



# Soft Start Valves Series MX

Ports 3/4" - 1" NPTF  
Modular

These soft start valves allow a gradual increase of the pressure in pneumatic systems. The pressure increases slowly according to the screw-adjustable regulation until it reaches half of the set value, then it increases rapidly. The valve poppet shifts slowly and securely to the open position to prevent sudden and unsafe movements of the pneumatic components in the system.

The Series MX has been realized to offer a multi-sector solution that guarantees saving in terms of installation time, space and costs. A special configurator, available on Camozzi's global website at <http://catalogue.camozzi.com> (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.



- » Allow for a safe, gradual pressurization of the pneumatic system from start-up
- » Screw adjustment of the timing delay which regulates inlet pressure to 50% of its value before full pressurization
- » Optional pressure switches are available on request

## GENERAL DATA

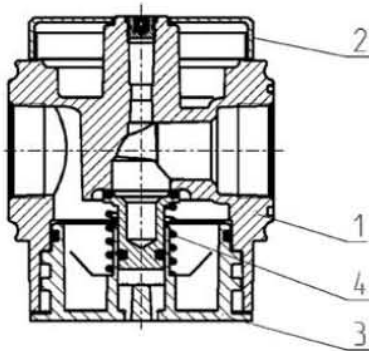
Construction	modular, compact, poppet-type
Materials	see TABLE OF MATERIALS
Ports	3/4" - 1" NPTF
Weight	0,65 kg
Mounting	in-line wall-mounting (by means of clamps)
Operating temperature	-5°C - 50°C at 16 bar (with the dew point of the fluid), (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi ) 50°C - 60°C at 10 bar (with the dew point of the fluid)
Operating pressure	2 - 10 bar
Nominal flow (at 6 bar with ΔP 1 bar)	8500 l/min, (298 SCFM)
Fluid	compressed air

**CODING EXAMPLE**

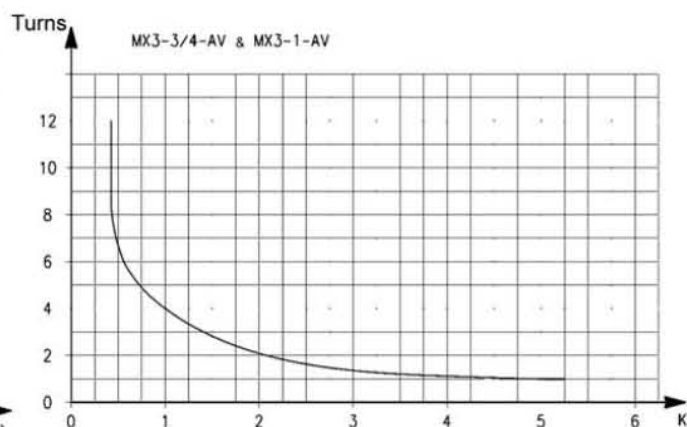
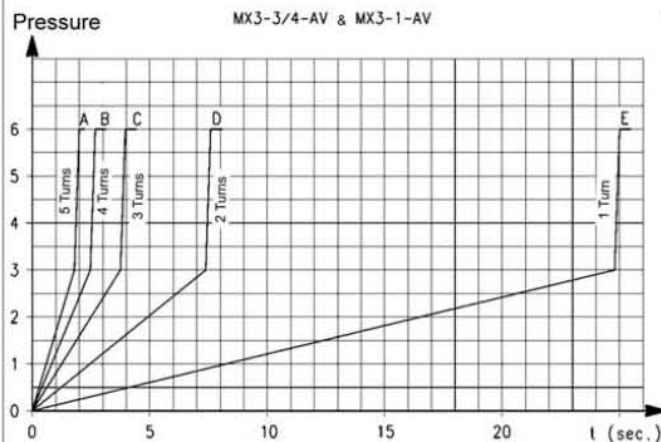
<b>MX</b>	<b>3</b>	<b>-</b>	<b>3/4</b>	<b>-</b>	<b>AV</b>	<b>TF</b>
-----------	----------	----------	------------	----------	-----------	-----------

<b>MX</b>	SERIES
<b>3</b>	SIZE: 3 = 3/4" - 1" NPTF
<b>3/4</b>	PORTS: 3/4 = 3/4" 1 = 1"
<b>AV</b>	SOFT START VALVE
<b>TF</b>	TF = NPTF ports blank = BSPP ports

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

**Soft start valves Series MX - materials**

PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyamide
3 = Valve holder plug	Polyamide
4 = Lower spring	Stainless steel
Seals	NBR


**DIAGRAMS FOR PRESSURISATION TIMES**


Constant "K" on the above graphs indicates the number of turns, (open from dead bottom closed), of the regulation screw required to obtain the required pressurization time with an inlet pressure of 87 psi. Variations of the inlet pressure can cause deviations of the pressure time by  $\pm 20\%$ .

$K = t/V$  where: V = volume of the downstream system in Liters ; t = desired pressuring time in seconds

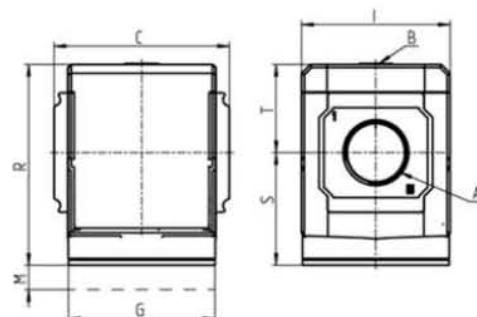
Example:

V = 5 Liters

t = 16 seconds

$K = 16/5 = 3.2$

Using in the graph this value K, the number of turns of the regulation screw will be approx. 1.8 turns open from dead bottom closed.

**Soft start valves Series MX - dimensions**

**DIMENSIONS (in inches)**

Mod.	A	B	C	G	I	M	R	S	T
MX3-3/4-AVTF	3/4	1/8	3.524	2.953	2.992	1.772	4.016	2.264	1.752
MX3-1-AVTF	1	1/8	3.524	2.953	2.992	1.772	4.016	2.264	1.752