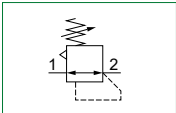


**Regulators (R - RM - RW - RP - RZ)**
**AIR TREATMENT**


- ▶ Diaphragm pressure regulator with relieving
- ▶ Available in 4 sizes with flow rates up to 8000 NI/min and connections from 1/8" to 1"
- ▶ Low hysteresis rolling diaphragm and balanced spool
- ▶ Available in four pressure ranges up to 12 bar
- ▶ Fitted with panel mounting locking ring
- ▶ Available with pressure gauge or digital pressure switch integrated
- ▶ Atex certification (II 2GD or II 3GD)
- ▶ Inlet pressures up to 20 bar


**Note**

For installations where a more accurate and constant pressure is required, the unit should be installed as close as possible to the point of use.

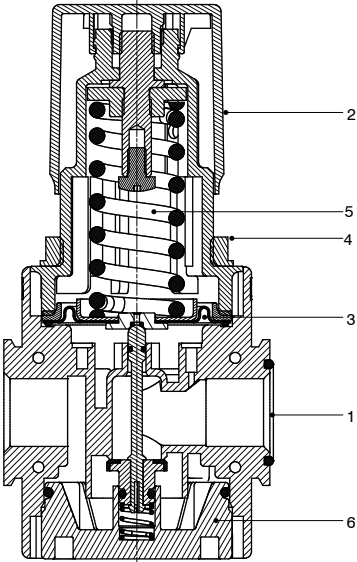
Technical characteristics					
Size		Size 1	Size 2	Size 3	Size 4
<b>Body and connections type</b>		Technopolymer body, integrated technopolymer connections (T version) Technopolymer body, metal connections (N version)			/
		/	Aluminium body, integrated aluminium connections (P - L versions)		
<b>IN / OUT connections</b>	<b>T version</b>	G1/4"	G3/8"	G1/2"	not available
	<b>N version</b>	G1/8" - G1/4" - 1/4" NPT	G3/8" - G1/4" - 3/8" NPT	G3/8" - G1/2" - 1/2" NPT	
	<b>P and L version</b>	not available	G3/8" - 1/4" NPT	G1/2" - 1/2" NPT	
<b>Assembly configuration</b>		Stand alone Panel mounting With fixing bracket			
		/			Panel mounted
<b>Assembly positions</b>		Indifferent			
<b>Pressure range</b>		0-2 bar 0-4 bar 0-8 bar 0-12 bar (P2 max 10 Bar in case of digital pressure switch selection)			
<b>Regulation</b>		Manul push and lock with pressure Manual lockable with accessories			
<b>Pressure measurement</b>		G1/8" - 1/8" NPT pressure gauge connection port (only for versions with IN / OUT NPT connections) Integrated pressure gauge (optional) Digital pressure switch (optional)			
<b>Max. fittings torque IN / OUT connections</b>		G1/8" metal: 15 Nm G1/4" metal: 20 Nm G1/4" technopolymer: 9 Nm	G1/4" metal: 20 Nm G3/8" metal: 25 Nm G3/8" technopolymer: 16 Nm	G3/8" metal: 25 Nm G1/2" metal: 30 Nm G1/2" technopolymer: 22 Nm	G1" metal: 35 Nm
<b>Max. fitting torque pressure gauge connection port</b>		G1/8" technopolymer: 4 Nm G1/8" metal: 15 Nm			

Operational characteristics					
Size		Size 1	Size 2	Size 3	Size 4
<b>Maximum working pressure</b>		/	13 bar 20 bar (only for P - L versions)		
<b>Minimum working pressure</b>		0,5 bar			
<b>Working temperature</b>		-5 °C ... +50 °C			
		/	-30 °C ... +80 °C (only for P version) -40 °C ... +80 °C (only for L version)		
<b>Working temperature with digital pressure switch</b>		0 °C ... +50 °C			

Weights					
	Size	Size 1	Size 2	Size 3	Size 4
Technopolymer body version		150 g	310 g	390 g	/
Aluminium body version		/	400 g	560 g	1260 g

**Materials**

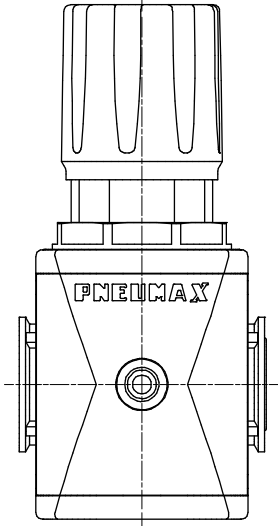
Exploded sectioned



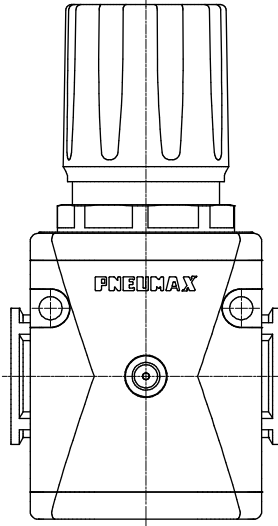
Regulator		
1	Body	Polyamide Die-cast aluminium
2	Adjusting knob	Polyamide
3	Diaphragm	NBR
4	Panel mounting locking ring	Polyamide
5	Adjusting spring	Steel
6	Rear end cap	Polyamide / Die-cast aluminium

**Design**

**Size 1 - Size 2 - Size 3**



**Size 4  
All versions**





**Order codes**

AIR TREATMENT

T 17 3B R M D [ ] [ ] [ ]

Version
N : Technopolymer body and metal inserts (not available for size 4)
T : Technopolymer body and thread (not available for size 4)
P : Aluminum body (not available for size 1)
L : Aluminum body, low temperature (not available for size 1)

Size and connections
1A : Size 1 - G1/8" only for N version
1B : Size 1 - G1/4" only for T - N versions
1C : Size 1 - 1/4" NPT only for N version
2A : Size 2 - G1/4" only for N version
2B : Size 2 - G3/8" for all versions
2C : Size 2 - 3/8" NPT only for N version - 1/4" NPT only for P - L versions
3A : Size 3 - G3/8" only for N version
3B : Size 3 - G1/2" for all versions
3C : Size 3 - 1/2" NPT only for N - P - L versions
4B : Size 4 - G1" only for P - L versions
4C : Size 4 - 1" NPT only for P - L versions

Pressure measurement options
: G1/8" - 1/8" NPT thread
M : Integrated pressure gauge
W : Integrated pressure gauge Right - Left
P : Digital pressure switch
Z : Digital pressure switch Right - Left

