Proportional pressure regulator Series PME

Two sizes available: PME1 and PME2
Ports G1/4 - G3/8 - 1/4NPTF

- Manifold version
- Integrated exhaust valve version
- Modular with Series MD
- Configuration APP that uses NFC technology
- Compact and essential

The Series PME proportional pressure regulator is the ideal solution for industrial applications that require accurate pressure control within a system.

This new pressure regulator offers a high pneumatic performance, despite having its weight and dimensions reduced to a minimum to allow greater flexibility in its use.

Series PME is available in two sizes and versions. One version has an integrated exhaust valve that allows the system to discharge even in the absence of power. The second is a manifold version, ideal for controlling several outlets with only a single inlet.
Each has been designed to meet a wide range of applications and to guarantee reliable and precise control across the entire system.

GENERAL DATA

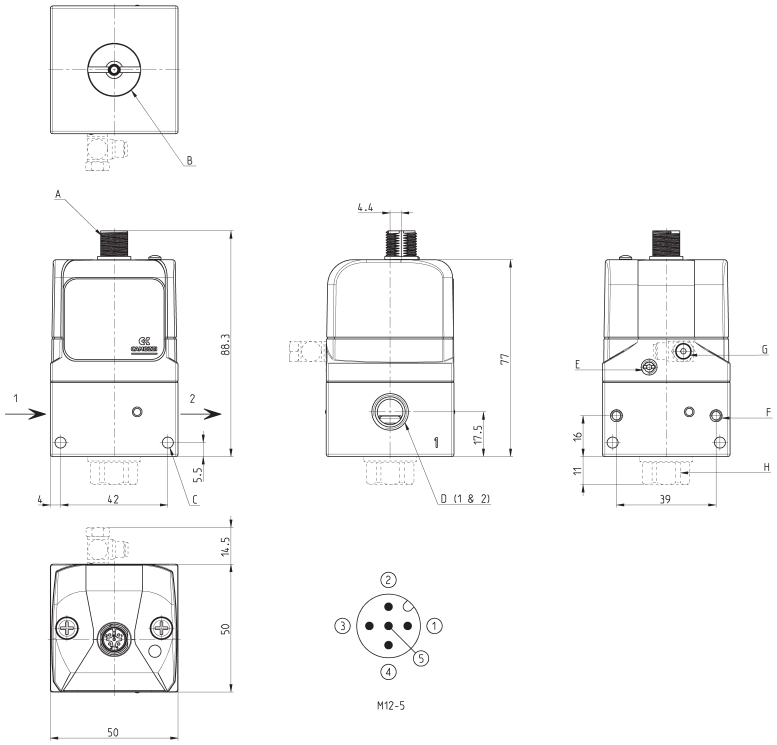
Standard of reference	CE	
Controlled quantity	Pressure	
Number of ways	3	
Flow (Qn)	PME104 - 1100 Nl/min	PME238 - 4600 Nl/min
Media	Filtered and non-lubricated compressed air of class [7:4:4] according to ISO 8573.1. Inert gases and oxygen	
Min & max regulated pressure (bar)	0,05 - 10,3 bar (0,72-150 PSI)(D) 0,05 - 7 bar (0,72-101,5 PSI) (G)	0,05 - 6 bar (0,72-87 PSI)(F)
Maximum inlet pressure	11 bar (D); (G) ed (F)	
Resolution (% FS)	0,3 (Size 1) 0,6 (Size 2)	
Fluid temperature (min and max °C)	0 - 50 °C	
Environmental temperature (min and max °C)	0 - 50 °C	
Pneumatic ports	G1/4 - G3/8 -1/4NPTF	
Materials	body: aluminium - cover: technopolymer - seals: NBR or FKM	
Supply voltage (V)	24 V DC	
Command signal	0-10V (2); 4-20 mA (4)	
Hysteresis (% FS)	0,5% (Size 1) 0.7% (Size 2)	
Power consumption	Max 0,5A (Envisage a power supply of at least 1A)	
Type of electrical connection	M12 5 Pin Male	
IP protection class	IP65	
Repeatability (% FS)	0,4	
Linearity (% FS)	0,4	
Modularity	with Series MD	

