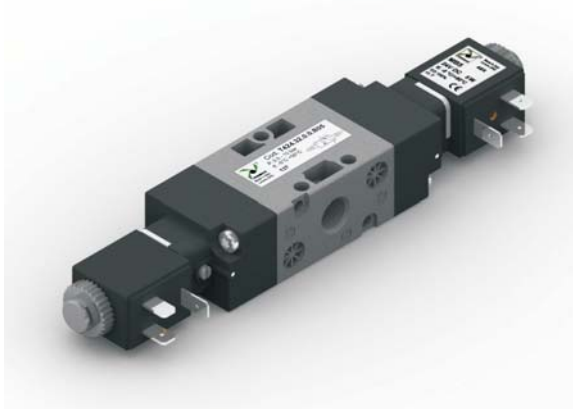


ECOLINE



General

The main components constituting this new valves and solenoid valves series are manufactured with high performance technopolimer. The use of technopolimer has resulted in a light weight product which can be offered to the market at very interesting prices. This valve series is manufactured with 1/4" connections.

Depending on version and actuation (manual, pneumatic, or electrical), and self aligning (pneu - elect, spring) 3/2, 5/2 and 5/3 ways function, (monostable), (bistable).

The gang mounted solenoid valves are available with the traditional manifold obtained from bored square bar of series 600 and with the extruded aluminium base allowing a unic inlet port conveying the exhausts.

The base is also prearranged to be fixed on DIN 46277/3 guide.

The solenoid valves are supplied complete with coil so that the tension has to be added to the solenoid valve code.

Voltages		Code to be added
Direct current DC	12V	B04
	24V	B05
	24V (2W)	B09
Alternating current AC (50-60 Hz)	24V	B56
	110V	B57
	220V	B58

Maximum tightening torque for fittings

Thread	Maximum torque (Nm)
G 1/4"	9
G 1/8"	4

Construction characteristic

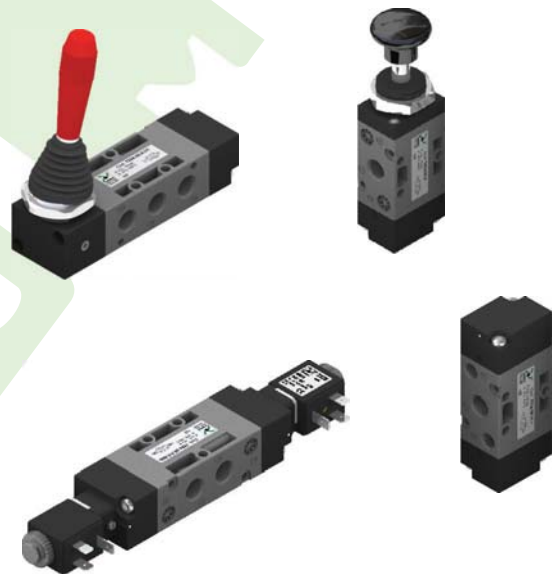
Body	Technopolymer
Operators	Technopolymer
Spools	Nickel - plated steel
Piston seals	Nitrile rubber (NBR) oil resistant
Seals	Nitrile rubber (NBR) oil resistant
Spacers	Technopolymer
Springs	AISI 302 stainless steel
Pistons	Technopolymer

Use and maintenance

These valves have a mean life of 15 millions of cycles if used in standard conditions.

Proper lubrication reduces dramatically the wear of the seals and a good filtration prevents the build-up of dirt and consequent malfunctioning of the valve. Make sure that the conditions of use comply with the pressure and temperature suggested. The exhaust port 3 and 5 have to be protected in a dusty and dirty environment. A spare parts kit including the spool and seals is available for overhauling the valve. This simple operation does not require a skilled worker.

ATTENTION: use hydraulic oil class H such as MAGNA GC 32 (CASTROL).