Pressure range
A : 0 - 2 bar
B : 0 - 4 bar
C : 0 - 8 bar
D : 0 - 12 bar

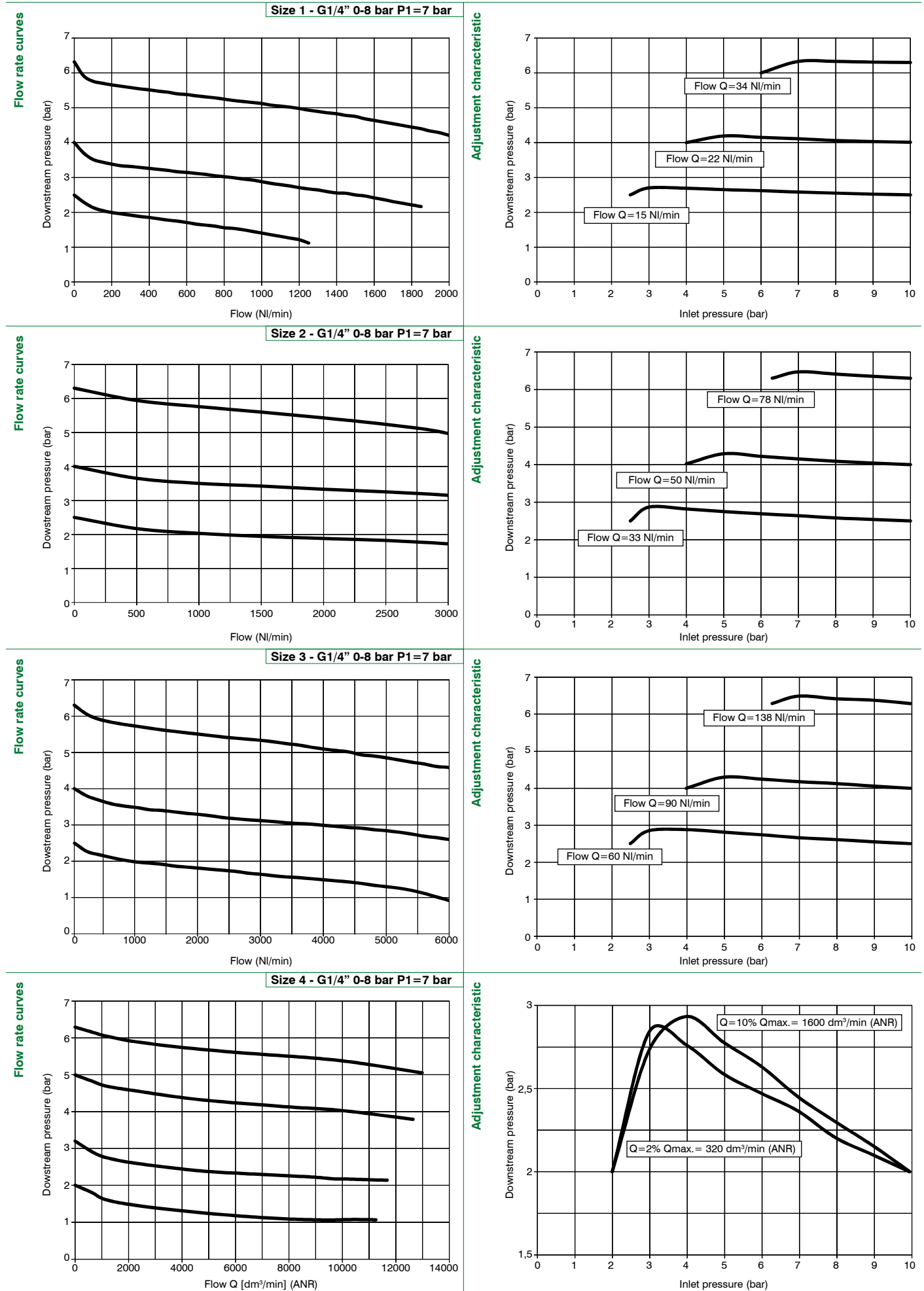
Relieving options
: With relieving
F : Controlled refuel and improved relieving (not available for size 4)
L : Without relieving
R : Improved relieving

Knob options
: Non-lockable version
K : Lockable version
U : Lockable version with universal key

Digital pressure switch options
A : Cable 150 mm + M8 PNP
B : Cable 150 mm + M8 NPN
C : Cable 2 m PNP
D : Cable 2 m NPN

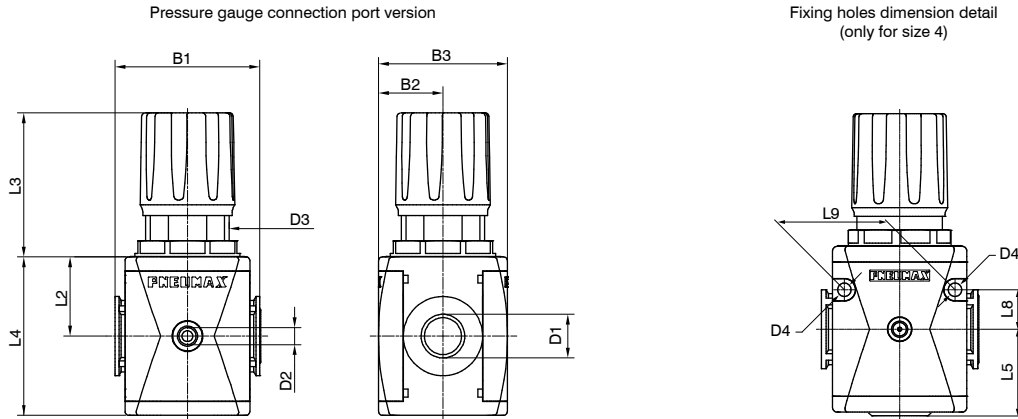
**Example : T173BRMD** : Size 3 regulator G1/2" 0 - 12 bar

