



Series T400

General

The Series **T400** involves a wide range of valves and solenoid valves, with several type of acting, with connections from **G1/8" (T488)** and **G1/4" (T424)**, are manufactured with high performance technopolymer.

The use of technopolymer has resulted in a light weight product which can be offered to the market at very interesting prices.

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 Valves and Solenoid valves **G1/8" (T488)** are: 5 ways function, pneumatically operated, single solenoid (monostable) mechanical or pneumatic spring return, spring or pneumatic return, with 2 coils (bistable) and in 5 ways 3 positions version with closed, open and pressured centres.

The solenoid valves are supplied complete with coil (see Series 300) so that the tension has to be added to the solenoid valve code:

- M9** = Coil 24 V D.C. (rating power 2 watt)
- M11** = Coil 24 V D.C. (rating power 3.8 watt)
- M56** = Coil 24 V 50/60 HZ (starting power 9 VA, rating power 6 VA)
- M57** = Coil 110 V 50/60 HZ (starting power 9 VA, rating power 6 VA)
- M58** = Coil 220 V 50/60 HZ (starting power 9 VA, rating power 6 VA)

The Solenoid valves series **G1/4" (T424)**, are manufactured, depending on version and actuation (manual, pneumatic, or electrical), and self aligning (pneumatic - electric or spring) 3/2, 5/2 and 5/3 ways function, (monostable), (bistable).

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

- B04** = coil 12V D.C.
- B05** = coil 24V D.C.
- B09** = coil 24V (2W) D.C.
- B56** = coil 24V 50/60 Hz A.C.
- B57** = coil 110V 50/60 Hz A.C.
- B58** = coil 220V 50/60 Hz A.C.

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AIR DISTRIBUTION

Construction characteristics

Body	Technopolymer
Spacer	Technopolymer
Spacers	NBR
Piston seals	NBR
Springs	AISI 302 stainless steel
Operators	Technopolymer
Pistons	Technopolymer
Spools	Nickel - plated steel / Technopolymer

Maximum fitting torque

Thread	Maximum torque (Nm)
G 1/8"	4
G1/4"	9

Use and maintenance

This valves have an average life of 15 million cycles depending on the application and air quality.

Filtered and lubricated air using specified lubricants will 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.

The exhaust port of the distributor has to be protected in a dusty and dirty environment.

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).

Solenoid - Spring (Self-feeding)

Coding: T488.Ⓡ.0.1.Ⓟ

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (NI/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"
Response time according to ISO 12238, activation time (ms)	23,4 (3 ways) 22,8 (5 ways)
Response time according to ISO 12238, deactivation time (ms)	41,0 (3 ways) 44,5 (5 ways)

Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

TYPE	
Ⓡ	32 = 3 ways
	52 = 5 ways
VOLTAGE	
M9	= Solenoid - Spring (Self-feeding)
M11	= 24V D.C. (rating power 3,8W)
Ⓟ	M56 = 24V 50/60Hz (starting power 9VA, rating power 6VA)
	M57 = 110V 50/60Hz (starting power 9VA, rating power 6VA)
	M58 = 230V 50/60Hz (starting power 9VA, rating power 6VA)

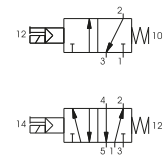
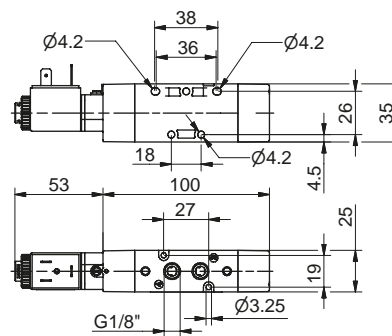
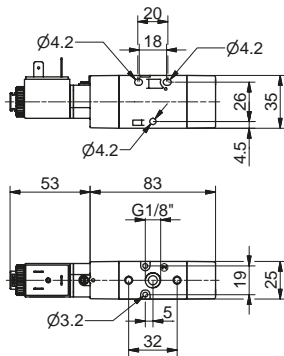


Weight 160 g
Minimum working pressure 2,5 bar

Weight 190 g
Minimum working pressure 2,5 bar

T488.32.0.1.Ⓟ

T488.52.0.1.Ⓟ



Solenoid - Spring (External-feeding)