Push button - Spring

3/2

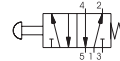
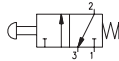
5/2

Push button - Spring

				Ordering code T224.1.8.1	
				TYPE 32 = 3 ways 52 = 5 ways	

Weight gr. 170
Operating force 50N

Weight gr. 200
Operating force 50N



Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with Δp=1	Ø orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"

Push button 2 positions

3/2

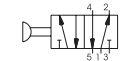
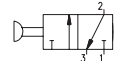
5/2

Push button 2 positions

				Ordering code T224.1.8	
				TYPE 32 = 3 ways 52 = 5 ways	

Weight gr. 170
Operating force 13N

Weight gr. 200
Operating force 13N



Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with Δp=1	Ø orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"

Lever lateral - Spring

3/2

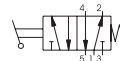
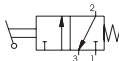
5/2

Lever lateral - Spring

				Ordering code T224.1.9.1/C	
				TYPE 32 = 3 ways 52 = 5 ways LEVER COLOR 1 = Red 2 = Black 3 = Green	


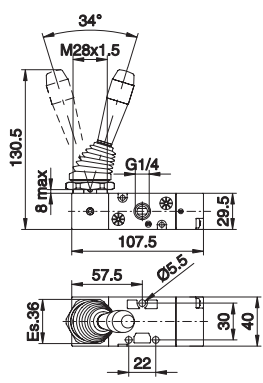

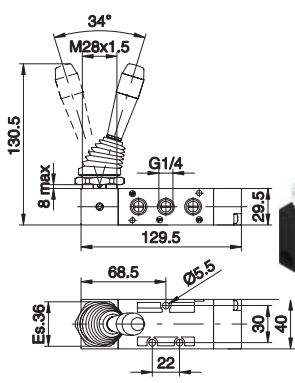
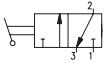
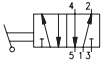
Weight gr. 220


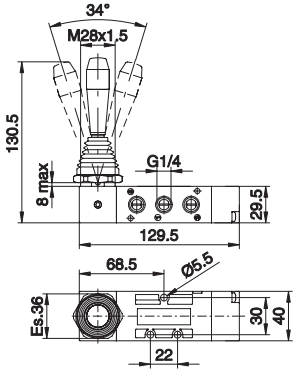
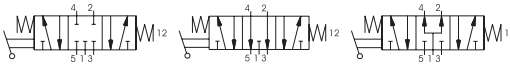
Weight gr. 250


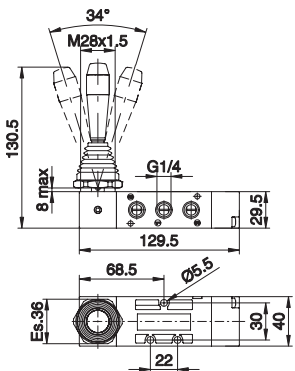
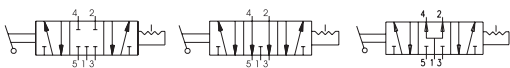


Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with Δp=1	Ø orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"



Lever lateral 2 positions		3/2	5/2	Lever lateral 2 positions			
 		<p>Ordering code</p> <p>T224.1.9/C</p> <p>TYPE</p> <p>1 = 3 ways</p> <p>52 = 5 ways</p> <p>LEVER COLOR</p> <p>1 = Red</p> <p>2 = Black</p> <p>3 = Green</p>		 			
Weight gr. 220				Weight gr. 250			
							
Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"

Lever lateral spring centre - 3 positions						5/3	
<p>Ordering code</p> <p>T224.53.F.9.1/C</p> <p>FUNCTION</p> <p>1 = Closed centres</p> <p>32 = Open centres</p> <p>33 = Pressured centres</p> <p>LEVER COLOR</p> <p>1 = Red</p> <p>2 = Black</p> <p>3 = Green</p>							
Weight gr. 270							
							
Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	900 NI/min	mm 8,5	G 1/4"

Lever lateral - 3 positions detent						5/3	
<p>Ordering code</p> <p>T224.53.F.9/C</p> <p>FUNCTION</p> <p>1 = Closed centres</p> <p>32 = Open centres</p> <p>33 = Pressured centres</p> <p>LEVER COLOR</p> <p>1 = Red</p> <p>2 = Black</p> <p>3 = Green</p>							
Weight gr. 270							
							
Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	900 NI/min	mm 8,5	G 1/4"

Pneumatic - Spring

3/2

5/2

Pneumatic - Spring

Ordering code

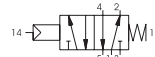
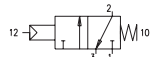
T224.11.11

TYPE

32 = 3 ways

52 = 5 ways

Weight gr. 110
Minimum operating pressure 2,5 bar



Weight gr. 140
Minimum operating pressure 2,5 bar

Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"	G 1/8"

Pneumatic - Differential (external)

3/2

5/2

Pneumatic - Differential (external)

Ordering code

T224.11.12

TYPE

32 = 3 ways

52 = 5 ways

Weight gr. 110
Minimum operating pressure 2 bar



Weight gr. 140
Minimum operating pressure 2 bar

Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"	G 1/8"

Pneumatic - Pneumatic

3/2

5/2

Pneumatic - Pneumatic

Ordering code

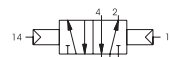
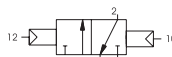
T224.11.11

TYPE

32 = 3 ways

52 = 5 ways

Weight gr. 110
Minimum operating pressure 2 bar



Weight gr. 140
Minimum operating pressure 2 bar

Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"	G 1/8"



Pneumatic - Pneumatic 3 positions

5/3

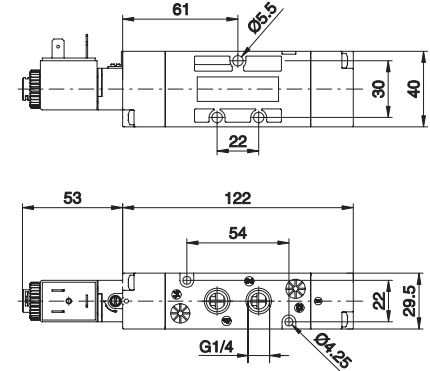
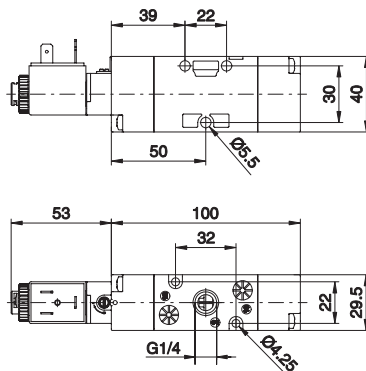
Ordering code T224.53.F.11.11		
FUNCTION F 31 = Closed centres 32 = Open centres 33 = Pressured centres		
Weight gr. 160 Minimum operating pressure 3 bar		

Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size	Pilot port size
		Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	900 NI/min	mm 8,5	G 1/4"

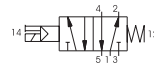
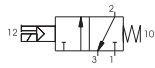
Solenoid - Spring

3/2
5/2

Ordering code	
T424.T.0.1.V	
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



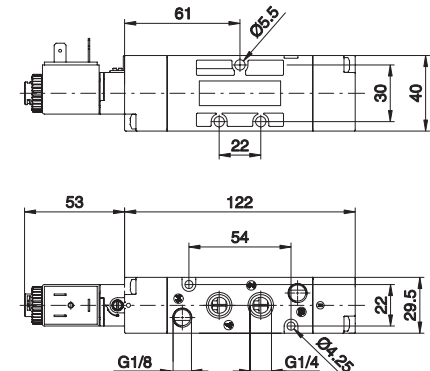
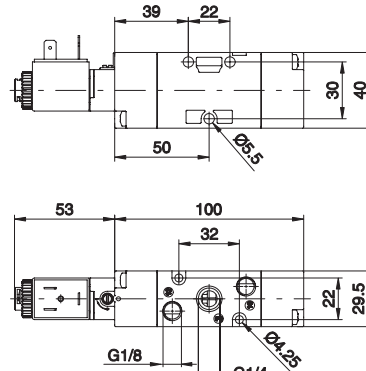
Weight gr. 235
Minimum operating pressure 2,5 bar

Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size
		Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5