Characteristic curves



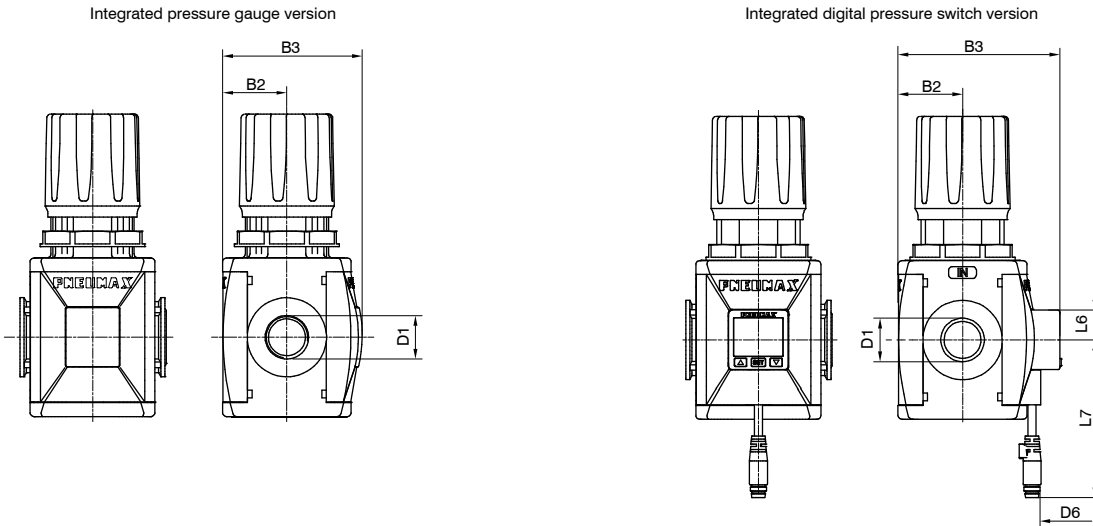
AIR TREATMENT

**Dimensions**



Model	B1	B2	B3	D1	D2	D3	D4	L2	L3	L4	L5	L8	L9
#171..	48	21	42	G1/8" G1/4" 1/4" NPT	G1/8" 1/8" NPT	M30x1,5	/	27,5	54	55	/	/	/
#172..	62	28,5	57	G1/4" G3/8" 1/4" NPT 3/8" NPT	G1/8" 1/8" NPT	M42x1,5	/	34	71,8	68	/	/	/
#173..	73	32,5	65	G3/8" G1/2" 1/2" NPT	G1/8" 1/8" NPT	M42x1,5	/	40	72,8	80	/	/	/
#174..	99	44	88	G1" 1" NPT	G1/8" 1/8" NPT	M54x1,5	8,5	52,5	87,5	105	54,5	25	70

**Variable dimensions**

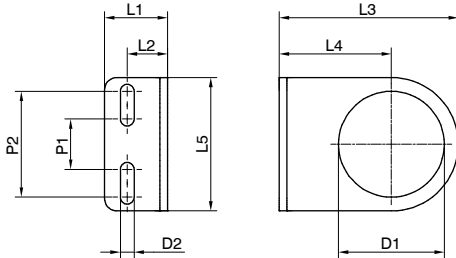


Model	B2	B3		D1	D6 - Type of digital pressure switch		L6	L7 - Type of digital pressure switch	
		With pressure gauge	With digital pressure switch		A - B	C - D		A - B	C - D
#171..	21	48,5	60	G1/8" G1/4" 1/4" NPT	M8 - 3 PIN	3 x 0,129 mm, Ø 4 mm	15	150	2000
#172..	28,5	62,5	73,5	G1/4" G3/8" 1/4" NPT 3/8" NPT					
#173..	32,5	70,5	81,5	G3/8" G1/2" 1/2" NPT					
#174..	44	90,5	101,5	G1" 1" NPT					

► Fixing bracket

T172 50

Size
171 : Size 1
T172 : Size 2 - Size 3



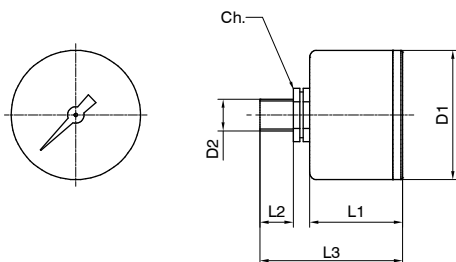
Model	L1	L2	L3	L4	L5	D1	D2	P1	P2
17150	20	13	50	30	40	30	5,5	20	30
T17250	25	16	71	44,5	53	42	5,5	20	42

► Pressure gauge

17070 A C

Version
A : Dial Ø 40
B : Dial Ø 50

Scale
A : 0 - 4 bar
B : 0 - 6 bar
C : 0 - 12 bar



Model	L1	L2	L3	D1	D2	Ch
17070A..	26	10	44	41	Gc - 1/8"	14
17070B..	27	10	45	49	Gc - 1/8"	14

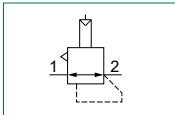


▶ **Piloted pressure regulators (RP - RMP - RPP)**



- ▶ Piston piloted pressure regulator
- ▶ Available with pressure gauge or digital pressure switch integrated
- ▶ Atex certification (II 2GD or II 3GD)
- ▶ Inlet pressures up to 20 bar

AIR TREATMENT



**Note**  
Always regulate the rising pressure.

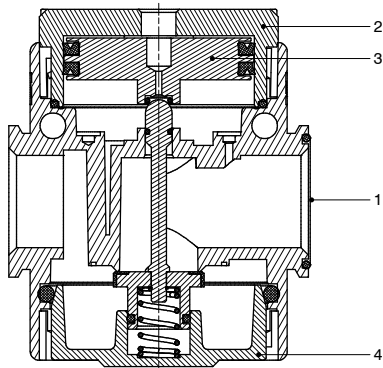
Technical characteristics	
Size	Size 4
Body and connections type	Aluminium body, integrated aluminium connections
IN / OUT connections	G1" - 1" NPT
Assembly configuration	Stand alone Panel mounted
Assembly positions	Indifferent
Pressure range	0,5 ... 10 bar
Regulation	Pneumatic piloting
Pressure measurement	G1/8" - 1/8" NPT pressure gauge connection port (only for versions with IN / OUT NPT connections) Integrated pressure gauge (optional) Digital pressure switch (optional)
Max. fittings torque IN / OUT connections	G1" metal: 35 Nm
Max. fitting torque pressure gauge connection port	G1/8" metal: 15 Nm

Operational characteristics	
Size	Size 4
Maximum working pressure	20 bar
Minimum working pressure	0,5 bar
Pilot pressure range	0,5 ... 10 bar
Working temperature	-30 °C ... +80 °C
Working temperature with digital pressure switch	0 °C ... +50 °C

Weights					
	Size	Size 1	Size 2	Size 3	Size 4
Pneumatic pilot aluminum body version		/	/	/	1190 g

**Materials**

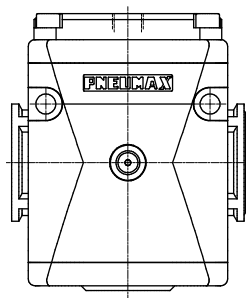
Exploded sectioned



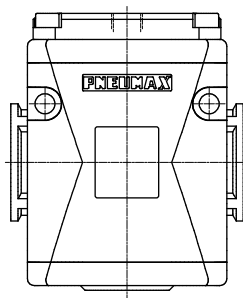
Piloted pressure regulator		
1	Body	Die-cast aluminium
2	Piloting operator	Aluminium
3	Piston	Aluminium
4	Rear end cap	Die-cast aluminium

**Design**

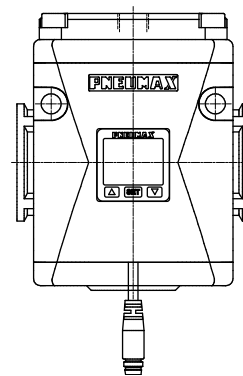
G1/8" pressure gauge connection port version