CODING EXAMPLE

PME	1	04	-	E	D	5	I	2	E	-	00

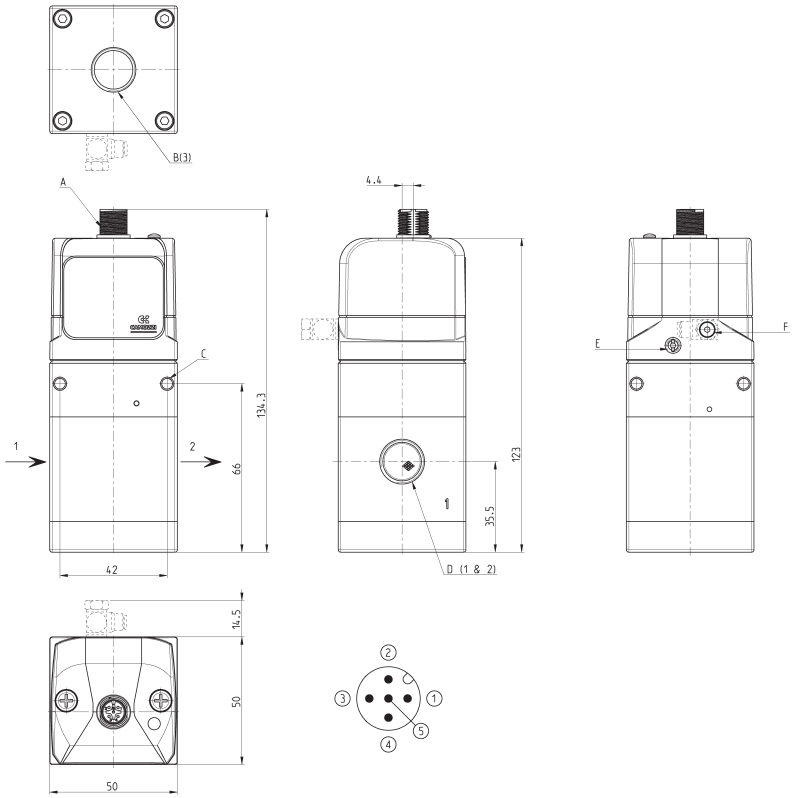
PME	SERIES
1	SIZE: 1 = Size 1 2 = Size 2
04	CONNECTION PORT: 04 = G1/4 38 = G3/8 (only size 2) M4 = G1/4 Manifold 14 = NPTF 1/4 (only size 1) N4 = 1/4 NPTF Manifold
E	DIAGNOSTICS: E = Without WiFi No Diagnostics
D	WORKING PRESSURE: F = 0-6 bar (standard for OX1 version with internal servo-pilot supply) G = 0-7 bar (OX1 versions only with external servo-pilot supply with air) D = 0-10,3 bar (OX1 versions only with external servo-pilot supply with air)
5	VALVE FUNCTION: 5 = 3/2 way NC (Port 3 always conveyable Size 2) 6 = VS function (Port 3 always conveyable Size 2) 7 = 3/2 way NC (Port 3 conveyable only Size 1) 8 = VS function (Port 3 conveyable only Size 1)
I	PILOT SUPPLY: I = Internal E = External
2	COMMAND SIGNAL: 2 = 0-10V 4 = 4-20mA
E	DIGITAL OUTPUT SIGNAL: E = error P = pressure switch W = pressure switch with “window” function
00	CABLE LENGTH: 00 = No cable 2F = 2mt straight 2R = 2mt 90° cable 5F = 5mt straight 5R = 5mt 90° cable
OX1	Version suitable to be used with oxygen. With a working pressure of Max 6 Bar, available both with internal and external pilot supply; with all other versions only with external pilot supply.

DIMENSIONAL CHARACTERISTICS SERIES PME SIZE 1



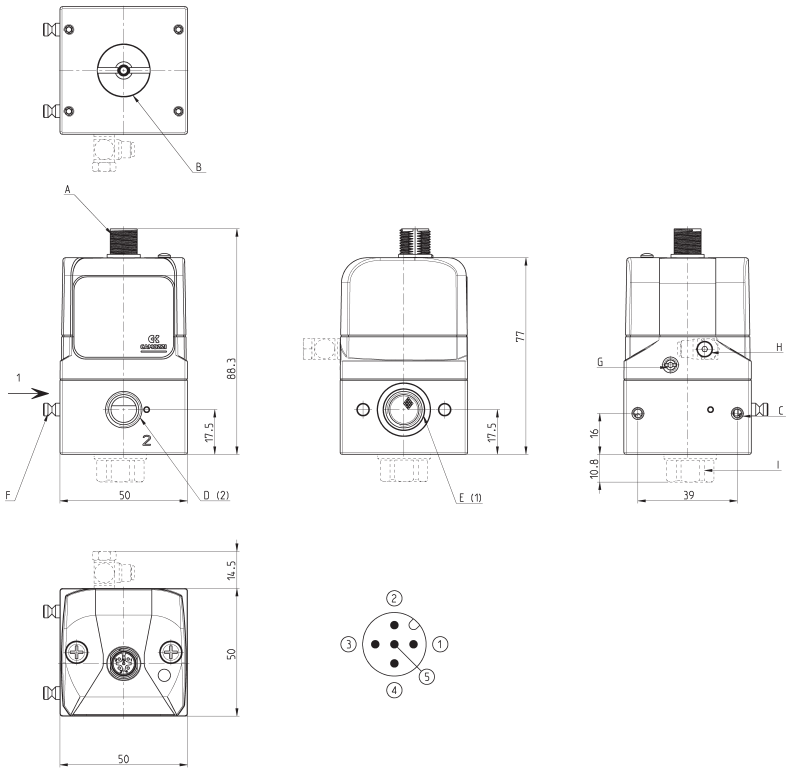
Mod.	A	B (3)	C	D (1 & 2)	E	F	G	H (3)	Symbols
PME104-Ex5Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator NOT conveyed (5)	Fixing holes Ø4,3	Port 1/4 (GAS or NPTF)	Exhaust solenoid valves	Fixing holes M4	Internal pilot supply	Absent	RE01
PME104-Ex7Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (7)	Fixing holes Ø4,3	Port 1/4 (GAS or NPTF)	Exhaust solenoid valves	Fixing holes M4	Internal pilot supply	Exhaust regulator G1/4 (7)	RE05
PME104-Ex6Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator NOT conveyed (6)	Fixing holes Ø4,3	Port 1/4 (GAS or NPTF)	Exhaust solenoid valves	Fixing holes M4	Internal pilot supply	Absent	RE03
PME104-Ex8Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (8)	Fixing holes Ø4,3	Port 1/4 (GAS or NPTF)	Exhaust solenoid valves	Fixing holes M4	Internal pilot supply	Exhaust regulator G1/4 (8)	RE07
PME104-Ex5Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (5)	Fixing holes Ø4,3	Port 1/4 (GAS or NPTF)	Exhaust solenoid valves	Fixing holes M4	External pilot supply (M5)	Absent	RE02
PME104-Ex7Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (7)	Fixing holes Ø4,3	Port 1/4 (GAS or NPTF)	Exhaust solenoid valves	Fixing holes M4	External pilot supply (M5)	Exhaust regulator G1/4 (7)	RE06
PME104-Ex6Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator NOT conveyed (6)	Fixing holes Ø4,3	Port 1/4 (GAS or NPTF)	Exhaust solenoid valves	Fixing holes M4	External pilot supply (M5)	Absent	RE04
PME104-Ex8Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (8)	Fixing holes Ø4,3	Port 1/4 (GAS or NPTF)	Exhaust solenoid valves	Fixing holes M4	External pilot supply (M5)	Exhaust regulator G1/4 (8)	RE08