Coding: T488.Ⓡ.0.1.E.Ⓟ

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (NI/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"
Response time according to ISO 12238, activation time (ms)	23,4 (3 ways) 22,8 (5 ways)
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Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

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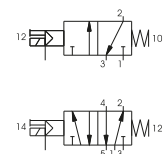
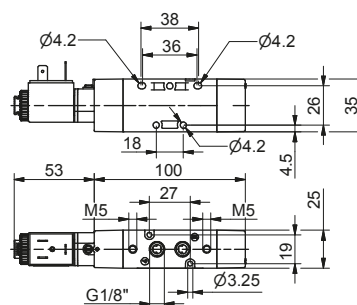
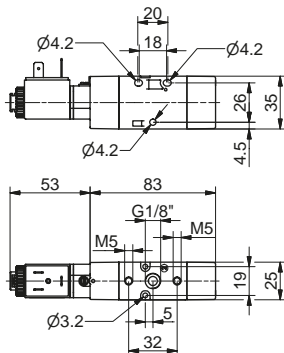


Weight 160 g
Minimum working pressure 2,5 bar

Weight 190 g
Minimum working pressure 2,5 bar

T488.32.0.1.E.Ⓟ

T488.52.0.1.E.Ⓟ



Solenoid - Differential (Self-feeding)

Coding: T488.0.12.V

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"
Response time according to ISO 12238, activation time (ms)	31,1 (3 ways) 27,9 (5 ways)
Response time according to ISO 12238, deactivation time (ms)	35,0 (3 ways) 34,5 (5 ways)

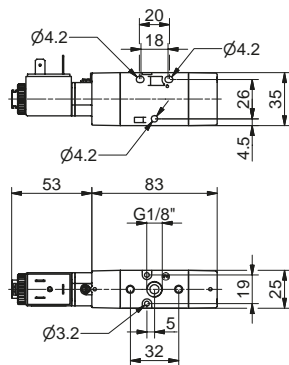
Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

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M9 = Solenoid - Spring (Self-feeding)	
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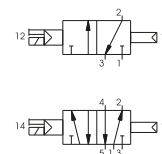
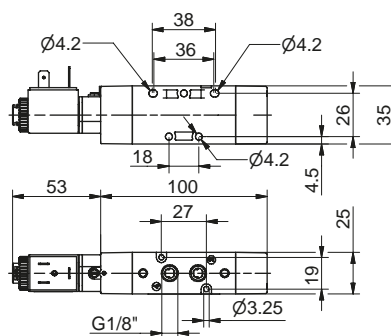
Weight 160 g
Minimum working pressure 2,5 bar

T488.32.0.12.V



Weight 190 g
Minimum working pressure 2,5 bar

T488.52.0.12.V



Solenoid - Differential (External-feeding)

Coding: T488.0.12E.V

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"
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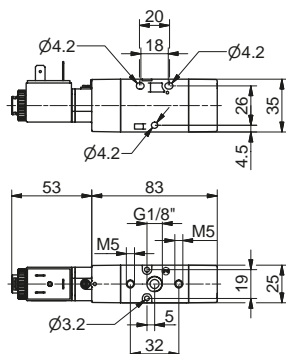
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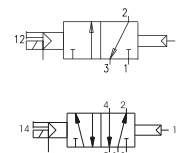
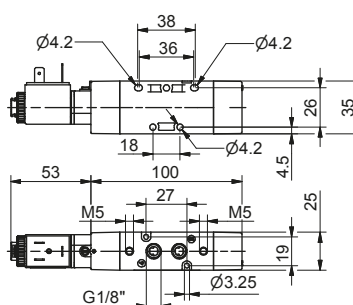
Weight 160 g
Minimum working pressure 2,5 bar

T488.32.0.12E.V



Weight 190 g
Minimum working pressure 2,5 bar

T488.52.0.12E.V



Solenoid - Solenoid (Self-feeding)

Coding: T488.Ⓡ.0.0.Ⓥ

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (NI/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"
Response time according to ISO 12238, activation time (ms)	18,8 (3 ways) 18,0 (5 ways)
Response time according to ISO 12238, deactivation time (ms)	18,0 (3 ways) 19,1 (5 ways)