Integrated pressure gauge version



Integrated digital pressure switch version



**Order codes**

<b>Version</b>	P	17	4B	R	M		P
P : Aluminium body							
<b>Size and connections</b>							
4B : Size 4 - G1"							
4C : Size 4 - 1" NPT							
<b>Pressure measurement options</b>							
: G1/8" - 1/8" NPT thread							
M : Integrated pressure gauge							
W : Integrated pressure gauge Right - Left							
P : Digital pressure switch							
Z : Digital pressure switch Right - Left							
<b>Digital pressure switch options</b>							
A : Cable 150 mm + M8 PNP							
B : Cable 150 mm + M8 NPN							
C : Cable 2 m PNP							
D : Cable 2 m NPN							

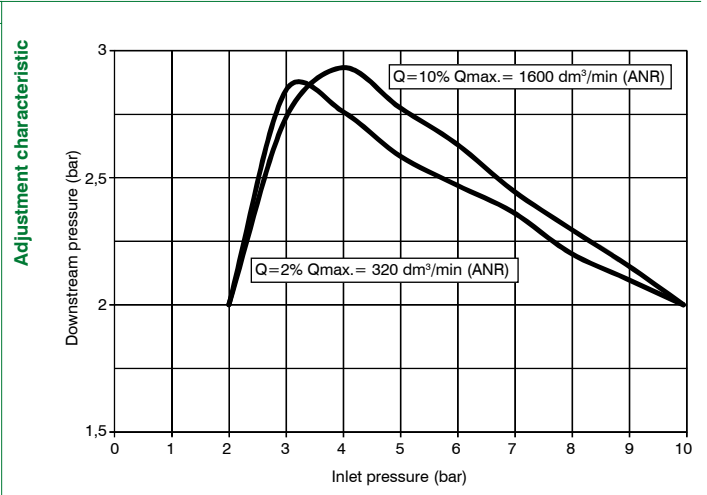
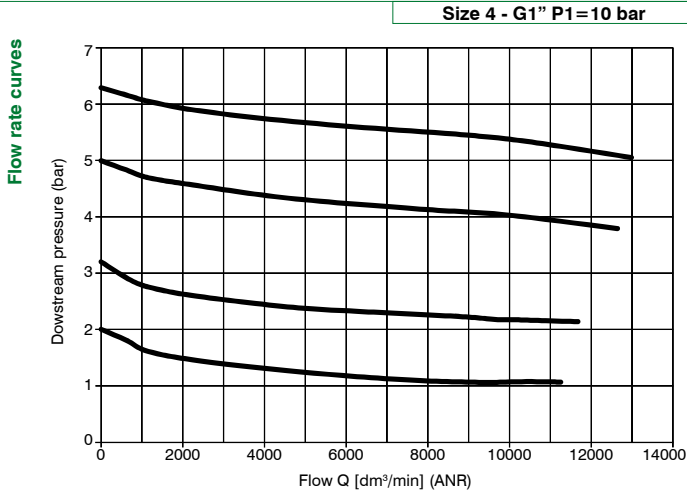
**Example : P174BRMP** : Size 4 piloted pressure regulator G1", integrated pressure gauge



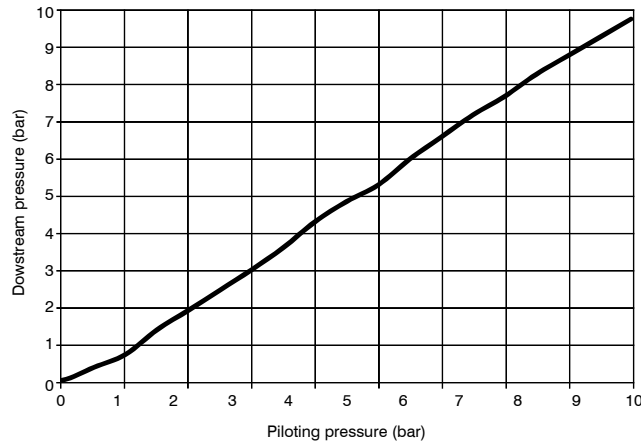


Characteristic curves

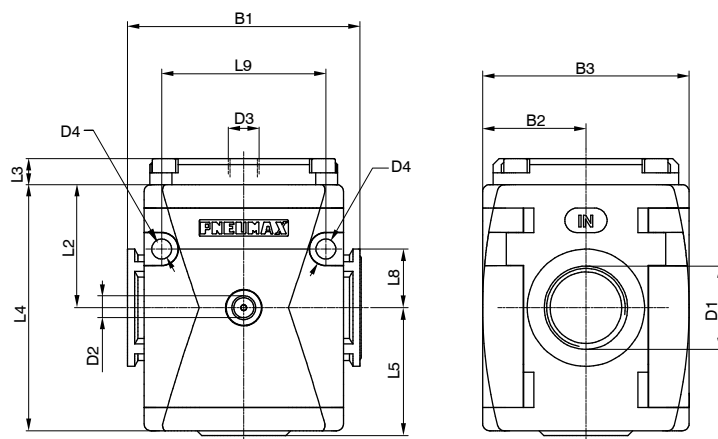
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Flow rate curves



Dimensions

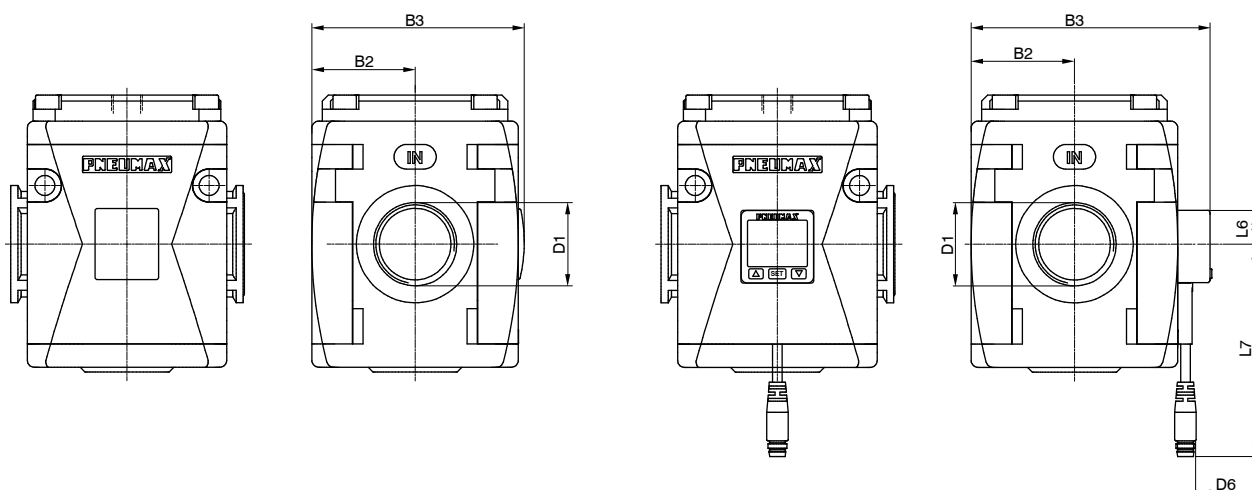


Model	B1	B2	B3	D1	D2	D3	D4	L2	L3	L4	L5	L8	L9
#174..	99	44	88	G1" 1" NPT	G1/8" 1/8" NPT	G1/4"	8,5	52,5	11	105	54,5	25	70

Variable dimensions

Integrated pressure gauge version

Integrated digital pressure switch version



Model	B2	B3		D1	D6 - Type of digital pressure switch		L6	L7 - Type of digital pressure switch	
		With pressure gauge	With digital pressure switch		A - B	C - D		A - B	C - D
#174..	44	90,5	101,5	G1" 1" NPT	M8 - 3 PIN	3 x 0,129 mm, Ø 4 mm	15	150	2000

