General

The operational safety and durability of a pneumatic circuit depends on the quality of the compressed air. The compressed air and the moisture increase the rate of wear of the surfaces and seals, reducing the efficiency and the life of the pneumatic components. Furthermore the pressure fluctuation due to a discontinuous demand of air, adversely effect the correct operation of the circuit. To eliminate these disadvantages it is essential to install the service unit: filter, presure regulator and lubricator.

Construction and working characteristics

The new FRL units AIRPLUS series represents the evolution of the well known and consolidated 1700 series.

The main features are increased performances, reliability, easy and fast assembly and the introduction of the latest technical features.

With the exception of the air intake module and the pressure switch module all elements are available in two configurations: with technopolimer connections (IN and OUT), (T series), or with metal threaded inserts, (N series).

Bowls made of transparent polycarbonate (PC) are fitted with a bowl protection guard which is assembled on the body via a quick coupling mechanism provided with a safety button. The filter, available with three filtration grades (5μ m, 20μ m and 50μ m) is fitted as standard with a drain mechanism which can be operated manually or semi-automatically. The regulator is based on the rolling diaphragm technology with low hysteresis and the system is balanced. The unit can be fitted with integrated flush mounting pressure gauge (0 to 12 bar range).

4 pressure ranges are available going from 0 to 12 bar and the regulating knob can be blocked in position simply by pressing it down. A dedicated version is available for battery mounting, up to a maximum of 6 units. The lubricator is based on the Venturi principle and the oil quantity is regulated via the adjusting screw positioned don the transparent polycarbonate (PC) regulating dome which also ensure clear visibility of the oil flow and regulation. The oil suction pipe is fitted as standard with a sintered filter which ensures that any contaminant that should be present in the oil will reach the down stream circuit. Shoot off valve is available in two versions, one manually operated and one solenoid operated. In both cases the unit is fitted with a threaded connection for depressurising the downstream circuit. On the manually operated version, in the lock position, it is possible to fit up to three locks in order to prevent the accidental pressurization of the pneumatic circuit avoiding accidents or damages.

The solenoid operated version is available with a 15mm or with a 22mm solenoid valve. The soft start valve ensure a progressive pressurization of the down stream circuit avoiding sudden pressure surges which could be dangerous for the devices fitted on the down stream circuit. The filling time can be easily adjusted via a built in flow regulator. The full flow rate is allowed only once the down stream pressure has reached 50% of the value of the inlet pressure. The pressure switch module which can be set between 2 and 10 bar and the air intake module complete the range. The elements are joint together via dedicated quick coupling technopolimer flanges which allows for the units to be panel mounted moreover ensure the possibility to replace any component without disassembling the FRL group from its position.

90° mounting brackets and standard gauges are also available.

Instruction for installation and operation

The FRL unit must be installed as close as possible to the application.

The air flow direction must follow the directions indicated on the single units in correspondence of the threaded connections. (IN and OUT)

Units provided with bowl must be mounted vertically with the bawl facing down. Single units or groups can be panel mounted via the Y type flanges, regulators and filter-regulators can be mounted via the 90° zinc plated steel bracket. In order to mount the 90° bracket it is necessary to remove the regulating knob and then the locking ring before positioning the bracket. All units must be operated according to the specified pressure and temperature ranges; fittings must be mounted without exciding the maximum torque allowed. Ensure that the units cover plates are in position before pressure is applied. The cover plates are needed to lock in position the top part of the unit. The condense level in filer and filter-regulators bowls must never exceed the maximum level indicated on the bowls. With manual or semi automatic drain the condense can be discharged via a 6/4mm tube directly connected to the drain tap. On the pressure regulator the pressure value must always set wile pressure is rising and ideally the unit pressure range should be chosen based on the pressure value to be regulated. Lubricators must be filled with class FD22 and HG32 oils. Ensure, both on the inlet and on the outlet, that the flow rate is above the minimum flow rate required to operate the unit. Below this value the units does not operate.

The oil quantity can be regulated via the regulating screw on the transparent polycarbonate dome through which it is also clearly visible the oil flow. A drop every 300-600 litres should be allowed. The oil refill can take place only with the bowl not under pressure. This size does not have the dedicated oil re-fill plug.

The manual shot off valve needs, to be operated, a push and turn action (clockwise) in order to close it and discharge the down stream circuit it is necessary to turn anti clock wise the knob. The soft start valve is used to slowly and progressively pressurize the down stream circuit, the time needed to do so can be set by means of the built in flow regulator. The soft start valve on its own does not allow for the down stream circuit to be discharged, in order to do so it is necessary to combine it with a shot off valve (to be mounted upstream).

Maintenance



For any maintenance which requires the removal of the top plugs/supports from the body it is necessary to preventively remove the sides cover plates. If the top plugs\supports are removed with the sides plates still in their position the unit could be permanently damaged.

Bowls, plugs and supports are assembled with a bayonet type mechanism. In order to remove them rotate anti clockwise until the mechanical stop is reached and than remove from the body (for the bowls firstly press down the green safety button).

Bowls and transparent parts can be cleaned with water and neutral soap. Do not use solvents or alcohol.

Filtering elements (from filters and filter regulators) made of HDPE can be regenerated by washing and blowing them. In order to remove them it is necessary to remove the bowl unscrew the filter element and replace it with a new one or clean it.

The oil refill process can take place only if the bowl in not pressurized. The oil refill plug is not available on this size.

Should the pressure regulator not perform properly or should present a constant leackage from the relieving replaced the diaphragm by unloading completely the regulating spring before removing the regulation support.

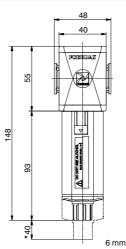
Any other maintenance operation, in consideration of the complexity of the assembly, and the need of a through test according to the Pneumax spa specification, should be carried out by the manufacturer.

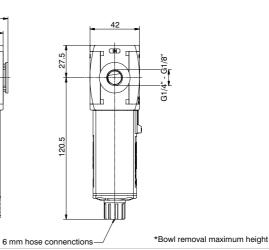
Fittings maximum recommended torque applicable

THREAD	Technopolymer version (T)	Metal version (N)
G1/8"	4 Nm	15 Nm
G1/4"	9 Nm	20 Nm
G3/8"	16 Nm	25 Nm
G1/2"	22 Nm	30 Nm

Filter (F)

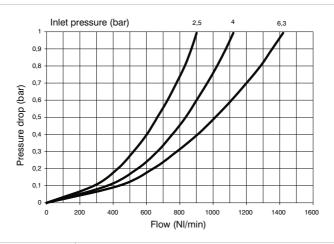






Example: T171BFB : size 1, Filter with Technopolymer threads, G1/4" connections, 20 μ m filter pore size

Flow rate curves



Operational characteristics

- Double filtering action: air flow centrifugation and filter element
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and $50\mu\text{m}$) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request

Note

In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

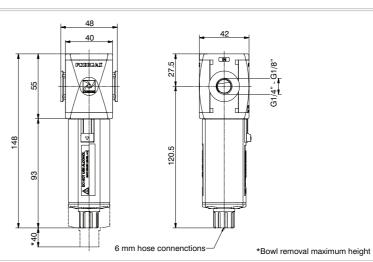
	Connections	G 1/8" - G 1/4"		Ordering code	
	Max. inlet pressure	13 bar			
Minimum working pressure	Minimum working pressure	0,5 bar		Ø 171 @F©Ø	
	with automatic drain			VERSION	
	Maximum working pressure		V	N = Metal inserts	
	with automatic drain	10 bar		T = Technopolymer thread	
			-	CONNECTIONS	
	Working temperature	-5°C +50°C	•	A = G1/8"(only for "N" version)	
	Weight with Technopolymer threads	gr. 120	•	B = G1/4"	
	Weight with threaded inserts			C = 1/4 NPT(only for "N" version)	
	weight with threated inserts	gr. 130	-	FILTER PORE SIZE	
	Filter pore size	5 μm - 20 μm - 50 μm	8	$A = 5 \mu m$	
	Bowl capacity	18 cm ³	•	$B = 20 \mu m$	
	Assembly positions	Vertical		$C = 50 \mu m$	
		vertical	-	OPTIONS	
	Max. fitting torque	G1/4" = 9 Nm	•	= Standard *	
	(with Technopolymer threads)	G1/4 = 9 Nm		S = Automatic drain	
	Max. fitting torque	G1/8" = 15 Nm	-	BOWL OPTIONS	
		G1/0 = 15 NIII	Ø	= Standard *	
(with threa	(with threaded inserts)	G1/4" = 20 Nm		N = Nylon bowl	

N = Nylon bowl * no additional letter required

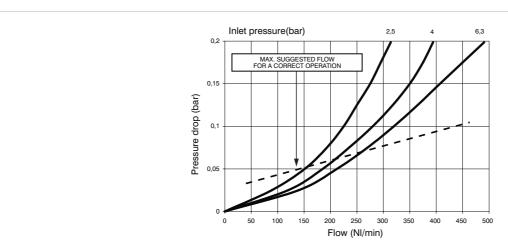
Coalescing filter (D)

Flow rate curves





Example: T171BDA: Coalescing size 1, Filter with Technopolymer threads, G1/4" connections, filter efficency 99,97%



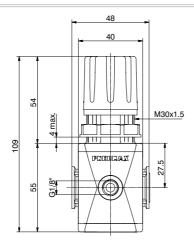
Operational characteristics Coelesing filter element with filtration grade of $0.01\mu m$ Transparent bowl made off polycarbonate with bowl protection guard. Bowl assembly via bayonet type quick coupling mechanism with safety button. Semi-automatic drain mounted as standard; automatic drain upon request Note In order to ensure a better grade of filtration it is recommended to use a 5 μm filter before the coalescing filter. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

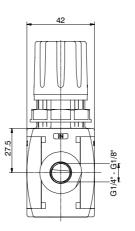
Technical characteristics		
Connections	G 1/8" - G 1/4"	Ordering code
Max. inlet pressure	13 bar	
Minimum working pressure	0,5 bar	Ø 171 @ D @Ø
with automatic drain	-,	VERSION
Maximum working pressure		N = Metal inserts
with automatic drain	10 bar	T = Technopolymer thread
		CONNECTIONS
Working temperature	-5°C +50°C	A = G1/8"(only for "N" version)
Weight with Technopolymer threads	gr. 125	B = G1/4"
Weight with threaded inserts	gr. 135	C = 1/4 NPT(only for "N" version)
Filter efficiency	3	FILTER EFFICIENCY A 99 9767
·	99,97%	A = 99,97%
with 0,01 μ m particle		OPTIONS
Bowl capacity	18cm³	= Standard * S = Automatic drain
Assembly positions	Vertical	BOWL OPTIONS
Max. fitting torque	2	= Standard *
(with Technopolymer threads)	G1/4" = 9 Nm	N = Nylon bowl
Max. fitting torque	G1/8" = 15 Nm	
(with threaded inserts)	G1/4" = 20 Nm	

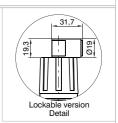
Size 1

Series Airplus

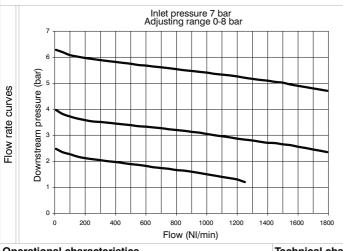


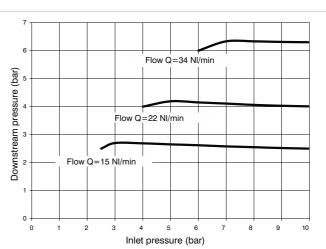






Example: T171BRC: size 1, Regulator with Technopolymer threads, G1/4" connections, 0 to 8 bar adjusting range





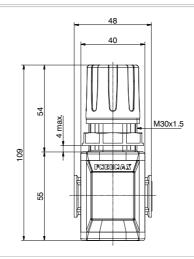
Operational characteristics	Technical characteristics		
Diaphragm pressure regulator with relieving.	Connections	G 1/8" - G 1/4"	Ordering code
Low hysteresis rolling diaphragm.	Max. inlet pressure	13 bar	
Balanced system.	Working temperature	-5°C +50°C	Ø 171 @ R ©⊕⊚
Available in four pressure ranges up to 12 bar.	Pressure gauge connections	G 1/8"	VERSION
Operating knob can be locked in position by pressing it	Weight with Technopolymer threads	gr. 130	N = Metal inserts
down once the desired P2 (regulated pressure)	Weight with threaded inserts	gr. 140	T = Technopolymer thread
pressure value is achieved.		0-2 bar / 0-4 bar	A = G1/9"(1-4
Fitted with panel mounting locking ring.	Pressure range	0-8 bar / 0-12 bar	B = G1/4"
Note	Assembly positions	Indifferent	C = 1/4 NPT(only for "N" version
The pressure must be always regulating while increasing. For	Max. fitting torque	G1/8" = 4 Nm	ADJUSTING RANGE A = 0-2 bar
a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the	(with Technopolymer threads)	G1/4" = 9 Nm	G B = 0-4 bar
	(man recame perjamen amedaes)	G.17 : G.11	C = 0-8 bar
			D = 0-12 bar
regulated pressure is recommended.			TYPE
			= Standard * F = Controlled refiel +
	Max. fitting torque	G1/8" = 15 Nm	improved relieving
	(with threaded inserts)	th threaded inserts) $G1/4" = 20 \text{ Nm}$	L = no relieving
			R = Improved relieving
			OPTIONS
			Standard *
			K = Lockable version

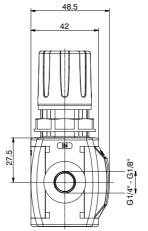
Adjustment characteristics

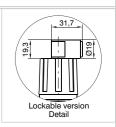
^{*} no additional letter required



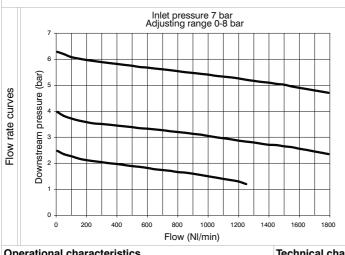


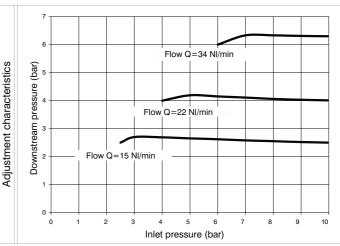






Example: T171BRMC: size 1, Regulator including gauge with Technopolymer threads, G1/4" connections, 0 to 8 bar adjusting range





Operational characteristics

- Diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- Integrated manometer 0-12 bar as standard (for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

Note

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics

	Connections	G 1/8" - G 1/4"		Ordering code
	Max. inlet pressure	13 bar		
	Working temperature	-5°C +50°C		Ø 171 @ R @@@
	Weight with Technopolymer threads	gr. 140		VERSION
	Weight with threaded inserts	gr. 150	Ø	N = Metal inserts
Pressure range Assembly positions		0-2 bar / 0-4 bar		T = Technopolymer thread
	Pressure range			CONNECTIONS
		0-8 bar / 0-12 bar	•	A = G1/8"(only for "N" version)
	Assembly positions	Indifferent		B = G1/4"
				C = 1/4 NPT(only for "N" version)
	Max. fitting torque	G1/4" = 9 Nm		FLOW DIRECTION
)	(with Technopolymer threads)		0	M = from left to right
				W = from right to left
				ADJUSTING RANGE
			e	A = 0-2 bar
				B = 0-4 bar
				C = 0-8 bar
				D = 0-12 bar
	Max. fitting torque		•	TYPE
	,			= Standard *
(w	(with threaded inserts)	G1/4" = 20 Nm		F = Controlled refiel +
			U	improved relieving
				L = no relieving
				R = Improved relieving
				OPTIONS
			•	= Standard *

