

General

This new range of G1" pilot and solenoid operated poppet valves represents an evolution of the current popular Zama series and of the series T772-T773 (G1/2" - 3/4").

Also for this series the main feature is the technopolymer material used to mould most of its components. The use of this material results in a versatile, lightweight and economical valve.

The new series also has other technical and functional enhancements over the existing range. Firstly, the traditional piston lip seal has been replaced with a rolling diaphragm, thereby eliminating frictional wear and tear to this seal. The new series (with the exception of certain vacuum models) also features a seal, which separates port 3 from the piston head. The inclusion of this seal has enhanced the valve's performance and allows the valve to be used as normally open (a configuration not possible in the Zama series).

Solenoid operated valves (both internal and external pilot versions) are fitted with a quick exhaust unit, which reduces the return stroke operating time by 80%. The bulk of the valves in this series use the MP type operator, the exception being internally piloted vacuum models, which use the MV operator. These operators differ from the M2 type in that they have self-tapping mounting screws for use in plastics.

Bistable versions are also available, both for air or for vacuum. These valves are fitted with a 3/2 sol-sol valve (instead of the standard pilot valve) fitted with two 15mm 24V Dc microvalves (N331.0A). Ordering codes refer to solenoid valves with MP or MV assembled on them.

Coils are not included and have to be ordered separately (series 300, Section 1, General Catalogue), with the exception of the bistable versions which already include 24V Dc Coils (N331.0A).

Coils US homologated are also available. (series 300).

Construction characteristics

body, operator and end cover	High resistance technopolymer
seals and poppets	NBR
piston and shaft	acetylic resin
springs	AISI 302 stainless steel
diaphragm	NBR

Use and maintenance

Under correct working conditions the average life of this series of valves is 10 - 15 million cycles. Lubrication is not required but correct air filtration is recommended.

It is also important to ensure that the application parameters are in line with those indicated in the technical specification of this product: pressure, temperature....

The valves, thanks to their construction design, do not require maintenance involving replacement of parts; when necessary it is possible to carefully clean and remove any dirt that might have accumulated internally.

When using the internal pilot version, both for air or vacuum, it is necessary to ensure that the downstream flow rate is lower than the inlet flow rate. Should the flow requirement match or exceed the inlet flow rate the pressure / vacuum inside the valve would drop below the minimum value necessary to actuate the pilot valve. This is a normal scenario on poppet valves as without pilot, not having a closed centre position, the valve would exhaust from port 3.

For applications where downstream flow rate requirements can match or exceed inlet flow rate use externally piloted valves.

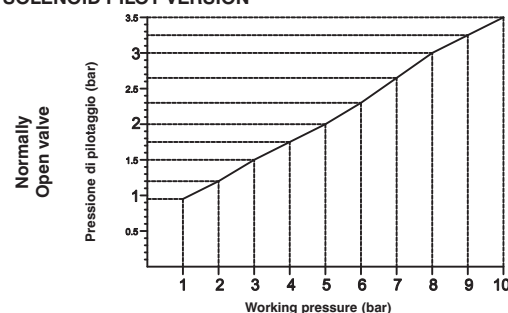
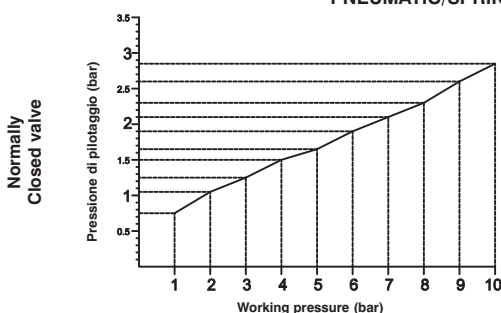
Air valve port layout:

- Normally closed: 1 = LINE IN
2 = CONSUMPTION
3 = EXHAUST
- Normally open: 1 = EXHAUST
2 = CONSUMPTION
3 = LINE IN

Vacuum valve port layout:

- Normally closed internal pilot 1 = EXHAUST
- Normally open (servoassisted) external pilot 2 = CONSUMPTION
3 = PUMP
- Normally open internal pilot 1 = PUMP
- Normally closed (servoassisted) external pilot 2 = CONSUMPTION
3 = EXHAUST

