Series T400

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 technopolimer.
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 (rating power 9 VA)
M57 = coil 110 V 50/60 Hz (rating power 9 VA)
M58 = coil 230 V 50/60 Hz (rating power 9 VA)

The Solenoid valves **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 12 V D.C.
B05 = coil 24 V D.C.
B09 = coil 24 V (2W) D.C.
B56 = coil 24 V 50/60 Hz
B57 = coil 110 V 50/60 Hz
B58 = coil 230 V 50/60 Hz

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

Construction characteristics

Body	Technopolymer
Spacers	Technopolymer
Seals	NBR
Pistons seal	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.

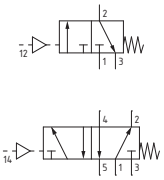
ATTENTION: use hydraulic oil class H for lubrication such as CASTROL MAGNA SW32.

Pneumatic - Spring

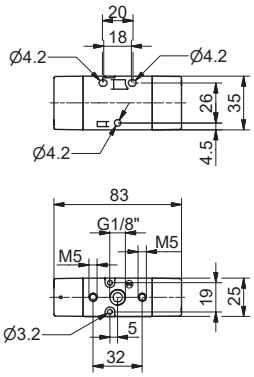
Coding: T488.Ⓣ.11.1

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 (Nl/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions



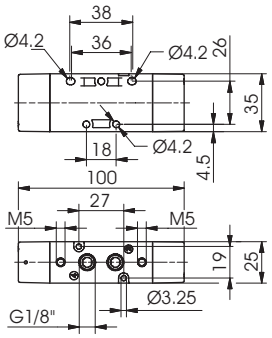
3/2 ways



Weight 69 g
Minimum working pressure 2,5 bar

T488.32.11.1

5/2 ways



Weight 83 g
Minimum working pressure 2,5 bar

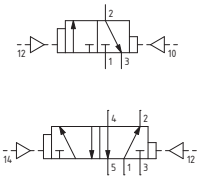
T488.52.11.1

Pneumatic-Differential

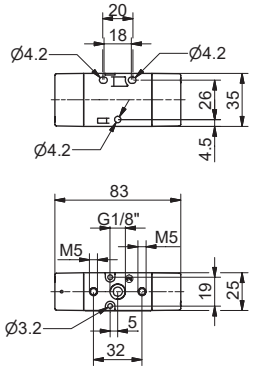
Coding: T488.Ⓣ.11.12

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 (Nl/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions



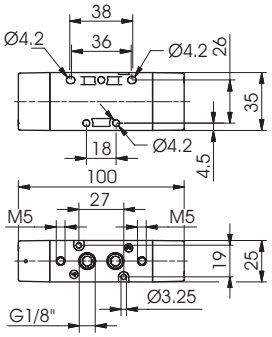
3/2 ways



Weight 69 g

T488.32.11.12

5/2 ways



Weight 83 g

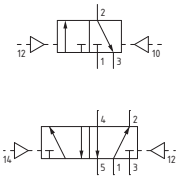
T488.52.11.12

Pneumatic - Pneumatic

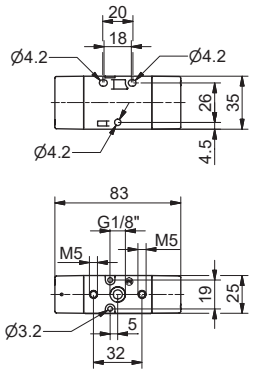
Coding: T488.Ⓣ.11.11

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 (Nl/min)	620
Orifice size (mm)	6
Working ports size	G 1/8"

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions



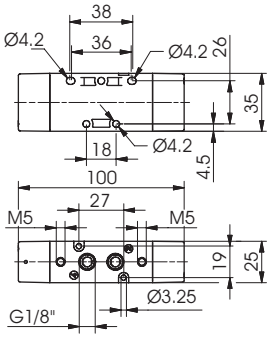
3/2 ways



Weight 68 g
Minimum working pressure 2 bar

T488.32.11.11

5/2 ways



Weight 83 g
Minimum working pressure 2 bar

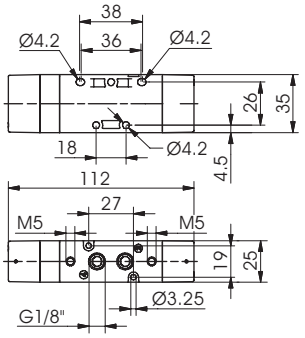
T488.52.11.11

Pneumatic-Pneumatic 5/3

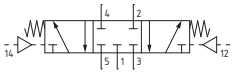
Coding: T488.53.Ⓕ.11.11

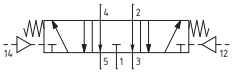
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	-5 ... +50
Flow rate at 6 bar with Δp=1 (Nl/min)	410
Orifice size (mm)	6
Working ports size	G 1/8"

