

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 (5µm, 20µm and 50µm) is fitted as standard with a drain mechanism which can be operated manually or semiautomatically. On request is available the auto-drain mechanism. 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 can be re-filled while the pneumatic circuit is pressurized thanks to the exhaust valve which is built in the refill plug and allows for the bowl to be depressurized and the oil refill directly form in the bowl or from the 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 can be re-filled while the pneumatic circuit is pressurized thanks to the exhaust valve which is built in the refill plug and allows for the bowl to be depressurized. In order to be able to unmount the bowl it is necessary unscrew the refill plug positioned near the oil dome, once this operation has been carried out it is possible to remove the bowl to re fill it or to refill from the refill plug. Refilling directly the bowl is suggested.

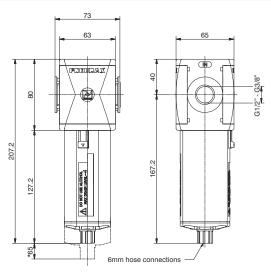
Should the pressure regulator not perform properly or should present a constant leackage from the relieving replaced the diaphragm by unloading completely the regulating spring before removing the regulation support. Any other maintenance operation, in consideration of the complexity of the assembly, 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

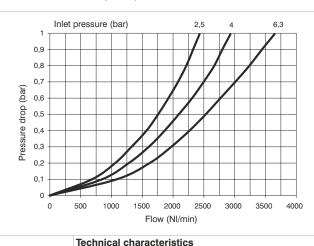
Filter (F)





*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
$50\mu m$) 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.

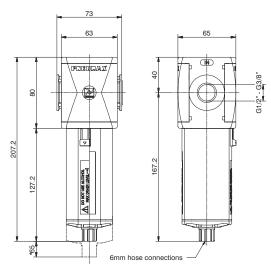
lechnical characteristics			
Connections	G 3/8" - G 1/2"		Ordering code
Max. inlet pressure	13 bar		
Minimum working pressure	0,5 bar		Ø 173 © F ©©
with automatic drain	.,.		VERSION
Maximum working pressure		V	N = Metal inserts
with automatic drain	10 bar		T = Technopolymer thread
			CONNECTIONS
Working temperature	-5°C +50°C	0	A = G3/8"(only for "N" version)
Weight with Technopolymer threads	gr. 320	•	B = G1/2"
Weight with threaded inserts	gr. 340		C = G1/2" NPT(only for "N" version)
			FILTER PORE SIZE
Filter pore size	5 μm - 20 μm - 50 μm	8	$A = 5 \mu m$
Bowl capacity	68 cm ³	•	$B = 20 \mu m$
Assembly positions	Vertical		C = 50 μm
7 1	vertical		OPTIONS
Max. fitting torque	G1/2" = 22 Nm	•	= Standard *
(with Technopolymer threads)	G1/2 = 22 NIII		S = Automatic drain
Max. fitting torque	G3/8" = 25 Nm		
(with threaded inserts)	G1/2" = 30 Nm		

* no additional letter required

Flow rate curves

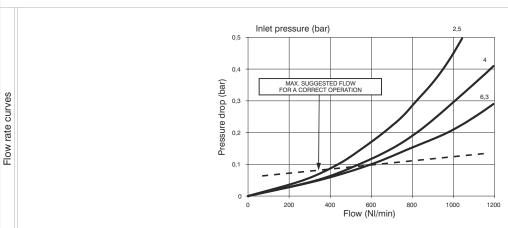
Coalescing filter (D)





*Bowl removal maximum height

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

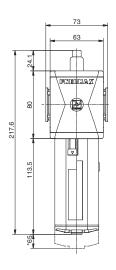


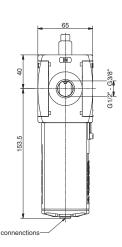
Operational characteristics	Technical characteristics			
Coalescing filter element with filtration grade of 0,01 μ m	Connections	G 3/8" - G 1/2"		Ordering code
Transparent bowl made off polycarbonate with	Max. inlet pressure	13 bar		
bowl protection guard.	Minimum working pressure	0,5 bar		Ø 173 ⊚ D ⊜ ⊚
Bowl assembly via bayonet type quick coupling	with automatic drain	0,5 541		VERSION
mechanism with safety button.	Maximum working pressure	40 5	V	N = Metal inserts
Semi-automatic drain mounted as standard;	with automatic drain	10 bar		T = Technopolymer thread CONNECTIONS
automatic drain upon request.	Working temperature	-5°C +50°C		A = G3/8"(only for "N" version)
Note	Weight with Technopolymer threads	gr. 325	•	B = G1/2"
In order to ensure a better grade of filtration it is recommended	Weight with threaded inserts	gr. 345		C = G1/2" NPT(only for "N" version
to use a 5 μ m filter before the coalescing filter. In order to ensure	Filter efficiency		•	FILTER EFFICIENCY A = 99,97%
adequate flow on the auto drain version it is recommended to	with 0,01 μm particle	99,97%		OPTIONS
use minimum a 6mm fitting.	Bowl capacity	68cm ³	•	= Standard *
	Assembly positions	Vertical		S = Automatic drain
	Max. fitting torque	0.1/20 22.11		
	(with Technopolymer threads)	G1/2" = 22 Nm		
	Max. fitting torque	G3/8" = 25 Nm		
	(with threaded inserts)	G1/2" = 30 Nm		

* no additional letter required

Oil removal filter (DB)

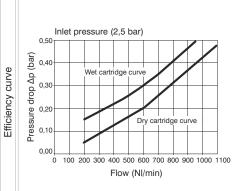


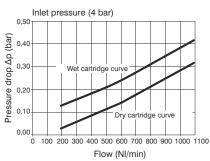


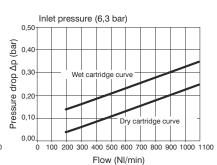


*Bowl removal maximum height

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







Operational characteristics

- 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.

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	
Maximum working pressure with automatic drain	10 bar	
Working temperature	-5°C ÷ +50°C	-
Weight with Technopolymer threads	gr. 440	
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	
(with threaded inserts)	G1/2" = 30 Nm	

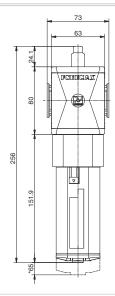
VERSION
N = Metal inserts
T = Technopolymer thread
CONNECTIONS
A = G3/8"(only for "N" version)
B = G1/2"
C = G1/2" NPT(only for "N" version)

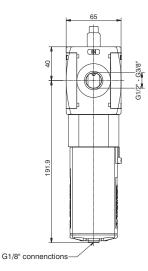
Ordering code

3.156

High efficiency oil removal filter (DC)

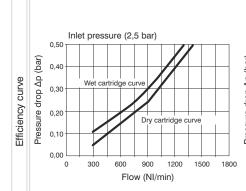


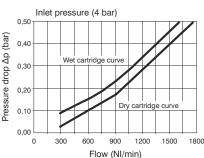


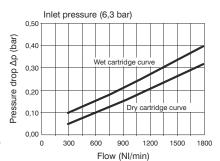


*Bowl removal maximum height

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



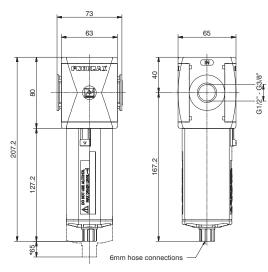




Operational characteristics **Technical characteristics** Coalescing filtering cartridge G 3/8" - G 1/2" Connections Ordering code particle removal 0,01 μm Nominal flow at 6,3 bar 1800 NI/min **Ø**173**@**DCV Filter efficiency 99,99% oil residual 0,01 ppm Max. inlet pressure 13 bar Clogging gauge VERSION N = Metal inserts Minimum working pressure green: proper working 0,5 bar T = Technopolymer threadwith automatic drain red: clogged cartridge (Δp 0,5 bar) CONNECTIONS Maximum working pressure we recommend to change the cartridge A = G3/8"(only for "N" version) 10 bar B = G1/2" with automatic drain Transparent bowl made off polycarbonate with C = G1/2" NPT(only for "N" version) -5°C ÷ +50°C Working temperature bowl protection guard. Weight with Technopolymer threads gr. 640 Bowl assembly via bayonet type quick coupling gr. 660 mechanism with safety button. Weight with threaded inserts Automatic drain mounted as standard. Bowl capacity 30 cm³ Note Assembly positions Vertical We recommend installing a 5 μ m filter upstream of the oil Max. fitting torque G1/2" = 22 Nm (with Technopolymer threads) removal filter. In order to ensure adequate flow on the auto drain version it is recommended to use minimum a 6mm fitting. Max. fitting torque G3/8" = 25 Nm(with threaded inserts) G1/2" = 30 Nm

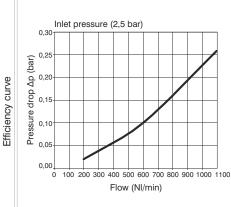
Carbon filter (DD)

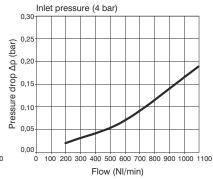




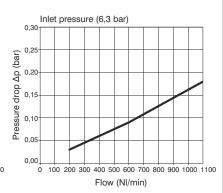
*Bowl removal maximum height

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





Technical characteristics



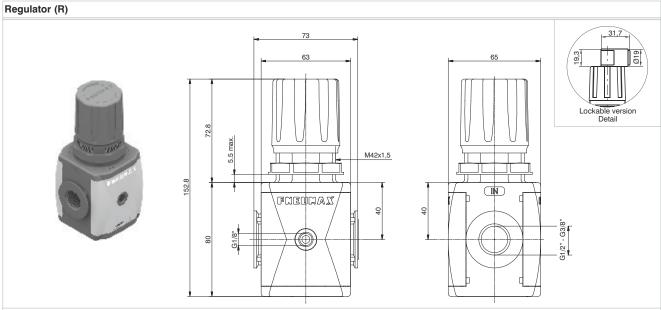
Operational characteristics

- 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.

