

# SOFT START VALVES

## SERIES MC

Ports G1/4, G3/8 and G1/2  
Modular



- Safety function to maintain the command sequence
- Opening of the main seat at about 50% of the inlet pressure

Series MC soft start valves are used to avoid damages to people or equipment when pressurising pneumatic systems containing cylinders. The features of these components allow to pressurise an equipment up to 50% of the indicated pressure, after which 100% is reached rapidly. The usual location of the soft start valve is after the FRL unit; in fact the modular design allows for perfect adaptability with all Series MC.

A pressure switch can be mounted into the upper part of the unit after removal of the S2610 G1/8 plug. An electrical or pneumatic 3 way valve should be installed at the bottom of the unit to allow depressurisation.

### General Data

Construction	Modular, compact, poppet type		
Materials	Zama, NBR, technopolymer		
Ports	G1/4	G3/8	G1/2
Weight	0,275 Kg	0,566 Kg	0,544 Kg
Mounting	In-line wall or panel mounting (in any position)		
Working temperature	-5°C ÷ 50°C (with the dew point of the fluid lower than 2°C at the min. working temperature)		
Finishing	Enamelled		
Nominal flow (determined at 6 bar with ΔP1)	G1/4 = 1850 NL/min, G3/8 = 4000 NL/min, G1/2 = 4350 NL/min		
Fluid	Compressed air		

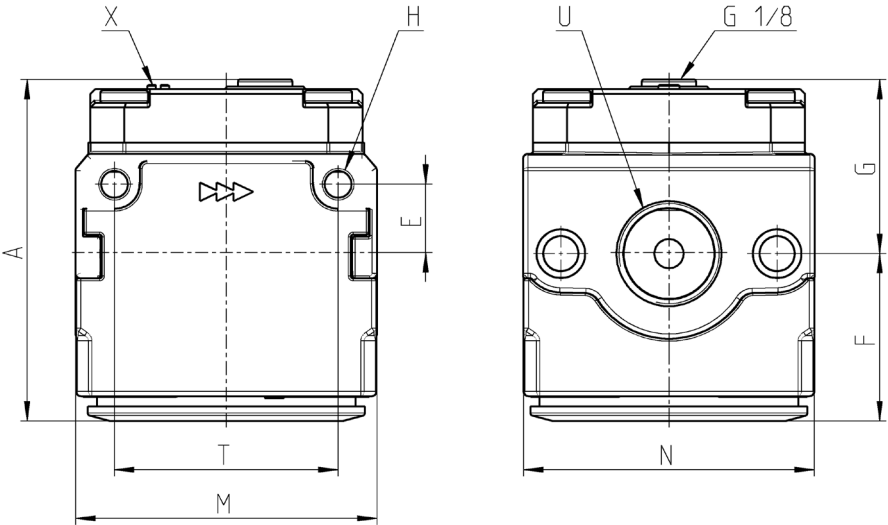
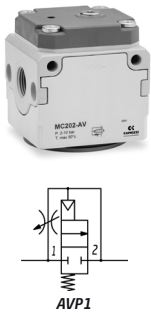
SOFT START VALVES  
SERIES MC - CODING EXAMPLES

Coding Example

MC	2	02	-	AV
MC	SERIES			
2	SIZE 1 = G1/4 2 = G3/8 - G1/2			
02	PORTS 04 = G1/4 38 = G3/8 02 = G1/2			
AV	SOFT START VALVE			

Soft start valve Series MC

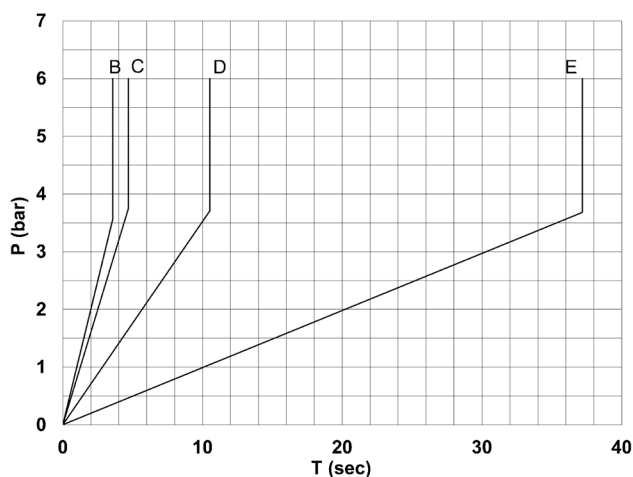
X = Adjustment screw  
AVP1 = Soft start valve