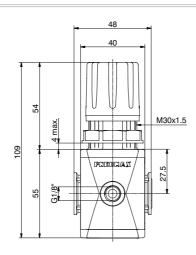
K = Lockable version * no additional letter required

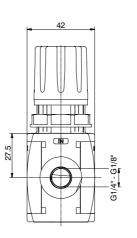
Flow rate curves

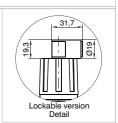


Modular pressure regulator (B)

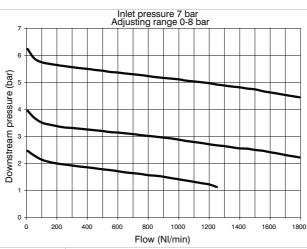








Example: T171BBC : size 1, Regulator with Technopolymer threads, G1/4" connections, 0 to 8 bar adjusting range



Diaphragm pressure regulator with relieving. Low hysteresis rolling diaphragm. Balanced system. Available in four pressure ranges up to 12 bar. Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved. G1/8" output front connection. Air supply can be applied by both directions. Note The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics		
Connections	G 1/8" - G 1/4"	
Max. inlet pressure	13 bar	
Working temperature	-5°C +50°C	
Pressure gauge connections	G 1/8"	Г
Weight with Technopolymer threads	gr. 130	•
Weight with threaded inserts	gr. 140	H
Pressure range	0-2 bar / 0-4 bar	١,
1 ressure range	0-8 bar / 0-12 bar	\
Assembly positions	Indifferent	H
Max. fitting torque	G1/8" = 4 Nm	
(with Technopolymer threads)	G1/4" = 9 Nm	(
Max. fitting torque (with threaded inserts)	G1/8" = 15 Nm G1/4" = 20 Nm	
		1

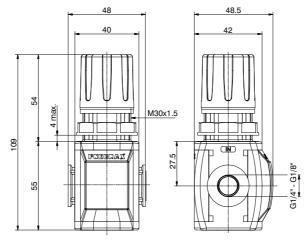
	Ø 171 © B ©© ⊚
	VERSION
V	N = Metal inserts
	T = Technopolymer thread
	CONNECTIONS
0	A = G1/8"(only for "N" version)
•	B = G1/4"
	C = 1/4 NPT(only for "N" version)
	ADJUSTING RANGE
	A = 0-2 bar
e	B = 0-4 bar
	C = 0-8 bar
	D = 0-12 bar
	TYPE
	= Standard *
0	F = Controlled refiel +
U	improved relieving
	L = no relieving
	R = Improved relieving
	OPTIONS
\odot	= Standard *
	K = Lockable version

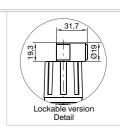
Ordering code

^{*} no additional letter required

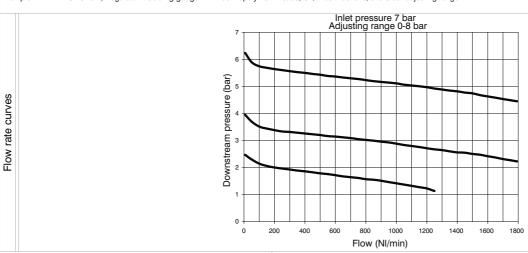
Modular pressure regulator including manometer (M)







Example: T171BMC: size 1, Regulator including gauge with Technopolymer threads, G1/4" connections, 0 to 8 bar adjusting range



Operational characteristics

- Diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- G 1/8" output connection positioned on the opposite side of the built in gauge.
- Air supply can be applied by both directions.
- Integrated manometer 0-12 bar as standard
- (for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

Note

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics

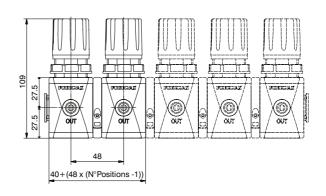
Connections	G 1/8" - G 1/4"	Ordering code
Max. inlet pressure	13 bar	<u> </u>
Working temperature	-5°C +50°C	♥ 171 ଡ M ©⊕⊚
Weight with Technopolymer threads	gr. 140	VERSION
Weight with threaded inserts	gr. 150	■ N = Metal inserts
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	T = Technopolymer thread CONNECTIONS A = G1/8"(only for "N" version)
Assembly positions	Indifferent	B = G1/4"
Max. fitting torque (with Technopolymer threads)	G1/8" = 4 Nm G1/4" = 9 Nm	C = 1/4 NPT(only for "N" version) ADJUSTING RANGE A = 0-2 bar
		B = 0-4 bar C = 0-8 bar D = 0-12 bar
Max. fitting torque (with threaded inserts)	G1/8" = 15 Nm G1/4" = 20 Nm	TYPE = Standard * F = Controlled refiel + improved relieving L = no relieving R = Improved relieving
		OPTIONS = Standard * K = Lockable version

^{*} no additional letter required

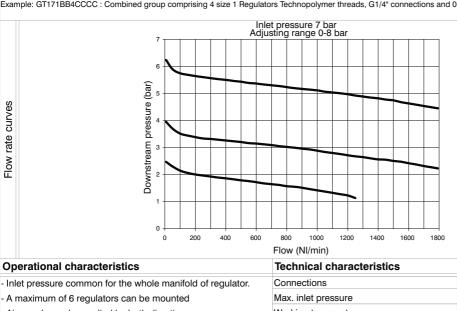


Manifold pressure regulators





Example: GT171BB4CCCC: Combined group comprising 4 size 1 Regulators Technopolymer threads, G1/4" connections and 0 to 8 bar adjusting range



Ľ	operationa.	onar actor iotios	
	Inlet pressure	common for the whole	manifold of regul

- Air supply can be applied by both directions.

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Connections	G 1/8" - G 1/4"
Max. inlet pressure	13 bar
Working temperature	-5°C +50°C
Pressure range	0-2 bar / 0-4 bar
rressure range	0-8 bar / 0-12 bar
Assembly positions	indifferent
Max. fitting torque	G1/8" = 4 Nm
(with Technopolymer threads)	G1/4" = 9 Nm

Max. fitting torque G1/8" = 15 Nm(with threaded inserts) G1/4" = 20 Nm

B = Standard with flanges X M = Manometer included with flanges X W = Standard with flanges Y Z = Manometer included with flanges Y NUMBER REGULATORS 2 = 2 regulators 3 = 3 regulators 4 = 4 regulators 5 = 5 regulators 6 = 6 regulators ADJUSTING RANGE 1 A = 0-2 bar**G** B = 0-4 barC = 0.8 barD = 0-12 bar ADJUSTING RANGE 2 A = 0-2 bar**B** = 0-4 bar C = 0-8 bar D = 0-12 bar ADJUSTING RANGE 3 A = 0-2 bar **G** B = 0-4 barC = 0-8 bar D = 0-12 bar ADJUSTING RANGE 4 A = 0-2 bar **G** B = 0-4 barC = 0-8 bar D = 0-12 bar ADJUSTING RANGE 5 A = 0-2 bar **6** B = 0-4 bar C = 0-8 bar D = 0-12 bar ADJUSTING RANGE 6

A = 0-2 bar**G** B = 0-4 barC = 0-8 barD = 0-12 bar

Ordering code

> T = Technopolymer thread CONNECTIONS

A = G1/8"(only for "N" version)

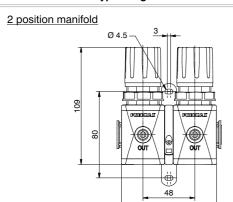
C = 1/4 NPT(only for "N" version)

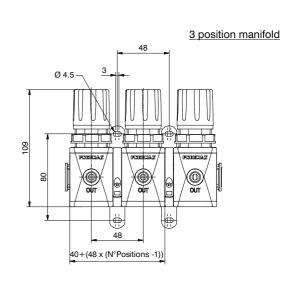
VERSION N = Metal inserts

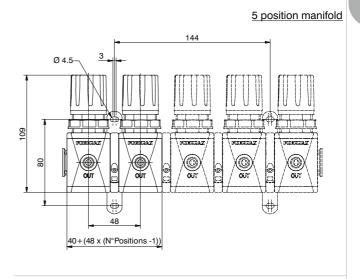
B = G1/4"

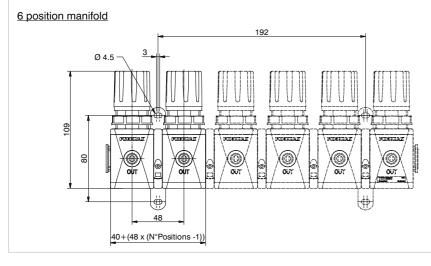
TYPE

Dimensions with Y type flanges





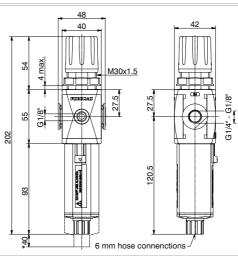


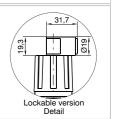




Filter-Regulator (E)

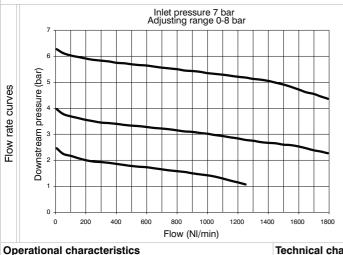


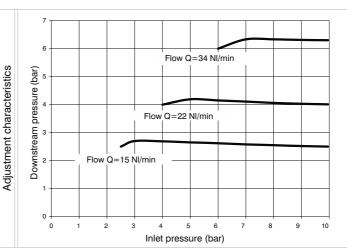




*Bowl removal maximum height

 $\textbf{Example: T171BEBC: size 1, Filter-regulator with Technopolymer threads, G1/4" connections, 20~\mu m filtering pore size, 0~to~8~bar adjusting range } \\$





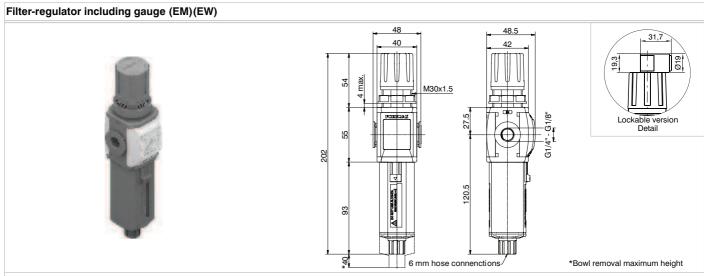
Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and $50\mu\text{m}$) can be regenerated by washing it or replaced.
- Transparent bowl made of polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.

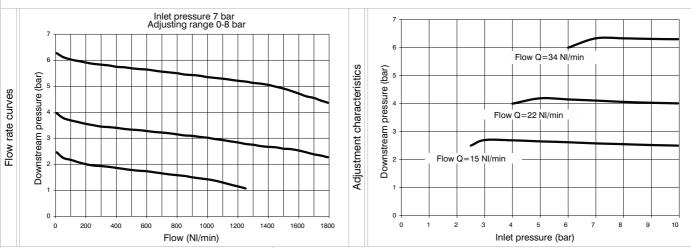
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

commodi characteristics	Technical	characteristics
-------------------------	-----------	-----------------

Connections	G 1/8" - G 1/4"		Ordering code
Max. inlet pressure	13 bar		
Minimum working pressure	0,5 bar		Ø 171 ©E©©©©
with automatic drain	,		VERSION
Maximum working pressure		V	N = Metal inserts
with automatic drain	10 bar		T = Technopolymer thread
		-	CONNECTIONS
Working temperature	-5°C +50°C	•	A = G1/8"(only for "N" version)
Pressure gauge connections	G 1/8"	•	B = G1/4"
Weight with Technopolymer threads	gr. 190	_	C = 1/4 NPT(only for "N" version)
Weight with threaded inserts	gr. 200		FILTER PORE SIZE
Weight with threaded inserts		8	$A = 5 \mu m$ $B = 20 \mu m$
Pressure range 0-2 bar / 0-4 bar		$C = 50 \mu \text{m}$	
- research rainige	0-8 bar / 0-12 bar		ADJUSTING RANGE
Filter pore size	5 μm - 20 μm - 50 μm		A = 0-2 bar
Bowl capacity	18 cm ³	G	B = 0-4 bar
Assembly positions	Vertical	-	C = 0-8 bar
7 1			D = 0-12 bar
Max. fitting torque	G1/8" = 4 Nm		TYPE
(with Technopolymer threads)	G1/4" = 9 Nm	0	= Standard *
			S = Automatic drain
_			OPTIONS
	G1/8" = 15 Nm	•	= Standard *
			K = Lockable version
Max. fitting torque			BOWL OPTIONS
(with threaded inserts)		Ø	= Standard *
(with threaded inserts)	G1/4" = 20 Nm		N = Nylon bowl
			* no additional letter required



Example: T171BEMBC : size 1, Filter-Regulator including gauge with Technopolymer threads, G1/4* connections, with 20 μ m filtering pore size, 0 to 8 bar adjusting range



Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and 50μ m) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved
- Fitted with panel mounting locking ring.
- Integrated manometer 0-12 bar as standard

(for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

Connections	G 1/8" - G 1/4"	Γ
Max. inlet pressure	13 bar	}
Minimum working pressure	0,5 bar	
with automatic drain	0,5 bai	r
Maximum working pressure	401	•
with automatic drain	10 bar	H
Working temperature	-5°C +50°C	1.
Weight with Technopolymer threads	gr. 200	1
Weight with threaded inserts	gr. 210	-
Proceure renge	0-2 bar / 0-4 bar	(
Pressure range	0-8 bar / 0-12 bar	L
Filter pore size	5 μm - 20 μm - 50 μm	
Bowl capacity	18 cm ³	•
Assembly positions	Vertical	L
Max. fitting torque	O4/4II O N	
(with Technopolymer threads)	G1/4" = 9 Nm	
		H
		L
Max. fitting torque	G1/8" = 15 Nm	
		ľ,
(with threaded inserts)	G1/4" = 20 Nm	

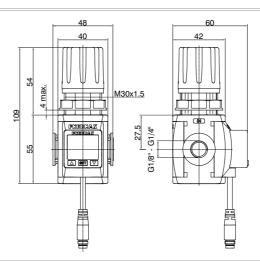
Ordering code **♥171@E®®®®®**

	VERSION
V	N = Metal inserts
	T = Technopolymer thread
	CONNECTIONS
•	A = G1/8"(only for "N" version)
G	B = G1/4"

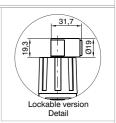
- C = 1/4 NPT(only for "N" version) FLOW DIRECTION M = from left to right W = from right to left
- FILTER PORE SIZE $A = 5 \mu m$ $B = 20 \mu m$ 8 $C = 50 \, \mu m$ ADJUSTING RANGE
- A = 0-2 bar**6** B = 0-4 barC = 0-8 bar
- D = 0-12 bar TYPE = Standard *
- S = Automatic drain OPTIONS = Standard * K = Lockable version **BOWL OPTIONS**
- = Standard 3 N = Nylon bowl
 - * no additional letter required

Regulator with pressure switch (RP)(RZ)