AIR TREATMENT

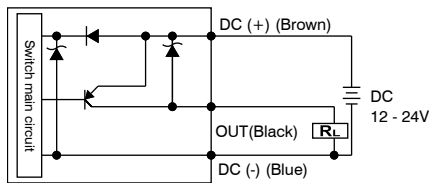
▶ **Digital pressure switch**



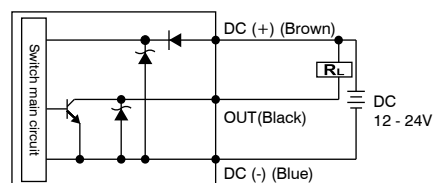
- ▶ 3 color digital LCD display, easy readout
- ▶ 4 units of measurement for pressure indication
- ▶ Optional PNP or NPN digital output
- ▶ N.O. and N.C. output contact selection directly on the digital pressure switch
- ▶ Available with M8-3PIN connector or 3 wire cable length 2 m
- ▶ Available only in combination with a regulator

**Output circuit wiring diagrams**

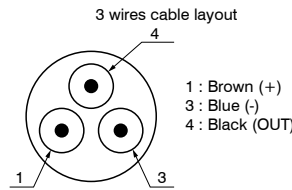
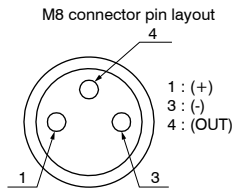
**PNP output**



**NPN output**



**Digital pressure switch lay out**



**Cable ordering code**

- MCH1** : cable 3 wires l=2,5m with M8 connector
- MCH2** : cable 3 wires l=5m with M8 connector
- MCH3** : cable 3 wires l=10m with M8 connector

Connector



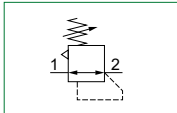
Technical characteristics	
Pressure range and display	0 ... 10 bar
Max. inlet pressure	15 bar
Fluid	40 µm filtered and dehumidified air
Display unit of measurement	MPa - kgf/cm <sup>2</sup> - bar - psi
Supply voltage	12 ... 24 VDC
Current consumption	≤40 mA (without load)
Digital output type	PNP - NPN
Type of contact output	Normally Open - Normally Closed
Max. load current	125 mA
Digital output activation mode	single threshold with fixed hysteresis - window with fixed hysteresis - window without hysteresis
Digital output activation time	0.05s - 0.25s - 0.5s - 1s - 2s - 3s (selections for chattering-proof options)
Display characteristics	Double 3 1/2 digit display Digital output status indication Three-pushbuttons touchpad
Indicator accuracy	≤±2% full scale value ± 1 digit
IP Rating	IP40
Working temperature	0 °C ... 50 °C
Cable section	3 x 0,129 mm <sup>2</sup> , Ø 4 mm, PVC



► Pressure regulators for manifold (B - M)



- ▶ Diaphragm pressure regulator with relieving
- ▶ Available with 2 front outputs connections G1/8 " or with 1 front output and integrated pressure gauge on the opposite side
- ▶ Low hysteresis rolling diaphragm and balanced spool
- ▶ Available in four pressure ranges up to 12 bar
- ▶ Fitted with panel mounting locking ring
- ▶ Available with Integrated pressure gauge
- ▶ Air supply can be applied by both directions (Right or Left)
- ▶ Max. 6off pressure regulators in manifold configuration
- ▶ Atex certification (II 3GD)



**Note**

For installations where a more accurate and constant pressure is required, the unit should be installed as close as possible to the point of use.

AIR TREATMENT

Technical characteristics		Size	Size 1
<b>Body and connections type</b>		Technopolymer body, integrated technopolymer connections (T version) Technopolymer body, metal connections (N version)	
<b>IN connections</b>	<b>T version</b>	G1/4"	
	<b>N version</b>	G1/8" - G1/4" - 1/4" NPT	
<b>OUT connections</b>		G1/8"	
<b>Assembly configuration</b>		Stand alone Panel mounting With fixing bracket	
<b>Assembly positions</b>		Indifferent	
<b>Pressure range</b>		0-2 bar 0-4 bar 0-8 bar 0-12 bar	
<b>Regulation</b>		Manul push and lock with pressure Manual lockable with accessories	
<b>Pressure measurement</b>		G1/8" pressure gauge connection port Integrated pressure gauge (optional)	
<b>Max. fittings torque IN / OUT connections</b>		G1/8" metal: 15 Nm G1/4" metal: 20 Nm G1/4" technopolymer: 9 Nm	
<b>Max. fitting torque pressure gauge connection port</b>		G1/8" technopolymer: 4 Nm G1/8" metal: 15 Nm	

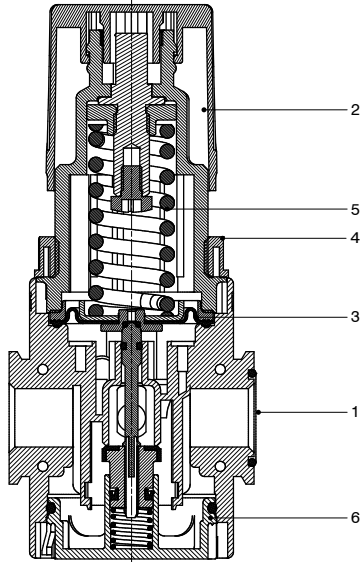
Operational characteristics		Size	Size 1
<b>Maximum working pressure</b>		13 bar	
<b>Minimum working pressure</b>		0,5 bar	
<b>Working temperature</b>		-5 °C ... +50 °C	