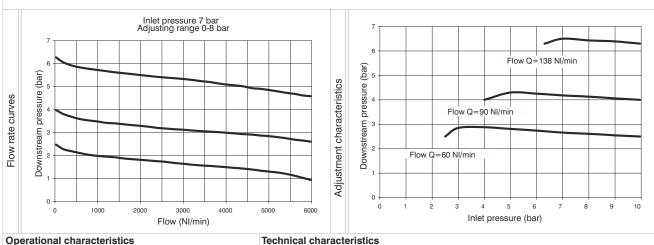
Note

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.

	Connections	G 3/8" - G 1/2"	Ordering code
	Nominal flow at 6,3 bar	1100 NI/min	
ı	Cartridge life	2000 hours	Ø 173 ⊚ DD
	Max. inlet pressure	13 bar	VERSION
	Working temperature	-5°C +50°C	N = Metal inserts
	Weight with Technopolymer threads	gr. 440	T = Technopolymer thread CONNECTIONS
	Weight with threaded inserts	gr. 460	A - C2/9"
	Bowl capacity	30 cm ³	B = G1/2"
	Assembly positions	Vertical	C = G1/2" NPT(only for "N" version)
	Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
е	Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	

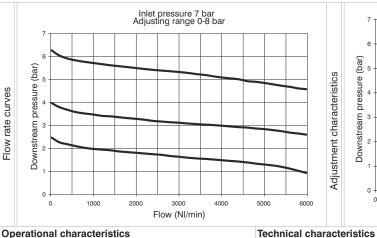


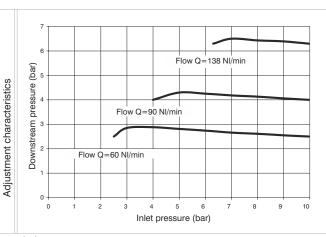
Example: T173BRC : size 3, Regulator with Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range



Operational characteristics	recnnical 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	V	N = Metal inserts
down once the desired P2 (regulated pressure)	Weight with threaded inserts	gr. 380	-	T = Technopolymer thread CONNECTIONS
pressure value is achieved.	Dranes van va	0-2 bar / 0-4 bar	0	A = G3/8"(only for "N" version)
- Fitted with panel mounting locking ring.	Pressure range	0-8 bar / 0-12 bar	9	B = G1/2"
Note	Assembly positions	Indifferent	_	C = G1/2" 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
a more precise regulation and higher sensibility, the use of a	(with Technopolymer threads)	G1/2" = 22 Nm	e	B = 0-4 bar
, , , , , , , , , , , , , , , , , , ,	(with recimopolymer timeads)	01/2 - 22 WIII	1	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 * 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
			0	= Standard *
				K = Lockable version

* no additional letter required Example: T173BRMC: size 3, Regulator including gauge with Technopolymer threads, G1/2" 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.

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)

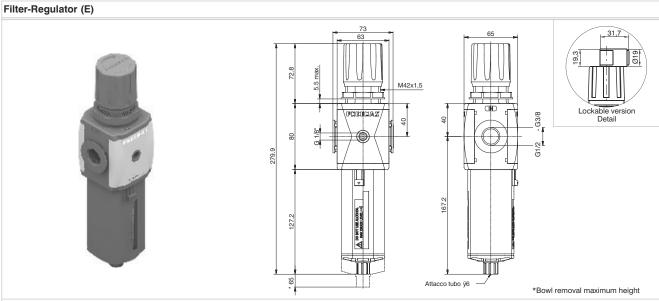
Note

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.

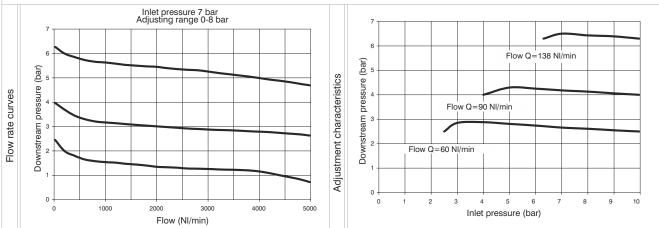
	Connections	G 3/8" - G 1/2"		Ordering code
	Max. inlet pressure	13 bar		
	Working temperature	-5°C +50°C		♥ 173 @ R D©①◎
	Weight with Technopolymer threads	gr. 370		VERSION
	Weight with threaded inserts	gr. 390	V	N = Metal inserts
	3	0-2 bar / 0-4 bar		T = Technopolymer thread
	Pressure range	0-2 bai / 0-4 bai		CONNECTIONS
		0-8 bar / 0-12 bar		A = G3/8"(only for "N" version)
	Assembly positions	Indifferent	9	B = G1/2"
	, ,	mamorone	-	C = G1/2" NPT(only for "N" version)
	Max. fitting torque	G1/2" = 22 Nm		FLOW DIRECTION
9)	(with Technopolymer threads)		0	M = from left to right
Ė				W = from right to left
				ADJUSTING RANGE
				A = 0-2 bar
			G	B = 0-4 bar
				C = 0-8 bar
				D = 0-12 bar
	Max. fitting torque	G3/8" = 25 Nm		TYPE
	(with threaded inserts) $G1/2" = 30 \text{ Nm}$			= Standard *
	,	.,		F = Controlled refiel +
				improved relieving

K = Lockable version * no additional letter required

L = no relieving R = Improved relieving OPTIONS = Standard *



 $\textbf{Example: T173BEBC: size 3, Filter-regulator with Technopolymer threads, G1/2" connections, 20~\mu m filtering pore size, 0~to~8~bar adjusting range} \\$



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 (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

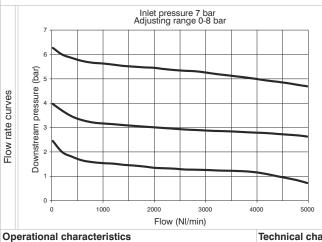
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended. In order to ensure adequate flow on the auto drain version it is recommended to use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

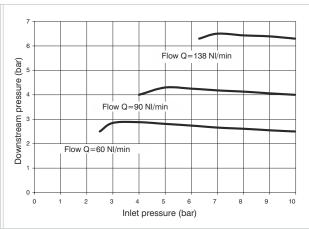
	Technical characteristics			
	Connections	G 3/8" - G 1/2"		Ordering code
	Max. inlet pressure	13 bar		
	Minimum working pressure	0,5 bar		Ø 173 © E ©©©
t.	with automatic drain	2,7 54		VERSION
	Maximum working pressure		V	11 Wotan Wicorto
	with automatic drain	10 bar		T = Technopolymer thread
	Working temperature	-5°C +50°C	1_	CONNECTIONS A = G3/8"(only for "N" version)
	Pressure gauge connections	G 1/8"	•	B = G1/2"
		- /-	-	C = G1/2" NPT(only for "N" version)
	Weight with Technopolymer threads	gr. 470		FILTER PORE SIZE
	Weight with threaded inserts	gr. 490	8	$A = 5 \mu m$
		0-2 bar / 0-4 bar	•	$B = 20 \mu m$
	Pressure range	0-8 bar / 0-12 bar		$C = 50 \mu m$
	Filter pero size		-	ADJUSTING RANGE
	Filter pore size	5 μm - 20 μm - 50 μm		A = 0-2 bar
	Bowl capacity	68 cm³	G	B = 0-4 bar
	Assembly positions	Vertical		C = 0-8 bar D = 0-12 bar
	Max. fitting torque	G1/8" = 4 Nm	_	TYPE
	(with Technopolymer threads)	G1/2" = 22 Nm	0	
	(with rechnopolymen threads)	01/2 - 22 NIII	-	S = Automatic drain
				OPTIONS
			0	= Standard *
				K = Lockable version
	Max. fitting torque	G3/8" = 25 Nm		* no additional
	9 1	1		letter required
	(with threaded inserts)	G1/2" = 30 Nm		

Filter-regulator including gauge (EM)(EW) 31,7 72.8 M42x1,5 167.2 6mm hose connections *Bowl removal maximum height

Adjustment characteristics

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





- 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.