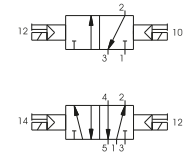
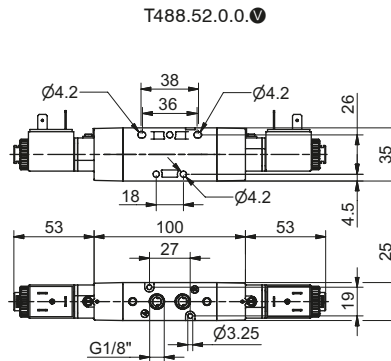
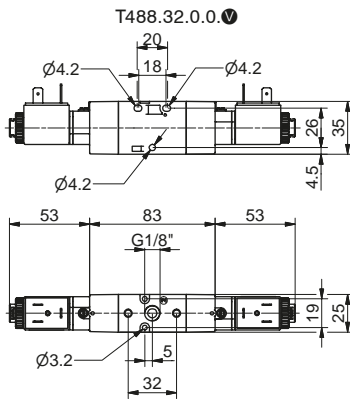
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	M58 = 230V 50/60Hz (starting power 9VA, rating power 6VA)



Weight 250 g
Minimum working pressure 2 bar

Weight 290 g
Minimum working pressure 2 bar



Solenoid - Solenoid (External-feeding)

Coding: T488.Ⓡ.0.0.E.Ⓥ

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (NI/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"
Response time according to ISO 12238, activation time (ms)	18,8 (3 ways) 18,0 (5 ways)
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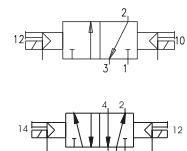
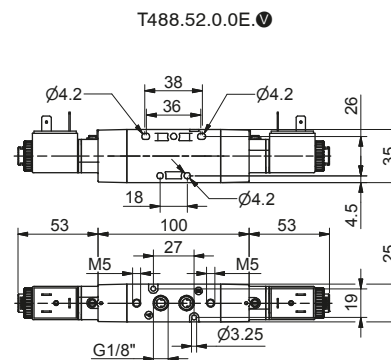
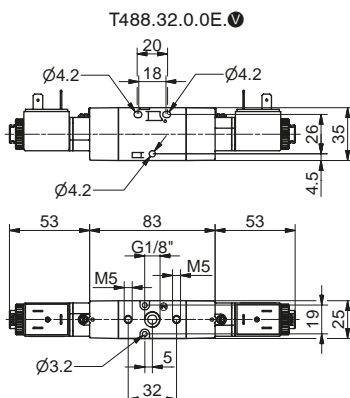
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Weight 250 g
Minimum working pressure 2 bar

Weight 290 g
Minimum working pressure 2 bar



Solenoid - Solenoid 5 ways 3 connections (Self-feeding)

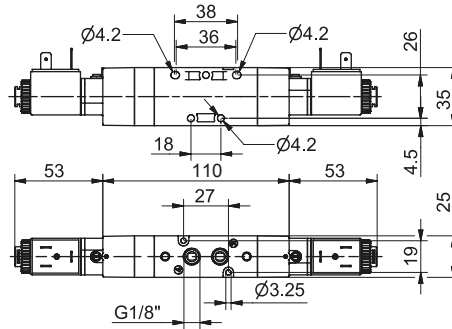
Coding: T488.53.F.0.0.V

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (NI/min)	410
Orifice size (mm)	6
Working ports size	G 1/8"
Response time according to ISO 12238, activation time (ms)	21,3 (closed centres) 21,5 (open centres) 19,5 (pressured centres)
Response time according to ISO 12238, deactivation time (ms)	37,0 (closed centres) 34,5 (open centres) 37,3 (pressured centres)

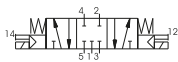
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FUNCTION	
F	31 = Closed centres 32 = Open centres 33 = Pressured centres
VOLTAGE	
M9	= Solenoid - Spring (Self-feeding)
M11	= 24V D.C. (rating power 3,8W)
V	M56 = 24V 50/60Hz (starting power 9VA, rating power 6VA)
	M57 = 110 V 50/60Hz (starting power 9VA, rating power 6VA)
	M58 = 230V 50/60Hz (starting power 9VA, rating power 6VA)

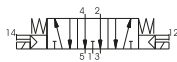
Minimum working pressure 3 bar
Weight 330 g



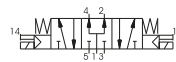
T488.53.31.0.0.V



T488.53.32.0.0.V



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Solenoid - Solenoid 5/3 (External-feeding)