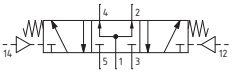
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres



Weight 140 g
Minimum working pressure 3 bar







Solenoid-Spring (Self feeding)

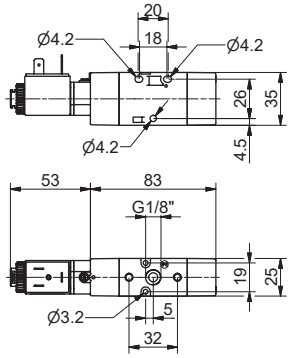
Coding: T488.Ⓣ.0.1.Ⓥ

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 (Nl/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)

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	VOLTAGE
	M9 = 24 V D.C.
	M11 = 24 V D.C.
	M56 = 24 V 50/60 Hz
	M57 = 110 V 50/60 Hz
	M58 = 230 V 50/60 Hz

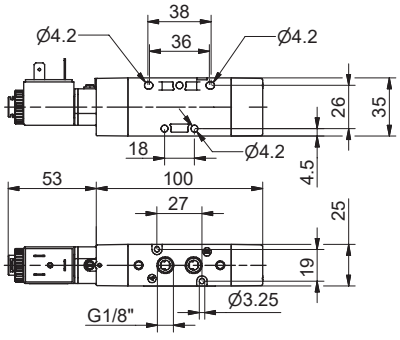
Weight 160 g
Minimum working pressure 2,5 bar

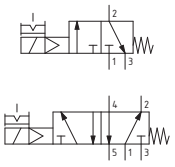
T488.32.0.1.Ⓥ



Weight 190 g
Minimum working pressure 2,5 bar

T488.52.0.1.Ⓥ





Solenoid-Spring (External feeding)

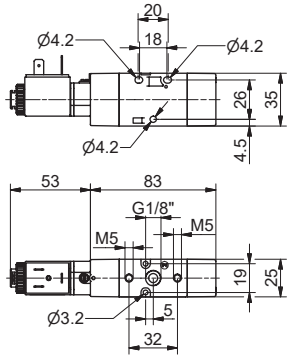
Coding: T488.Ⓣ.0.1E.Ⓥ

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 (Nl/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)

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	VOLTAGE
	M9 = 24 V D.C.
	M11 = 24 V D.C.
	M56 = 24 V 50/60 Hz
	M57 = 110 V 50/60 Hz
	M58 = 230 V 50/60 Hz

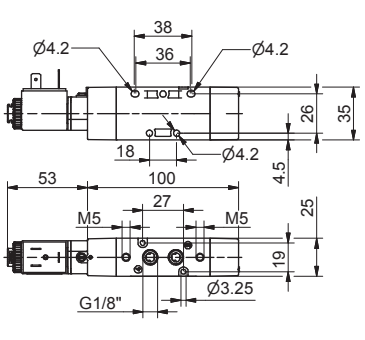
Weight 160 g
Minimum working pressure 2,5 bar

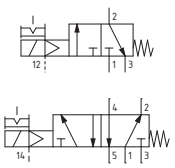
T488.32.0.1E.Ⓥ



Weight 190 g
Minimum working pressure 2,5 bar

T488.52.0.1E.Ⓥ





Solenoid-Differential (Self feeding)

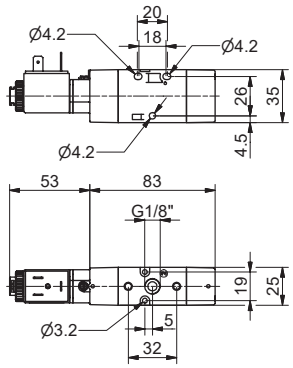
Coding: T488.Ⓣ.0.12.Ⓥ

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 (Nl/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)

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	VOLTAGE
	M9 = 24 V D.C.
	M11 = 24 V D.C.
	M56 = 24 V 50/60 Hz
	M57 = 110 V 50/60 Hz
	M58 = 230 V 50/60 Hz

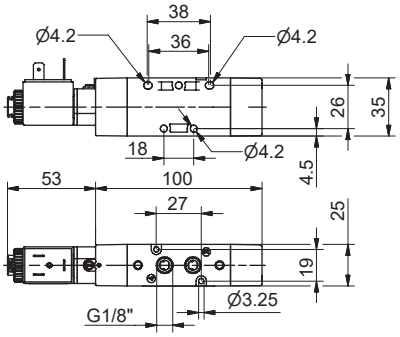
Weight 160 g
Minimum working pressure 2,5 bar

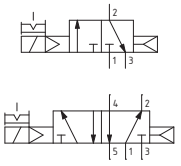
T488.32.0.12.Ⓥ



Weight 190 g
Minimum working pressure 2,5 bar

T488.52.0.12.Ⓥ





Solenoid-Differential (External feeding)