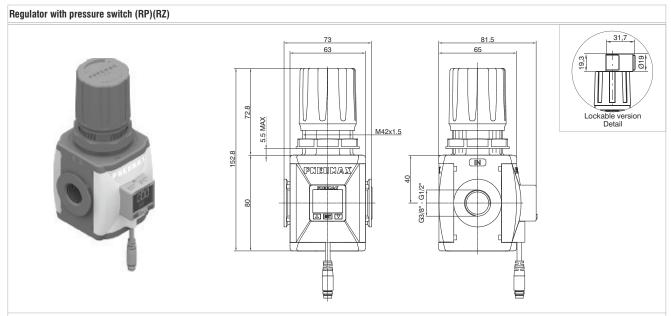
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Semi-automatic drain mounted as standard; automatic drain upon request.
- Available in four pressure ranges up to 12 bar.
- Operating knob can be locked in position by pressing it down once the desired P2 (regulated pressure) pressure value is achieved.
- Fitted with panel mounting locking ring.
- 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)

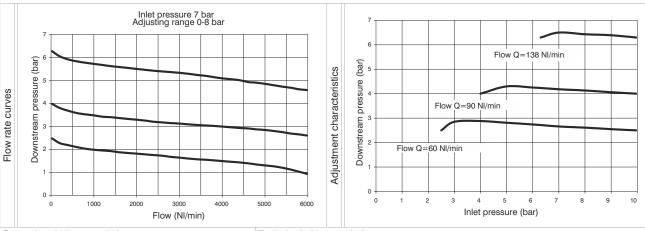
Note

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"	Ordering code		
Max. inlet pressure	13 bar	0		
Minimum working pressure	0,5 bar	Ø 173 ©EØ\$©©		
with automatic drain	0,0 24.	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)		
Weight with Technopolymer threads	gr. 480	B = G1/2"		
Weight with threaded inserts	gr. 500	C = G1/2" NPT(only for "N" version)		
3	0-2 bar / 0-4 bar	FLOW DIRECTION M = from left to right		
Pressure range	,	W = from right to left		
	0-8 bar / 0-12 bar	FILTER PORE SIZE		
Filter pore size	5 μm - 20 μm - 50 μm	A = 5 um		
Bowl capacity	68 cm ³	$B = 20 \mu\text{m}$		
Assembly positions	Vertical	C = 50 µm		
Max. fitting torque	70.000	ADJUSTING RANGE		
9 1	G1/2" = 22 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		
Max. fitting torque	G3/8" = 25 Nm	Standard *		
(with threaded inserts)	G1/2" = 30 Nm	K = Lockable version * no additional		
		letter required		



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



Flow (NI/min)			Inlet pressure (ba	ır)	
Operational characteristics	Technical charact	eristics			
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		0°C ÷ +50°C		♥ 173 © R D©©©©
Available in four pressure ranges up to 12 bar.	Weight with Technopo	olymer threads	gr. 370		VERSION
Operating knob can be locked in position by pressing it	Weight with threaded	inserts	gr. 390	V	N = Metal inserts
	Troigin mar amodada		0-2 bar / 0-4 bar		T = Technopolymer thread
down once the desired P2 (regulated pressure)	Pressure range				CONNECTIONS
pressure value is achieved.			0-8 bar / 0-12 bar	•	A = G3/8"(only for "N" version)
Fitted with panel mounting locking ring.	Assembly positions		Indifferent		B = G1/2"
Pressure switch as standard	Max. fitting torque				C = G1/2" NPT(only for "N" version)
	= G1/2" = 22 Nm		G1/2" = 22 Nm		FLOW DIRECTION
Note	(with Technopolymer	threads)		O	P = from left to right
The pressure must be always regulating while increasing. For					Z = from right to left
a more precise regulation and higher sensibility, the use of a					ADJUSTING RANGE
				A = 0-2 bar	
egulator with a pressure range as close as possible to the				G	B = 0-4 bar C = 0-8 bar
egulated pressure is recommended.					C = 0.8 bar D = 0.12 bar
					TYPE
					= Standard *
					F = Controlled refiel +
	Max. fitting torque		G3/8" = 25 Nm	0	improved relieving
	(with threaded inserts	1	G1/2" = 30 Nm		L = no relieving
	(with threaded miserts	")	G1/2 = 30 MIII		R = Improved relieving
					OPTIONS
				•	= Standard *
					K = Lockable version
					PRESSURE SWITCH OPTION
				А	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

* Bowl removal maximum height

D = Cable 2 mt. NPN

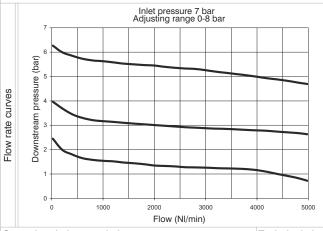
* no additional letter required

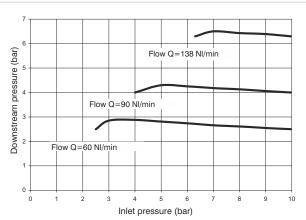
Filter regulator with pressure switch (EP)(EZ)

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

Adjustment characteristics

*65





6mm hose connections-/

Flow (NI/min)			′	
Operational characteristics	Technical characteristics			
Filter - 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.	Minimum working pressure	0,5 bar	•	V 173 © E 0©©0©
Double filtering action: air flow centrifugation and filter element.	with automatic drain	0,5 541		VERSION
Filtering element made of HDPE (high density polyethylene)	Maximum working pressure	40 h - 11	V	N = Metal inserts
available in three different filtration grades (5µm, 20µm and	with automatic drain	10 bar		T = Technopolymer thread
50µm) can be regenerated by washing it or replaced.	Working temperature	0°C ÷ +50°C		CONNECTIONS A = G3/8"(only for "N" version)
Transparent bowl made off polycarbonate with	Weight with Technopolymer threads	gr. 480	0	B = G1/2"
bowl protection guard.	Weight with threaded inserts	gr. 500		C = G1/2" NPT(only for "N" version)
Bowl assembly via bayonet type quick coupling mechanism	violgini man ambadaa moonto	0-2 bar / 0-4 bar	_	FLOW DIRECTION P = from left to right
with safety button.	Pressure range	0-8 bar / 0-12 bar	_	Z = from right to left
Semi-automatic drain mounted as standard:	Filter pore size	5 μm - 20 μm - 50 μm		FILTER PORE SIZE
,	•	68 cm ³		$A = 5 \mu m$
automatic drain upon request	Bowl capacity		_	$B = 20 \mu m$ $C = 50 \mu m$
Available in four pressure ranges up to 12 bar.	Assembly positions	Vertical		ADJUSTING RANGE
Operating knob can be locked in position by pressing	Max. fitting torque	G1/2" = 22 Nm		A = 0-2 bar
it down once the desired P2 (regulated pressure) pressure	(with Technopolymer threads)	G1/2 - 22 WIII		B = 0-4 bar
value is achieved.				C = 0-8 bar
Fitted with panel mounting locking ring.				D = 0-12 bar
Pressure switch as standard				TYPE
			•	= Standard * S = Automatic drain
Note				OPTIONS
The pressure must be always regulating while increasing. For	Max. fitting torque	G3/8" = 25 Nm	0	= Standard *
a more precise regulation and higher sensibility, the use of a	(with threaded inserts)	G1/2" = 30 Nm		K = Lockable version
regulator with a pressure range as close as possible to the				PRESSURE SWITCH OPTION
regulated pressure is recommended. In order to ensure				A = Cable 150 mm+M8 PNP
				B = Cable 150 mm+M8 NPN
adequate flow on the auto drain version it is recommended to				C = Cable 2 mt. PNP

use minimum a 6mm fitting.

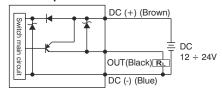


CHARACTERISTICS

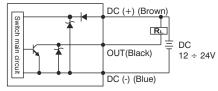
- 3 color digital LCD display, easy readout
- 4 units of measurement for pressure indication
- PNP and NPN output N.O. and N.C. output contact
- Not available individually, but only with a Regulator or a Filter-regulator

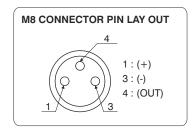
OUTPUT CIRCUIT WIRING DIAGRAMS

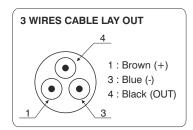
PNP output



NPN output





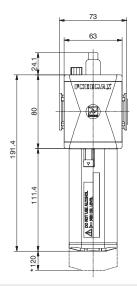


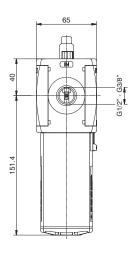
Cable ordering code

MCH1 cable 3 wires I=2,5m with M8 connector MCH2 cable 3 wires I=5m with M8 connector **МСН3** cable 3 wires I=10m with M8 connector



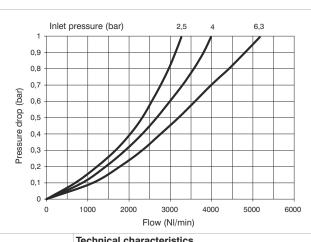
	TECHNICAL CHARACTERISTICS
Adjusting range	0 ÷ 10 bar / 0 ÷ 1MPa
Max. inlet pressure	15 bar / 1,5 MPa
Fluid	Filtered and dehumidified air
Display unit of measurement	MPa - kgf/cm² - bar - psi
Supply voltage	12 ÷ 24 VDC
Current consumption	≤40mA (without load)
Digital output type	NPN - PNP
Type of contact	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





*Bowl removal maximum height

Example: T173BL: size 3, Lubricator with Technopolymer threads, G1/2" connections



Flow rate curves

Operational characteristics Oil mist lubrication with variable orifice size in function of the flow rate Oil quantity regulation mechanism and oil quantity visualization dome made of polycarbonate.

- Transparent bowl made off polycarbonate with bowl protection guard.
- Bowl assembly via bayonet type quick coupling mechanism with safety button.
- Oil filling plug
- Oil can be refilled with pressurized circuit.
- Available with electric min-level sensor N.O. or N.C. with connection for connector.
- For electrical connection use connectors type C1-C2-C3 (see sensors chapter in the catalogue).

Mada	
Note	

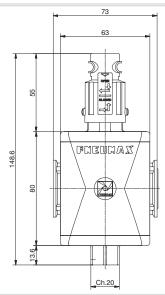
Install as close as possible to the point o fuse Do not use alcohol, deterging oils or solvents.