MINIMUM WORKING PRESSURE DIAGRAM
PNEUMATIC/SRING AND EXTERNAL SOLENOID PILOT VERSION



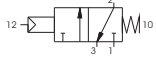
Valve
Pneumatic spring

3/2

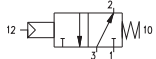
Ordering code

T771.32.11.1

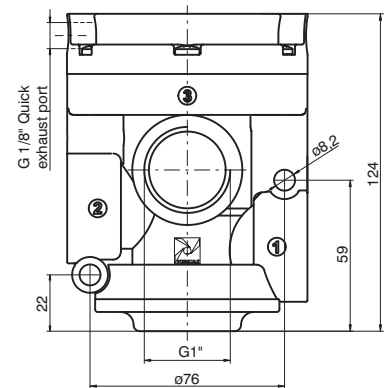
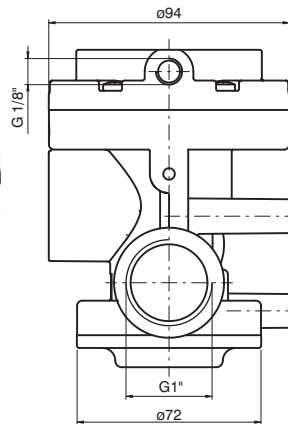
Normally closed



Normally open



Weight gr. 480



Minimum working pressure: see diagram at General page

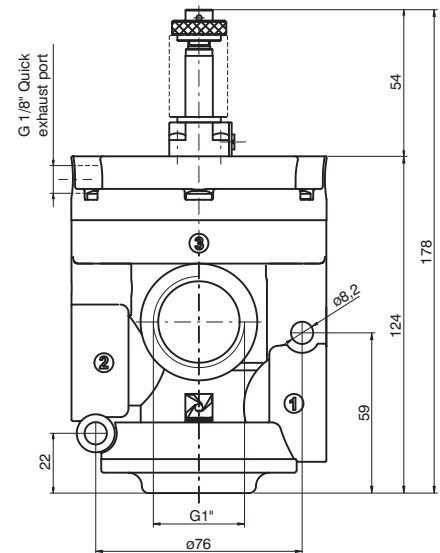
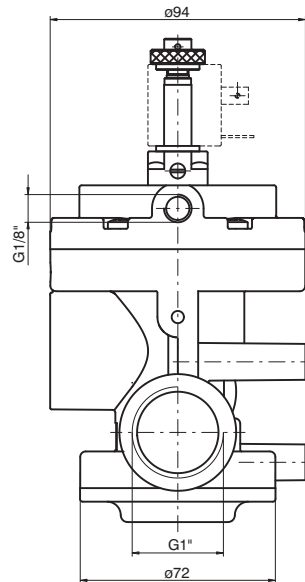
2

Solenoid valve
Solenoid spring

3/2



Weight gr. 520



Ordering code

	<i>Internal pilot</i>	<i>Servoassisted external pilot</i>	<i>Internal pilot with quick exhaust</i>	<i>Servoassisted external pilot with quick exhaust</i>			
	<p>T771.32.0.1AC.MP <i>Normally closed</i></p> <p>T771.32.0.1AA.MP <i>Normally open</i></p> <p>Minimum working pressure: 2,5 bar</p>	<p>T771.32.0.1.MP <i>Normally closed</i></p> <p><i>Normally open</i></p> <p>Minimum working pressure: see diagram at General page</p>	<p>T771S.32.0.1AC.MP <i>Normally closed</i></p> <p>T771S.32.0.1AA.MP <i>Normally open</i></p> <p>Minimum working pressure: 2,5 bar</p>	<p>T771S.32.0.1.MP <i>Normally closed</i></p> <p><i>Normally open</i></p> <p>Minimum working pressure: see diagram at General page</p>			
Operational characteristics	Fluid	Max working pressure	Operating temperature min. max.	Flow rate at 6 bar with Δp = 1 bar	Orifice size	Working port size	Pilot ports size
	Filtered and lubricated or non lubricated air	10 bar	-5° C +50° C	12.000 NI/min	mm 25	G 1"	G 1/8"