DIMENSIONAL CHARACTERISTICS SERIES PME SIZE 2



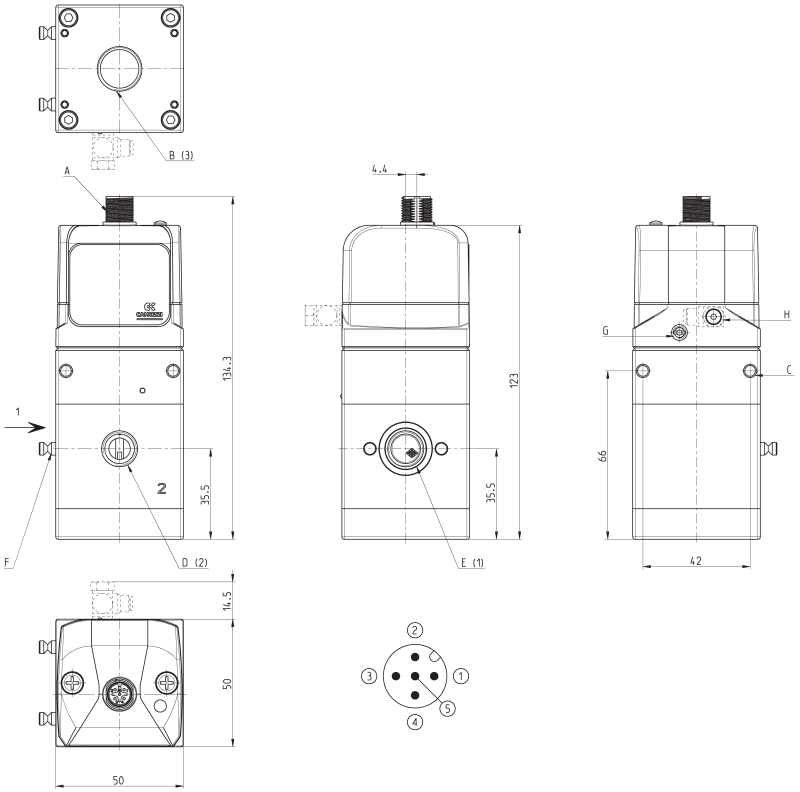
Mod.	A	B (3)	C	D (1 & 2)	E	F	Symbols
PME2xx-Ex5Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator G3/8	Fixing holes Ø4,3	Ports G3/8 or G1/4	Exhaust solenoid valves	Internal pilot supply	RE01
PME2xx-Ex6Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator G3/8	Fixing holes Ø4,3	Ports G3/8 or G1/4	Exhaust solenoid valves	Internal pilot supply	RE03
PME2xx-Ex5Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator G3/8	Fixing holes Ø4,3	Ports G3/8 or G1/4	Exhaust solenoid valves	External pilot supply (M5)	RE02
PME2xx-Ex6Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator G3/8	Fixing holes Ø4,3	Ports G3/8 or G1/4	Exhaust solenoid valves	External pilot supply (M5)	RE04

DIMENSIONAL CHARACTERISTICS SERIES PME SIZE 1 MANIFOLD



Mod.	A	B (3)	C	D (2)	E (1)	F	G	H	I (3)	Symbols
PME1M4-Ex5Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator NOT conveyed (5)	Fixing holes Ø4.3	Port G 1/4	Port G 1/4	Connection plug	Exhaust solenoid valves	Internal pilot supply	Absent (5)	RE09
PME1M4-Ex6Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator NOT conveyed (6)	Fixing holes Ø4,3	Port G 1/4	Port G 1/4	Connection plug	Exhaust solenoid valves	Internal pilot supply	Absent (6)	RE11
PME1M4-Ex7Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (7)	Fixing holes Ø4,3	Port G 1/4	Port G 1/4	Connection plug	Exhaust solenoid valves	Internal pilot supply	Exhaust (7) G1/4	RE13
PME1M4-Ex8Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (8)	Fixing holes Ø4,3	Port G 1/4	Port G 1/4	Connection plug	Exhaust solenoid valves	Internal pilot supply	Exhaust (8) G1/4	RE15
PME1M4-Ex5Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator NOT conveyed (5)	Fixing holes Ø4,3	Port G 1/4	Port G 1/4	Connection plug	Exhaust solenoid valves	External pilot supply (M5)	Absent (5)	RE10
PME1M4-Ex6Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator NOT conveyed (6)	Fixing holes Ø4,3	Port G 1/4	Port G 1/4	Connection plug	Exhaust solenoid valves	External pilot supply (M5)	Absent (6)	RE12
PME1M4-Ex7Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (7)	Fixing holes Ø4,3	Port G 1/4	Port G 1/4	Connection plug	Exhaust solenoid valves	External pilot supply (M5)	Exhaust (7) G1/4	RE14
PME1M4-Ex8Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator conveyed (8)	Fixing holes Ø4,3	Port G 1/4	Port G 1/4	Connection plug	Exhaust solenoid valves	External pilot supply (M5)	Exhaust (8) G1/4	RE16

