 Nl/min	mm 20	G 1"

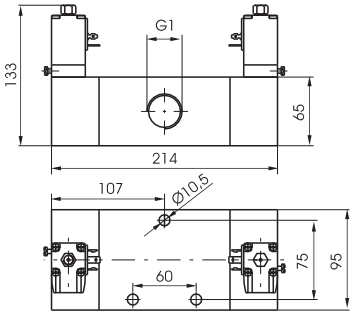
Solenoid - Solenoid

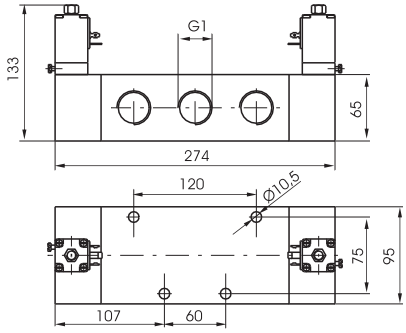
3/2
5/2

Ordering code

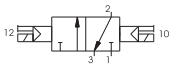
411.Ⓣ.0.0.Ⓢ

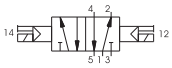
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓢ	SOLENOID CODE
	S = See Solenoid valves "S" type, Series 300





Weight gr. 3700
Minimum piloting pressure 2 bar





Weight gr. 4600
Minimum piloting pressure 2 bar

Operational characteristic	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	Min. -5°C Max. +50°C	6500 Nl/min	mm 20	G 1"

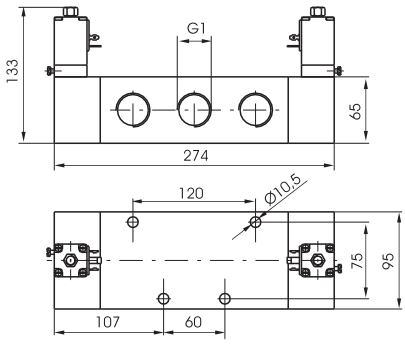
Solenoid - Solenoid

5/3

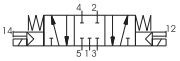
Ordering code

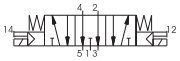
411.53.Ⓕ.0.0.Ⓢ

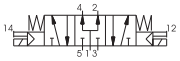
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres
Ⓢ	SOLENOID CODE
	S = See Solenoid valves "S" type, Series 300



Weight gr. 4700
Minimum piloting pressure 3 bar







Operational characteristic	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	Min. -5°C Max. +50°C	6500 Nl/min	mm 20	G 1"