

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 semi-automatically. 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 on 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 bowl 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 exceeding 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 filter 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 while 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.

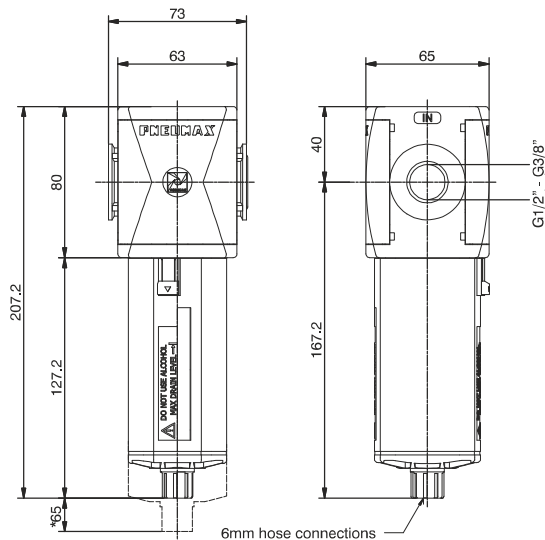
Filtering elements (from filters and filter regulators) made of HDPE can be regenerated by washing and blowing them. In order to remove them it is necessary to remove the bowl unscrew the filter element and replace it with a new one or clean it. The oil can be re-filled while the pneumatic circuit is 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 un-mount 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 leakage 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

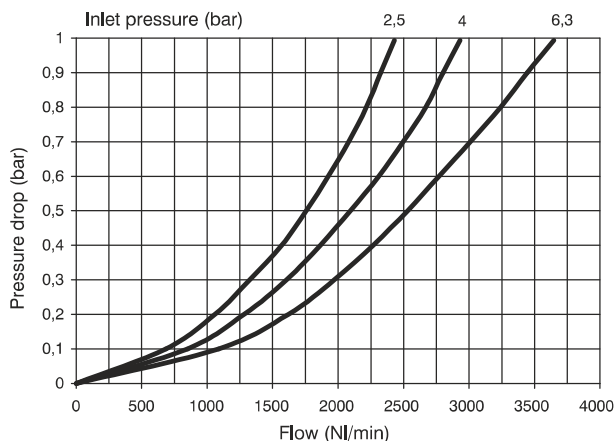
Filter (F)



*Bowl removal maximum height

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

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 μ 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 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. 320
Weight with threaded inserts	gr. 340
Filter pore size	5 μ m - 20 μ m - 50 μ m
Bowl capacity	68 cm ³
Assembly positions	Vertical
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm

Ordering code

V173CFS

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)

FILTER PORE SIZE

- A = 5 μ m
- B = 20 μ m
- C = 50 μ m

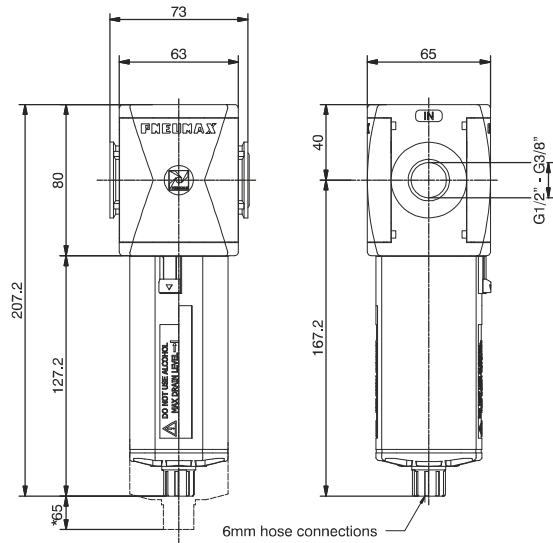
OPTIONS

- = Standard *
- S = Automatic drain

* no additional letter required



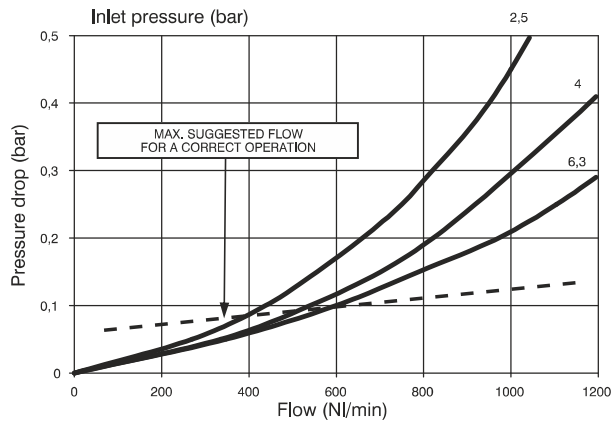
Coalescing filter (D)



*Bowl removal maximum height

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

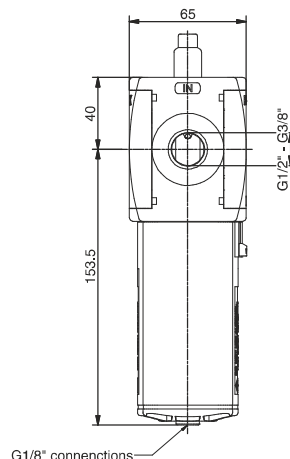
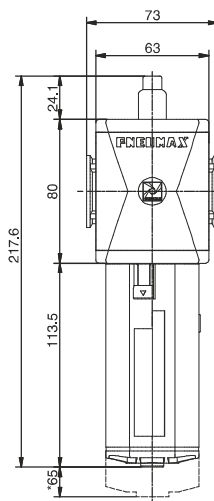
Flow rate curves