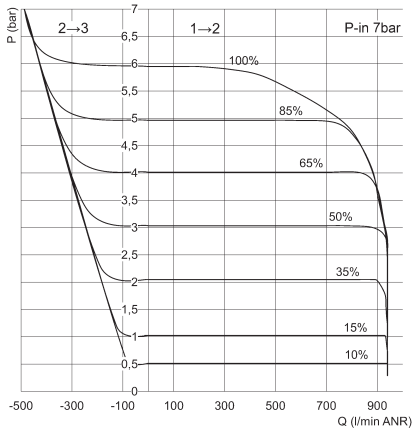
DIMENSIONAL CHARACTERISTICS SERIES PME SIZE 2 MANIFOLD



Mod.	A	B (3)	C	D (2)	E (1)	F	G	H	Symbols
PME2M4-Ex5Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator G3/8	Fixing holes Ø4,3	Port G1/4 (Gas or NPTF)	Port G1/4 (Gas or NPTF)	Connection plug	Exhaust solenoid valves	Internal pilot supply	RE09
PME2M4-Ex6Ixx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator G3/8	Fixing holes Ø4,3	Port G1/4 (Gas or NPTF)	Port G1/4 (Gas or NPTF)	Connection plug	Exhaust solenoid valves	Internal pilot supply	RE11
PME2M4-Ex5Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator G3/8	Fixing holes Ø4,3	Port G1/4 (Gas or NPTF)	Port G1/4 (Gas or NPTF)	Connection plug	Exhaust solenoid valves	External pilot supply (M5)	RE10
PME2M4-Ex6Exx-xx	Electrical connection M12 5 Pin Male	Exhaust regulator G3/8	Fixing holes Ø4,3	Port G1/4 (Gas or NPTF)	Port G1/4 (Gas or NPTF)	Connection plug	Exhaust solenoid valves	External pilot supply (M5)	RE12

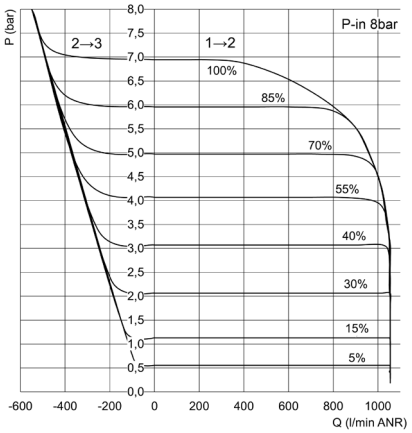
FLOW CHARTS SIZE 1 - Standard version (G1/4)

Typical curve for version PME104-EF...



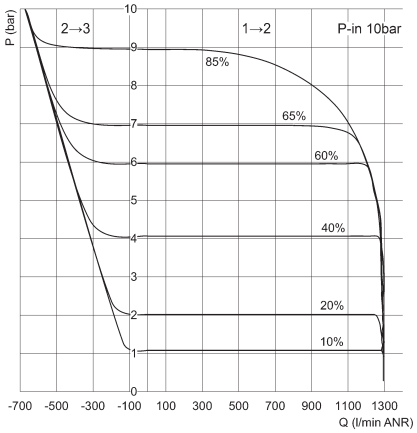
P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

Typical curve for version PME104-EG...



P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

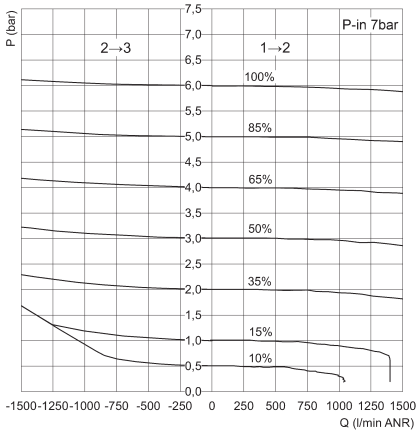
Typical curve for version PME104-ED...



P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

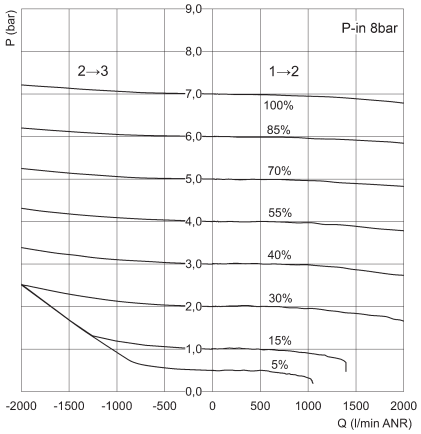
FLOW CHARTS SIZE 1 - Manifold version (G1/4)

Typical curve for version PME1M4-EF...