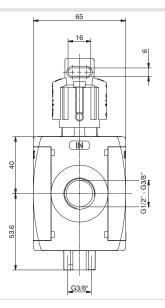
lechnical characteristics				
Connections		G 3/8" - G 1/2"		Ordering code
Max. inlet pressure		13 bar		
Working temperature		-5°C +50°C		Ø 173 @ L ⊚
Weight with Technopolymer threa	ads	gr. 290		VERSION
Weight with threaded inserts		gr. 310	V	N = Metal inserts
3		1 drop every		T = Technopolymer thread
Indicative oil drip rate				CONNECTIONS
		300/600 NI	•	A = G3/8"(only for "N" version)
Oil type		FD22 - HG32	_	B = G1/2"
Bowl capacity		136 cm ³		C = G1/2" NPT(only for "N" version)
. ,				OPTIONS
Assembly positions		Vertical		A = Min. Oil level indicator
Max. fitting torque		0.4 (01) 0.0 1.1	•	Normally open
(with Technopolymer threads)		G1/2"= 22 Nm		C = Min. Oil level indicator
, , ,				Normally closed
Max. fitting torque		G3/8" = 25 Nm		
(with threaded inserts)		G1/2" = 30 Nm		
Min. operational flow at 6,3 bar		100 NI/min.		

3









Example: T173BVL : size 3, Shut-off valve with Technopolymer threads, G1/2" connections

Operational characteristics

- Manual operated 3 ways poppet valve.
- Double handle action for valve opening: pushing and rotating (clockwise).
- The valve can be closed and the down stream circuit depressurized by rotating anticlockwise the knob.
- Knob lockable with three padlocks.

Technical characteristics

at 6 bar with ∆p=1

Connections	G 3/8" - G 1/2"		
Max. inlet pressure	13 bar		
Discharge connection	G3/8"		
Working temperature	-5°C +50°C		٧
Weight with Technopolymer threads	gr. 230	V	Ν
Weight with threaded inserts	gr. 250		C
Assembly positions	Indifferent		Α
Handle opening and closing angle	90°	•	Е
Max. fitting torque	C1/0II 00 Nee		C
(with Technopolymer threads)	G1/2" = 22 Nm		
Max. fitting torque	G3/8" = 25 Nm		
(with threaded inserts)	G1/2" = 30 Nm		
Nominal flow rate	0000 NII/min		
at 6 bar with Δp=1	3600 NI/min.		
Exhaust nominal flow rate	1500 NII/min		

1500 NI/min.

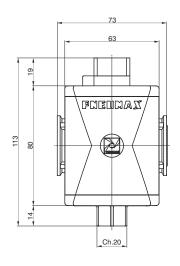
Ø173**@**VL VERSION N = Metal inserts T = Technopolymer thread CONNECTIONS A = G3/8"(only for "N" version)

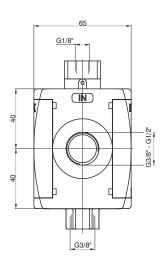
Ordering code

B = G1/2" C = G1/2" NPT(only for "N" version)

Pneumatic shut-off valve (VP)







Example: T173BVP: size 3, Pneumatic shut-off valve with Technopolymer threads, G1/2" connections

Operational characteristics

- Pneumatic operated 3 ways poppet valve.

- When the pneumatic signal is removed the valves exhaust the pneumatic circuit

Technical characteristics

at 6 bar with ∆p=1

Connections	G 3/8" - G 1/2"
Discharge connection	G3/8"
Pilot port size	G1/8"
Working temperature	-5°C ÷ +50°C
Weight with technopolymer threads	gr. 254
Weight with threaded inserts	gr. 270
Assembly positions	Indifferent
Min. pressure working	2,5 bar
Max. pressure working	10 bar
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm
Max. fitting torque	G3/8" = 25 Nm
(with threaded inserts)	G1/2" = 30 Nm
Nominal flow rate	3600 NI/min.
at 6 bar with Δp=1	OOOO NI/IIIII.
Exhaust nominal flow rate	1500 NI/min

1500 NI/min.

Ordering code

173@VP

VERSION
N = Metal inserts
T = Technopolymer thread

CONNECTIONS
A = G3/8"(only for "N" version)

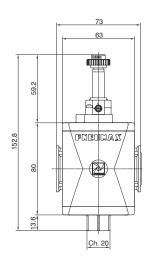
A = G3/8"(only for "N" version)
B = G1/2"
C = G1/2" NPT(only for "N" version)

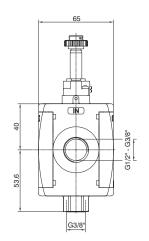
3



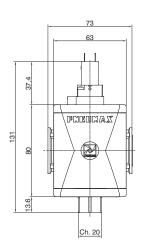
Electric shut-off valve (VE)

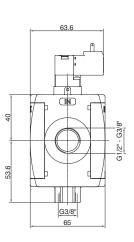












Example: T173BVEB2: size 3, Electric shut-off valve, with M2 Pilot without coil, Technopolymer threads, G1/2" connections

Operational characteristics

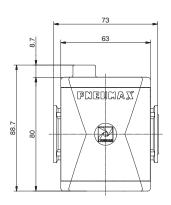
- Solenoid operated 3 ways poppet valve.
- The model fitted with 15 mm pilots uses pilots series N33_0A and N33_0E (1 Watt)

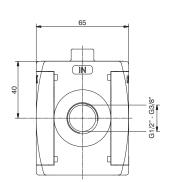
Technical characteristics

Supply and operating connections	G 3/8" - G 1/2"	Ordering code
Discharge connections	G 3/8"	Grasining code
Working temperature	-5°C ÷ +50°C	Ø 173 @ VE Ø
Weight with Technopolymer threads	290 g	VERSION
Weight with threaded inserts	310 g	N = Metal inserts
Assembly positions	Indifferent	T = Technopolymer thread
• • •		CONNECTIONS
Min. Pressure working	2,5 bar	A = G3/8"(only for "N" version)
Max. Pressure working	10 bar	B = G1/2"
Max. fitting torque		C = G1/2" NPT(only for "N" version)
(with Technopolymer threads)	G1/2" = 22 Nm	15 mm COIL VOLTAGE
, ,		A4 = 12 V DC A5 = 24 V DC
Max. fitting torque	G3/8" = 30 Nm	A6 = 24 V AC (50-60 Hz)
(with threaded inserts)	G1/2" = 25 Nm	A7 = 110 V AC (50-60 Hz)
Nominal flow rate		A8 = 220 V AC (50-60 Hz)
at 6 bar with Δp=1	3600 NI/min.	A9 = 24 V DC (1 Watt)
αι ο μαι Μιπ Δρ – τ	bar with Δp=1	22 mm COIL VOLTAGE
		B2 = Without coil
		M2 mechanic
		B 4 = 12 V DC
		B5 = 24 V DC
		B6 = 24 V AC (50-60 Hz)
Exhaust nominal flow rate		B7 = 110 V AC (50-60 Hz)
	1500 NI/min.	B8 = 220 V AC (50-60 Hz)
at 6 bar with Δp=1		B9 = 24 V DC (2 Watt)
		30 mm COIL VOLTAGE
		C5 = 24 V DC
		C6 = 24 V AC (50-60 Hz)
		C7 = 110 V AC (50-60 Hz)
		C8 = 230 V AC (50-60 Hz)
		C9 = 24 V DC (2 Watt)

Progressive start-up valve (AP)







Example: T173BAP: size 3, Progressive start-up valve with Technopolymer threads, G1/2" connections

Operational characteristics

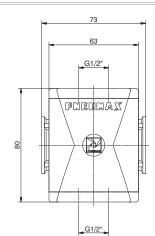
- Down stream circuit filling time regulated via a built in flow regulator.
- Full pressure is allowed once the down stream circuit pressure reaches 50% of the inlet pressure.

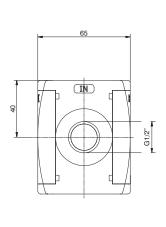
Technical characteristics

Connections	G 3/8" - G 1/2"		Ordering code
Max. inlet pressure	13 bar		
Working temperature	-5°C ÷ +50°C		Ø 173 © AP
Weight with Technopolymer threads	gr. 220	\	/ERSION
Weight with threaded inserts	gr. 240		N = Metal inserts
Max. fitting torque			= Technopolymer thread
9 1	G1/2" = 22 Nm		CONNECTIONS
(with Technopolymer threads)		(O) _	A = G3/8"(only for "N" version)
Max. fitting torque	G3/8" = 25 Nm	_ _ -	3 = G1/2"
(with threaded inserts)	G1/2" = 30 Nm	(C = G1/2" NPT(only for "N" version)
Assembly positions	Indifferent		
Min. pressure working	2,5 bar		
Nominal flow rate	3600 NI/min.		
at 6 bar with Δp=1	3000 141/111111.		
Fully open built in flow	200 NI/min.		
regulator flow rate	200 M/IIIII.		

Air intake (PA)







Example : T173BPA : size 3, Air intake with Technopolymer threads, G1/2" connections

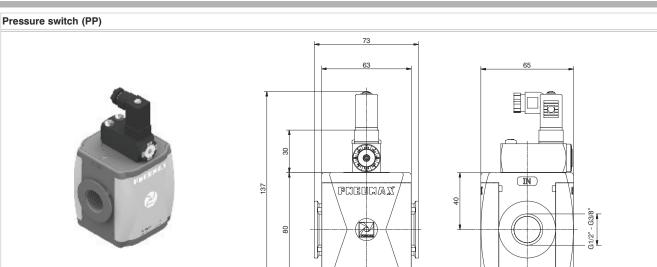
Operational characteristics

Available with two G1/2" threaded connections.