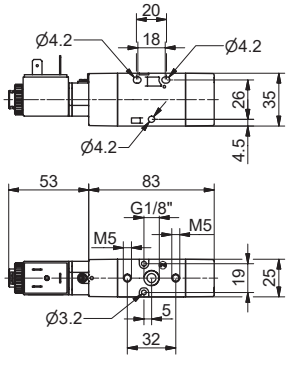
Coding: T488.Ⓣ.0.12E.Ⓥ

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 (Nl/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)

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	VOLTAGE
	M9 = 24 V D.C.
	M11 = 24 V D.C.
	M56 = 24 V 50/60 Hz
	M57 = 110 V 50/60 Hz
	M58 = 230 V 50/60 Hz

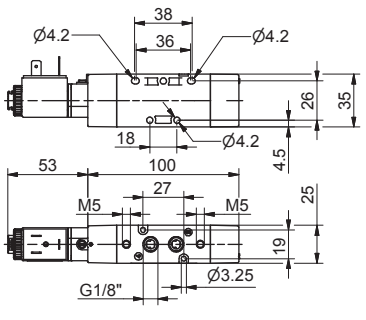
Weight 160 g
Minimum working pressure 2,5 bar

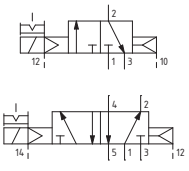
T488.32.0.12E.Ⓥ



Weight 190 g
Minimum working pressure 2,5 bar

T488.52.0.12E.Ⓥ





Solenoid-Solenoid (Self feeding)

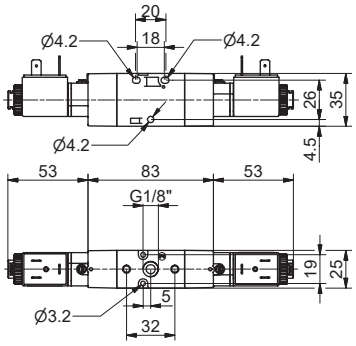
Coding: T488.Ⓣ.0.0.Ⓥ

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 (Nl/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)

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	VOLTAGE
	M9 = 24 V D.C.
	M11 = 24 V D.C.
	M56 = 24 V 50/60 Hz
	M57 = 110 V 50/60 Hz
	M58 = 230 V 50/60 Hz

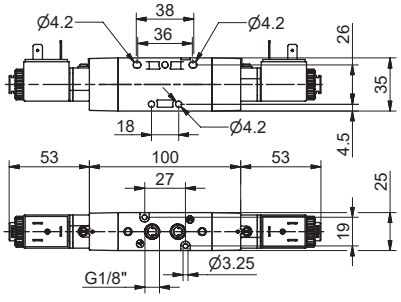
Weight 250 g
Minimum working pressure 2 bar

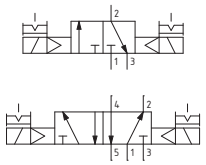
T488.32.0.0.Ⓥ



Weight 290 g
Minimum working pressure 2 bar

T488.52.0.0.Ⓥ





Solenoid-Solenoid (External feeding)

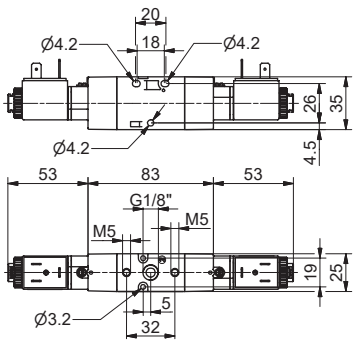
Coding: T488.Ⓣ.0.0E.Ⓥ

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 (Nl/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)

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	VOLTAGE
	M9 = 24 V D.C.
	M11 = 24 V D.C.
	M56 = 24 V 50/60 Hz
	M57 = 110 V 50/60 Hz
	M58 = 230 V 50/60 Hz

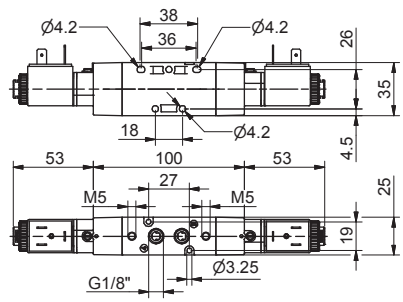
Weight 250 g
Minimum working pressure 2 bar

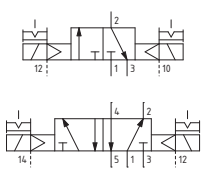
T488.32.0.0E.Ⓥ



Weight 290 g
Minimum working pressure 2 bar

T488.52.0.0E.Ⓥ





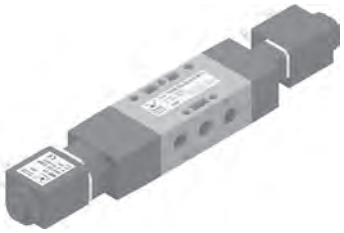
Solenoid-Solenoid 5/3 (Self feeding)