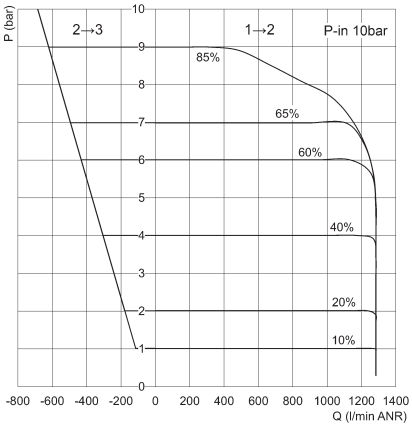
P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

Typical curve for version PME1M4-EG...



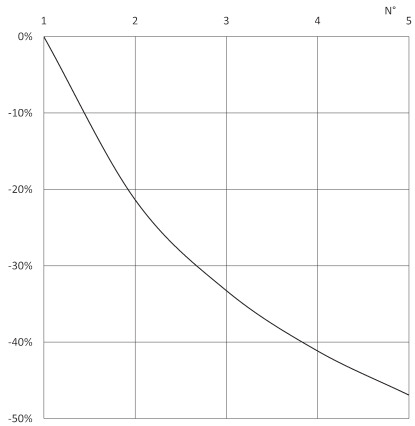
P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

Typical curve for version PME1M4-ED...



P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

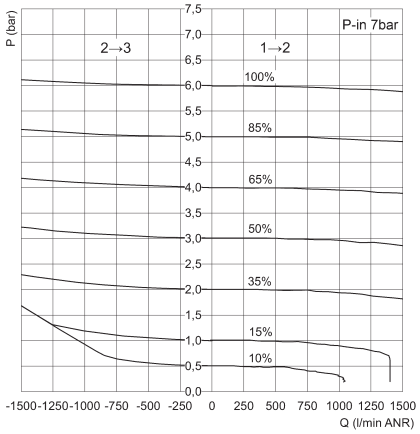
DECAY FACTOR FOR MANIFOLD REGULATORS SIZE 1



N° = number of regulators in manifold configuration
% = % of decrease in flow rate compared to the maximum flow rate
Note: the air inlet is only from one side, in case it should be on the right and on the left, only consider the positions as from 1 ÷ 3.

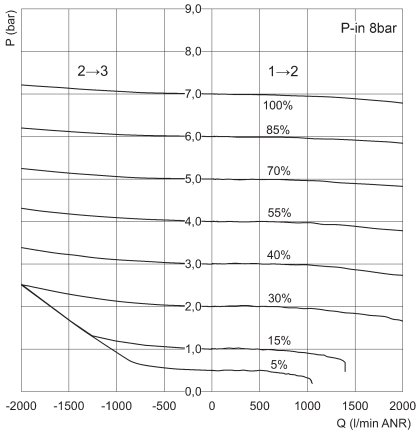
FLOW CHARTS SIZE 2 - Version (G1/4)

Typical curve for version PME2M4-EF...



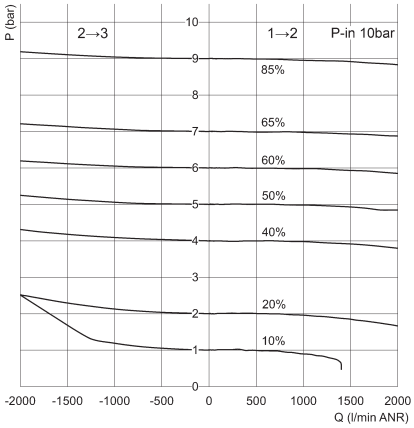
P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

Typical curve for version PME2M4-EG...



P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

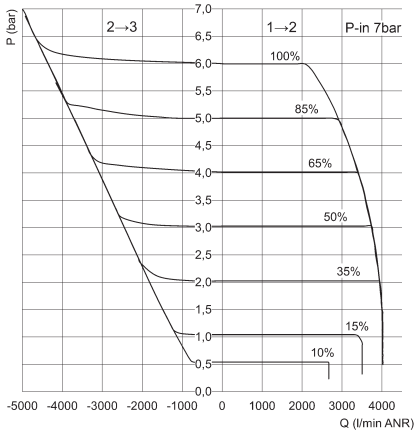
Typical curve for version PME2M4-ED...



P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

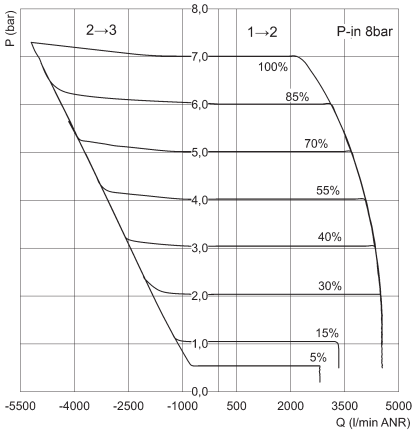
FLOW CHARTS SIZE 2 - Version (G3/8)

Typical curve for version PME238-EF...