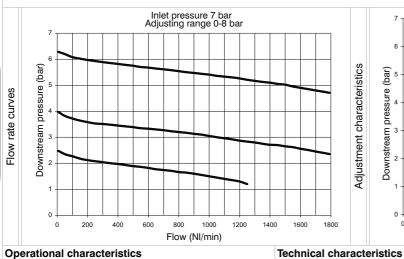


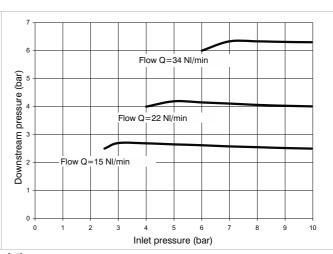


Adjustment characteristics



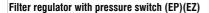
Example: T171BRPCA: size 1, Regulator with Technopolymer threads, G1/4" connections, 0 to 8 bar adjusting range, with pressure switch with M8 connector PNP



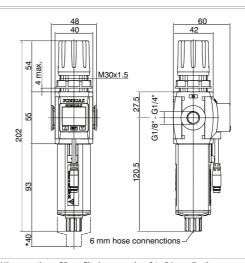


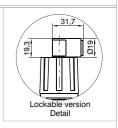
Connections Max. inlet pressure	G 1/8
•	1
Working temperature	0°C
Weight with Technopolymer threads	g
Weight with threaded inserts	g
Pressure range	0-2 ba
1 Toodard Tarrigo	0-8 ba
Assembly positions	Inc
Max. fitting torque	G1/4
(with Technopolymer threads)	G1/4
Max. fitting torque (with threaded inserts)	G1/8' G1/4'
	Weight with threaded inserts Pressure range Assembly positions Max. fitting torque (with Technopolymer threads) Max. fitting torque

iecillical characteristics		
Connections	G 1/8" - G 1/4"	Ordering code
Max. inlet pressure	13 bar	araamig coas
Vorking temperature	0°C +50°C	0 171 0 R 0000
Veight with Technopolymer threads	gr. 140	VERSION
Veight with threaded inserts	gr. 150	■ N = Metal inserts
	0-2 bar / 0-4 bar	T = Technopolymer thread
Pressure range	0-8 bar / 0-12 bar	CONNECTIONS
	· · · · · · · · · · · · · · · · · · ·	A = G1/8"(only for "N" version) B = G1/4"
assembly positions	Indifferent	C = 1/4 NPT(only for "N" version)
Max. fitting torque	G1/4" = 9 Nm	FLOW DIRECTION
with Technopolymer threads)	G., . G	P = from left to right
		Z = from right to left
		ADJUSTING RANGE
		A = 0-2 bar
		6 B = 0-4 bar
		C = 0-8 bar
		D = 0-12 bar
		TYPE
		= Standard *
		F = Controlled refiel +
Max. fitting torque	G1/8" = 15 Nm	improved relieving
with threaded inserts)	G1/4" = 20 Nm	L = no relieving
,		R = Improved relieving
		OPTIONS
		Standard *
		K = Lockable version
		PRESSURE SWITCH OPTION
		A = Cable 150 mm+M8 PNP
		B = Cable 150 mm+M8 NPN
		C = Cable 2 mt. PNP
		D = Cable 2 mt. NPN



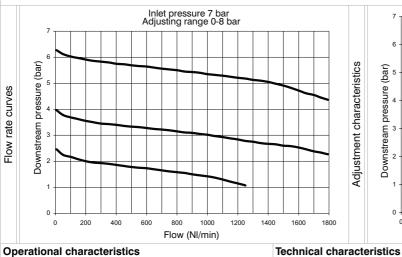


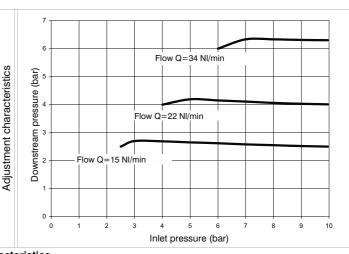




* Bowl removal maximum height

Example: T171BEPBCA : size 1, Filter-regulator with Technopolymer threads, G1/4" connections, 20 μ m filtering pore size, 0 to 8 bar adjusting range, with pressure switch with M8 connector PNP





Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and 50μ m) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved
- Fitted with panel mounting locking ring.
- Pressure switch as standard

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Connections	G 1/8" - G 1/4"	Ordering code
Max. inlet pressure	13 bar	ordering seds
Minimum working pressure	0,5 bar	Ø 171 © E 0©©0©
with automatic drain		VERSION
Maximum working pressure	10 bar	N = Metal inserts
with automatic drain	10 bar	T = Technopolymer thread
Working tomporature	0°C +50°C	CONNECTIONS
Working temperature		A = G1/8"(only for "N" version) B = G1/4"
Weight with Technopolymer threads	gr. 200	C = 1/4 NPT(only for "N" version)
Weight with threaded inserts	gr. 210	FLOW DIRECTION
	0-2 bar / 0-4 bar	P = from left to right
Pressure range	0-8 bar / 0-12 bar	Z = from right to left
		FILTER PORE SIZE
Filter pore size	5 μm - 20 μm - 50 μm	A = 5 um
Bowl capacity	18 cm ³	$B = 20 \mu\text{m}$
Assembly positions	Vertical	$C = 50 \mu m$
	70.000	ADJUSTING RANGE
Max. fitting torque	G1/4" = 9 Nm	A = 0-2 bar
(with Technopolymer threads)	- , -	6 B = 0-4 bar
		C = 0-8 bar
		D = 0-12 bar
		TYPE
		= Standard *
		S = Automatic drain
		OPTIONS
May fitting targue	04/01 45 No.	Standard *
Max. fitting torque	G1/8" = 15 Nm	K = Lockable version
(with threaded inserts)	G1/4" = 20 Nm	PRESSURE SWITCH OPTION
		A = Cable 150 mm+M8 PNP
		B = Cable 150 mm+M8 NPN
		C = Cable 2 mt. PNP
		D = Cable 2 mt. NPN
		BOWL OPTIONS = Standard *
		N = Nylon bowl
		* no additional

letter required



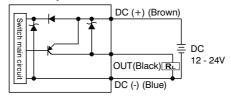


CHARACTERISTICS

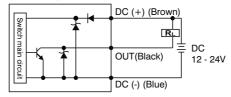
- 3 color digital LCD display, easy readout
- 4 units of measurement for pressure indication
- PNP and NPN output
- N.O. and N.C. output contact
- Not available individually, but only with a Regulator or a Filter-regulator

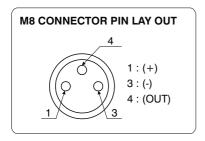
OUTPUT CIRCUIT WIRING DIAGRAMS

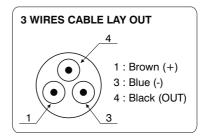
PNP output



NPN output







Cable ordering code

MCH1 cable 3 wires I=2,5m with M8 connector

MCH2 cable 3 wires I=5m with M8 connector

MCH3 cable 3 wires I=10m with M8 connector

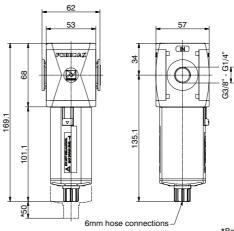




TECHNICAL CHARACTERISTICS			
Adjusting range	0 - 10 bar / 0 - 1MPa		
Max. inlet pressure	15 bar / 1,5 MPa		
Fluid	Filtered and dehumidified air		
Display unit of measurement	MPa - kgf/cm² - bar - psi		
Supply voltage	12 - 24 VDC		
Current consumption	≤40mA (without load)		
Digital output type	NPN - PNP		
Type of contact	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 function)		
Display characteristics	Double 3 1/2 digit display Digital output status indication Three-pushbuttons touchpad		
Indicator accuracy	≤±2% F.S. ± 1 digit		
Protection grade	IP 40		
Temperature	0 - 50 °C		
Cable section	3 x 0,129mm², Ø4 mm, PVC		

Filter (F)

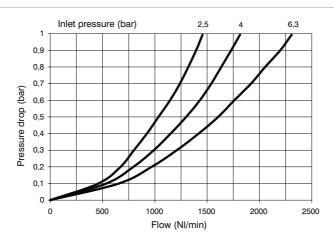




*Bowl removal maximum height

Example: T172BFB : size 2, Filter with Technopolymer threads, G3/8" connections, 20 μ m filter pore size





Operational characteristics

- Double filtering action: air flow centrifugation and filter element
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and $50\mu\text{m}$) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.

Note

In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

	Connections	G 1/4" - G 3/8"		Ordering cod	
	Max. inlet pressure	13 bar			
	Minimum working pressure	0,5 bar		Ø 172 © F © ©	
	with automatic drain	· ·		VERSION	
	Maximum working pressure		V	N = Metal inserts	
	with automatic drain	10 bar		T = Technopolyme	
	will automatic drain		-	CONNECTIONS	
	Working temperature	-5°C +50°C	0	A = G1/4"(only for "N" v	
	Weight with Technopolymer threads	gr. 220		B = G3/8"	
	Waight with threaded inserts	gr 220		C = 3/8 NPT(only for	
	Weight with threaded inserts	gr. 230		FILTER PORE SIZE	
	Filter pore size	5 μm - 20 μm - 50 μm	8	$A = 5 \mu m$	
	Bowl capacity	34 cm ³	•	$B = 20 \mu m$	
	Assembly positions	Vertical		$C = 50 \mu m$	
	Assembly positions	vertical		OPTIONS	
	Max. fitting torque	G3/8" = 16 Nm	•	= Standard *	
	(with Technopolymer threads)			S = Automatic drai	
	Max. fitting torque	G1/4" = 20 Nm	1	BOWL OPTIONS	
				= Standard *	
	(with threaded inserts)	G3/8" = 25 Nm		N = Nylon bowl	

* no additional letter required

Ordering code

Ø172**@**F**◎@**

T = Technopolymer thread

 $\begin{tabular}{ll} A = G1/4"(only for "N" version) \\ B = G3/8" \\ C = 3/8 \ NPT(only for "N" version) \\ \end{tabular}$

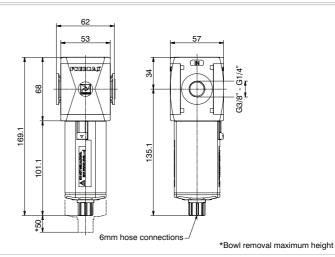
= Standard * S = Automatic drain BOWL OPTIONS = Standard * N = Nylon bowl

FILTER PORE SIZE

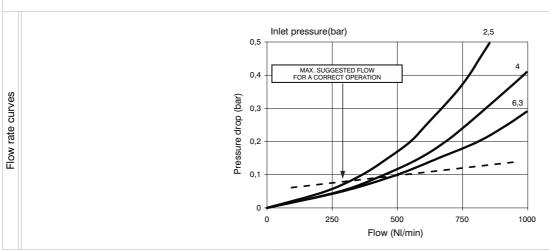
olus e 2 preunax

Coalescing filter (D)





Example: T172BDA: Coalescing filter size 2, with Technopolymer threads, G3/8" connections, filter efficency 99,97%

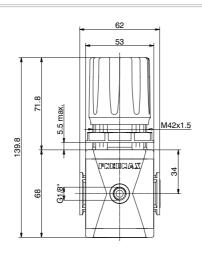


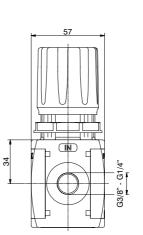
Operational characteristics **Technical characteristics** Coelesing filter element with filtration grade of $0.01\mu m$ G 1/4" - G 3/8" Connections Ordering code Transparent bowl made off polycarbonate with Max. inlet pressure 13 bar **Ø**172**@**D**@Ø** bowl protection guard. Minimum working pressure 0,5 bar Bowl assembly via bayonet type quick coupling with automatic drain VERSION Ø N = Metal inserts mechanism with safety button. Maximum working pressure 10 bar T = Technopolymer threadSemi-automatic drain mounted as standard; with automatic drain CONNECTIONS automatic drain upon request. -5°C +50°C Working temperature $$\begin{split} A &= G1/4 \text{"(only for "N" version)} \\ B &= G3/8 \text{"} \\ C &= 3/8 \text{ NPT(only for "N" version)} \end{split}$$ gr. 225 Weight with Technopolymer threads Note In order to ensure a better grade of filtration it is recommended Weight with threaded inserts gr. 235 FILTER EFFICIENCY to use a 5 μ m filter before the coalescing filter. In order to ensure Filter efficiency A = 99,97%99,97% **OPTIONS** adequate flow on the auto drain version it is recommended to with 0,01 μ m particle = Standard * 34 cm³ use minimum a 6mm fitting. Bowl capacity S = Automatic drain Assembly positions Vertical **BOWL OPTIONS** = Standard * Max. fitting torque G3/8" = 16 Nm N = Nylon bowl (with Technopolymer threads) G1/4" = 20 Nm Max. fitting torque G3/8" = 25 Nm (with threaded inserts)

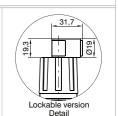


Regulator (R)

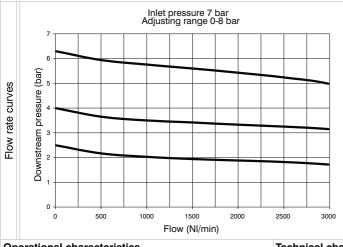


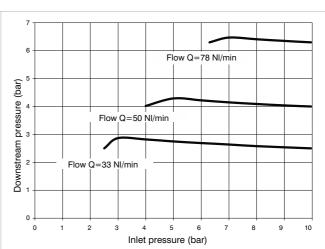






Example: T172BRC: size 2, Regulator with Technopolymer threads, G3/8" connections, 0 to 8 bar adjusting range

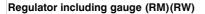




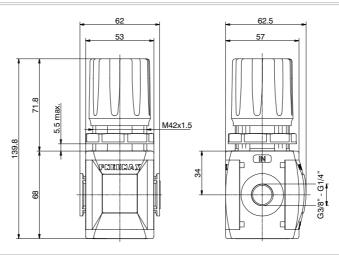
Operational characteristics	Technical characteristics		
- Diaphragm pressure regulator with relieving.	Connections	G 1/4" - G 3/8"	Ordering code
- Low hysteresis rolling diaphragm.	Max. inlet pressure	13 bar	
- Balanced system.	Working temperature	-5°C +50°C	Ø 172 © R ©©©
- Available in four pressure ranges up to 12 bar.	Pressure gauge connections	G 1/8"	VERSION
- Operating knob can be locked in position by pressing it	Weight with Technopolymer threads	gr. 300	N = Metal inserts
down once the desired P2 (regulated pressure)	Weight with threaded inserts	gr. 310	T = Technopolymer thread CONNECTIONS
pressure value is achieved.	B	0-2 bar / 0-4 bar	Δ = G1// (only for thill yession)
- Fitted with panel mounting locking ring.	Pressure range	0-8 bar / 0-12 bar	B = G3/8"
Note	Assembly positions	Indifferent	C = 3/8 NPT(only for "N" version)
The pressure must be always regulating while increasing. For	Max. fitting torque	G1/8" = 4 Nm	ADJUSTING RANGE A = 0-2 bar
a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the	(with Technopolymer threads)	G3/8" = 16 Nm	6 B = 0-4 bar
	(war realineperymer amedae)	G0/0 1014III	C = 0-8 bar
			D = 0-12 bar
regulated pressure is recommended.			TYPE
			= Standard * F = Controlled refiel +
		G1/4" = 20 Nm	improved relieving
		G3/8" = 25 Nm	L = no relieving
		33,3 201111	R = Improved relieving
			OPTIONS
			Standard *
			K = Lockable version