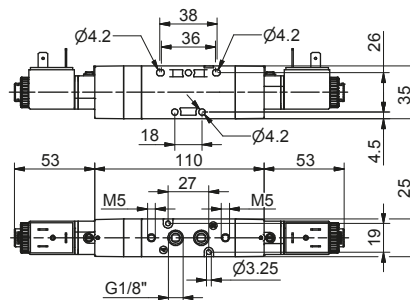
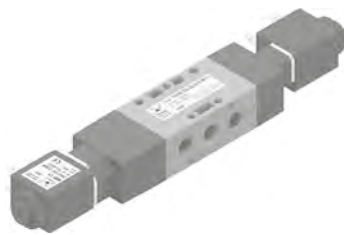
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Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +50
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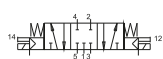
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VOLTAGE	
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Minimum working pressure 3 bar
Weight 330 g



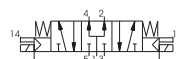
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T488.53.32.0.0.E.V



T488.53.33.0.0.E.V



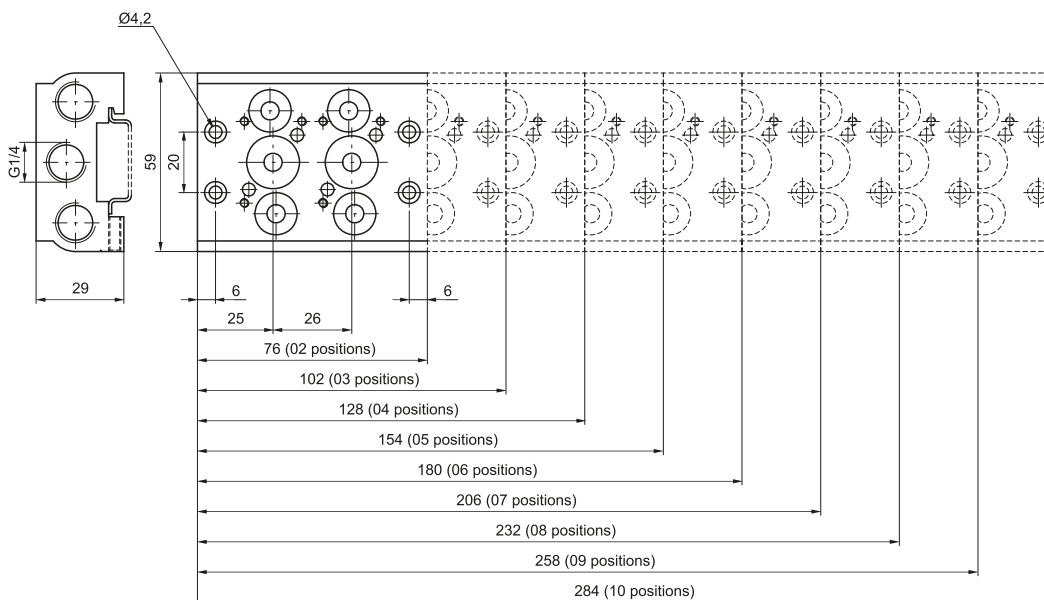


Collectors

Coding: T488.Ⓟ

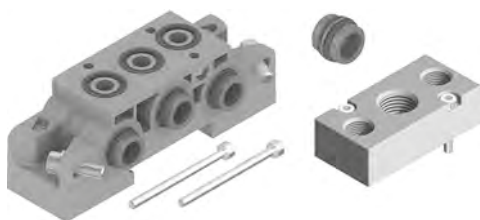


N. POSITIONS	
02	= 2 positions (220 g)
03	= 3 positions (290 g)
04	= 4 positions (360 g)
Ⓟ	05 = 5 positions (430 g)
06	= 6 positions (500 g)
07	= 7 positions (570 g)
08	= 8 positions (640 g)
09	= 9 positions (710 g)
10	= 10 positions (780 g)



Modular base

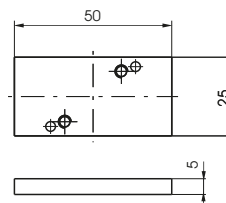
Coding: T488.Ⓜ



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	= OR (50 pz)

Closing plate

Coding: T488.00



weight 25

AIR DISTRIBUTION