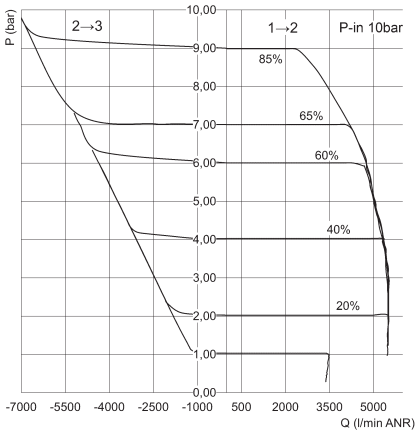
P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

Typical curve for version PME238-EG...



P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

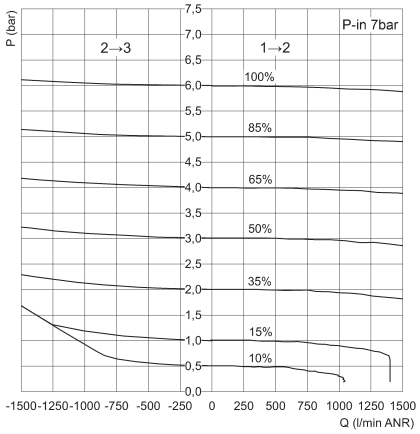
Typical curve for version PME238-ED...



P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

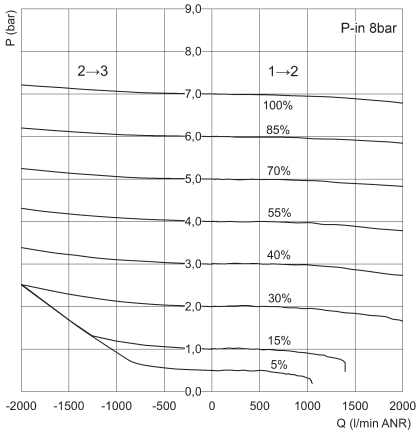
FLOW CHARTS SIZE 2 - Manifold Version (G1/4)

Typical curve for version PME2M4-EF...



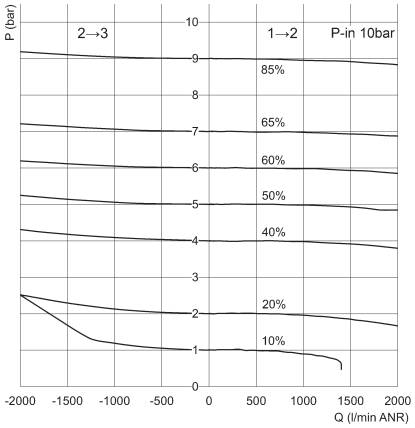
P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

Typical curve for version PME2M4-EG...



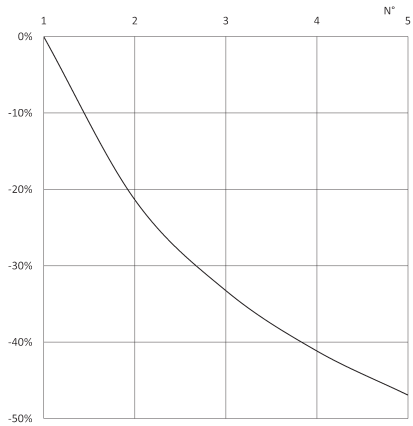
P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

Typical curve for version PME2M4-ED...



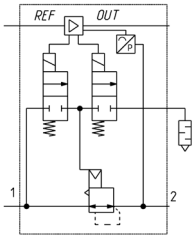
P = Regulated outlet pressure and exhaust pressure
Q = Flow
% = Percentage of the command signal

DECAY FACTOR FOR MANIFOLD REGULATORS SIZE 2



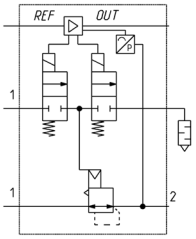
N° = number of regulators in manifold configuration
% = % of decrease in flow rate compared to the maximum flow rate
Note: the air inlet is only from one side, in case it should be on the right and on the left, only consider the positions as from 1 ÷ 3.

PNEUMATIC SYMBOLS OF SERIES PME PROPORTIONAL PRESSURE REGULATOR, size 1 and 2



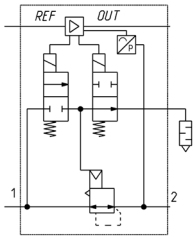
RE01

Version with internal servo-pilot supply, two pilot valves 2/2 NC.



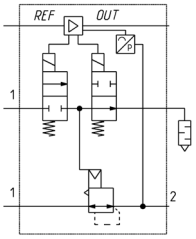
RE02

Version with external servo-pilot supply and two pilot valves 2/2 NC.



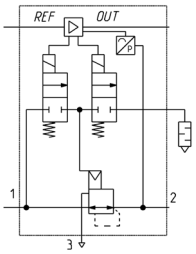
RE03

Version with internal servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO (exhaust)



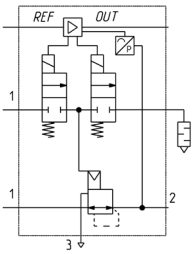
RE04

Version with external servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO (exhaust)



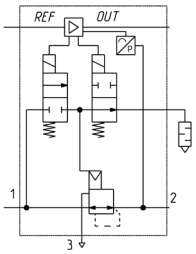
RE05

Version with internal servo-pilot supply and two pilot valves 2/2 NC, exhaust conveyable.