**Weights**

	Size	Size 1
Technopolymer body version		140 g

**Materials**

Exploded sectioned

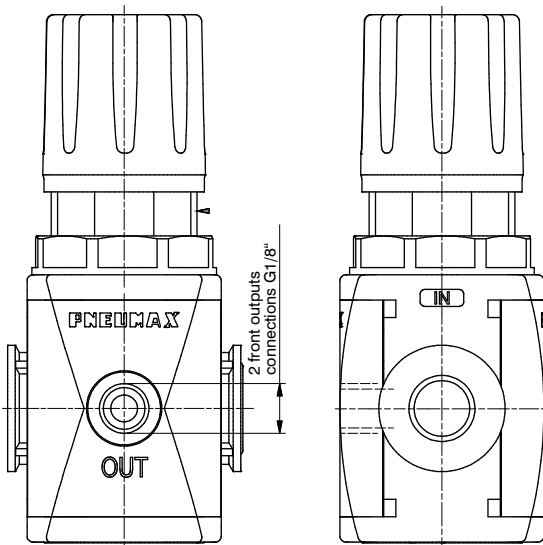


**Pressure regulator for manifold**

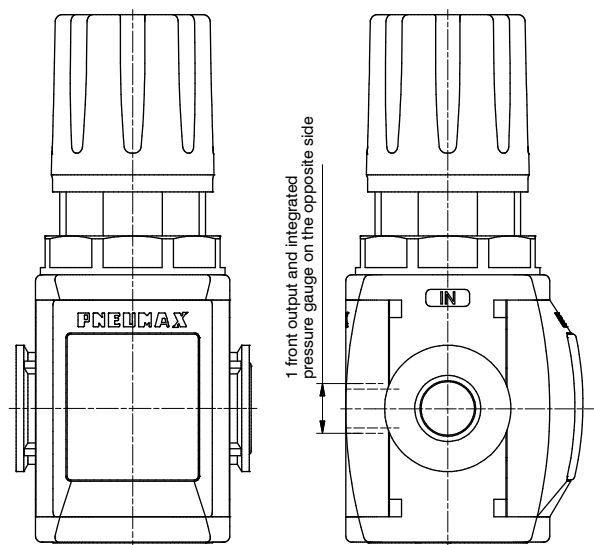
1	Body	Polyamide Die-cast aluminium
2	Adjusting knob	Polyamide
3	Diaphragm	NBR
4	Panel mounting locking ring	Polyamide
5	Adjusting spring	Steel
6	Rear end cap	Polyamide / Die-cast aluminium