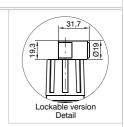
Adjustment characteristics

^{*} no additional letter required

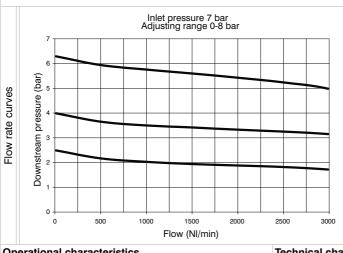


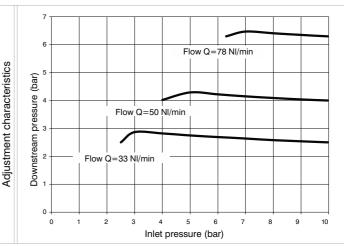






Example: T172BRMC: size 2, Regulator including gauge with Technopolymer threads, G3/8" connections, 0 to 8 bar adjusting range





Operational characteristics

- Diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- Integrated manometer 0-12 bar as standard

(for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

Note

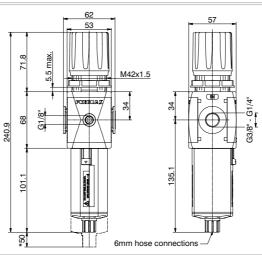
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

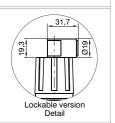
Technical characteristics

Max. inlet pressure Working temperature -5°C +50°C Weight with Technopolymer threads Weight with threaded inserts Gr. 310 Pressure range Assembly positions Max. fitting torque (with Technopolymer threads) Gr. 310 O-2 bar / 0-4 bar 0-8 bar / 0-12 bar Indifferent Gr. 310 VERSION N = Metal inserts T = Technopolymer thread CONNECTIONS A = G1/A**(only for *N** version*) B = G3/8** E G3/8** = 16 Nm Grown left to right W = from right to left ADJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar D = 0-12 bar	Connections	G 1/4" - G 3/8"	Ordering code
Weight with Technopolymer threads Weight with threaded inserts Gr. 300 Weight with threaded inserts Pressure range O-2 bar / 0-4 bar O-8 bar / 0-12 bar Assembly positions Indifferent Max. fitting torque (with Technopolymer threads) G3/8" = 16 Nm WERSION N = Metal inserts T = Technopolymer thread CONNECTIONS A = G1/4"(only for ™ version) B = G3/8" C = 3/8 NPT(only for ™ version) FLOW DIRECTION M = from left to right W = from right to left ADJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar	Max. inlet pressure	13 bar	
Weight with threaded inserts gr. 310 O-2 bar / O-4 bar O-8 bar / O-12 bar Assembly positions Max. fitting torque (with Technopolymer threads) G3/8" = 16 Nm N = Metal inserts T = Technopolymer thread CONNECTIONS A = G1/4"(only for ™ version) B = G3/8" C = 3/8 NPT(only for ™ version) M = from left to right W = from right to left ADJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar	Working temperature	-5°C +50°C	Ø 172 @ R D@DO
Pressure range O-2 bar / 0-4 bar O-8 bar / 0-12 bar Assembly positions Max. fitting torque (with Technopolymer threads) G3/8" = 16 Nm G3/8" = 16 Nm G3/8" = 16 Nm FLOW DIRECTION FLOW	Weight with Technopolymer threads	gr. 300	VERSION
Pressure range 0-2 bar / 0-4 bar 0-8 bar / 0-12 bar Assembly positions Indifferent Max. fitting torque (with Technopolymer threads) Ga/8" = 16 Nm T = Technopolymer thread CONNECTIONS B = G3/8" C = 3/8 NPT(only for 'N' version') B = G3/8" C = 3/8 NPT(only for 'N' version') M = from left to right W = from right to left AJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar	Weight with threaded inserts	gr. 310	N = Metal inserts
Assembly positions Max. fitting torque (with Technopolymer threads) G3/8" = 16 Nm FLOW DIRECTION M = from left to right W = from right to left AJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar			- ' '
Assembly positions Max. fitting torque (with Technopolymer threads) G3/8" = 16 Nm G3/8" = 16 Nm FLOW DIRECTION M = from left to right W = from right to left AJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar	Pressure range		
Max. fitting torque (with Technopolymer threads) G3/8" = 16 Nm G3/8" = 16 Nm FLOW DIRECTION M = from left to right W = from right to left AJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar			
Max. fitting torque (with Technopolymer threads) G3/8" = 16 Nm FLOW DIRECTION M = from left to right W = from right to left ADJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar	Assembly positions	Indifferent	
(with Technopolymer threads) G3/8" = 16 Nm M = from left to right W = from right to left ADJUSTING RANGE A = 0.2 bar B = 0.4 bar C = 0.8 bar	Max. fitting torque	raue	
W = from right to left ADJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar	•	G3/8" = 16 Nm	
ADJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar	(with rechnopolymer threads)		
A = 0-2 bar B = 0-4 bar C = 0-8 bar			
B = 0-4 bar C = 0-8 bar			
C = 0-8 bar			
			<u> </u>
D = 0-12 bar			
Max. fitting torque G1/4" = 20 Nm	Max. fitting torque (with threaded inserts)	G1/4" = 20 Nm	TYPE
(with threaded inserts) G3/8" = 25 Nm		G2/9" — 25 Nm	= Standard *
F = Controlled refiel +		G3/6 = 25 NIII	F = Controlled refiel +
improved relieving			improved relieving
L = no relieving			L = no relieving
R = Improved relieving			R = Improved relieving
OPTIONS			OPTIONS
Standard *			Standard *
K = Lockable version			K = Lockable version

Filter-Regulator (E)

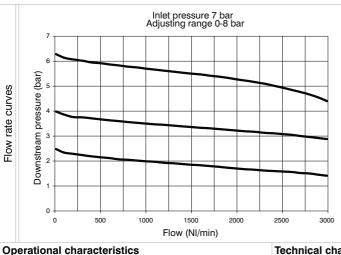


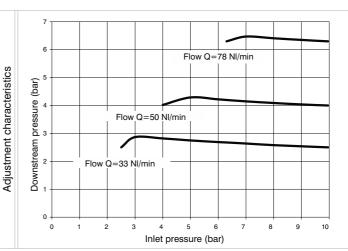




*Bowl removal maximum height

Example: T172BEBC: size 2, Filter-regulator with Technopolymer threads, G3/8" connections, 20 μ m filtering pore size, 0 to 8 bar adjusting range





Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and $50\mu\text{m}$) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.

Note

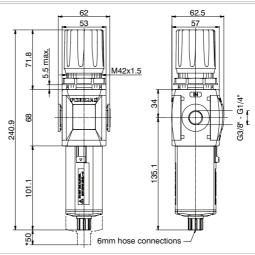
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting

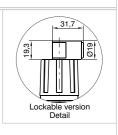
	Technical of	characteristics
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Connections	G 1/4" - G 3/8"		Ordering code
Max. inlet pressure	13 bar		
Minimum working pressure	0,5 bar		Ø 172 © E S©©©
with automatic drain			VERSION
Maximum working pressure		V	N = Metal inserts
with automatic drain	10 bar		T = Technopolymer thread
Working temperature	-5°C +50°C	1	CONNECTIONS A = G1/4"(only for "N" version)
<u> </u>		•	B = G3/8"
Pressure gauge connections	G 1/8"		C = 3/8 NPT(only for "N" version)
Weight with Technopolymer threads	gr. 390		FILTER PORE SIZE
Weight with threaded inserts	gr. 400	8	$A = 5 \mu m$
Pressure range	0-2 bar / 0-4 bar	9	B = 20 μm
	0-8 bar / 0-12 bar		$C = 50 \mu m$
		-	ADJUSTING RANGE
Filter pore size	5 μm - 20 μm - 50 μm		A = 0-2 bar
Bowl capacity	34 cm ³	e	
Assembly positions	Vertical		C = 0-8 bar
Max. fitting torque	G1/8" = 4 Nm	_	D = 0-12 bar
	- , -		TYPE
(with Technopolymer threads)	G3/8" = 16 Nm	•	= Standard *
		_	S = Automatic drain
-		•	OPTIONS = Standard *
_			K = Lockable version
			BOWL OPTIONS
Max. fitting torque	G1/4" = 20 Nm		= Standard *
(with threaded inserts)	G3/8" = 25 Nm	9	N = Nylon bowl
			* no additional letter required

Filter-regulator including gauge (EM)(EW)

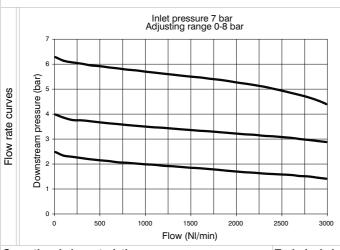


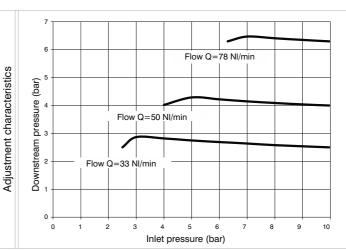




*Bowl removal maximum height

Example: T172BEMBC : size 2, Filter-Regulator including gauge with Technopolymer threads, G3/8" connections, with 20 μ m filtering pore size, 0 to 8 bar adjusting range





Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5μm, 20μm and 50μm) can be regenerated by washing it or replaced.
- Transparent bowl made of polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard;
 automatic drain upon request.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- Integrated manometer 0-12 bar as standard

(for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

Note

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

	Connections	G 1/4" - G 3/8"	
	Max. inlet pressure	13 bar	
	Minimum working pressure	0,5 bar	
	with automatic drain	0,0 001	
	Maximum working pressure	10 bar	
	with automatic drain	10 Dai	
	Working temperature	-5°C +50°C	0
	Weight with Technopolymer threads	gr. 400	
	Weight with threaded inserts	gr. 410	-
	Pressure range	0-2 bar / 0-4 bar	0
	Tressure range	0-8 bar / 0-12 bar	
	Filter pore size	5 μm - 20 μm - 50 μm	١.
	Bowl capacity	34 cm ³	•
	Assembly positions	Vertical	_
	Max. fitting torque	00/01 40 N	
	(with Technopolymer threads)	G3/8" = 16 Nm	(
			(
)			
	Max. fitting torque	G1/4" = 20 Nm	0
	(with threaded inserts)	G3/8" = 25 Nm	Ľ
	(Will thoused hoorts)	G0/0 - 25 NIII	4

Ordering code
Ø 172 © E 0SG10Ø

VERSION N = Metal inserts T = Technopolymer thread CONNECTIONS A = G1/4" (only for "N" version)

- B = G3/8"
 C = 3/8 NPT(only for "N" version)
 FLOW DIRECTION

 M = from left to right
- M = from left to right
 W = from right to left
 FILTER PORE SIZE
- $A = 5 \mu m$ $B = 20 \mu m$ $C = 50 \mu m$ ADJUSTING RANGE
- A = 0-2 bar
 B = 0-4 bar
 C = 0-8 bar
 D = 0-12 bar
- D = 0-12 bar

 TYPE
 = Standard *
 S = Automatic drain
- S = Automatic drain
 OPTIONS

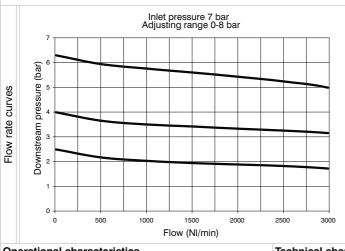
 Standard *

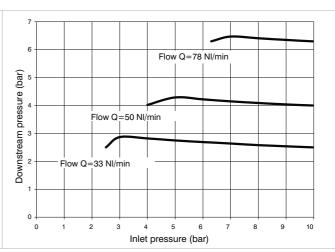
 K = Lockable version
 BOWL OPTIONS
- = Standard *
 N = Nylon bowl
 - * no additional letter required

Regulator with pressure switch (RP)(RZ) 62 73.5 57 Lockable version Detail

Adjustment characteristics

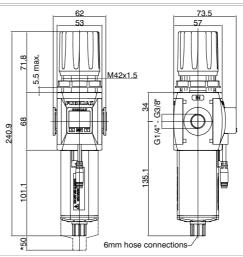
Example: T172BRPCA: size 2, Regulator with Technopolymer threads, G3/8" connections, 0 to 8 bar adjusting range, with pressure switch with M8 connector PNP

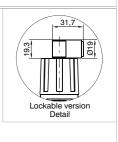




Operational characteristics	Technical characteristics		
Diaphragm pressure regulator with relieving.	Connections	G 1/4" - G 3/8"	Ordering code
Low hysteresis rolling diaphragm.	Max. inlet pressure	13 bar	<u> </u>
Balanced system.	Working temperature	0°C +50°C	Ø 172 © R Ø©©©
Available in four pressure ranges up to 12 bar.	Weight with Technopolymer threads	gr. 300	VERSION
Operating knob can be locked in position by pressing it	Weight with threaded inserts	gr. 310	N = Metal inserts
down once the desired P2 (regulated pressure)	D	0-2 bar / 0-4 bar	T = Technopolymer thread CONNECTIONS
pressure value is achieved.	Pressure range	0-8 bar / 0-12 bar	A = G1/4"
Fitted with panel mounting locking ring.	Assembly positions	Indifferent	B = G3/8"
Pressure switch as standard	Max. fitting torque		C = 3/8 NPT(only for "N" version)
Note	(with Technopolymer threads)	G3/8" = 16 Nm	FLOW DIRECTION P = from left to right
The pressure must be always regulating while increasing. For	(with reenhopolymer uneday)		Z = from right to left
. , , , , , , , , , , , , , , , , , , ,			ADJUSTING RANGE
a more precise regulation and higher sensibility, the use of a			A = 0-2 bar
regulator with a pressure range as close as possible to the			6 B = 0-4 bar
regulated pressure is recommended.			C = 0-8 bar D = 0-12 bar
			TYPE
			= Standard *
			F = Controlled refiel +
	Max. fitting torque	G1/4" = 20 Nm	improved relieving
	(with threaded inserts)	G3/8" = 25 Nm	L = no relieving
			R = Improved relieving
			OPTIONS
			Standard * K = Lockable version
			PRESSURE SWITCH OPTIO
			A = Cable 150 mm+M8 PNF
			B = Cable 150 mm+M8 NPN
			C = Cable 2 mt. PNP
			D = Cable 2 mt. NPN
			* no additional
			letter required

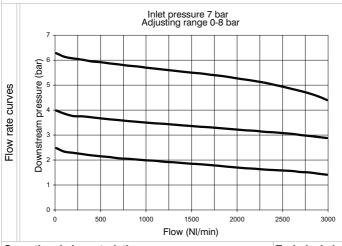


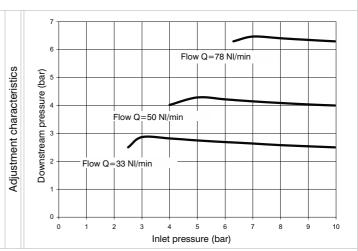




* Bowl removal maximum height

Example: T172BEPBCA : size 2, Filter-regulator with Technopolymer threads, G3/8" connections, 20 μ m filtering pore size, 0 to 8 bar adjusting range, with pressure switch with M8 connector PNP





Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and 50μ m) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- Pressure switch as standard