3/2

**Valve
Pneumatic spring**

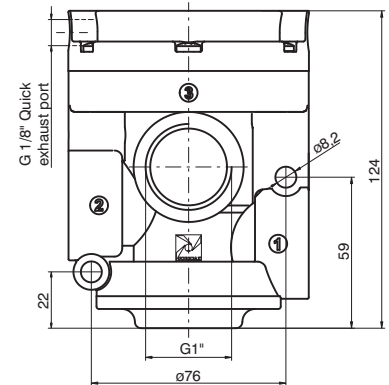
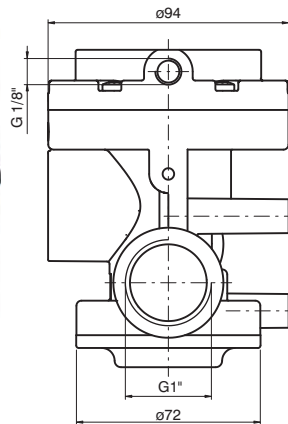
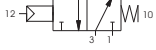
Ordering code

T771/V.32.11.1

Normally open



Normally closed

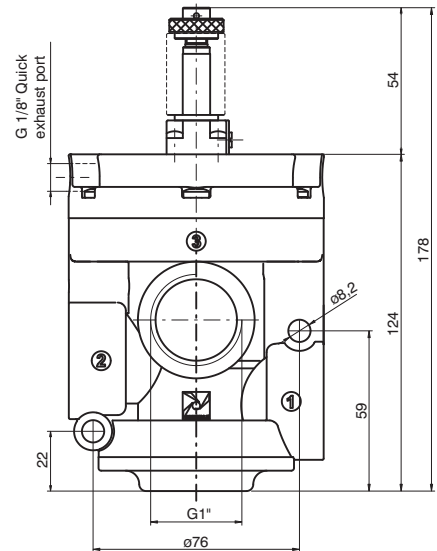
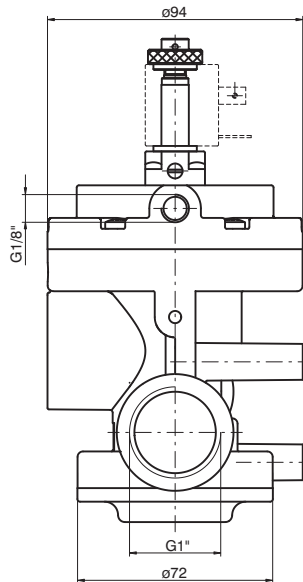


Weight gr. 480

Minimum working pressure: see diagram at General page

**Solenoid valve
Solenoid spring**

3/2



Weight gr. 520

Ordering code

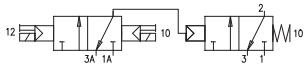
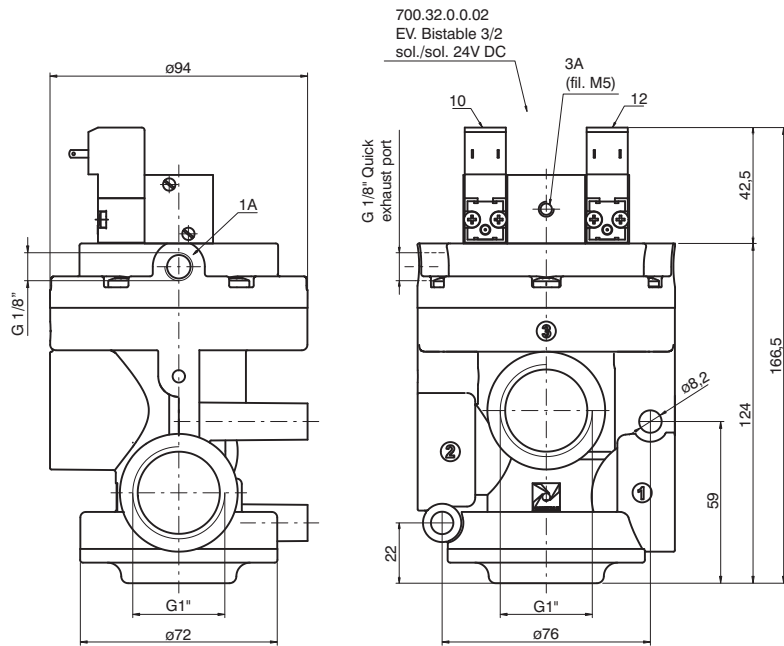
Internal pilot	Servoassisted external pilot	Servoassisted external pilot with quick exhaust
<p>T771/V.32.0.1AA.MV <i>Normally open</i></p>	<p>T771/V.32.0.1.MP</p> <p><i>Normally open</i></p>	<p>T771/VS.32.0.1.MP</p> <p><i>Normally open</i></p>
<p>T771/V.32.0.1AC.MV <i>Normally closed</i></p>	<p><i>Normally closed</i></p>	<p><i>Normally closed</i></p>