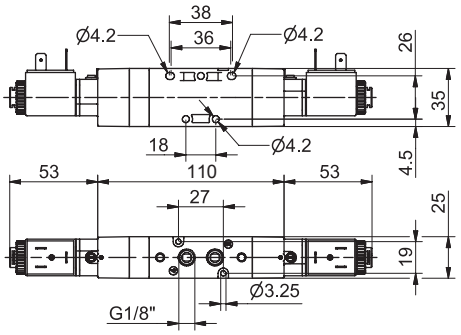
Coding: T488.53.Ⓕ.0.0.Ⓥ

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 (Nl/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)

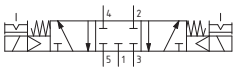
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres
Ⓥ	VOLTAGE
	M9 = 24 V D.C.
	M11 = 24 V D.C.
	M56 = 24 V 50/60 Hz
	M57 = 110 V 50/60 Hz
	M58 = 230 V 50/60 Hz

Minimum working pressure 3 bar
Weight 330 g

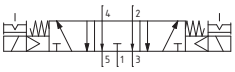




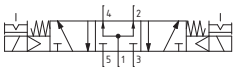
T488.53.31.0.0.Ⓥ



T488.53.32.0.0.Ⓥ



T488.53.33.0.0.Ⓥ



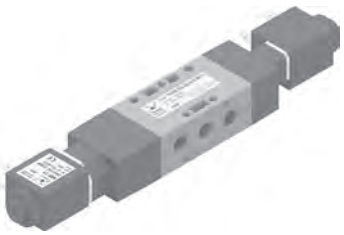
Solenoid-Solenoid 5/3 (External feeding)

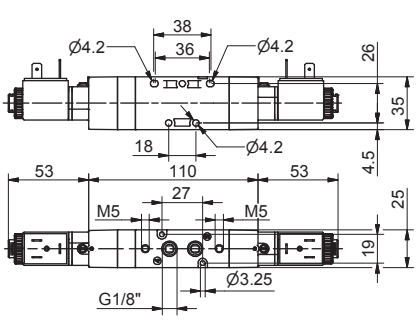
Coding: T488.53.Ⓕ.0.0E.Ⓥ

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 (Nl/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)

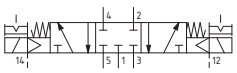
Ⓕ	FUNCTION
	31 = Closed centres
	32 = Open centres
	33 = Pressured centres
Ⓥ	VOLTAGE
	M9 = 24 V D.C.
	M11 = 24 V D.C.
	M56 = 24 V 50/60 Hz
	M57 = 110 V 50/60 Hz
	M58 = 230 V 50/60 Hz

Minimum working pressure 3 bar
Weight 330 g

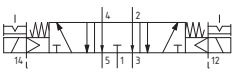




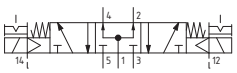
T488.53.31.0.0E.Ⓥ



T488.53.32.0.0E.Ⓥ



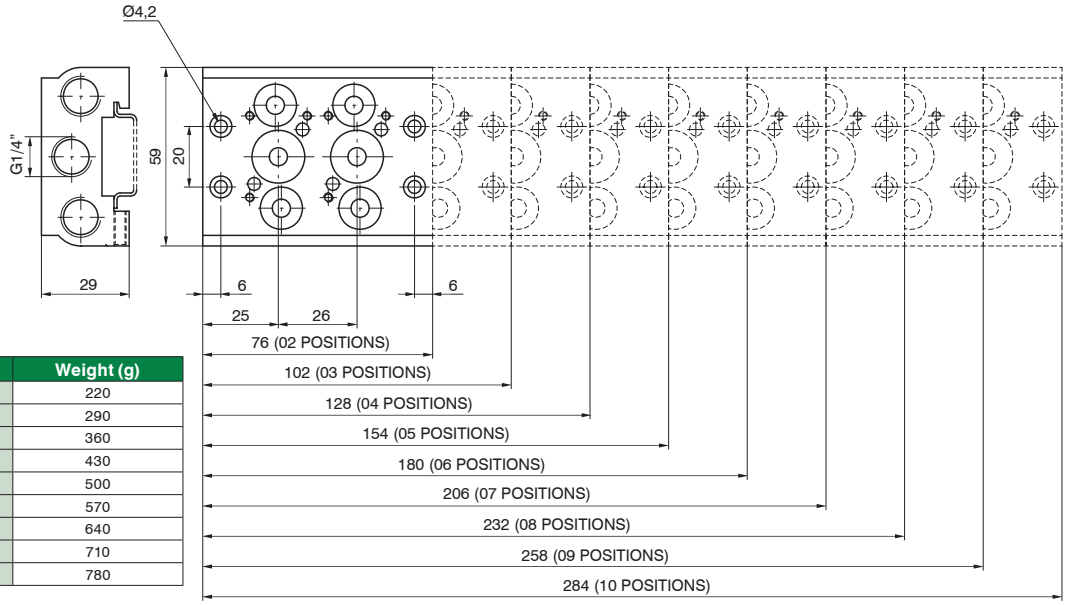
T488.53.33.0.0E.Ⓥ



Collectors

Coding: T488.Ⓝ

Ⓝ	NO. POSITIONS
	02 = 2 positions
	03 = 3 positions
	04 = 4 positions
	05 = 5 positions
	06 = 6 positions
	07 = 7 positions
	08 = 8 positions
	09 = 9 positions
	10 = 10 positions