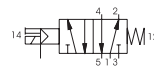
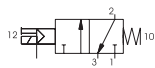
Solenoid - Spring (external)

3/2
5/2

Ordering code	
T424.T.0.1.E.V	
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



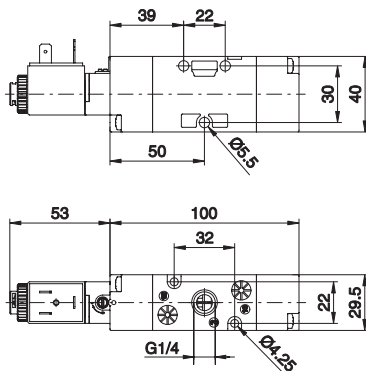
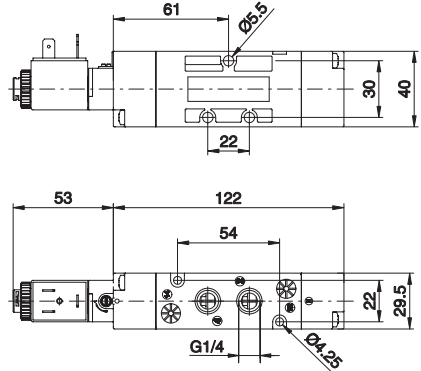
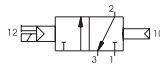
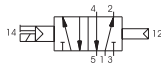


Weight gr. 235
Minimum operating pressure 2,5 bar

Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size	Pilot port size
		Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"



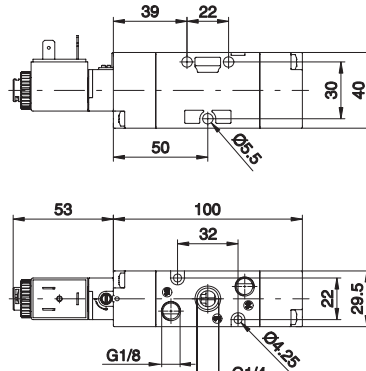
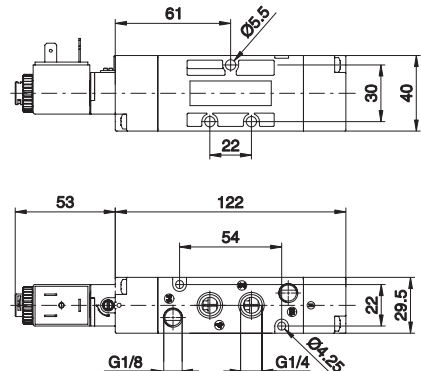
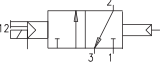
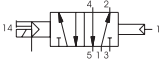
Solenoid - Differential

3/2
5/2

Ordering code							
T424.T.12.V							
TYPE							
T 32 = 3 ways							
52 = 5 ways							
VOLTAGE							
B04 = 12 V DC							
B05 = 24 V DC							
V 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 characteristics	Fluid	Max working pressure	Operating temperature	Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size	
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1050 NI/min	mm 8,5	G 1/4"	

Solenoid - Differential (external)

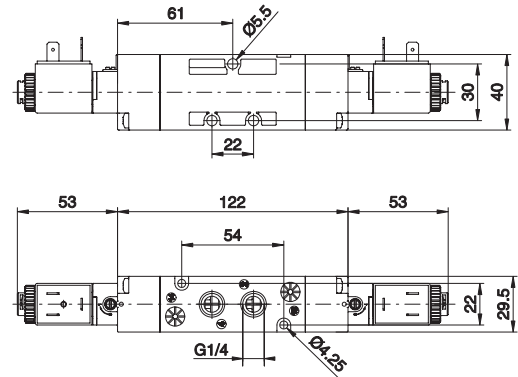
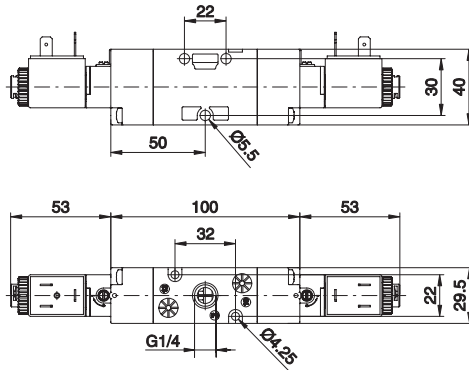
3/2
5/2