**Design**

Pressure gauge connection port version

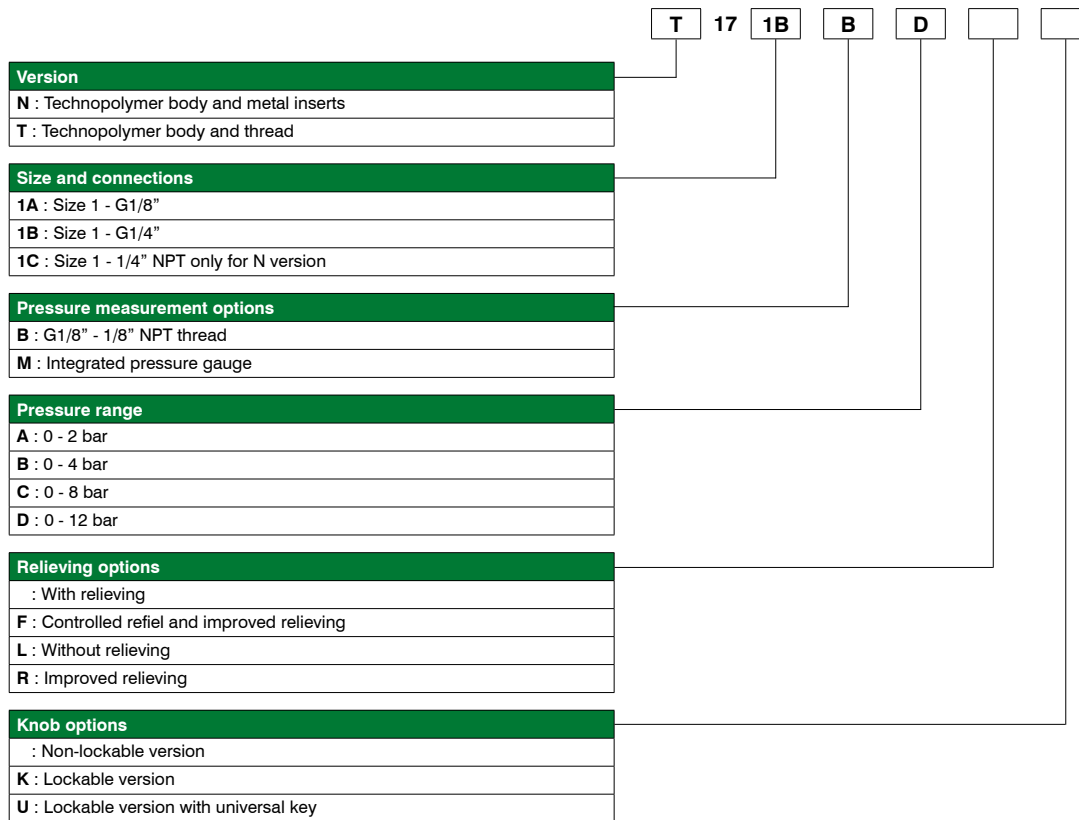


Integrated pressure gauge version



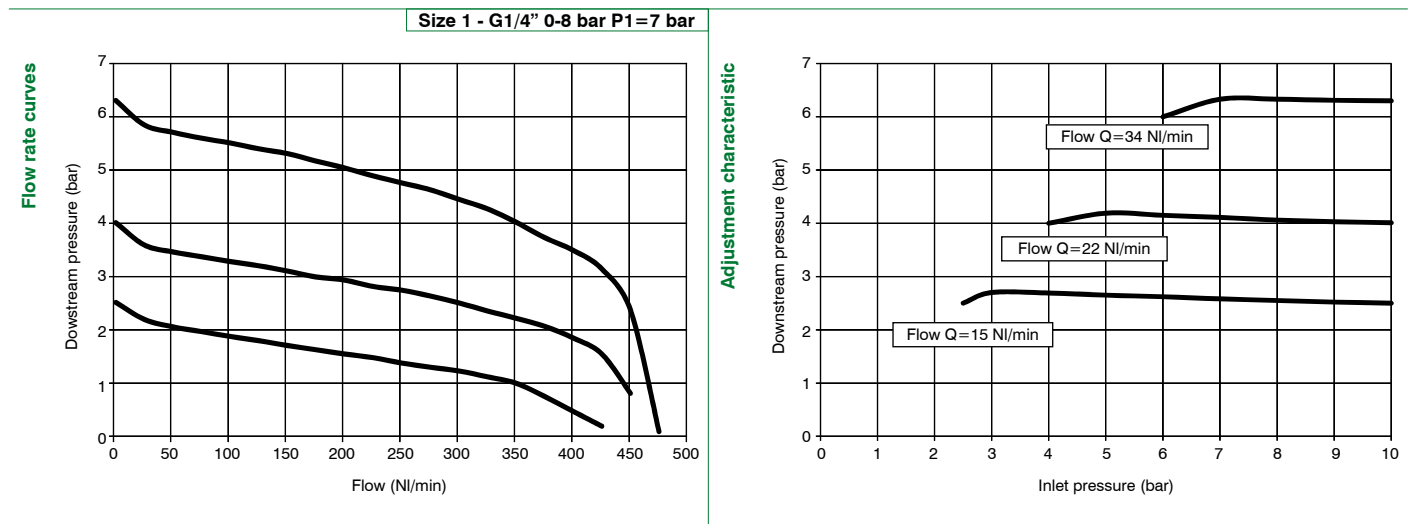


Order codes



Example : T171BBD : Size 1 pressure regulator for manifold G1/4", 0 - 12 bar

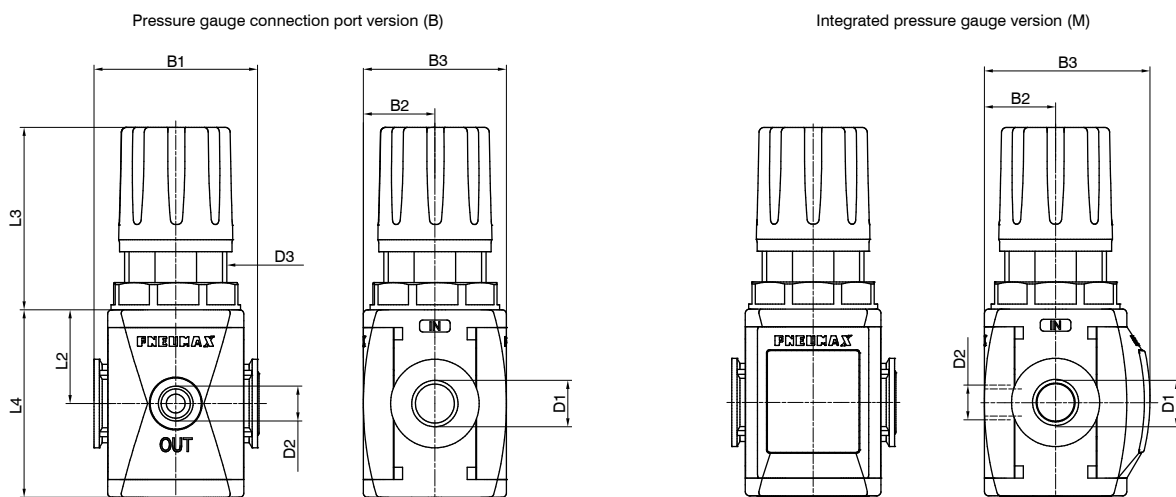
Characteristic curves



AIR TREATMENT

**Dimensions**

AIR TREATMENT



Model	B1	B2	B3		D1	D2	D3	L2	L3	L4
			B version	M version						
#171..	48	24	42	48,5	G1/4" G1/8" 1/4" NPT	G1/8"	M30x1,5	27,5	54	55

▶ **Manifold pressure regulators**



- ▶ Manifold pressure regulators
- ▶ Available in four pressure ranges up to 12 bar
- ▶ Inlet pressure common for the whole manifold of pressure regulator
- ▶ A maximum of 6 pressure regulators can be mounted
- ▶ Atex certification (II 3GD)
- ▶ Assembly with X or Y flanges

Technical characteristics		Size	Size 1
<b>Body and connections type</b>		Technopolymer body, integrated technopolymer connections (T version) Technopolymer body, metal connections (N version)	
<b>IN connections</b>	<b>T version</b>	G1/4"	
	<b>N version</b>	G1/8" - G1/4" - 1/4" NPT	
<b>OUT connections</b>		G1/8"	
<b>Assembly configuration</b>		Stand alone Panel mounting With fixing bracket	
<b>Assembly positions</b>		Indifferent	
<b>Pressure range</b>		0-2 bar 0-4 bar 0-8 bar 0-12 bar	
<b>Regulation</b>		Manul push and lock with pressure Manual lockable with accessories	
<b>Pressure measurement</b>		G1/8" pressure gauge connection port Integrated pressure gauge (optional)	
<b>Max. fittings torque IN / OUT connections</b>		G1/8" metal: 15 Nm G1/4" metal: 20 Nm G1/4" technopolymer: 9 Nm	
<b>Max. fitting torque pressure gauge connection port</b>		G1/8" technopolymer: 4 Nm G1/8" metal: 15 Nm	

Operational characteristics		Size	Size 1
<b>Maximum working pressure</b>		13 bar	
<b>Minimum working pressure</b>		0,5 bar	
<b>Working temperature</b>		-5 °C ... +50 °C	





**Order codes**

AIR TREATMENT

G T 17 1B M 6 C C C C C C

Version
N : Technopolymer body and metal inserts
T : Technopolymer body and thread

Size and connections
1A : Size 1 - G1/8"
1B : Size 1 - G1/4"
1C : Size 1 - 1/4" NPT only for N version

Pressure measurement options
B : G1/8" thread with flanges X
M : Integrated pressure gauge with flanges X
P : G1/8" thread with extended flanges Y
R : Integrated pressure gauge with extended flanges Y
W : G1/8" thread with flanges Y
Z : Integrated pressure gauge with flanges Y

Number of regulators
2 : n. 2 regulators
3 : n. 3 regulators
4 : n. 4 regulators
5 : n. 5 regulators
6 : n. 6 regulators