No. positions	Weight (g)
02	220
03	290
04	360
05	430
06	500
07	570
08	640
09	710
10	780

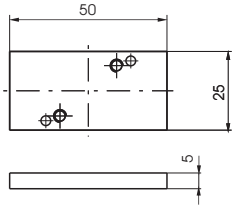
Modular base

Coding: T488.Ⓣ

Ⓣ	TYPE
	01 = Single complete base
	01K = Complete modular bases (batches of 20 pieces)
	30K = Hollow bush, complete with O-rings (No. 50 pieces)
	31K = Blank bush, complete with O-rings (No. 50 pieces)
	32K = Intermediate air intake with screw (No. 5 pieces)
	33 = Screw to suite solenoid valves (No. 50 pieces)
	34 = Screw for joning bases (No. 50 pieces)
	35 = Washer for screw for joning bases (No. 50 pieces)
	36 = OR (No. 50 pieces)

Closing plate

Coding: T488.00



Weight 25 g

Solenoid-Spring (Self feeding)

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 (Nl/min)	1050
Orifice size (mm)	8.5
Working ports size	G 1/4"

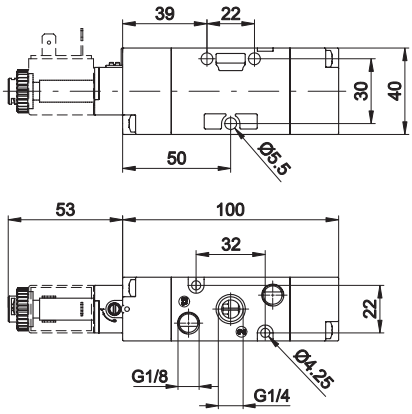
Coding: T424.Ⓣ.0.1.Ⓥ

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	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 = 230 V 50-60 Hz

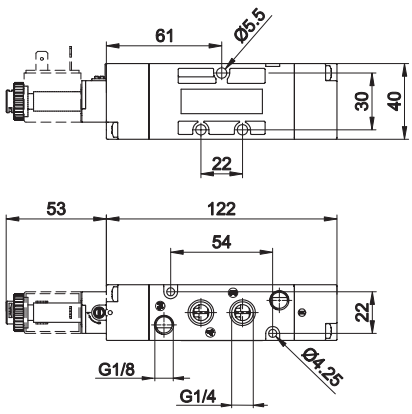
Weight 205 g
Minimum pilot pressure 2,5 bar

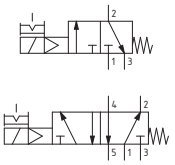
Weight 235 g
Minimum pilot pressure 2,5 bar

T424.32.0.1.Ⓥ



T424.52.0.1.Ⓥ





Solenoid-Spring (External feeding)

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 (Nl/min)	1050
Orifice size (mm)	8.5
Working ports size	G 1/4"
Pilot ports size	G 1/8"

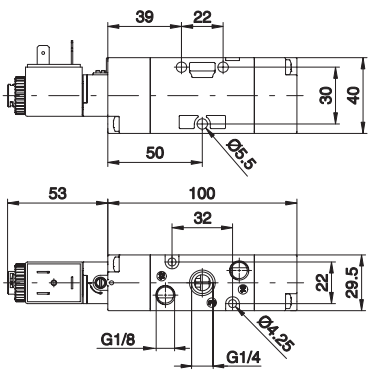
Coding: T424.Ⓣ.0.1.E.Ⓥ

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	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 = 230 V 50-60 Hz

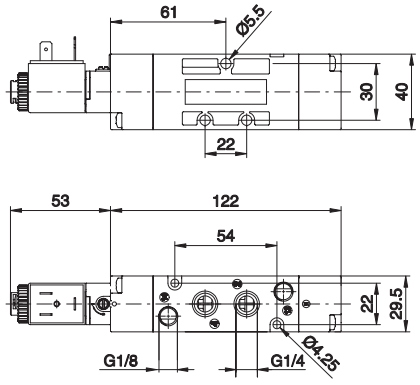
Weight 205 g
Minimum pilot pressure 2,5 bar

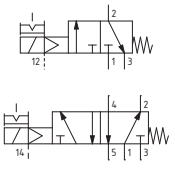
Weight 235 g
Minimum pilot pressure 2,5 bar