Ordering code							
T424.T.12.E.V							
TYPE							
T 32 = 3 ways							
52 = 5 ways							
VOLTAGE							
B04 = 12 V DC							
B05 = 24 V DC							
V 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 characteristics	Fluid	Max working pressure	Operating temperature	Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C Max. +50°C	1050 NI/min	mm 8,5	G 1/4"	G 1/8"

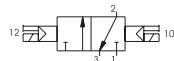
Solenoid - Solenoid

3/2
5/2

Ordering code	
T424.T.0.0.V	
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



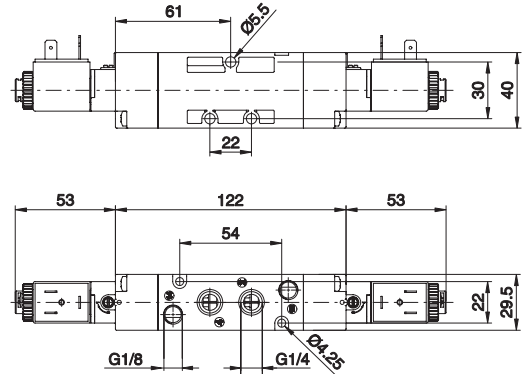
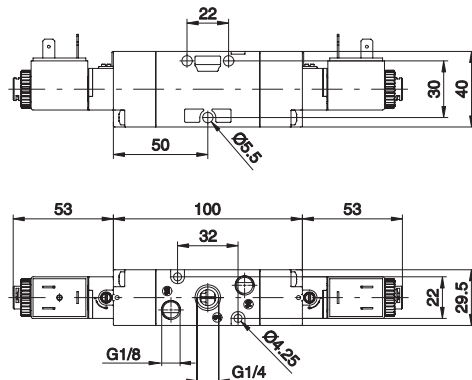
Weight gr. 270
Minimum operating pressure 2 bar

Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size
		Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5

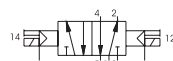
Solenoid - Solenoid (external)

3/2
5/2

Ordering code	
T424.T.0.0.E.V	
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

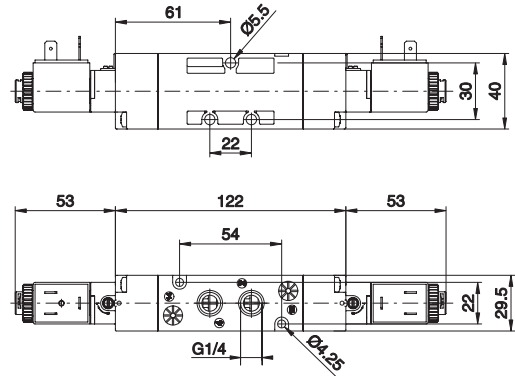


Weight gr. 270
Minimum operating pressure 2 bar

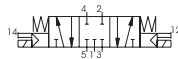
Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	\varnothing orifice size	Working port size	Pilot port size
		Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	1050 NI/min	mm 8,5	G 1/4"

Solenoid - Solenoid

Ordering code
T424.53.F.0.0.V
FUNCTION
F 31 = Closed centres
32 = Open centres
33 = Pressured centres
VOLTAGE
B04 = 12 V DC
B05 = 24 V DC
V B09 = 24 V DC (2 W)
B56 = 24 V 50-60 Hz
B57 = 110 V 50-60 Hz
B58 = 220 V 50-60 Hz



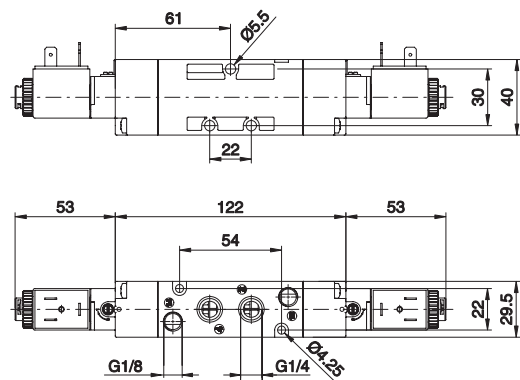
Weight gr. 295
Minimum operating pressure 3 bar