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

Connections	G 1/4" - G 3/8"	Ordering code
Max. inlet pressure	13 bar	oraning oran
Minimum working pressure with automatic drain	0,5 bar	V172@E08@0@2 VERSION
Maximum working pressure with automatic drain	10 bar	N = Metal inserts T = Technopolymer thread CONNECTION
Working temperature	0°C +50°C	Δ = G1/Δ"(only for "N" yearsign)
Weight with Technopolymer threads	gr. 400	B = G3/8"
Weight with threaded inserts	gr. 410	C = 3/8 NPT(only for "N" version) FLOW DIRECTION
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	P = from left to right Z = from right to left
Filter pore size	5 μm - 20 μm - 50 μm	FILTER PORE SIZE
Bowl capacity	34 cm ³	$A = 5 \mu m$ $B = 20 \mu m$
Assembly positions	Vertical	$C = 50 \mu\text{m}$
Max. fitting torque (with Technopolymer threads)	G3/8" = 16 Nm	ADJUSTING RANGE A = 0-2 bar B = 0-4 bar
Max. fitting torque (with threaded inserts)	G1/4" = 20 Nm G3/8" = 25 Nm	C = 0-8 bar D = 0-12 bar TYPE = Standard * S = Automatic drain OPTIONS S = Standard * K = Lockable version PRESSURE SWITCH OPTION A = Cable 150 mm+M8 PNP B = Cable 150 mm+M8 NPN C = Cable 2 mt. PNP D = Cable 2 mt. PNP BOWL OPTIONS STANDARD STAN



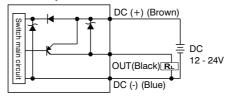


CHARACTERISTICS

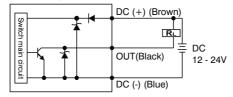
- 3 color digital LCD display, easy readout
- 4 units of measurement for pressure indication
- PNP and NPN output
- N.O. and N.C. output contact
- Not available individually, but only with a Regulator or a Filter-regulator

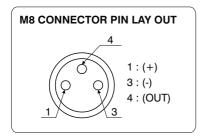
OUTPUT CIRCUIT WIRING DIAGRAMS

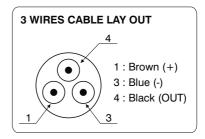
PNP output



NPN output







Cable ordering code

MCH1 cable 3 wires I=2,5m with M8 connector

MCH2 cable 3 wires I=5m with M8 connector

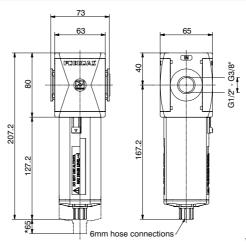
MCH3 cable 3 wires I=10m with M8 connector



TECHNICAL CHARACTERISTICS		
Adjusting range 0 - 10 bar / 0 - 1MPa		
Max. inlet pressure	15 bar / 1,5 MPa	
Fluid	Filtered and dehumidified air	
Display unit of measurement	MPa - kgf/cm² - bar - psi	
Supply voltage	12 - 24 VDC	
Current consumption	≤40mA (without load)	
Digital output type NPN - PNP		
Type of contact Normally Open - Normally Closed		
Max. load current 125 mA		
Digital output activation mode single threshold with fixed hysteresis - window with fixed hysteresis - window with		
Digital output activation time	0.05s - 0.25s - 0.5s - 1s - 2s - 3s (selections for chattering-proof function)	
Display characteristics	Double 3 1/2 digit display Digital output status indication Three-pushbuttons touchpad	
Indicator accuracy	≤±2% F.S. ± 1 digit	
Protection grade	IP 40	
Temperature	0 - 50 °C	
Cable section	3 x 0,129mm², Ø4 mm, PVC	

Filter (F)

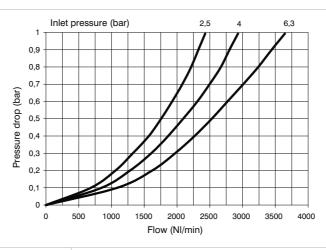




*Bowl removal maximum height

Example: T173BFB : size 3, Filter with Technopolymer threads, G1/2" connections, 20 μ m filter pore size





Operational characteristics

- Double filtering action: air flow centrifugation and filter element
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and $50\mu\text{m}$) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.

Note

In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

Connections	G 3/8" - G 1/2"	
Max. inlet pressure	13 bar	
Minimum working pressure	0,5 bar	
with automatic drain		Ø
Maximum working pressure with automatic drain	10 bar	
Working temperature	-5°C +50°C	•
Weight with Technopolymer threads	gr. 320	•
Weight with threaded inserts	gr. 340	
Filter pore size	5 μm - 20 μm - 50 μm	8
Bowl capacity	68 cm ³	•
Assembly positions	Vertical	-
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	•
Max. fitting torque	G3/8" = 25 Nm	1
(with threaded inserts)	G1/2" = 30 Nm	2

Ordering code

Ø173**@**F**◎@**

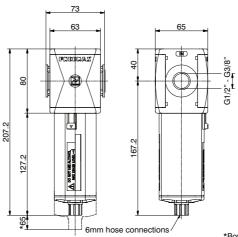
	VERSION
V	N = Metal inserts
	T = Technopolymer thread
	CONNECTIONS
0	A = G3/8"(only for "N" version)
G	B = G1/2"
	C = 1/2 NPT(only for "N" version)
	FILTER PORE SIZE
8	$A = 5 \mu m$
9	$B = 20 \mu m$
	$C = 50 \mu m$
	OPTIONS
•	= Standard *
	S = Automatic drain

N = Nylon bowl * no additional letter required

BOWL OPTIONS = Standard *

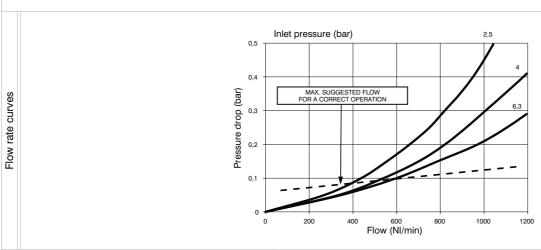
Coalescing filter (D)





*Bowl removal maximum height

Example: T173BDA: Coalescing size 3, Filter with Technopolymer threads, G1/2" connections, filter efficency 99,97%

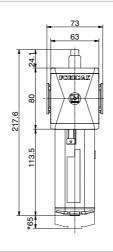


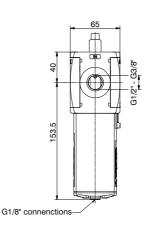
Operational characteristics Technical characteristics Coalescing filter element with filtration grade of 0,01 μm G 3/8" - G 1/2" Connections Ordering code Transparent bowl made off polycarbonate with Max. inlet pressure 13 bar **Ø**173**@**D**@Ø** bowl protection guard. Minimum working pressure 0,5 bar Bowl assembly via bayonet type quick coupling with automatic drain VERSION Ø N = Metal inserts mechanism with safety button. Maximum working pressure 10 bar T = Technopolymer threadSemi-automatic drain mounted as standard; with automatic drain CONNECTIONS automatic drain upon request. Working temperature -5°C +50°C $$\begin{split} A &= G3/8^{\rm n} \text{(only for "N" version)} \\ B &= G1/2^{\rm n} \\ C &= 1/2 \text{ NPT(only for "N" version)} \end{split}$$ Weight with Technopolymer threads gr. 325 Weight with threaded inserts In order to ensure a better grade of filtration it is recommended gr. 345 FILTER EFFICIENCY to use a 5 μm filter before the coalescing filter. In order to ensure Filter efficiency A = 99,97%99,97% **OPTIONS** adequate flow on the auto drain version it is recommended to with 0,01 μ m particle = Standard * 68cm³ Bowl capacity use minimum a 6mm fitting. S = Automatic drain Assembly positions Vertical **BOWL OPTIONS** = Standard * Max. fitting torque G1/2" = 22 NmN = Nylon bowl (with Technopolymer threads) G3/8" = 25 Nm Max. fitting torque G1/2" = 30 Nm(with threaded inserts)



Oil removal filter (DB)

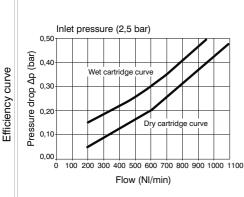


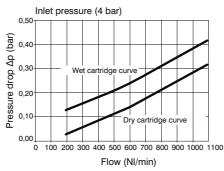


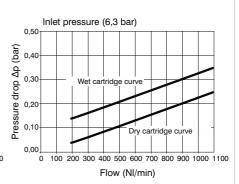


*Bowl removal maximum height

Example: T173BDBV: size 3 Oil removal filter, with clogging gauge, Technopolymer threads, G1/2" connections.







oil residual 0,01 ppm

- Clogging gauge green: proper working red: clogged cartridge (Δp 0,5 bar) we recommend to change the cartridge

- Transparent bowl made off polycarbonate with bowl protection guard.

 Bowl assembly via bayonet type quick coupling mechanism with safety button.

Automatic drain mounted as standard.

Note

We recommend installing a 5 μ m filter upstream of the oil removal filter. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics		
Connections	G 3/8" - G 1/2"	
Nominal flow at 6,3 bar	1100 NI/min	
Filter efficiency	99,99%	
Max. inlet pressure	13 bar	
Minimum working pressure with automatic drain	0,5 bar	V
Maximum working pressure with automatic drain	10 bar	0
Working temperature	-5°C +50°C	
Weight with Technopolymer threads	gr. 440	2
Weight with threaded inserts	gr. 460	
Bowl capacity	30 cm ³	
Assembly positions	Vertical	
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
Max. fitting torque	G3/8" = 25 Nm	

G1/2" = 30 Nm

VERSION

N = Metal inserts
T = Technopolymer thread

CONNECTIONS

A = G3/8"(only for "N" version)
B = G1/2"

C = 1/2 NPT(only for "N" version)

BOWL OPTIONS
= Standard *
N = Nylon bowl

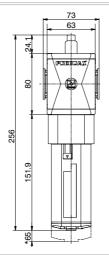
* no additional letter required

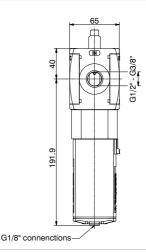
Ordering code

(with threaded inserts)

High efficiency oil removal filter (DC)

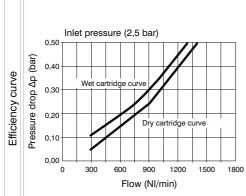


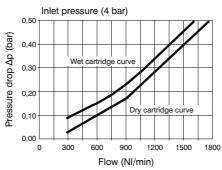


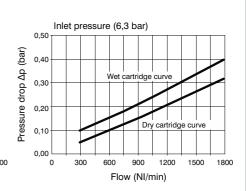


*Bowl removal maximum height

Example: T173BDCV : size 3 High efficiency oil removal filter, with clogging gauge, Technopolymer threads, G1/2" connections.







- Coalescing filtering cartridge particle removal 0,01 µm

oil residual 0,01 ppm

- Clogging gauge green: proper working

red: clogged cartridge (Δp 0,5 bar) we recommend to change the cartridge

- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Automatic drain mounted as standard.

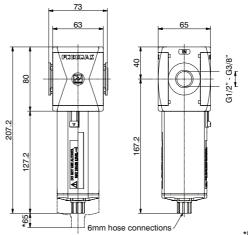
We recommend installing a 5 μ m filter upstream of the oil removal filter. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics		
Connections	G 3/8" - G 1/2"	Ordering code
Nominal flow at 6,3 bar	1800 NI/min	
Filter efficiency	99,99%	Ø 173 @ DCV Ø
Max. inlet pressure	13 bar	VERSION
Minimum working pressure with automatic drain	0,5 bar	N = Metal inserts T = Technopolymer thread
Maximum working pressure with automatic drain	10 bar	CONNECTIONS A = G3/8"(only for "N" version) B = G1/2"
Working temperature	-5°C +50°C	C = 1/2 NPT(only for "N" version) BOWL OPTIONS
Weight with Technopolymer threads	gr. 640	= Standard *
Weight with threaded inserts	gr. 660	N = Nylon bowl
Bowl capacity	30 cm ³	* no additional letter required
Assembly positions	Vertical	letter required
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	



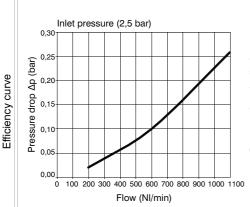
Carbon filter (DD)

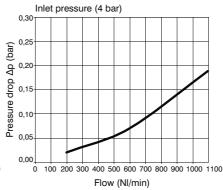


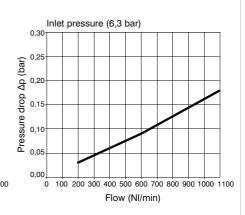


*Bowl removal maximum height

Example: T173BDD: size 3 Carbon filter, Technopolymer threads, G1/2" connections.







Operational characteristics - Active carbon cartridge with built in particulate filter. Used to remove oil vapours, hydrocarbons, odours and particles coming from the compressed air lines or gasses in industrial applications. Oil residue up to <0,003 ppm (max imput aereosol 0.01ppm). - Innovative filtering technology; high absorption capacity, with low differential pressure. - Transparent bowl made off polycarbonate with

- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard.

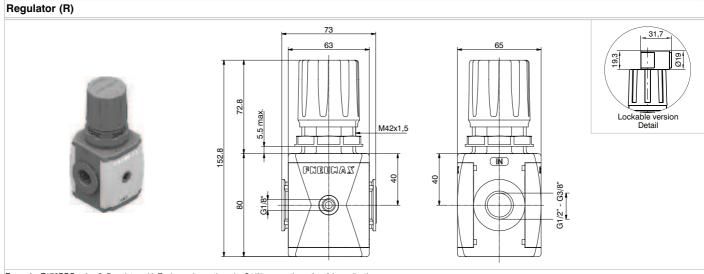
Note

A 5 micron filter followed by a coalescing filter must be installed before the Oil removal filter in order to ensure the correct functionality of the unit and to safeguard the life of the active carbon cartridge. It is also necessary to preventively replace the cartridges at fixed intervals.