Minimum working pressure: 2 bar

Operational characteristics	Fluid	Temperature		Orifice size	Working port size	Pilot ports size
	Vacuum	min.	max.	mm 25	G 1"	G 1/8"
		-5°C	+50°C			

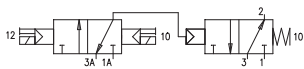
Bistable version for Compressed air

3/2



Air - N.C.

- 1 = line in
- 2 = consumption
- 3 = exhaust



Air - N.O.

- 3 = line in
- 2 = consumption
- 1 = exhaust

Weight gr. 680

Ordering code

with quick exhaust

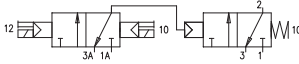
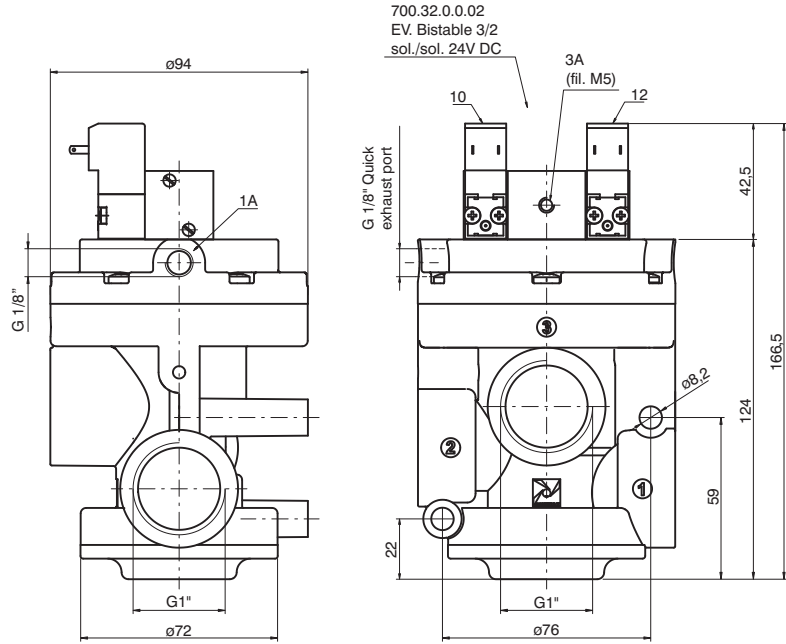
T771.32.0.1BP
Normally closed
Normally open

T771S.32.0.1BP
Normally closed
Normally open

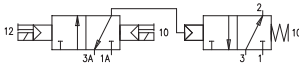
Operational characteristics	Fluid	Max working pressure	Minimum working pressure	Operating temperature		Flow rate at 6 bar with Δp = 1 bar	Orifice size	Working port size	Pilot ports size
	Filtered and lubricated air	10 bar	2,5 bar	min. -5° C	max. +50° C	12.000 NI/min	mm 25	G 1"	G 1/8"



Bistable version for Vacuum



Vacuum - N.O.
 3 = pump
 2 = consumption
 1 = exhaust



Vacuum - N.C.
 1 = pump
 2 = consumption
 3 = exhaust

Weight gr. 680

Ordering code

with quick exhaust

T771/V.32.0.1BP
Normally closed
Normally open

T771/VS.32.0.1BP
Normally closed
Normally open

Operational characteristics	Fluid	Minumum working pressure	Temperature		Orifice size	Working port size	Pilot ports size
	Vacuum	2,5 bar	min.	max.			
	Vacuum	2,5 bar	-5° C	+50° C	mm 25	G 1"	G 1/8"