T424.32.0.1.E.Ⓥ



T424.52.0.1.E.Ⓥ





Solenoid-Differential (Self feeding)

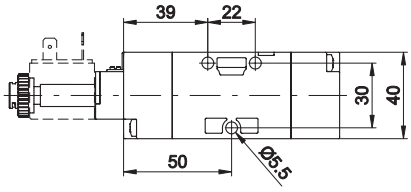
Coding: T424.Ⓣ.0.12.Ⓥ

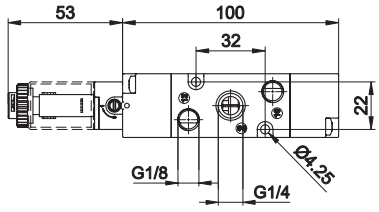
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	-5 ... +50
Flow rate at 6 bar with Δp=1 (Nl/min)	1050
Orifice size (mm)	8.5
Working ports size	G 1/4"

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	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 = 230 V 50-60 Hz

Weight 205 g
Minimum pilot pressure 2 bar

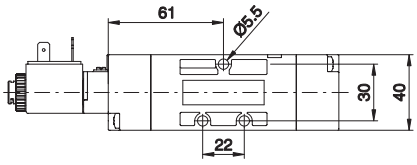
T424.32.0.12.Ⓥ

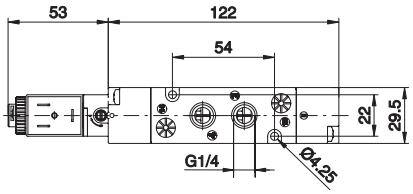


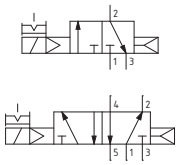


Weight 235 g
Minimum pilot pressure 2 bar

T424.52.0.12.Ⓥ







Solenoid-Differential (External feeding)

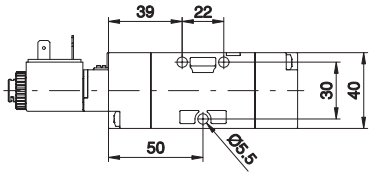
Coding: T424.Ⓣ.0.12.E.Ⓥ

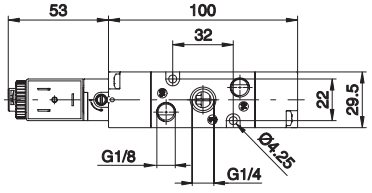
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	-5 ... +50
Flow rate at 6 bar with Δp=1 (Nl/min)	1050
Orifice size (mm)	8.5
Working ports size	G 1/4"
Pilot ports size	G 1/8"

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	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 = 230 V 50-60 Hz

Weight 205 g
Minimum pilot pressure 2 bar

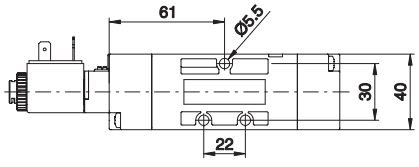
T424.32.0.12.E.Ⓥ

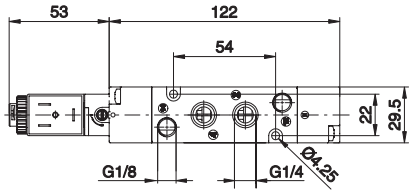


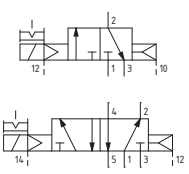


Weight 235 g
Minimum pilot pressure 2 bar

T424.52.0.12.E.Ⓥ







Solenoid-Solenoid (Self feeding)

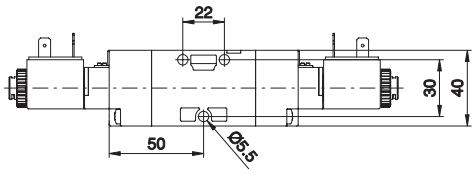
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	-5 ... +50
Flow rate at 6 bar with Δp=1 (Nl/min)	1050
Orifice size (mm)	8.5
Working ports size	G 1/4"

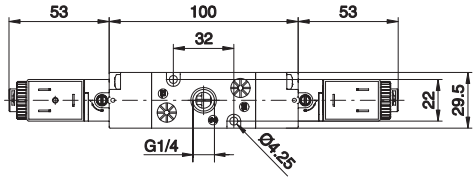
Coding: T424.Ⓣ.0.0.Ⓥ

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	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 = 230 V 50-60 Hz