Technical characteristics		
Connections	G 3/8" - G 1/2"	_
Nominal flow at 6,3 bar	1100 NI/min	_
Cartridge life	2000 hours	
Max. inlet pressure	13 bar	_
Working temperature	-5°C +50°C	1
Weight with Technopolymer threads	gr. 440	_
Weight with threaded inserts	gr. 460	(
Bowl capacity	30 cm ³	•
Assembly positions	Vertical	
Max. fitting torque	O4/01 00 N	Ø
(with Technopolymer threads)	G1/2" = 22 Nm	
 		

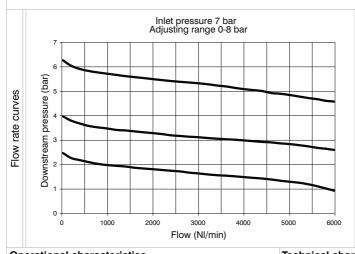
Max. fitting torque	G3/8" = 25 Nm
(with threaded inserts)	G1/2" = 30 Nm

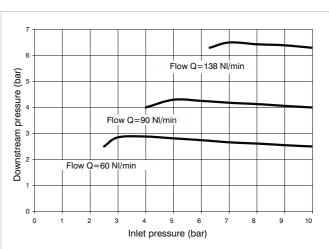
		Ordering code
		⊘ 173 ⊝ DD ⊘
		VERSION
	V	N = Metal inserts
		T = Technopolymer thread
		CONNECTIONS
	•	A = G3/8"(only for "N" version)
	G	B = G1/2"
-		C = 1/2 NPT(only for "N" version)
		BOWL OPTIONS
	2	= Standard *
		N = Nylon bowl



Adjustment characteristics

Example: T173BRC: size 3, Regulator with Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range



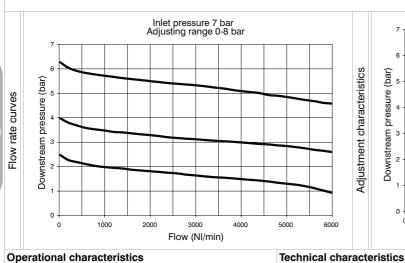


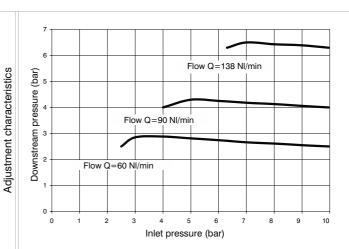
Operational characteristics	Technical characteristics		
Diaphragm pressure regulator with relieving.	Connections	G 3/8" - G 1/2"	Ordering code
Low hysteresis rolling diaphragm.	Max. inlet pressure	13 bar	
Balanced system.	Working temperature	-5°C +50°C	Ø 173 @ R ©⊕⊚
Available in four pressure ranges up to 12 bar.	Pressure gauge connections	G 1/8"	VERSION
Operating knob can be locked in position by pressing it	Weight with Technopolymer threads	gr. 360	N = Metal inserts
down once the desired P2 (regulated pressure)	Weight with threaded inserts	gr. 380	T = Technopolymer thread
pressure value is achieved.		0-2 bar / 0-4 bar	A = G2/9"((\)
Fitted with panel mounting locking ring.	Pressure range	0-8 bar / 0-12 bar	B = G1/2"
Note	Assembly positions	Indifferent	C = 1/2 NPT(only for "N" version)
The pressure must be always regulating while increasing. For	Max. fitting torque	G1/8" = 4 Nm	ADJUSTING RANGE
		- /-	A = 0.2 bar $B = 0.4 bar$
a more precise regulation and higher sensibility, the use of a	(with Technopolymer threads)	G1/2" = 22 Nm	C = 0-8 bar
regulator with a pressure range as close as possible to the			D = 0-12 bar
regulated pressure is recommended.			TYPE
			= Standard *
	Max. fitting torque	G3/8" = 25 Nm	F = Controlled refiel +
			improved relieving
	(with threaded inserts)	G1/2" = 30 Nm	L = no relieving
			R = Improved relieving
			OPTIONS
			Standard *
			K = Lockable version



Regulator including gauge (RM)(RW)

Example: T173BRMC: size 3, Regulator including gauge with Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range





o por autoriai	······································
- Diaphragm pro	essure regulator with relieving.
- Low hysteresis	s rolling diaphragm.
- Balanced syst	em.
- Available in fo	ur pressure ranges up to 12 bar.
- Operating kno	b can be locked in position by pressing it
down once the	e desired P2 (regulated pressure)
pressure value	e is achieved.
Fitted with par	and mounting locking ring

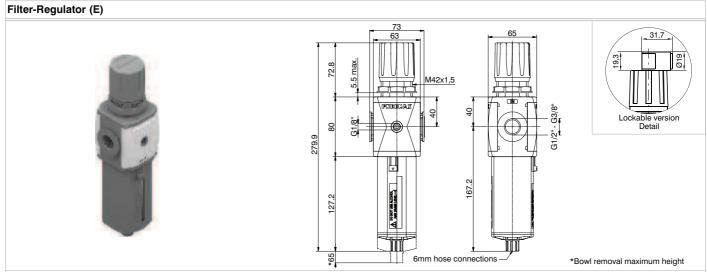
- Fitted with panel mounting locking ring.
- Integrated manometer 0-12 bar as standard

(for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

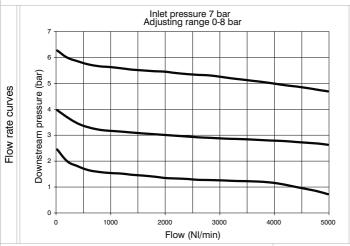
Note

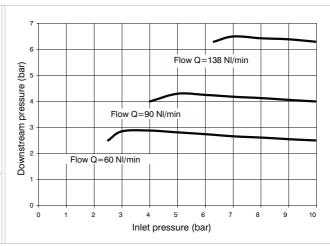
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

	lechnical characteristics			
	Connections	G 3/8" - G 1/2"		Ordering code
	Max. inlet pressure	13 bar		
	Working temperature	-5°C +50°C		Ø 173 @ R D©⊕©
	Weight with Technopolymer threads	gr. 370		VERSION
	Weight with threaded inserts	gr. 390	Ø	N = Metal inserts
		0-2 bar / 0-4 bar		T = Technopolymer thread
	Pressure range			CONNECTIONS
		0-8 bar / 0-12 bar	•	A = G3/8"(only for "N" version)
	Assembly positions	Indifferent	•	B = G1/2"
	Max. fitting torque			C = 1/2 NPT(only for "N" version)
		G1/2" = 22 Nm		FLOW DIRECTION
e)	(with Technopolymer threads)		_ 0	M = from left to right
			-	W = from right to left
				ADJUSTING RANGE
				A = 0-2 bar
			e	
				C = 0-8 bar
				D = 0-12 bar
	Max. fitting torque	G3/8" = 25 Nm		TYPE
	(with threaded inserts)	G1/2" = 30 Nm		= Standard *
	,		0	F = Controlled refiel +
				improved relieving L = no relieving
				R = Improved relieving
				OPTIONS
			0	= Standard *
				K = Lockable version
				IN - LOCKADIO VEISIOII



Example: T173BEBC: size 3, Filter-regulator with Technopolymer threads, G1/2" connections, 20 μ m filtering pore size, 0 to 8 bar adjusting range





Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5μm, 20μm and 50μm) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.

Note

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

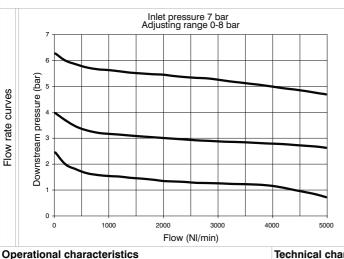
Adjustment characteristics

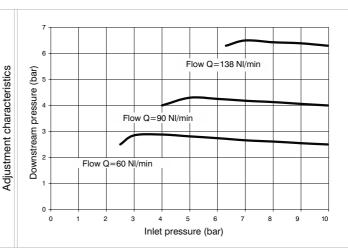
Connections	G 3/8" - G 1/2"	Ordering code
Max. inlet pressure	13 bar	Drawing court
Minimum working pressure	0,5 bar	Ø 173 ©ES©©©
with automatic drain	·	VERSION
Maximum working pressure		■ N = Metal inserts
with automatic drain	10 bar	T = Technopolymer thread
		CONNECTIONS
Working temperature	-5°C +50°C	A = G3/8"(only for "N" version)
Pressure gauge connections	G 1/8"	B = G1/2"
Weight with Technopolymer threads	gr. 470	C = 1/2 NPT(only for "N" version)
1 7		FILTER PORE SIZE
Weight with threaded inserts	gr. 490	$A = 5 \mu m$
Pressure range	0-2 bar / 0-4 bar	B = 20 μm
Tressure range	0-8 bar / 0-12 bar	$C = 50 \mu\text{m}$
Filter pore size	5 μm - 20 μm - 50 μm	ADJUSTING RANGE A = 0-2 bar
•		G B = 0-4 bar
Bowl capacity	68 cm ³	C = 0-8 bar
Assembly positions	Vertical	D = 0-12 bar
Max. fitting torque	G1/8" = 4 Nm	TYPE
(with Technopolymer threads)	G1/2" = 22 Nm	= Standard *
(man recomme per y man amount)		S = Automatic drain
_		OPTIONS
		Standard *
		K = Lockable version
Max. fitting torque	G3/8" = 25 Nm	BOWL OPTIONS
•		Standard *
(with threaded inserts)	G1/2" = 30 Nm	N = Nylon bowl
		* no additional letter required



Filter-regulator including gauge (EM)(EW) 72.8 279.9 67.2 127.2

Example: T173BEMBC : size 3, Filter-Regulator including gauge with Technopolymer threads, G1/2" connections, with 20 μ m filtering pore size, 0 to 8 bar adjusting range





Operational ch	aracteristics
----------------	---------------

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and 50μ m) can be regenerated by washing it or replaced.
- Transparent bowl made of polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved
- Fitted with panel mounting locking ring.
- Integrated manometer 0-12 bar as standard (for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

Note The pressure must be always regulating while increasing. For

a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

	Connections	G 3/8" - G 1/2"	
	Max. inlet pressure	13 bar	
	Minimum working pressure	0,5 bar	
	with automatic drain	0,5 bai	
	Maximum working pressure	40.1	V
	with automatic drain	10 bar	
	Working temperature	-5°C +50°C	6
	Weight with Technopolymer threads	gr. 480	(
	Weight with threaded inserts	gr. 500	
	Dressure renge	0-2 bar / 0-4 bar	•
	Pressure range	0-8 bar / 0-12 bar	
	Filter pore size	5 μm - 20 μm - 50 μm	
	Bowl capacity	68 cm³	6
	Assembly positions	Vertical	
	Max. fitting torque	04/01/ 00 M	
	(with Technopolymer threads)	G1/2" = 22 Nm	(
			•
)			
	NA Cities a house	00/0" 05 N	•
	Max. fitting torque	G3/8" = 25 Nm	•
	(with threaded inserts)	G1/2" = 30 Nm	

6mm hose connections

Ordering code

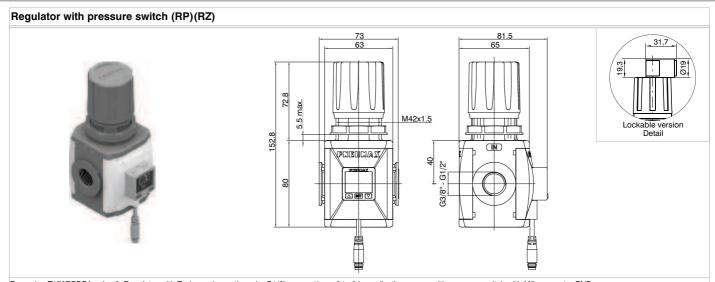
*Bowl removal maximum height

	•	0 173 0 E 0000
		VERSION
	V	N = Metal inserts
		T = Technopolymer thread
		CONNECTIONS
	•	A = G3/8"(only for "N" version)
	•	B = G1/2"
		C = 1/2 NPT(only for "N" version)
		FLOW DIRECTION
	0	M = from left to right
		W = from right to left
1		FILTER PORE SIZE
ı	8	$A = 5 \mu m$
	•	$B = 20 \mu m$
		$C = 50 \mu m$
		ADJUSTING RANGE
		A = 0-2 bar
	e	B = 0-4 bar
		C = 0-8 bar
		D = 0-12 bar
		TYPE
	Ū	= Standard *
		S = Automatic drain
		OPTIONS
	•	= Standard *
		K = Lockable version

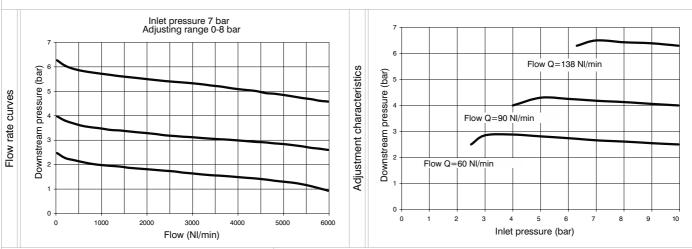
BOWL OPTIONS

= Standard 3

N = Nylon bowl



Example: T173BRPCA: size 3, Regulator with Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range, with pressure switch with M8 connector PNP



Operational	Characteristics	

- Diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- Pressure switch as standard

Note

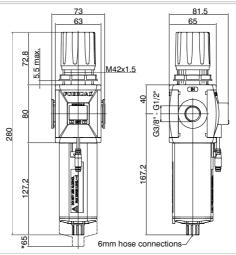
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

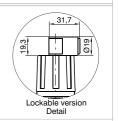
Technical characteristics

Connections	G 3/8" - G 1/2"		Ordering code
Max. inlet pressure	13 bar		Gradining doub
Working temperature	0°C +50°C		V 173 © R D©T©D
Weight with Technopolymer threads	gr. 370		VERSION
Weight with threaded inserts	gr. 390	V	N = Metal inserts
Worght With throaded moonte			T = Technopolymer thread
Pressure range	0-2 bar / 0-4 bar		CONNECTIONS
_	0-8 bar / 0-12 bar		A = G3/8"(only for "N" version)
Assembly positions	Indifferent	•	B = G1/2"
Max. fitting torque			C = 1/2 NPT(only for "N" version)
- ·	G1/2" = 22 Nm		FLOW DIRECTION
(with Technopolymer threads)		▯◐	P = from left to right
			Z = from right to left
			ADJUSTING RANGE
			A = 0-2 bar
		e	B = 0-4 bar
			C = 0-8 bar
			D = 0-12 bar
			TYPE
			= Standard *
		0	F = Controlled refiel +
Max. fitting torque	G3/8" = 25 Nm	•	improved relieving
(with threaded inserts)	G1/2" = 30 Nm		L = no relieving
			R = Improved relieving
			OPTIONS
		•	= Standard *
			K = Lockable version
			PRESSURE SWITCH OPTION
			A = Cable 150 mm+M8 PNP
		₽	
			C = Cable 2 mt. PNP
			D = Cable 2 mt. NPN

Filter regulator with pressure switch (EP)(EZ)

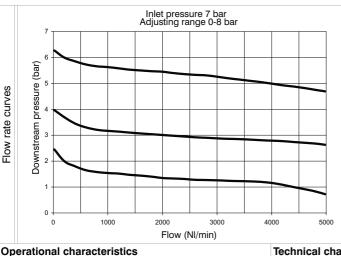


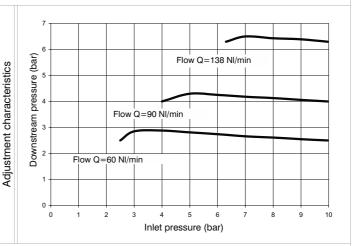




* Bowl removal maximum height

Example: T173BEPBCA : size 3, Filter-regulator with Technopolymer threads, G1/2" connections, 20 μ m filtering pore size, 0 to 8 bar adjusting range, with pressure switch with M8 connector PNP





Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and 50μ m) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved
- Fitted with panel mounting locking ring.
- Pressure switch as standard

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

Connections	G 3/8" - G 1/2"	Ordering code
Max. inlet pressure	13 bar	
Minimum working pressure	0,5 bar	0 173 0 E 000000
with automatic drain	·	VERSION
Maximum working pressure	V	TT IIIOttai IIIOOTto
with automatic drain	10 bar	T = Technopolymer thread
	200 . 200	CONNECTIONS
Working temperature	0°C +50°C	A = G3/8"(only for "N" version)
Weight with Technopolymer threads	gr. 480	B = G1/2"
Weight with threaded inserts	gr. 500	C = 1/2 NPT(only for "N" version)
	0-2 bar / 0-4 bar	FLOW DIRECTION P = from left to right
Pressure range		Z = from right to left
	0-8 bar / 0-12 bar	FILTER PORE SIZE
Filter pore size	5 μm - 20 μm - 50 μm	Δ = 5 μm
Bowl capacity	68 cm ³	$\mathbf{S} = 20 \mu \text{m}$
Assembly positions	Vertical	$C = 50 \mu\text{m}$
, ,	Vortioal	ADJUSTING RANGE
Max. fitting torque	G1/2" = 22 Nm	A = 0-2 bar
(with Technopolymer threads)	- ,	6 B = 0-4 bar
		C = 0-8 bar
	00/01/- 07 N	D = 0-12 bar
		TYPE
		= Standard *
		S = Automatic drain
		OPTIONS
		Standard *
Max. fitting torque	G3/8" = 25 Nm	K = Lockable version
(with threaded inserts)	G1/2" = 30 Nm	PRESSURE SWITCH OPTION
		A = Cable 150 mm+M8 PNP
		B = Cable 150 mm+M8 NPN
		C = Cable 2 mt. PNP
		D = Cable 2 mt. NPN
		BOWL OPTIONS
		= Standard *