Pressure range
A : 0 - 2 bar
B : 0 - 4 bar
C : 0 - 8 bar
D : 0 - 12 bar

Pressure range
A : 0 - 2 bar
B : 0 - 4 bar
C : 0 - 8 bar
D : 0 - 12 bar

Pressure range
A : 0 - 2 bar
B : 0 - 4 bar
C : 0 - 8 bar
D : 0 - 12 bar

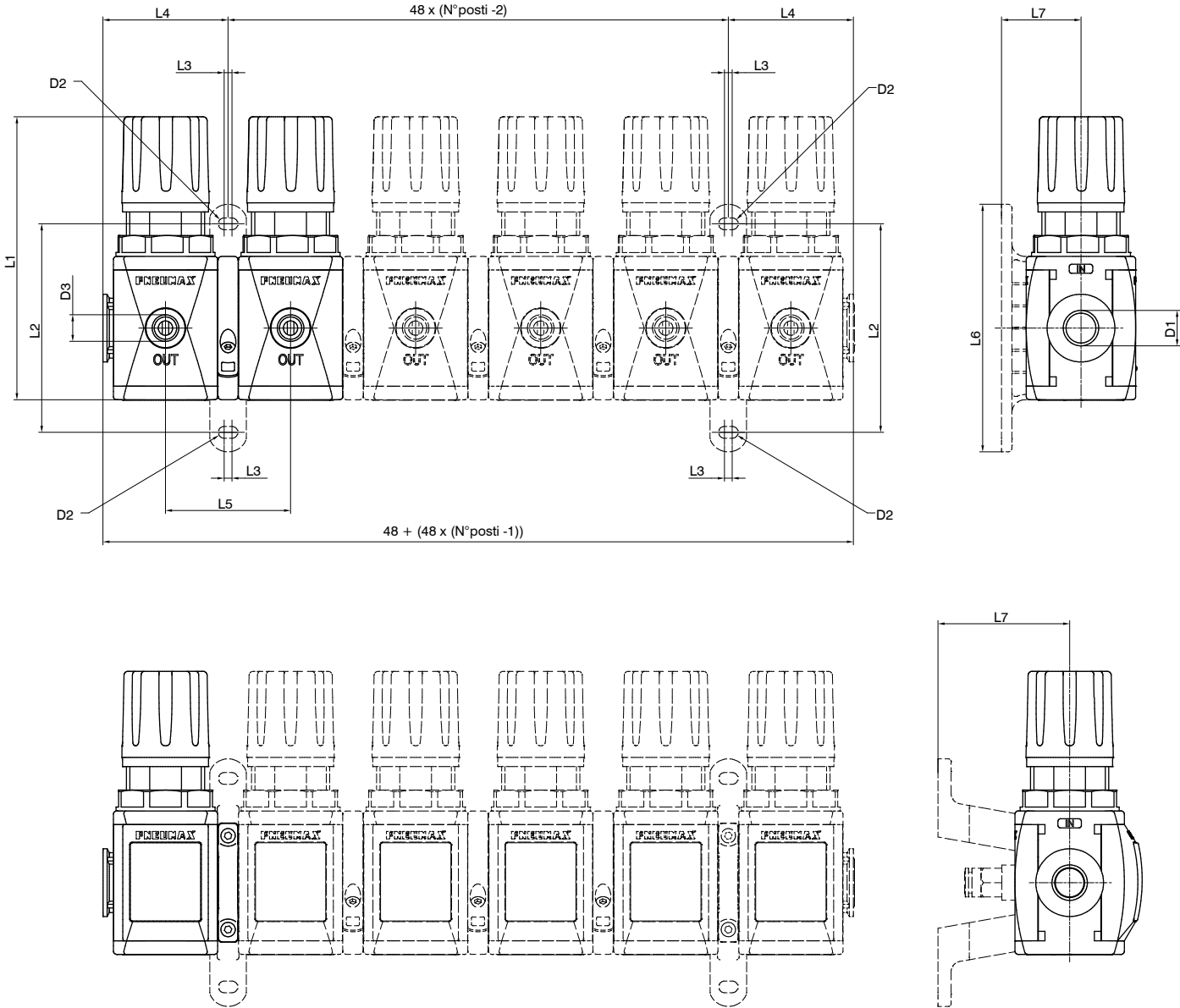
Pressure range
A : 0 - 2 bar
B : 0 - 4 bar
C : 0 - 8 bar
D : 0 - 12 bar

Pressure range
A : 0 - 2 bar
B : 0 - 4 bar
C : 0 - 8 bar
D : 0 - 12 bar

Pressure range
A : 0 - 2 bar
B : 0 - 4 bar
C : 0 - 8 bar
D : 0 - 12 bar

**Example : T171BM6CCCCC** : Size 1 manifold pressure regulators G1/4", 0 - 8 bar, integrated pressure gauge

Dimensions

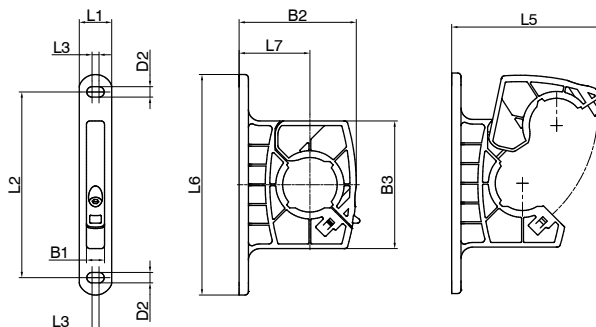


AIR TREATMENT

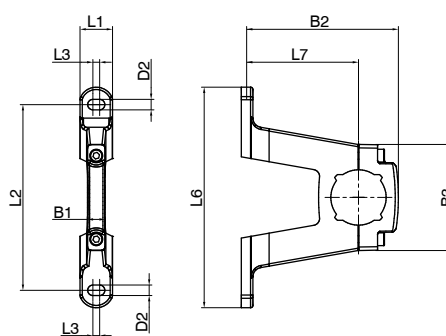
Model	D1	D2	D3	L1	L2	L3	L4	L5	L6	L7
#171..with flanges X		/			/	/			/	/
#171..with flanges Y	G1/4" G1/8" 1/4" NPT	Ø 4,5	G1/8"	109	80	3	48	48	105	30,5
#171..with extended flanges Y										50,5

► **Manifold mounting flanges**

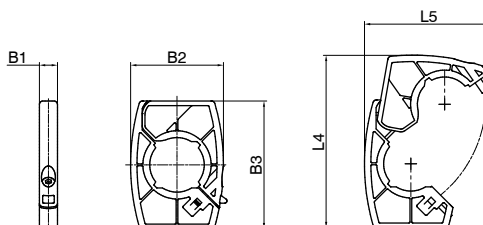
Flange Y



Extended flange Y

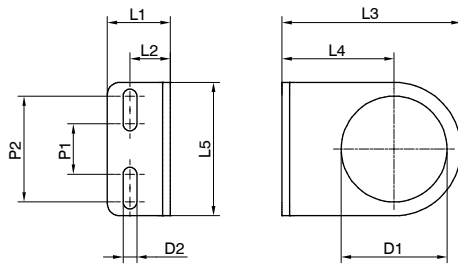


Flange X



Model	B1	B2	B3	D2	L1	L2	L3	L4	L5	L6	L7
T171Y	7,8	50,5	55	Ø 4,5	14	80	3	/	66	95	30,5
N171YP		67,7	45,7	Ø 4,5	14	80	3	/	66		50,5
T171X		40	55	/	/	/	/	74,5	55,5	/	/

► Fixing bracket



Model	L1	L2	L3	L4	L5	D1	D2	P1	P2
17150	20	13	50	30	40	30	5,5	20	30

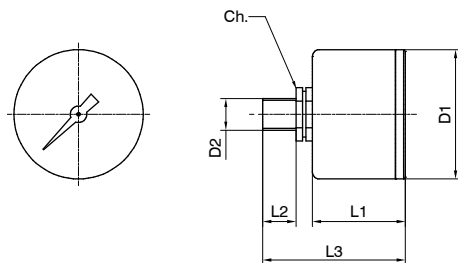
► Pressure gauge

17070 **A** **C**

Version
<b>A</b> : Dial Ø 40
<b>B</b> : Dial Ø 50

Scale
<b>A</b> : 0 - 4 bar
<b>B</b> : 0 - 6 bar
<b>C</b> : 0 - 12 bar



Model	L1	L2	L3	D1	D2	Ch
17070A..	26	10	44	41	Gc - 1/8"	14
17070B..	27	10	45	49	Gc - 1/8"	14