Weight 240 g
Minimum pilot pressure 2 bar

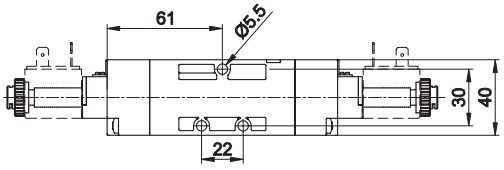
T424.32.0.0.Ⓥ

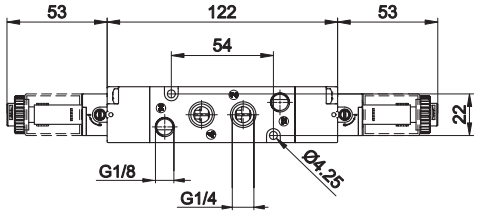


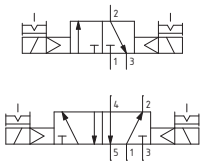


Weight 270 g
Minimum pilot pressure 2 bar

T424.52.0.0.Ⓥ







Solenoid-Solenoid (External feeding)

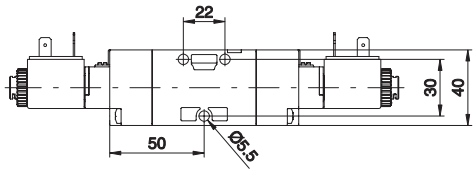
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	-5 ... +50
Flow rate at 6 bar with Δp=1 (Nl/min)	1050
Orifice size (mm)	8.5
Working ports size	G 1/4"
Pilot ports size	G 1/8"

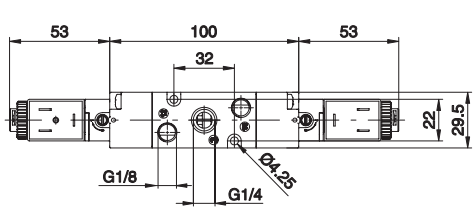
Coding: T424.Ⓣ.0.0.E.Ⓥ

Ⓣ	TYPE
	32 = 3 ways, 2 positions
	52 = 5 ways, 2 positions
Ⓥ	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 = 230 V 50-60 Hz

Weight 240 g
Minimum pilot pressure 2 bar

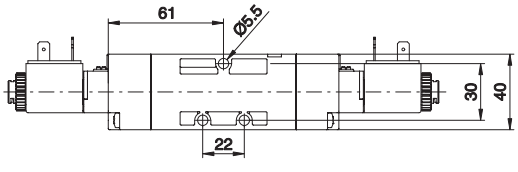
T424.32.0.0.E.Ⓥ

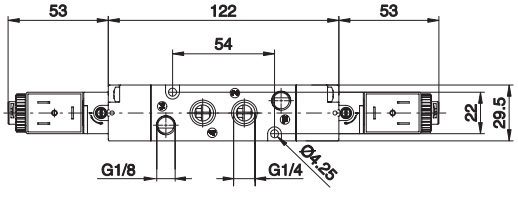


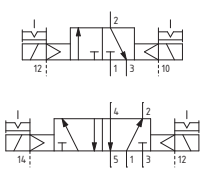


Weight 270 g
Minimum pilot pressure 2 bar

T424.52.0.0.E.Ⓥ







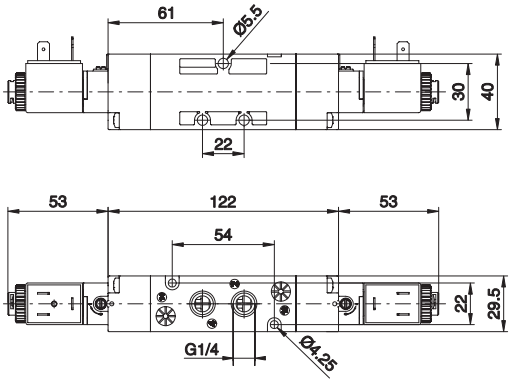
Solenoid-Solenoid (Self feeding)

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 (Nl/min)	900
Orifice size (mm)	8.5
Working ports size	G 1/4"

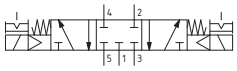
Coding: T424.53.Ⓕ.0.0.Ⓥ

Ⓕ	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 = 230 V 50-60 Hz

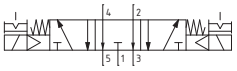
Weight 295 g
Minimum pilot pressure 3 bar



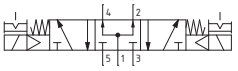
T424.53.31.0.0.Ⓥ



T424.53.32.0.0.Ⓥ



T424.53.33.0.0.Ⓥ



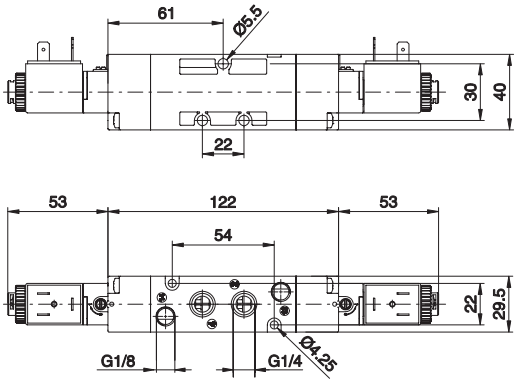
Solenoid-Solenoid (External feeding)