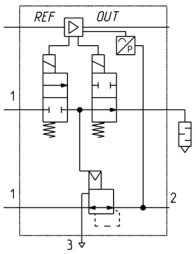
RE06

Version with external servo-pilot supply and two pilot valves 2/2 NC, exhaust conveyable.



RE07

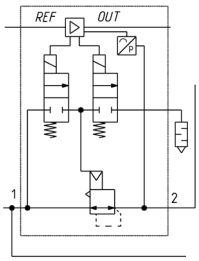
Version with internal servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable.



RE08

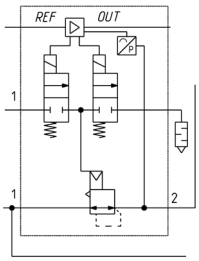
Version with external servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable.

PNEUMATIC SYMBOLS OF SERIES PME PROPORTIONAL PRESSURE REGULATOR, manifold version size 1 and 2



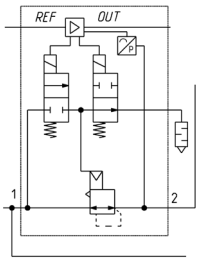
RE09

Manifold version with internal servo-pilot supply and two pilot valves 2/2 NC.



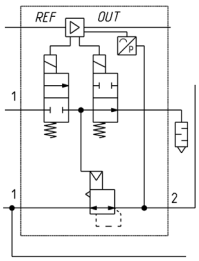
RE10

Manifold version with external servo-pilot supply and two pilot valves 2/2 NC.



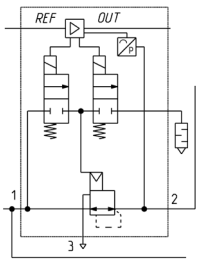
RE11

Manifold version with internal servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust.



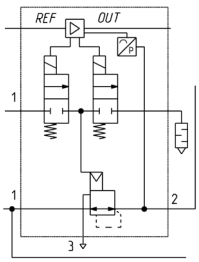
RE12

Manifold version with external servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust.



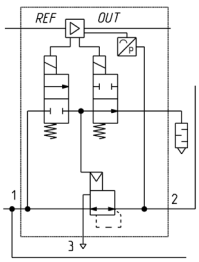
RE13

Manifold version with internal servo-pilot supply and two pilot valves 2/2 NC and exhaust conveyable.



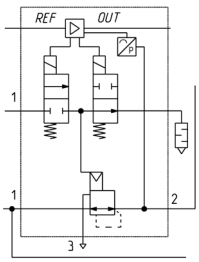
RE14

Manifold version with external servo-pilot supply and two pilot valves 2/2 NC and exhaust conveyable.



RE15

Manifold version with internal servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable.

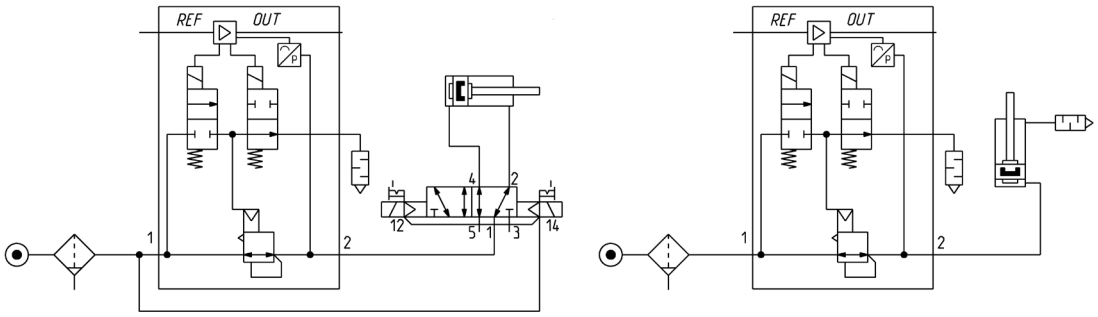


RE16

Manifold version with external servo-pilot supply and two pilot valves; one 2/2 NC and one 2/2 NO to exhaust, exhaust conveyable.

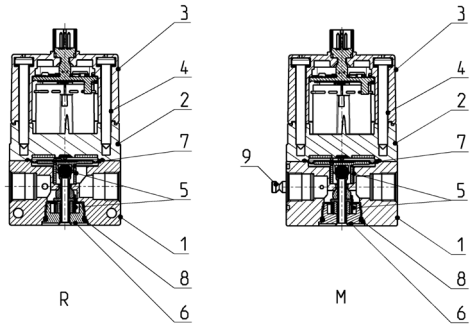
PNEUMATIC DIAGRAM FOR INSTALLATION

PME version with integrated exhaust valve.
Recommended pneumatic diagrams
in order to create a pneumatic circuit that
allows to discharge the regulated pressure
in absence of power supply.