Attenction

For this product are available only Technopolymer connections

Technic	cal characteristics		
Connect	ions	G 1/2"	Ordering code
Max. inle	et pressure	13 bar	
Working	temperature	-5°C ÷ +50°C	T173BPA
Weight		gr. 151	
Assembl	y positions	Indifferent	
Max. fittir	ng torque	G1/2" = 22 Nm	
(with Tec	chnopolymer threads)	G1/2 - 22 NIII	



Example: T173BPP: Size 3, Pressure switch with Technopolymer threads, G1/2" connections

Operational characteristics

- Built in adjustable pressure switch (2 to 10 bar) with electrical connection.
- G 1/2" threaded connection on the bottom face.
- The electrical connection is made by mean of a 15 mm connector DIN 43650 type C. The microswitch contact could be normally closed or open (change overswitch).

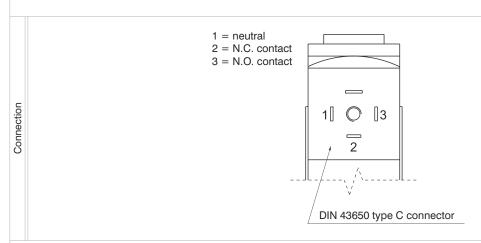
Attenction

For this product are available only Technopolymer connections

Technical characteristics

G1/2"

G 1/2"	Ordering code
13 bar	
-5°C +50°C	T173BPP
gr. 235	
1A	
IP 65	
11 03	
2-10 bar	
Indifferent	
G1/2" - 22 Nm	
G1/2 = 22 NIII	
250 VAC	
	13 bar -5°C +50°C gr. 235 1A IP 65 2-10 bar Indifferent G1/2" = 22 Nm



Ordering code

T173X



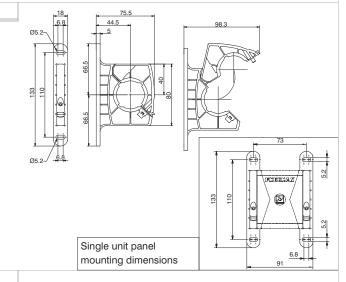
Weight 35 gr.
Example: T173X: Size 3 coupling flange
- Enables the quick connection of two functions.

Flange Y

Ordering code

T173Y





Weight 48 gr. Example: T173Y: Size 3 coupling flange with mounting holes - Used to couple together two elements and to panel mount them.

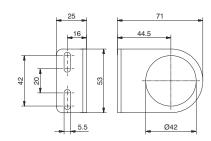
- Used to panel mount one single element.

Fixing bracket

Ordering code

T17250





Weight 71 gr. - Allows for regulators and filter regulators to be panel mounted.

Pressure gauge

Ordering code

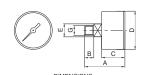
17070**Ø**.**⑤**

VERSION
A = Dial Ø40
B = Dial Ø50
SCALE

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





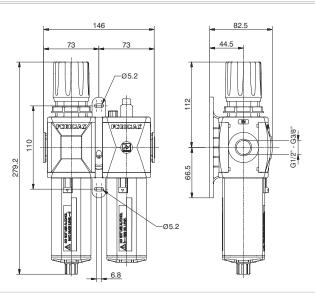


DIMENSIONS							
CODE	Α	В	С	D	Е	G	Weight gr.
17070A	44	10	26	41	14	1/8"	60
17070B	45	10	27	49	14	1/8"	80

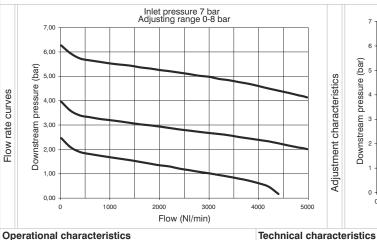


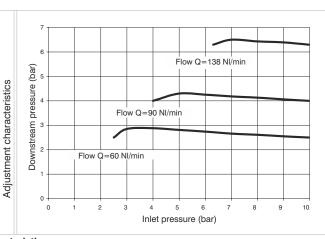
Service unit assembled (EM+L) (E+L) (EW+L)





Example: GT173BHG: size 3, combined group comprising Filter-regulator and Lubricator, Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range and 20 µm filter pore size





Operational characteristics

Combined group comprising Filter-regulator with built in manometer and Lubricator assembled with a (Y) type coupling kit for panel mounting.

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.

Connections		G 3/8" - G 1/2"	
	Max. inlet pressure	13 bar -5°C +50°C gr. 809 gr. 849 0-2 bar / 0-4 bar 0-8 bar / 0-12 bar 5 μm - 20 μm - 50 μm 68 cm³ 1 drop every 300/600 NI FD22 - HG32 136 cm³	
	Working temperature	-5°C +50°C	
	Weight with Technopolymer threads	gr. 809	
	Weight with threaded inserts	gr. 849	V
	Pressure range	0-2 bar / 0-4 bar	
	Tressure range	0-8 bar / 0-12 bar	<u>a</u>
Filter pore size		5 μm - 20 μm - 50 μm	
	Bowl capacity	68 cm ³	
	Indicative oil drip rate	1 drop every	0
	indicative on drip rate	300/600 NI	(m
	Oil type	FD22 - HG32	
	Bowl capacity	136 cm ³	bar bar
Assembly positions		Vertical	8

		CONTRECTIONS
		A = G3/8"(only for "N" version)
m	G	B = G1/2"
	_	C = G1/2" NPT(only for "N" version)
		TYPE
	•	H = Built in gauge
		J = G1/8" gauge connection
		FILTER PORE SIZE
		ADJUSTING RANGE
		$C = 5 \mu m / 0-8 bar$
	8	$D = 5 \mu m / 0-12 bar$
		$G = 20 \mu \text{m} / 0-8 \text{bar}$
		$H = 20 \mu m / 0-12 bar$
		$N = 50 \mu m / 0-8 bar$
		$P = 50 \mu m / 0-12 bar$
		OPTIONS
		= Standard *
		A = Min.oil level indicator NO
		C = Min.oil level indicator NC

G1/2" = 22 Nm

G3/8" = 25 Nm

G1/2" = 30 Nm

100 NI/min.

 S = Automatic drain SA = Automatic drain Min.oil level indicator NO SC = Automatic drain + Min.oil level indicator NC

Ordering code

GØ173@@@@

T = Technopolymer thread

VERSION

N = Metal inserts

CONNECTIONS

FLOW DIRECTION = Standard 0 (from left to right)
W = from right to left

* no additional letter required

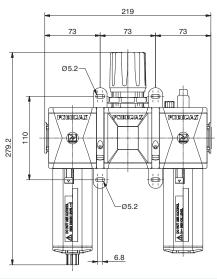
Max. fitting torque

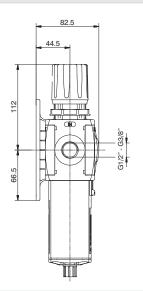
Max. fitting torque

(with threaded inserts)

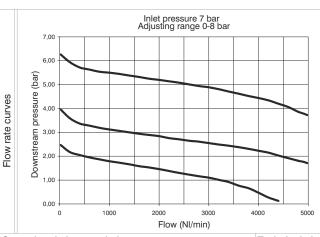
(with Technopolymer threads)

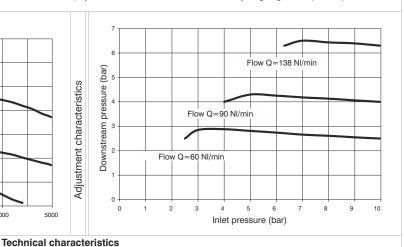
Min. operational flow at 6,3 bar





Example: GT173BKG: size 3 combined group comprising Filter, Regulator and Lubricator Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range and 20 µm filter pore size





Operational characterist	ics
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Combined group comprising Filter, Regulator with built in manometer and Lubricator assembled with two (Y) type coupling kits for panel mounting.

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.

Connections	G 3/8" - G 1/2"			
Max. inlet pressure	13 bar			
Working temperature	-5°C +50°C			
Weight with Technopolymer threads	gr. 1058	\vdash		
Weight with threaded inserts	gr. 1118	•		
Pressure range	0-2 bar / 0-4 bar	-		
Fressure range	0-8 bar / 0-12 bar	0		
Filter pore size	5 μm - 20 μm - 50 μm	1		
Bowl capacity	68 cm ³	-		
Indicative oil drip rate	1 drop every	•		
Indicative oil drip rate	300/600 NI			
Oil type	FD22 - HG32	1		
Bowl capacity	136 cm ³			
Assembly positions	Vertical	6		
Max. fitting torque	04/01 00 N	1		
(with Technopolymer threads)	G1/2" = 22 Nm			
Max. fitting torque	G3/8" = 25 Nm	L		
(with threaded inserts)	G1/2" = 30 Nm			
		0		
Min. operational flow at 6,3 bar	100 NI/min.			