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 (Nl/min)	900
Orifice size (mm)	8.5
Working ports size	G 1/4"
Pilot ports size	G 1/8"

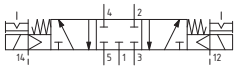
Coding: T424.53.Ⓕ.0.0.E.Ⓥ

Ⓕ	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 = 230 V 50-60 Hz

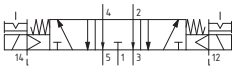
Weight 295 g
Minimum pilot pressure 3 bar



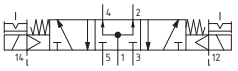
T424.53.31.0.0.E.Ⓥ



T424.53.32.0.0.E.Ⓥ



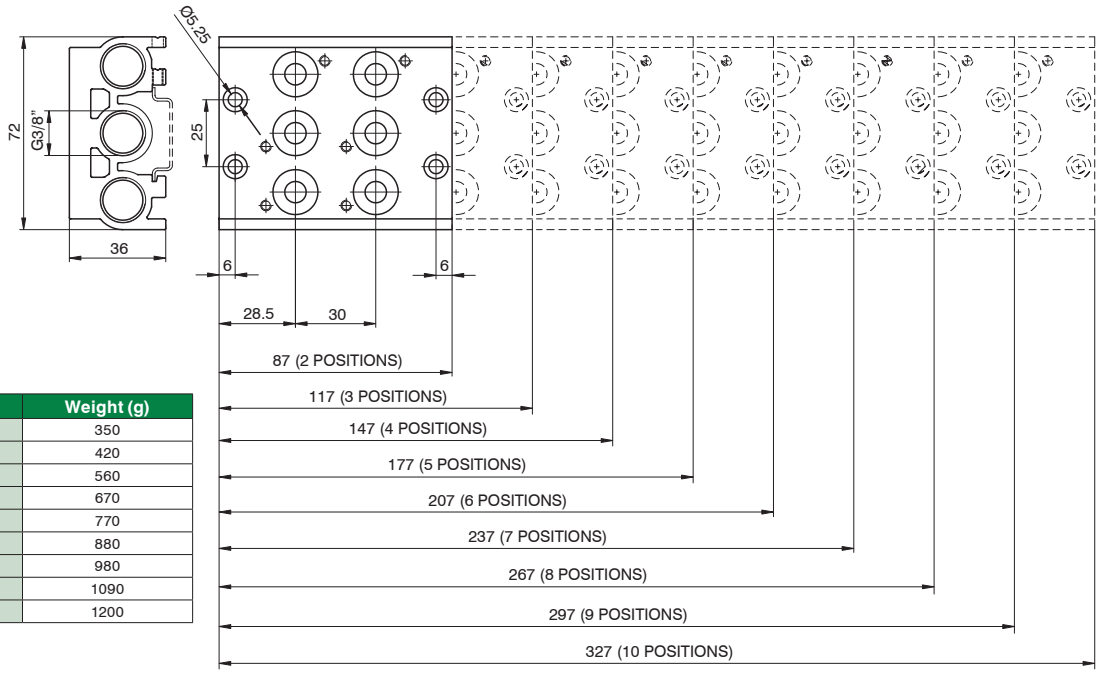
T424.53.33.0.0.E.Ⓥ



Collectors

Coding: T424.Ⓝ

Ⓝ	NO. POSITIONS
	02 = 2 positions
	03 = 3 positions
	04 = 4 positions
	05 = 5 positions
	06 = 6 positions
	07 = 7 positions
	08 = 8 positions
	09 = 9 positions
	10 = 10 positions



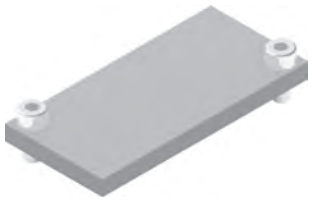
No. positions	Weight (g)
02	350
03	420
04	560
05	670
06	770
07	880
08	980
09	1090
10	1200

Modular base

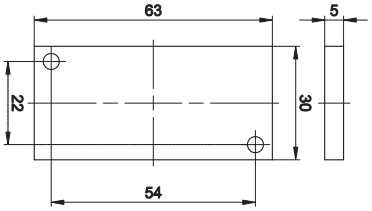
Coding: T424.Ⓣ

Ⓣ	TYPE
	01 = Single complete base
	01K = Complete modular bases (batches of 15 pieces)
	30K = Hollow bush, complete with O-rings (No. 50 pieces)
	31K = Blank bush, complete with O-rings (No. 50 pieces)
	32K = Intermediate air intake with screw (No. 5 pieces)
	33 = Screw to suite solenoid valves (No. 50 pieces)
	34 = Screw for joning bases (No. 50 pieces)
	35 = Washer for screw for joning bases (No. 50 pieces)
	36 = OR (No. 50 pieces)

Closing plate



Coding: T424.00



Weight 25 g