* no additional letter required

N = Nylon bowl

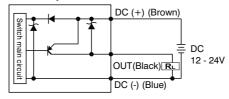


CHARACTERISTICS

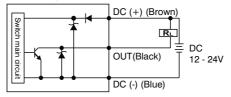
- 3 color digital LCD display, easy readout
- 4 units of measurement for pressure indication
- PNP and NPN output
- N.O. and N.C. output contact
- Not available individually, but only with a Regulator or a Filter-regulator

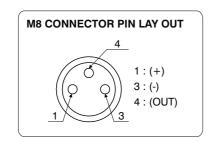
OUTPUT CIRCUIT WIRING DIAGRAMS

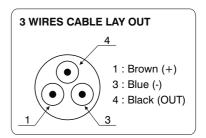
PNP output



NPN output







Cable ordering code

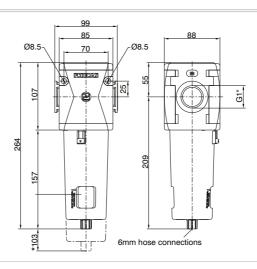
MCH1cable 3 wires I=2,5m with M8 connectorMCH2cable 3 wires I=5m with M8 connectorMCH3cable 3 wires I=10m with M8 connector

Connector



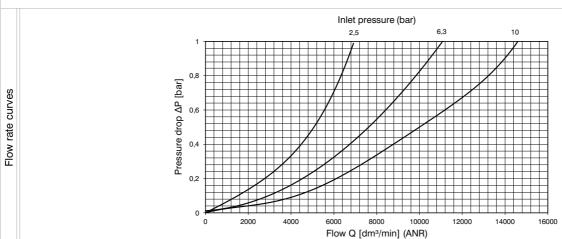
TECHNICAL CHARACTERISTICS			
Adjusting range	0 - 10 bar / 0 - 1MPa		
Max. inlet pressure	15 bar / 1,5 MPa		
Fluid	Filtered and dehumidified air		
Display unit of measurement	MPa - kgf/cm² - bar - psi		
Supply voltage	12 - 24 VDC		
Current consumption	≤40mA (without load)		
Digital output type	NPN - PNP		
Type of contact	Normally Open - Normally Closed		
Max. load current	125 mA		
Digital output activation mode	single threshold with fixed hysteresis - window with fixed hysteresis - window without hysteres		
Digital output activation time	0.05s - 0.25s - 0.5s - 1s - 2s - 3s (selections for chattering-proof function)		
Display characteristics	Double 3 1/2 digit display		
	Digital output status indication		
	Three-pushbuttons touchpad		
Indicator accuracy	≤±2% F.S. ± 1 digit		
Protection grade	IP 40		
Temperature	0 - 50 °C		
Cable section	3 x 0,129mm², Ø4 mm, PVC		





*Bowl removal maximum height

Example : N174BFB : size 4, Filter, G1" connections, 20 μ m filter pore size



Operational characteristics

- Double filtering action: air flow centrifugation and filter element
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μ m, 20 μ m and $50\mu\text{m}$) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.

Note

In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics

Connections	G1"	
Max. inlet pressure	13 bar	
Minimum working pressure	0,5 bar	
with automatic drain		
Maximum working pressure	10 bar	
with automatic drain	10 bar	•
Working temperature	-5°C +50°C	
Weight	1155 (gr)	•
Filter pore size	5μm - 20μm - 50μm	_
Bowl capacity	90 cm ³	2
Assembly positions	Vertical	
Wall fixing screw	M8	

* no additional

S = Automatic drain

BOWL OPTIONS

= Standard * N = Nylon bowl

Ordering code

N174BF**©@**

FILTER PORE SIZE $A = 5 \mu m$

 $B = 20 \, \mu m$

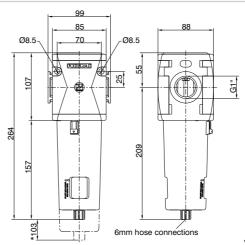
 $C = 50 \mu m$

OPTIONS = Standard *

Coalescing filter (D)

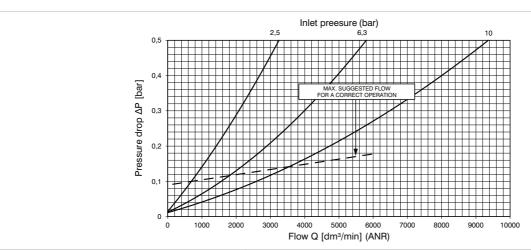
Flow rate curves





*Bowl removal maximum height

Example: N174BDA: size 4, Coalescing filter, G1" connections, filter efficency 99,97%

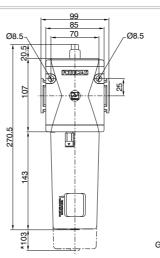


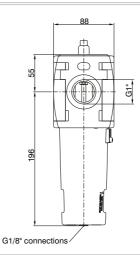
Operational characteristics	Technical characteristics			
Coalescing filter element with filtration grade of 0,01 μ m	Connections	G1"		Ordering code
Transparent bowl made off polycarbonate with	Max. inlet pressure	13 bar		<u> </u>
bowl protection guard.	Minimum working pressure	0,5 bar		N174BD ⊕⊚
Bowl assembly via bayonet type quick coupling	with automatic drain	0,0 501	a	FILTER EFFICIENCY
mechanism with safety button.	Maximum working pressure	401	•	A = 99,97%
Semi-automatic drain mounted as standard;	with automatic drain	10 bar		OPTIONS = Standard *
automatic drain upon request.	Working temperature	-5°C +50°C	_	S = Automatic drain
Note	Weight	1235 (gr)		BOWL OPTIONS
n order to ensure a better grade of filtration it is recommended	Filter efficiency		Ø	= Standard * N = Nylon bowl
to use a 5 μ m filter before the coalescing filter. In order to ensure	with 0,01 μm particle	99,97%		N = Nylon bowl
adequate flow on the auto drain version it is recommended to	Bowl capacity	90 cm ³		
use minimum a 6mm fitting.	Assembly positions	Vertical		
	Wall fixing screw	M8		

* no additional letter required

Oil removal filter (DAV)

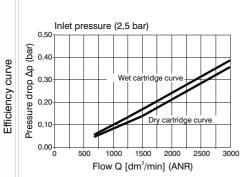


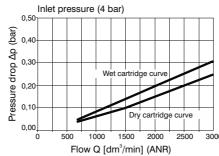


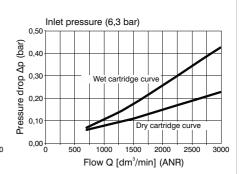


*Bowl removal maximum height

Example: N174BDAV: size 4, Oil removal filter, with clogging gauge, G1" connections.







Operational characteristics

- Coalescing filtering cartridge particle removal 0,01 μ m oil residual 0,01 ppm

Clogging gauge green: proper working red: clogged cartridge (Δp 0,5 bar) we recommend to change the cartridge

- Transparent bowl made off polycarbonate with bowl protection guard.

Bowl assembly via bayonet type quick coupling mechanism with safety button.

- Automatic drain mounted as standard.

Noto
MOLE

It is recommended to use a 5 μ m filter before the oil removal filter. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

Technical characteristics		
Connections	G1"	
Nominal flow at 6,3 bar	13 bar	
Filter efficiency	3000 NI/min	
Max. inlet pressure	99,99%	
Minimum working pressure	0,5 bar	2
with automatic drain	.,	
Maximum working pressure	40 5	
with automatic drain	10 bar	
Working temperature	-5°C +50°C	
Weight	1260 (gr)	
Bowl capacity	90 cm ³	
Assembly positions	Vertical	
Wall fixing screw	M8	

* no additional letter required

Ordering code

N174BDAV**②**

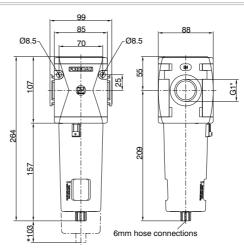
BOWL OPTIONS

= Standard *

N = Nylon bowl

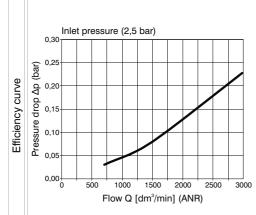
Carbon filter (DD)

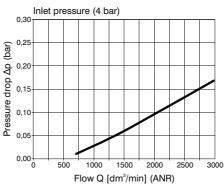


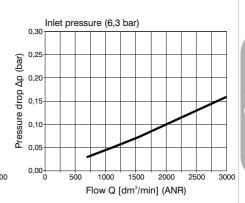


*Bowl removal maximum height

Example: N174BDD: size 4, Carbon filter with Technopolymer threads, G1" connections.







Operational characteristics

- Active carbon cartridge with built in particulate filter.

 Used to remove oil vapours, hydrocarbons, odours and particles coming from the compressed air lines or gasses in industrial applications. Oil residue up to <0,003 ppm (max imput aereosol 0.01ppm).
- Innovative filtering technology; high absorption capacity, with low differential pressure.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard.

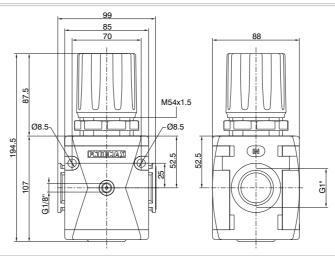
Note

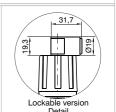
A 5 micron filter followed by a coalescing filter must be installed before the Oil removal filter in order to ensure the correct functionality of the unit and to safeguard the life of the active carbon cartridge. It is also necessary to preventively replace the cartridges at fixed intervals.

Technical characteristics

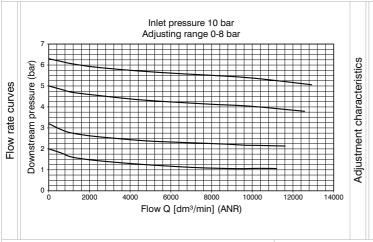
Connections	G 1"	Ordering code
Nominal flow at 6,3 bar	3000 NI/min	
Cartridge life	2000 hours	N174BDD ⊘
Max. inlet pressure	13 bar	BOWL OPTIONS
Working temperature	-5°C ÷ +50°C	= Standard *
Weight	gr. 1260	N = Nylon bowl
Bowl capacity	90 cm ³	
Assembly positions	Vertical	
Wall fixing screw	M8	

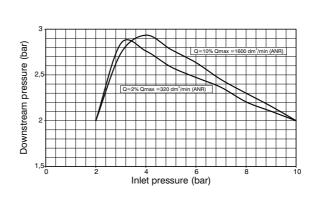
* no additional letter required





Example: N174BRC : size 4, Regulator, G1" connections, 0 to 8 bar adjusting range





Operational characteristics

- Diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.

Note

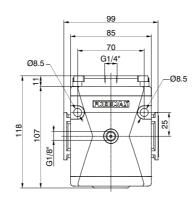
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

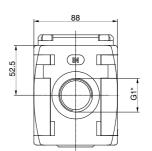
Technical characteristics			
Connections	G1"		Ordering code
Max. inlet pressure	13 bar		
Working temperature	-5°C +50°C		N174BR ©©
Pressure gauge connections	G 1/8"		ADJUSTING RANGE
Weight	1225 (gr)		A = 0-2 bar
	0-2 bar / 0-4 bar	e	B = 0-4 bar
Pressure range	0-2 bar / 0-4 bar		C = 0-8 bar
	0-8 bar / 0-12 bar		D = 0-12 bar
Assembly positions	Indifferent		TYPE
, , , , , , , , , , , , , , , , , , , ,		0	= Standard*
-		U	L = no relieving
			R = Improved relieving
Wall fixing screw	M8		OPTIONS
3		•	= Standard*
			K = Lockable version

^{*} no additional letter required

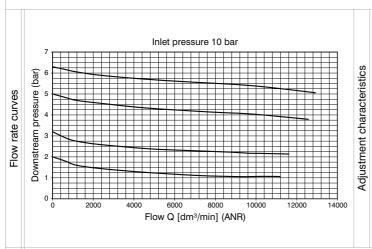
Piloted pressure regulator (R)

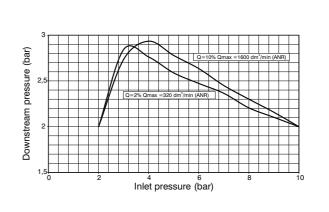




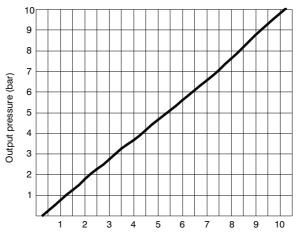


Example: N174BRP: size 4, Piloted pressure regulator with G1" connection







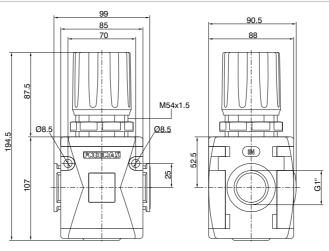


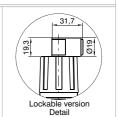
Piloting	
pressure	(bar)

Operational characteristics	Technical characteristics		
- Piston pressure regulator with relieving	Connections	G1"	Ordering code
- Balanced system	Pilot port size	G1/4"	
Note	Max. inlet pressure	13 bar	N174BRP
Always regulate the rising pressure.	Working temperature	-5°C +50°C	
	Pressure gauge connections	G 1/8"	
	Weight	1155 (gr)	
	Assembly positions	Indifferent	
	Wall fixing screw	M8	

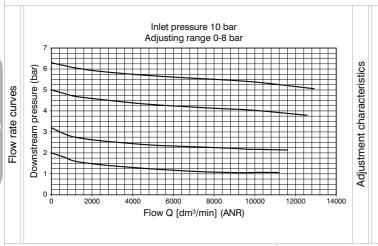
Regulator including gauge (RM)(RW)

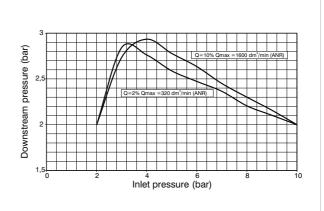






Example: N174BRMC: size 4, Regulator including gauge, G1" connections, 0 to 8 bar adjusting range





Operational characteristics

- Diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- Integrated manometer 0-12 bar as standard

(for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

Note

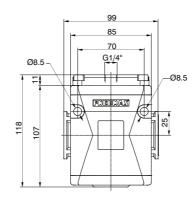
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

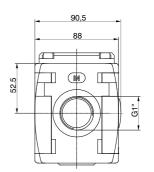
recrinical characteristics			
Connections	G1"		Ordering code
Max. inlet pressure	13 bar		
Working temperature	-5°C +50°C		N174BR @@@
Weight	1220 (gr)		FLOW DIRECTION
_	0-2 bar / 0-4 bar	0	M = from left to right
Pressure range	,		W = from right to left
	0-8 bar / 0-12 bar		ADJUSTING RANGE
Assembly positions	Indifferent		A = 0-2 bar
		e	B = 0-4 bar
			C = 0-8 bar
			D = 0-12 bar
			TYPE
		0	= Standard *
Wall fixing screw	M8	U	L = no relieving
			R = Improved relieving
			OPTIONS
		•	= Standard *
			K = Lockable version

* no additional letter required

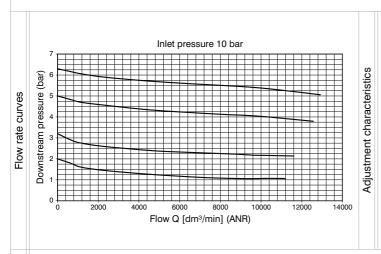
Piloted pressure regulator with integrated manometer (RM)(RW)

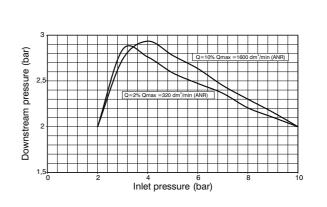


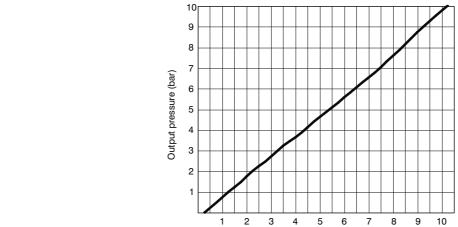




Example: N174BRMP : size 4, Piloted pressure regulator with integrated manometer with G1" connection







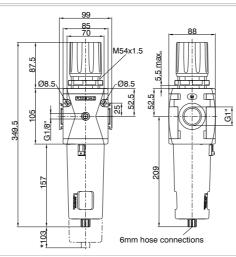
Piloting
pressure (bar)

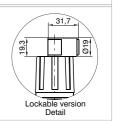
Operational characteristics
- Piston pressure regulator with relieving
- Balanced system
- Built in gauge 0-12 bar range as standard.
Note
Always regulate the rising pressure.