		<u>-</u>
		G Ø 173 @@© @
		VERSION
V		N = Metal inserts
		T = Technopolymer thread
		CONNECTIONS
	0	A = G3/8"(only for "N" version)
	•	B = G1/2"
		C = G1/2" NPT(only for "N" version)
		TYPE
	•	K = Built in gauge
		T = G1/8" gauge connection
		FILTER PORE SIZE
		ADJUSTING RANGE
		$C = 5 \mu \text{m} / 0-8 \text{bar}$
	8	$D = 5 \mu m / 0-12 bar$
		$G = 20 \mu m / 0.8 bar$
		$H = 20 \mu m / 0-12 bar$
		$N = 50 \mu m / 0-8 bar$
		P = 50 μm / 0-12 bar
		OPTIONS
		= Standard *
		A = Min.oil level indicator NO
		C = Min.oil level indicator NC
	0	S = Automatic drain
		SA = Automatic drain +
		Min.oil level indicator NO SC = Automatic drain +
		Min.oil level indicator NC
		FLOW DIRECTION
	0	= Standard
		(from left to right)
		W = from right to left

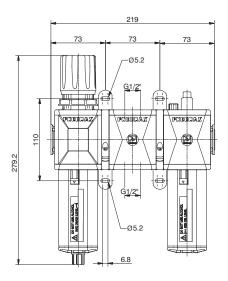
Ordering code

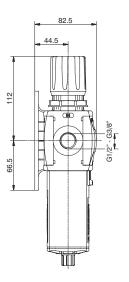
3.174

* no additional letter required

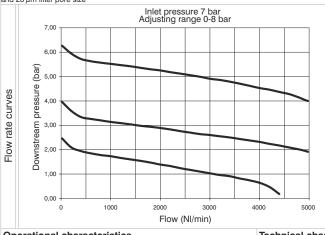
Service unit assembled (EM+PA+L) (E+PA+L) (EW+PA+L)

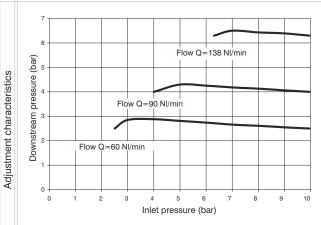






Example: GT173BNG: size 3 combined group comprising Filter-regulator, Air intake and Lubricator Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range and 20 μ m filter pore size





Operational characteristics

Combined group comprising Filter-regulator with built in manometer, Air intake and Lubricator assembled with two (Y) type coupling kits for panel mounting. 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

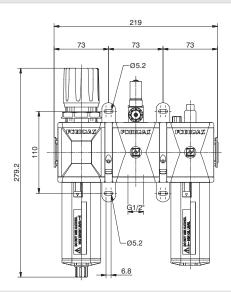
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

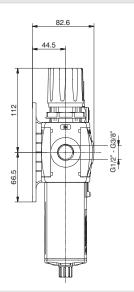
Technical characteristics			
Connections	G 3/8" - G 1/2"		Ordering code
Max. inlet pressure	13 bar		
Working temperature	-5°C +50°C		G ♥ 173 ❷❶ ❸ ◎●
Weight with Technopolymer threads	gr. 999		VERSION
Weight with threaded inserts	gr. 1039	V	N = Metal inserts
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar		T = Technopolymer threat CONNECTIONS A = G3/8"(only for "N" version)
Filter pore size	5 μm - 20 μm - 50 μm	•	B = G1/2"
Bowl capacity	68 cm ³	_	C = G1/2" NPT(only for "N" ve
Indicative oil drip rate	1 drop every 300/600 NI	0	P = G1/8" gauge conne
Oil type	FD22 - HG32		FILTER PORE SIZE ADJUSTING RANGE
Bowl capacity	136 cm ³		$C = 5 \mu m / 0.8 bar$
Assembly positions	Vertical	8	D = 5 um / 0.12 bor
Max. fitting torque		_	$G = 20 \mu \text{m} / 0-8 \text{bar}$
(with Technopolymer threads)	G1/2" = 22 Nm		$H = 20 \mu m / 0-12 bar$ $N = 50 \mu m / 0-8 bar$
Max. fitting torque	G3/8" = 25 Nm	-	$P = 50 \mu\text{m} / 0-12 \text{bar}$
(with threaded inserts)	G1/2" = 30 Nm		OPTIONS
Min. operational flow at 6,3 bar	100 NI/min.	•	= Standard * A = Min.oil level indicato C = Min.oil level indicato S = Automatic drain SA = Automatic drain + Min.oil level indicato SC = Automatic drain + Min.oil level indicato
		•	FLOW DIRECTION = Standard

	V	VERSION
		N = Metal inserts
		T = Technopolymer thread
		CONNECTIONS
	0	A = G3/8"(only for "N" version)
	G	B = G1/2"
-		C = G1/2" NPT(only for "N" version)
		TYPE
	•	N = Built in gauge
		P = G1/8" gauge connection
		FILTER PORE SIZE
		ADJUSTING RANGE
		$C = 5 \mu m / 0-8 bar$
	8	$D = 5 \mu m / 0-12 bar$
	•	$G = 20 \mu \text{m} / 0-8 \text{bar}$
		$H = 20 \mu m / 0-12 bar$
		$N = 50 \mu m / 0-8 bar$
		$P = 50 \mu m / 0 - 12 bar$
		OPTIONS
		= Standard *
		A = Min.oil level indicator NO
		C = Min.oil level indicator NC
	0	S = Automatic drain
		SA = Automatic drain +
		Min.oil level indicator NO
		SC = Automatic drain +
		Min.oil level indicator NC
		FLOW DIRECTION
	0	= Standard
	•	(from left to right)
		W = from right to left

Service unit assembled (EM+PP+L) (E+PP+L) (EW+PP+L)







GØ173@@@@

T = Technopolymer thread

C = G1/2" NPT(only for "N" version)

C = G1/8" gauge connection FILTER PORE SIZE ADJUSTING RANGE $C = 5 \mu m / 0-8 bar$

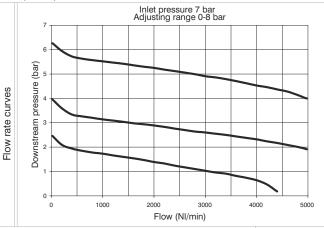
 $G = 20 \,\mu m / 0-8 \,bar$ $H = 20 \,\mu m / 0-12 \,bar$ $N = 50 \, \mu \text{m} / 0-8 \, \text{bar}$ $P = 50 \, \mu \text{m} / 0 - 12 \, \text{bar}$ OPTIONS = Standard * A = Min.oil level indicator NO C = Min.oil level indicator NC

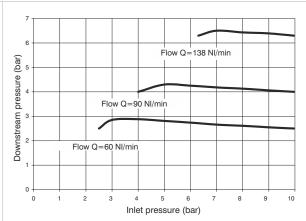
SA = Automatic drain Min.oil level indicator NO SC = Automatic drain + Min.oil level indicator NC

FLOW DIRECTION = Standard (from left to right)
W = from right to left

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

Example: GT173BRG: size 3 combined group comprising Filter-Regulator, Pressure switch and Lubricator Technopolymer threads, G1/2* connections 0 to 8 bar adjusting range and 20 μ m filter pore size





Operational characteristics

Combined group comprising Filter-regulator with built in manometer, Pressure switch and Lubricator assembled with two (Y) type coupling kits for panel mountings. 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.

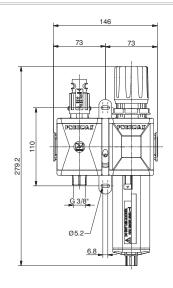
Adjustment characteristics

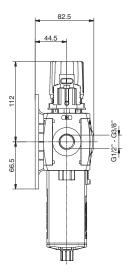
Connections	G 3/8" - G 1/2"		Ordering code
Max. inlet pressure	13 bar		
Working temperature	-5°C +50°C		G Ø 173 @@ ©
Weight with Technopolymer threads	gr. 1083		VERSION
Weight with threaded inserts	gr. 1123	V	N = Metal inserts
	0-2 bar / 0-4 bar	_	T = Technopolymer th
Pressure range			CONNECTIONS
	0-8 bar / 0-12 bar	•	A = G3/8"(only for "N" versi
Filter pore size	5 μm - 20 μm - 50 μm	-	B = G1/2"
Bowl capacity	68 cm ³	-	C = G1/2" NPT(only for TYPE
	1 drop every	0	R = Built in gauge
Indicative oil drip rate	300/600 NI	_	C = G1/8" gauge con
0.11		_	FILTER PORE SIZE
Oil type	FD22 - HG32		ADJUSTING RANGE
Bowl capacity	136 cm ³		$C = 5 \mu \text{m} / 0-8 \text{bar}$
Assembly positions	Vertical	8	$D = 5 \mu m / 0-12 bar$
Max. fitting torque		_	$G = 20 \mu \text{m} / 0-8 \text{bar}$
	G1/2" = 22 Nm		$H = 20 \mu \text{m} / 0-12 \text{bar}$
(with Technopolymer threads)			$N = 50 \mu \text{m} / 0-8 \text{bar}$
Max. fitting torque	G3/8" = 25 Nm		$P = 50 \mu \text{m} / 0-12 \text{bar}$
(with threaded inserts)	G1/2" = 30 Nm		OPTIONS
(**************************************	5.17	-	= Standard *
			A = Min.oil level indic
			C = Min.oil level indic
		0	
			SA = Automatic drain
			Min.oil level indic
Min. operational flow at 6,3 bar	100 NI/min.		SC = Automatic drain
			Min.oil level indic

* no additional letter required

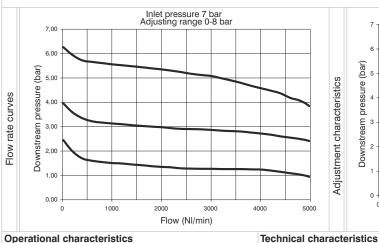
Service unit assembled (VL+EM) (VL+E) (VL+EW)

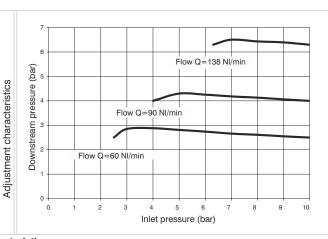






Example: GT173BVGG: size 3 combined group comprising Shut-off valve, Filter-regulator Technopolymer threads, G1/2" connections 0 to 8 bar adjusting range and 20 µm filter pore size





Operational characteristics

Combined group comprising manual shut-off valve, Filter regulator with built in manometer, assembled with one (Y) type coupling kit for panel mountings. 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