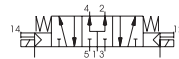
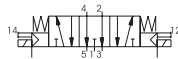
Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	Ø orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	900 NI/min	mm 8,5	G 1/4"

Solenoid - Solenoid (external)

Ordering code
T424.53.F.0.0.E.V
FUNCTION
F 31 = Closed centres
32 = Open centres
33 = Pressured centres
VOLTAGE
B04 = 12 V DC
B05 = 24 V DC
V 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. 295
Minimum operating pressure 2 bar



Operational characteristics	Fluid	Max working pressure	Operating temperature		Flow rate at 6 bar with $\Delta p=1$	Ø orifice size	Working port size	Pilot port size
	Filtered and lubricated air	10 bar	Min. -5°C	Max. +50°C	900 NI/min	mm 8,5	G 1/4"	G 1/8"

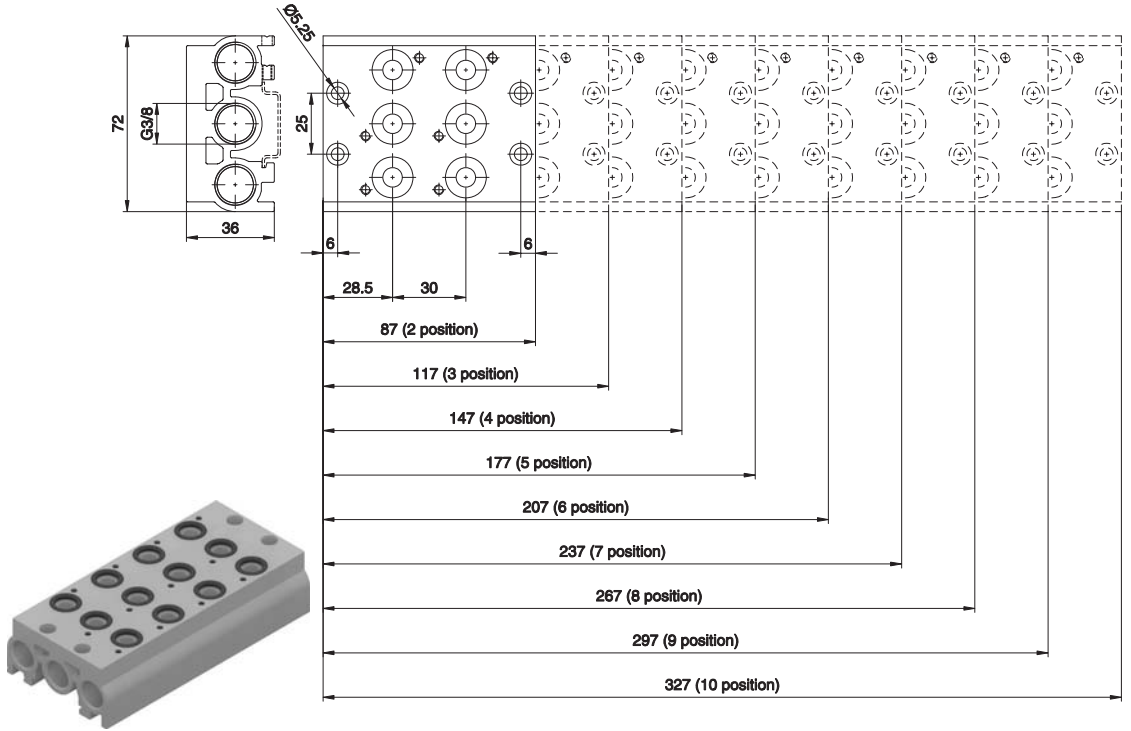
Manifold

Ordering code

T424.N

N. PORTS

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



Closing plate

Ordering code

T424.00