SIZE 1 - MATERIALS

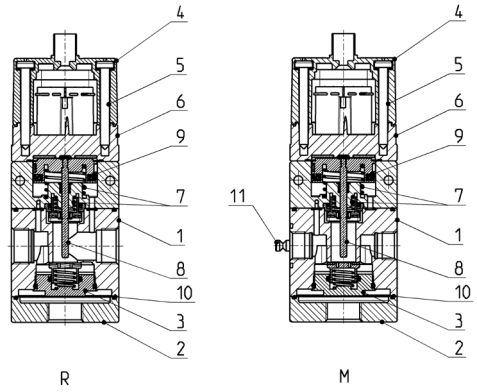
R = Proportional regulator
M = Proportional regulator - manifold verision



PARTS	MATERIALS, standard version
1 = body	Anodised aluminium
2 = cover	PA6 CM 30%
3 = cap	PARA GF50%
4 = screws	stainless steel
5 = springs	stainless steel
6 = plug	nickel-plated brass
7 = diaphragm	NBR
8 = seals and O-Ring	NBR
9 = pin for manifold version	stainless steel only for manifold version

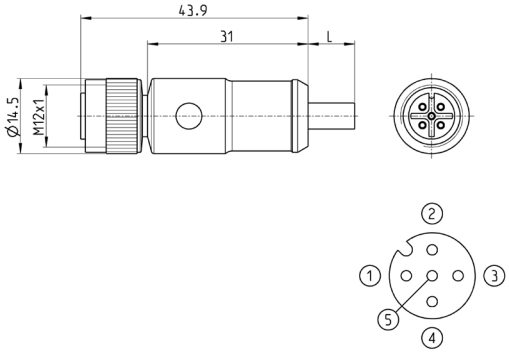
SIZE 2 - MATERIALS

R = Proportional regulator
M = Proportional regulator - manifold verision



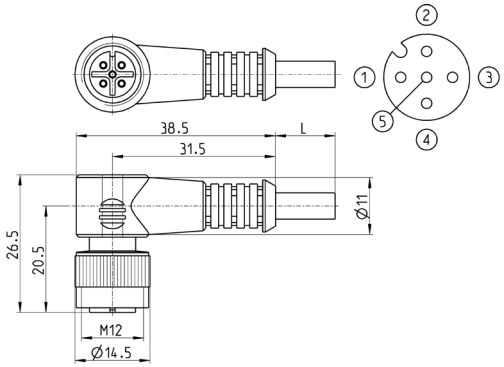
PARTS	MATERIALS, standard version
1 = body	Anodised aluminium
2 = end cover	Anodised aluminium
3 = plug	brass
4 = cover	PA6 CM 30%
5 = screws	stainless steel
6 = valve body	PARA GF50%
7 = springs	stainless steel
8 = piston rod	stainless steel
9 = piston seal	NB
10 = seals and O-Ring	NB
11 = pin for manifold version	Stainless steel only for manifold version

Cable with M12 connector, 5 pin, female, straight, not shielded



Mod.	Cable length (m)
CS-LF05HB-D200	2
CS-LF05HB-D500	5

Cable with M12 connector, 5 pin, female, 90°, not shielded

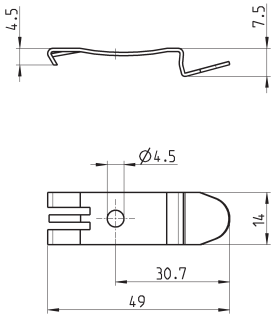


Mod.	Cable length (m)
CS-LR05HB-D200	2
CS-LR05HB-D500	5

Mounting brackets for DIN-rail Mod. PCF-EN531

DIN EN 50022 (7,5mm x 35mm - width 1)

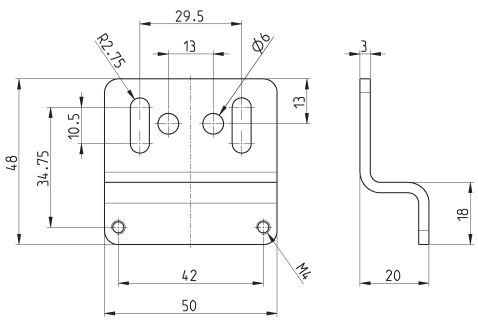
Supplied with:
2x mounting brackets
2x screws M4x6 UNI 5931
2x nuts



Mod.
PCF-EN531

Rear bracket Mod. PRE-ST

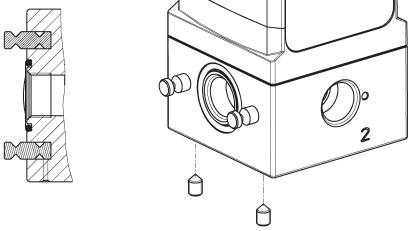
The kit includes
1x zinc-plated bracket
2x M4x55 white zinc-plated screws



Mod.
PRE-ST

Fixing kit for manifold version: PRE-M-PIN-1-2

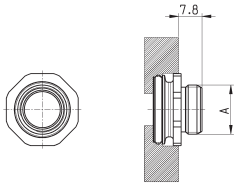
The kit includes:
2x shaped steel pins
4x steel grub screws
1x O-Ring



Mod.
PRE-M-PIN-1-2

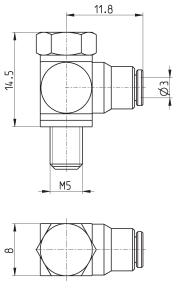
Kit to fix PRE on Series MD

The kit includes:
1x bushing
1x O-Ring
2x special Ø4.5x34 white zinc-plated screws



DIMENSIONS	
Mod.	A
PRE-1/4-C	G1/4
PRE-3/8-C	G3/8

Fittings for external pilot supply



Mod.
6625 3-M5