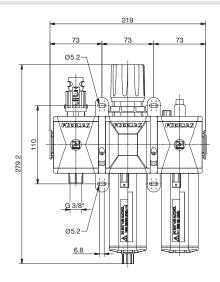
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

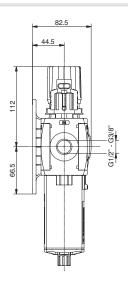
Connections	G 3/8" - G 1/2"		Ordering code		
Max. inlet pressure	13 bar				
Working temperature	-5°C +50°C		G Ø 173 @@© @		
Weight with Technopolymer threads	gr. 749		VERSION		
Weight with threaded inserts	gr. 789	V	N = Metal inserts		
Dungan was war	0-2 bar / 0-4 bar		T = Technopolymer thread CONNECTIONS		
Pressure range	0-8 bar / 0-12 bar		A = G3/8"(only for "N" version)		
Filter pore size	5 μm - 20 μm - 50 μm	•	B = G1/2"		
Bowl capacity	68 cm ³		C = G1/2" NPT(only for "N" version)		
	1 drop every	0	TYPE VG = Built in gauge		
Indicative oil drip rate	300/600 NI		VU = G1/8" gauge connection		
Oil type	FD22 - HG32		FILTER PORE SIZE		
Bowl capacity	136 cm ³		ADJUSTING RANGE C = 5 µm / 0-8 bar		
Assembly positions	Vertical	_	$D = 5 \mu m / 0-12 bar$		
Max. fitting torque			$G = 20 \mu\text{m} / 0.8 \text{bar}$		
(with Technopolymer threads)	G1/2" = 22 Nm		$H = 20 \mu m / 0-12 bar$ $N = 50 \mu m / 0-8 bar$		
Max. fitting torque	G3/8" = 25 Nm		$P = 50 \mu\text{m} / 0-12 \text{bar}$		
(with threaded inserts)	G1/2" = 30 Nm		OPTIONS		
(with threaded hiserts)	G1/2 = 30 MII	•	= Standard *		
			S = Automatic drain		
Min and the self a	400 \$117		FLOW DIRECTION		
Min. operational flow at 6,3 bar	100 NI/min.	•	= Standard		
			(from left to right)		
			W = from right to left		

* no additional letter required

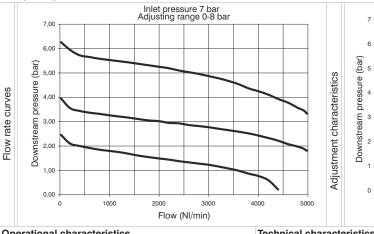
Service unit assembled (VL+EM+L) (VL+E+L) (VL+EW+L)

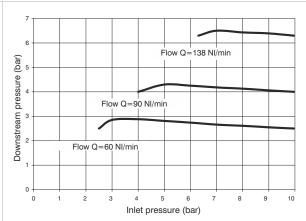






Example: GT173BVHG: Size 3 Combined group comprising Shut-off valve, Filter-regulator and Lubricator Technopolymer threads, G1/2" connections 0 to 8 bar adjusting range and 20 μ m filter pore size





Operational characteristics

Combined group comprising manual shut-off valve, Filter regulator with built in manometer and Lubricator assembled with two(Y) type coupling kits for panel mountings. 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.

recillicai	Characteristics	

Adjustment characteristics

Connections	G 3/8" - G 1/2"	Ordering code		
Max. inlet pressure	13 bar		G Ø 173 @@©	
Working temperature	-5°C +50°C			
Weight with Technopolymer threads	gr. 1078		VERSION	
Weight with threaded inserts	gr. 1138	V	N = Metal inserts	
Pressure range	0-2 bar / 0-4 bar		T = Technopolymer three	
			CONNECTIONS	
	0-8 bar / 0-12 bar	•	A = G3/8"(only for "N" version)	
Filter pore size	5 μm - 20 μm - 50 μm		B = G1/2"	
Bowl capacity	68 cm ³	-	C = G1/2" NPT(only for "N" v	
	1 drop every		VH = Built in gauge	
Indicative oil drip rate	300/600 NI		VJ = G1/8" gauge conn	
011 4		-	FILTER PORE SIZE	
Oil type	FD22 - HG32	_	ADJUSTING RANGE	
Bowl capacity	136 cm ³	8	C = 5 µm / 0-8 bar	
Assembly positions	Vertical		$D = 5 \mu m / 0-12 bar$	
Max. fitting torque			$G = 20 \mu m / 0-8 bar$	
(with Technopolymer threads)	G1/2" = 22 Nm		$H = 20 \mu\text{m} / 0-12 \text{bar}$	
, , ,		-	$N = 50 \mu \text{m} / 0-8 \text{bar}$	
Max. fitting torque	G3/8" = 25 Nm		$P = 50 \mu m / 0-12 bar$ OPTIONS	
(with threaded inserts)	G1/2" = 30 Nm		= Standard *	
Min. operational flow at 6,3 bar			A = Min.oil level indicate	
			C = Min.oil level indicat	
		0	S = Automatic drain	
		-	SA = Automatic drain +	
			Min.oil level indicat	
	100 NI/min.		SC = Automatic drain +	
			Min.oil level indicat	
			FLOW DIRECTION	
		0	= Standard	
			(from left to right)	

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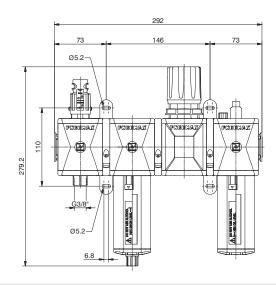
(from left to right)
W = from right to left

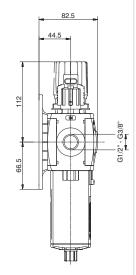
* no additional letter required



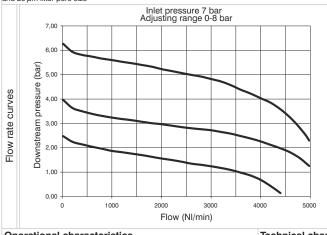
Service unit assembled (VL+F+RM+L) (VL+F+R+L) (VL+F+RW+L)

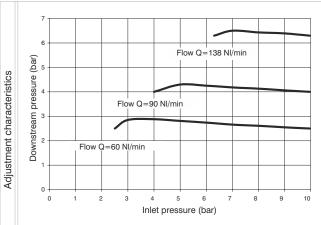






Example: GT173BVKG: size 3 combined group comprising Shut-off valve, Filter, Regulator and Lubricator Technopolymer threads, G1/2" connections 0 to 8 bar adjusting range and 20 μm filter pore size





Operational characteristics

* no additional letter required

Combined group comprising Manual shut-off valve, Filter, Regulator with built in manometer and Lubricator, assembled with two (Y) type coupling kits for panel mounting and one (X) type coupling kit.

Integrated manometer 0-12 bar as standard

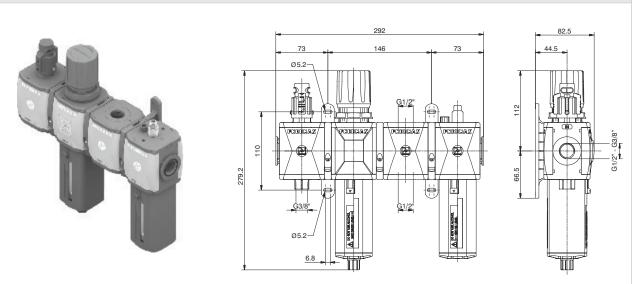
(for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)

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.

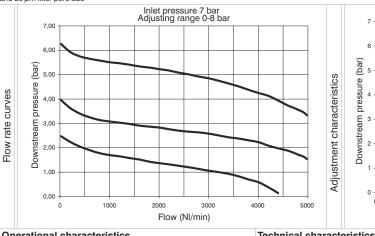
Technical characteristics			
Connections	G 3/8" - G 1/2"	Ordering code	
Max. inlet pressure	13 bar		
Working temperature	-5°C +50°C	GØ173@⊕S@0	
Weight with Technopolymer threads	gr. 1308	VERSION	
Weight with threaded inserts	gr. 1388	N = Metal inserts	
Pressure range	0-2 bar / 0-4 bar	T = Technopolymer thread	
	0-8 bar / 0-12 bar	CONNECTIONS	
<u></u>		A = G3/8"(only for "N" version) $B = G1/2"$	
Filter pore size	5 μm - 20 μm - 50 μm	C = G1/2 NPT(only for "N" version)	
Bowl capacity	68 cm ³	TYPE	
Land and the second and the second	1 drop every	VK = Built in gauge	
Indicative oil drip rate	300/600 NI	VT = G1/8" gauge connection	
Oil home	FD22 - HG32	FILTER PORE SIZE	
Oil type		ADJUSTING RANGE	
Bowl capacity	136 cm ³	$C = 5 \mu \text{m} / 0-8 \text{bar}$	
Assembly positions	Vertical	$D = 5 \mu\text{m} / 0 - 12 \text{bar}$	
Max. fitting torque		$G = 20 \mu\text{m} / 0-8 \text{bar}$	
(with Technopolymer threads)	G1/2" = 22 Nm	$H = 20 \mu m / 0-12 bar$	
, , ,		$N = 50 \mu \text{m} / 0.8 \text{bar}$	
Max. fitting torque	G3/8" = 25 Nm	$P = 50 \mu\text{m} / 0-12 \text{bar}$	
(with threaded inserts)	G1/2" = 30 Nm	OPTIONS = Standard *	
Min. operational flow at 6,3 bar		A = Min.oil level indicator NO	
		C = Min.oil level indicator NC	
		S = Automatic drain	
		SA = Automatic drain +	
		Min.oil level indicator NC	
	100 NI/min.	SC = Automatic drain +	
		Min.oil level indicator NC	
		FLOW DIRECTION	
		Standard	
		(from left to right)	
		W = from right to left	

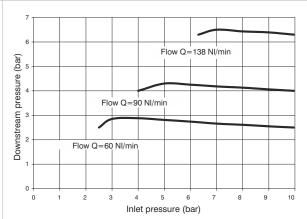
Service unit assembled (VL+EM+PA+L) (VL+E+PA+L) (VL+EW+PA+L)



Example: GT173BVNG: size 3 combined group comprising Shut-off valve, Filter-regulator, Air intake and Lubricator Technopolymer threads, G1/2" connections 0 to 8 baradjusting range and 20 μ m filter pore size

Adjustment characteristics





Operational	cnaracteristics

Combined group comprising manual shut-off valve, Filter regulator with built in manometer, Air intake and Lubricator, assembled with two (Y) type coupling kits for panel mounting and one (X) type coupling kit.