Piloting curves

Technical characteristics				
Connections	G1"		Ordering code	
Pilot port size	G1/4"		N174BR @ P	
Max. inlet pressure	13 bar			
Working temperature	-5°C +50°C		FLOW DIRECTION	
Pressure gauge connections	G 1/8"	Ð	M = from left to right	
Weight	1150 (gr)		W = from right to left	
Assembly positions	Indifferent			
Wall fixing screw	M8			

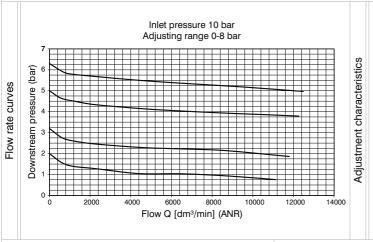


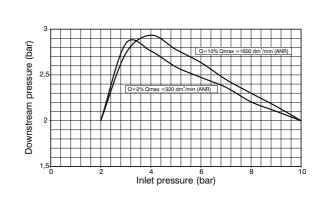




*Bowl removal maximum height

Example : N174BEBC : size 4, Filter-regulator, G1" connections, 20 μ m filtering pore size, 0 to 8 bar adjusting range





Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 $\mu m,\,20\mu m$ and $50\mu\text{m}$) can be regenerated by washing it or replaced.
- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved
- Fitted with panel mounting locking ring.

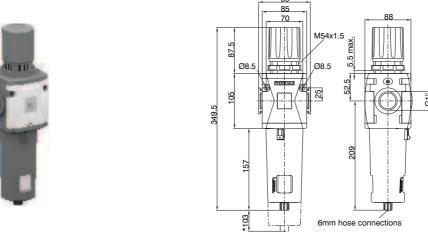
Note

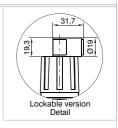
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting

Technical characteristics

Connections	G1"		Ordering code
Max. inlet pressure	13 bar		
Minimum working pressure	0,5 bar		N174BE SG@0
with automatic drain	· ·		FILTER PORE SIZE
Maximum working pressure		8	$A = 5 \mu m$
with automatic drain	10 bar	_	$B = 20 \mu m$
		-	C = 50 μm
Working temperature	-5°C +50°C		ADJUSTING RANGE
Pressure gauge connections	G 1/8"		A = 0-2 bar
Weight	1450 (gr)	G	B = 0-4 bar
	0-2 bar / 0-4 bar	1	C = 0-8 bar D = 0-12 bar
Pressure range			TYPE
	0-8 bar / 0-12 bar	0	= Standard *
Filter pore size	5 μm - 20 μm - 50 μm	_	S = Automatic drain
Bowl capacity	90 cm ³		OPTIONS
Assembly positions	Vertical	•	= Standard *
		K = Lockable version	
			BOWL OPTIONS
		Ø	= Standard *
			N = Nylon bowl
			* no additional
			letter required
Wall fixing screw	M8		

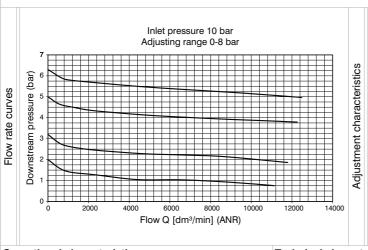
Filter-regulator including gauge (EM)(EW)

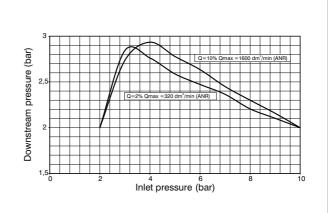




*Bowl removal maximum height

Example: N174BEMBC: size 4, Filter-regulator including gauge, G1" connections, with 20 μ m filtering pore size, 0 to 8 bar adjusting range





Operational characteristics

- Filter diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5μm, 20μm and 50μm) can be regenerated by washing it or replaced.
- Transparent bowl made of polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- Integrated manometer 0-12 bar as standard

(for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

Note

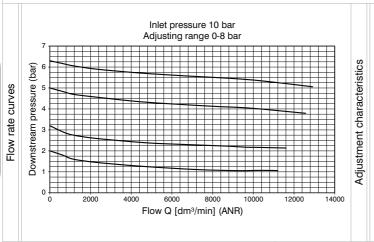
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting.

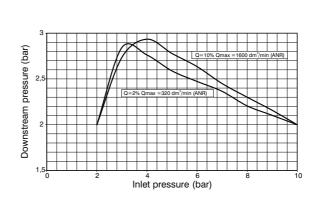
Technical characteristics

Connections	G1"		Ordering code
Max. inlet pressure	13 bar		
Minimum working pressure	0,5 bar	N174BE 0©©©	
with automatic drain	<u> </u>	F	FLOW DIRECTION
Maximum working pressure			M = from left to right
with automatic drain	10 bar	١	W = from right to left
			FILTER PORE SIZE
Working temperature	-5°C +50°C		$A = 5 \mu m$
Weight	1440 (gr)	E	B = 20 μm
D	0-2 bar / 0-4 bar		•
Pressure range	0-8 bar / 0-12 bar		
Filter pore size	5 µm - 20 µm - 50 µm	©	B = 0-4 bar
·		- (C = 0-8 bar
Bowl capacity		[D = 0-12 bar
Assembly positions	Vertical		ГҮРЕ
		0	= Standard *
			S = Automatic drain
		•	= Standard *
		K = L	K = Lockable version
		C = 50 μm C = 50 μm ADJUSTING RANG A = 0.2 bar B = 0.4 bar C = 0.8 bar D = 0.12 bar Vertical TypE S = Automatic drai OPTIONS S = Standard * K = Lockable versi BOWL OPTIONS S = Standard * N = Nylon bowl * no additiona	N = Nylon bowl
Mall fixing careu	140		* no additional
Wall fixing screw	MI8		letter required

Regulator with pressure switch (RP)(RZ) 99 101.5 85 70 87.5 5.5 max. 194.5 Ø8.5 FOEDGAX 107

Example: N174BRPCA: size 4, Regulator, G1" connections, 0 to 8 bar adjusting range, with pressure switch with M8 connector PNP





Operational	characteristics
-------------	-----------------

- Diaphragm pressure regulator with relieving.
- Low hysteresis rolling diaphragm.
- Balanced system.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- Pressure switch as standard

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics

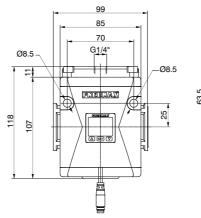
Technical characteristics				
Connections	G1"		Ordering code	
Max. inlet pressure	13 bar	3.43.mg 6646		
Working temperature	0°C +50°C		N174BR @@@@	
Weight	1260 (gr)		FLOW DIRECTION	
_	0-2 bar / 0-4 bar	• •	P = from left to right	
Pressure range 0-8 bar / 0-12 bar		Z = from right to left		
		_	ADJUSTING RANGE	
Assembly positions	Indifferent		A = 0-2 bar	
		e	B = 0-4 bar	
			C = 0-8 bar	
			D = 0-12 bar	
		0	TYPE	
			= Standard *	
		L = no relieving		
			R = Improved relieving	
Wall fixing screw	M8		OPTIONS	
		•	= Standard *	
			K = Lockable version	
			PRESSURE SWITCH OPTION	
			A = Cable 150 mm+M8 PNP	
		•	B = Cable 150 mm+M8 NPN	
			C = Cable 2 mt. PNP	
			D = Cable 2 mt. NPN	

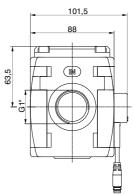
^{*} no additional letter required

Piloting curves

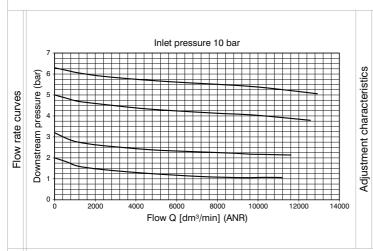
Piloted pressure regulator with digital pressure switch (RP)(RZ)

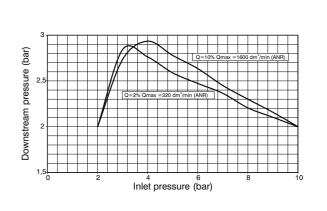




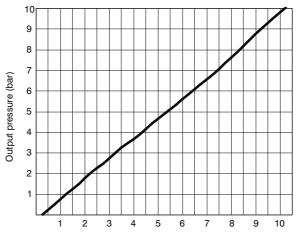


Example: N174BRPAP: size 4, Piloted pressure regulator, G1" connections, with pressure switch with M8 connector PNP





Piloting pressure (bar)

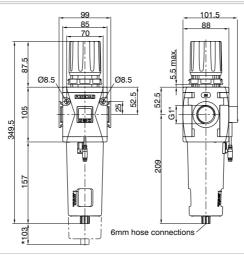


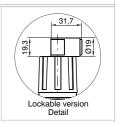
Operational characteristics	Technical characteristics	Technical characteristics			
- Piston pressure regulator with relieving	Connections	G1"		Ordering code	
- Balanced system	Pilot port size	Pilot port size G1/4"			
- Pressure switch as standard	Max. inlet pressure	13 bar		N174BR ⊚ ⊚P	
Note	Working temperature	-5°C +50°C		FLOW DIRECTION	
Always regulate the rising pressure.	Pressure gauge connections	G 1/8"	0	P = from left to right	
	Weight	1190 (gr)		Z = from right to left PRESSURE SWITCH OPTION	
	Assembly positions	Indifferent		A = Cable 150 mm+M8 PNP	
	-		•	B = Cable 150 mm+M8 NPN	
	Wall fixing screw	M8		C = Cable 2 mt. PNP	
				D = Cable 2 mt. NPN	



Filter regulator with pressure switch (EP)(EZ)

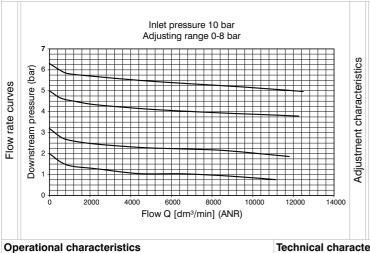


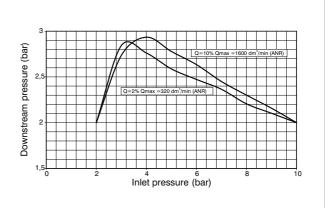




*Bowl removal maximum height

Example: N174BEPBCA: size 4, Filter-regulator, G1" connections, 20 μ m filtering pore size, 0 to 8 bar adjusting range, with pressure switch with M8 connector PNP





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- Filter - diaphragm pressure regulator with relieving.
Low bystorosis rolling diaphragm

- Balanced system.
- Double filtering action: air flow centrifugation and filter element.
- Filtering element made of HDPE (high density polyethylene) available in three different filtration grades (5 μm , 20 μm and $50\mu\text{m}$) can be regenerated by washing it or replaced.
- Transparent bowl made of polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved
- Fitted with panel mounting locking ring.
- Pressure switch as standard

Note
The pressure must be always regulating while increasing. For
a more precise regulation and higher sensibility, the use of a
regulator with a pressure range as close as possible to the
regulated pressure is recommended. In order to ensure
adequate flow on the auto drain version it is recommended to
use minimum a 6mm fitting.

Technical	characteristics
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Tooming on a real control of the real control		
Connections	G1"	
Max. inlet pressure	13 bar	
Minimum working pressure	0,5 bar	ı
with automatic drain	0,5 bai	
Maximum working pressure	10 bar	0
with automatic drain	TO Dar	
Working temperature	0°C +50°C	8
Weight	1490 (gr)	9
Pressure range	0-2 bar / 0-4 bar	-
riessure range	0-8 bar / 0-12 bar	
Filter pore size	5 μm - 20 μm - 50 μm	G
Bowl capacity	90 cm ³	
Assembly positions	Vertical	
		0
		•
		9

Wall fixing screw	M8

Ordering code N174BE**08G00P2**

	FLOW DIRECTION
0	P = from left to right
	Z = from right to left
	FILTER PORE SIZE
8	$A = 5 \mu m$
9	$B = 20 \mu m$
	C = 50 um

- ADJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar $D = 0-12 \, bar$
- TYPE = Standard * S = Automatic drain
- OPTIONS = Standard * K = Lockable version PRESSURE SWITCH OPTION
- A = Cable 150 mm+M8 PNP B = Cable 150 mm+M8 NPN C = Cable 2 mt. PNP
- D = Cable 2 mt. NPN **BOWL OPTIONS** = Standard * N = Nylon bowl
 - * no additional letter required



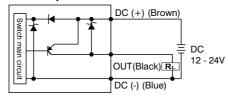


CHARACTERISTICS

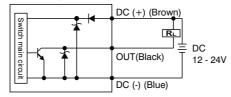
- 3 color digital LCD display, easy readout
- 4 units of measurement for pressure indication
- PNP and NPN output
- N.O. and N.C. output contact
- Not available individually, but only with a Regulator or a Filter-regulator

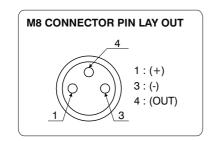
OUTPUT CIRCUIT WIRING DIAGRAMS

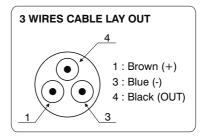
PNP output



NPN output







Cable ordering code

MCH1 cable 3 wires I=2,5m with M8 connector

MCH2 cable 3 wires I=5m with M8 connector

MCH3 cable 3 wires I=10m with M8 connector





TECHNICAL CHARACTERISTICS	
Adjusting range	0 - 10 bar / 0 - 1MPa
Max. inlet pressure	15 bar / 1,5 MPa
Fluid	Filtered and dehumidified air
Display unit of measurement	MPa - kgf/cm² - bar - psi
Supply voltage	12 - 24 VDC
Current consumption	≤40mA (without load)
Digital output type	NPN - PNP
Type of contact	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 function)
Display characteristics	Double 3 1/2 digit display Digital output status indication Three-pushbuttons touchpad
Indicator accuracy	≤±2% F.S. ± 1 digit
Protection grade	IP 40
Temperature	0 - 50 °C
Cable section	3 x 0,129mm², Ø4 mm, PVC