Mod.	A	E	F	G	H	M	N	T	U
MC104-AV	58,5	11	28,5	30	4,5	45	45	35	G1/4
MC238-AV	70	14	34	36	5,5	62	60	46	G3/8
MC202-AV	70	14	34	36	5,5	62	60	46	G1/2

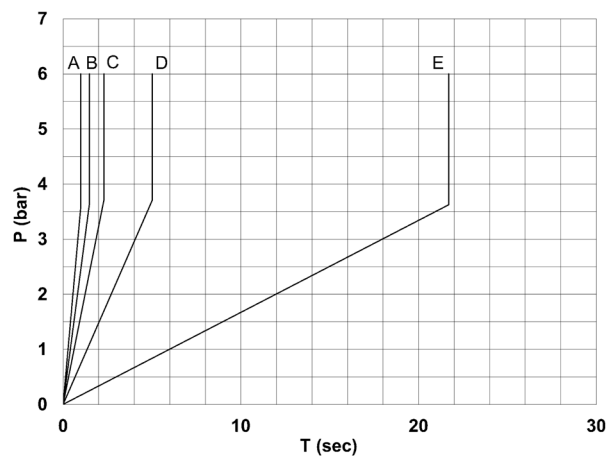
## Diagrams for pressurisation times

MC104-AV



Pressurisation times as to the n° of turns of the regulation screw, with downstream volume of 5 litres. A = 5 turns; B = 4 turns; C = 3 turns; D = 2 turns; E = 1 turn. "K" = n° of turns of the regulation screw required to obtain the required pressurisation time with an inlet pressure of 6 bar. 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 litres; t = desired pressuring time in seconds.

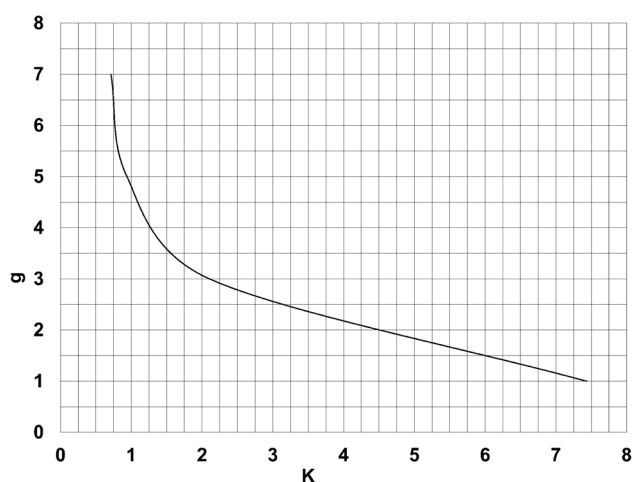
MC238-AV ÷ MC202-AV



Pressurisation times as to the n° of turns of the regulation screw, with downstream volume of 5 litres. A = 9 turns; B = 7 turns; C = 5 turns; D = 3 turns; E = 1 turn. "K" = n° of turns of the regulation screw required to obtain the required pressurisation time with an inlet pressure of 6 bar. 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 litres; t = desired pressuring time in seconds.

## Variation in pressurisation - example

MC104-AV



Example: MC104-AV

V = 5 litres

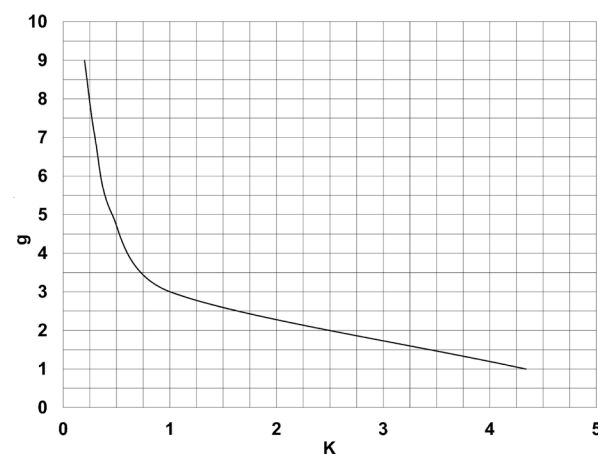
t = 16 seconds

$K = 16/5 = 3,2$

g = number of turns

Using in the graph this value K, the number of turns of the regulation screw will be approx. 2,5.

MC238-AV ÷ MC202-AV



Example: MC238-AV - MC202-AV

V = 5 litres

t = 16 seconds

$K = 16/5 = 3,2$

g = number of turns

Using in the graph this value K, the number of turns of the regulation screw will be approx. 1,6.