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 3/8" - G 1/2"		Ordering code	
	Max. inlet pressure	13 bar		G Ø 173 @⊕ \$@	
	Working temperature	-5°C +50°C			
	Weight with Technopolymer threads	gr. 1249		VERSION	
	Weight with threaded inserts	gr. 1309	V	N = Metal inserts	
	Pressure range	0-2 bar / 0-4 bar	0	T = Technopolymer the CONNECTIONS	
		0-8 bar / 0-12 bar		A = G3/8"(only for "N" version	
	Filter pore size	5 μm - 20 μm - 50 μm	•	B = G1/2"	
	Bowl capacity	68 cm ³	-	C = G1/2" NPT(only for "I	
	Indicative oil drip rate	1 drop every 300/600 NI	0	VN = Built in gauge VP = G1/8" gauge co	
	Oil type	FD22 - HG32		FILTER PORE SIZE ADJUSTING RANGE	
	Bowl capacity	136 cm ³		$C = 5 \mu \text{m} / 0.8 \text{ bar}$	
	Assembly positions	Vertical	8	$D = 5 \mu \text{m} / 0 - 12 \text{bar}$	
	Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm		$G = 20 \mu m / 0.8 \text{ bar}$ $H = 20 \mu m / 0.12 \text{ bar}$ $N = 50 \mu m / 0.8 \text{ bar}$	
	Max. fitting torque	G3/8" = 25 Nm		$P = 50 \mu m / 0 - 12 bar$	
	(with threaded inserts)	G1/2" = 30 Nm		OPTIONS = Standard *	
	Min. operational flow at 6,3 bar	100 NI/min.	•	Standard * A = Min.oil level indic C = Min.oil level indic S = Automatic drain SA = Automatic drain Min.oil level indic SC = Automatic drain Min.oil level indic Min.oil level indic	
			1	ELOW DIDECTION	

FILTER PORE SIZE ADJUSTING RANGE $C = 5 \mu m / 0-8 bar$ **S** $D = 5 \mu \text{m} / 0.12 \text{ bar}$ $G = 20 \,\mu m / 0-8 \,bar$ $H = 20 \,\mu m / 0-12 \,bar$ $N = 50 \, \mu \text{m} / 0.8 \, \text{bar}$ $P = 50 \,\mu m / 0-12 \,bar$ OPTIONS = Standard * A = Min.oil level indicator NO C = Min.oil level indicator NC S = Automatic drain SA = Automatic drain Min.oil level indicator NO SC = Automatic drain + Min.oil level indicator NC FLOW DIRECTION = Standard (from left to right)
W = from right to left

GØ173@@@@

T = Technopolymer thread

C = G1/2" NPT(only for "N" version)

VP = G1/8" gauge connection

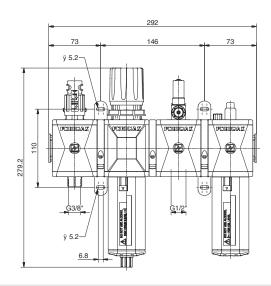
A = G3/8"(only for "N" version) B = G1/2"

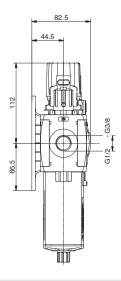
* no additional letter required



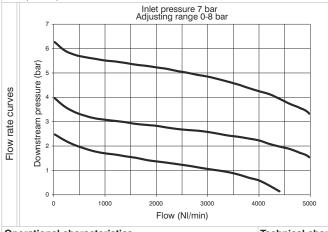
Service unit assembled (VL+EM+PP+L) (VL+E+PP+L) (VL+EW+PP+L)

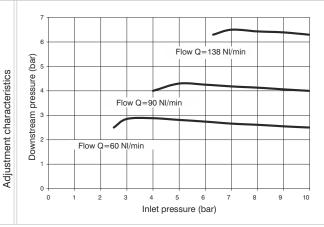






Example: GT173BVRG: size 3 combined group comprising Shut-off valve, Filter-regulator, Pressure switch and Lubricator Technopolymer threads, G1/2* connections adjusting range 0 to 8 bar and 20 μ m filter pore size





Operational characteristics

* no additional letter required

Combined group comprising manual shut-off valve, Filter regulator with built in manometer, Pressure switch and Lubricator, assembled with two (Y) type coupling kits for panel mounting and one (X) type coupling kit. 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)

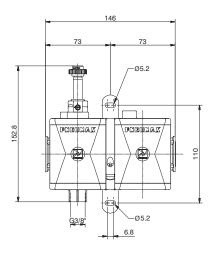
Note

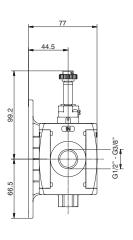
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics			
Connections	G 3/8" - G 1/2"		Ordering code
Max. inlet pressure	13 bar		
Working temperature	-5°C +50°C		G Ø 173 @@© @ @
Weight with Technopolymer threads	gr. 1333		VERSION
Weight with threaded inserts	gr. 1393	V	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)
Filter pore size	5 μm - 20 μm - 50 μm		B = G1/2"
Bowl capacity	68 cm ³		C = G1/2" NPT(only for "N" version)
	1 drop every		TYPE VR = Built in gauge
Indicative oil drip rate	' '	U	VC = G1/8" gauge connection
	300/600 NI		FILTER PORE SIZE
Oil type	FD22 - HG32		ADJUSTING RANGE
Bowl capacity	136 cm ³		$C = 5 \mu m / 0-8 \text{ bar}$
Assembly positions	Vertical	8	$D = 5 \mu m / 0-12 bar$
Max. fitting torque		- 0	$G = 20 \mu m / 0-8 bar$
0 1	G1/2" = 22 Nm		$H = 20 \mu m / 0-12 bar$
(with Technopolymer threads)			$N = 50 \mu \text{m} / 0-8 \text{bar}$
Max. fitting torque	G3/8" = 25 Nm		$P = 50 \mu m / 0-12 bar$
(with threaded inserts)	G1/2" = 30 Nm		OPTIONS
,		1	= Standard * A = Min.oil level indicator NO
			C = Min.oil level indicator NC
			S = Automatic drain
Min. operational flow at 6,3 bar		•	SA = Automatic drain +
			Min.oil level indicator NO
	100 NI/min.		SC = Automatic drain +
			Min.oil level indicator NC
			FLOW DIRECTION
		0	= Standard
		9	(from left to right)
			W = from right to left

Service unit assembled (VE+AP)







Example: GT173BSB2: size 3 combined group comprising Electric shut-off valve, Progressive start-up valve without coil with M2 pilot Technopolymer threads, G1/2" connections

Operational characteristics		Technical characteristics		
	Combined group comprising Electric shut - off valve and	Connections		
	Progressive start-up valve assembled with a (Y) type coupling kit	Max. inlet pressure		
	for panel mounting.	Min. inlet pressure		

	Connections	G 3/8" - G 1/2"		Ordering code
g kit	Max. inlet pressure	10 bar		
	Min. inlet pressure	2.5 bar	GØ173@SØ	
	Working temperature	-5°C +50°C		VERSION
	Weight with Technopolymer threads	gr. 549	V	N = Metal inserts
	Weight with threaded inserts	gr. 589		T = Technopolymer thread
		Indifferent		CONNECTIONS
	Assembly positions	indilierent	•	A = G3/8"(only for "N" version) B = G1/2"
	Max. fitting torque	G1/2" = 22 Nm		B = G1/2" C = G1/2" NPT(only for "N" version)
	(with Technopolymer threads)	0.72 22		15 mm COIL VOLTAGE
	Max. fitting torque	G3/8" = 25 Nm		A4 = 12 V DC
	(with threaded inserts)	G1/2" = 30 Nm		A5 = 24 V DC
	(with timedaed interior	0.72 00.1111		A6 = 24 V AC (50-60 Hz)
	Flow at 6 bar with $\Delta p=1$	2800 NI/min.		A7 = 110 V AC (50-60 Hz)
				A8 = 220 V AC (50-60 Hz)
				A9 = 24 V DC (1 Watt)
				22 mm COIL VOLTAGE
				B2 = Without coil
				M2 mechanic
			A	B4 = 12 V DC
			_	B5 = 24 V DC
				B6 = 24 V AC (50-60 Hz)
				B7 = 110 V AC (50-60 Hz)
				B8 = 220 V AC (50-60 Hz)
				B9 = 24 V DC (2 Watt)
				30 mm COIL VOLTAGE
				C5 = 24 V DC
				C6 = 24 V AC (50-60 Hz)
				C7 = 110 V AC (50-60 Hz)
				C8 = 230 V AC (50-60 Hz)
				C9 = 24 V DC (2 Watt)