Operational characteristics	Technical characteristics		
<ul style="list-style-type: none">- Coalescing filter element with filtration grade of 0,01 μm- 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. <p>Note</p> <p>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.</p>	Connections	G 3/8" - G 1/2"	
	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. 325	
	Weight with threaded inserts	gr. 345	
	Filter efficiency with 0,01 μm particle	99,97%	
	Bowl capacity	68cm ³	
	Assembly positions	Vertical	
		Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm
		Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm

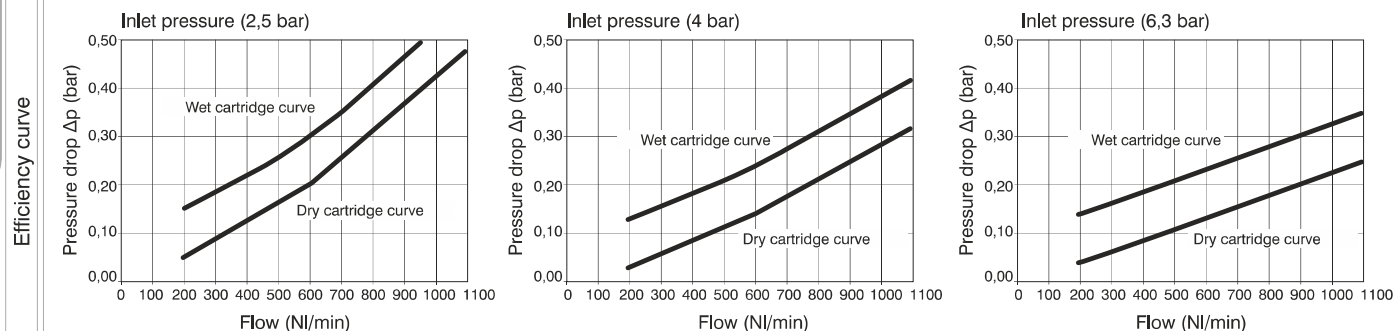
* no additional letter required

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.

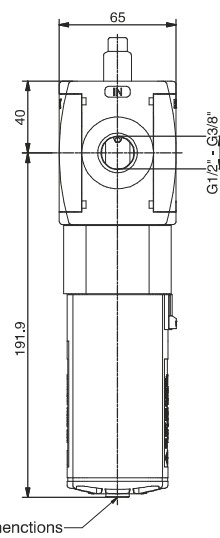
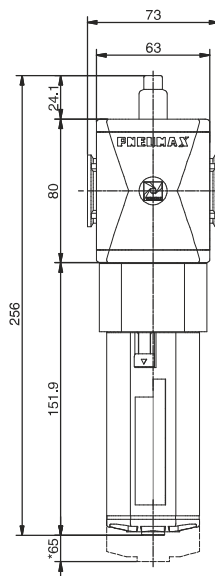
Note

We recommend installing a 5 μm 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	1100 NI/min	
Filter efficiency	99,99%	V173DBV
Max. inlet pressure	13 bar	
Minimum working pressure with automatic drain	0,5 bar	VERSION N = Metal inserts T = Technopolymer thread
Maximum working pressure with automatic drain	10 bar	
Working temperature	-5°C ÷ +50°C	CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
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 (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	

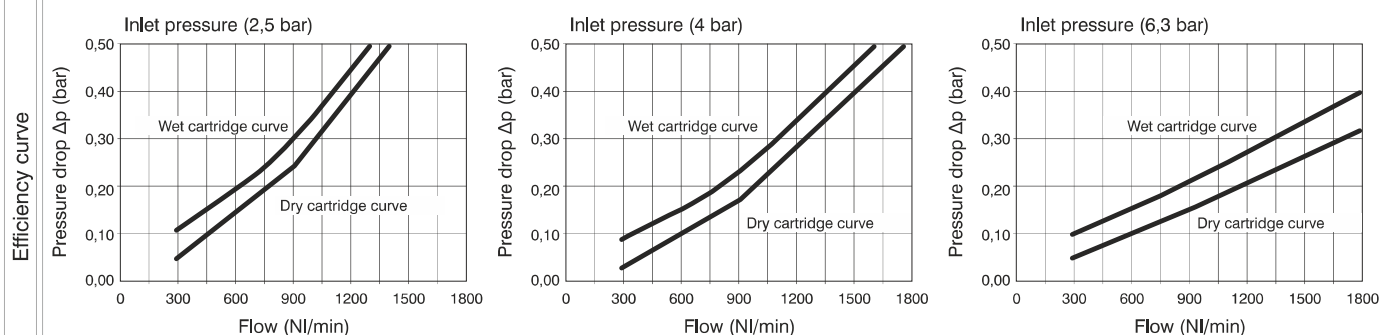
High efficiency oil removal filter (DC)



G1/8" connenctions

*Bowl removal maximum height

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



Operational characteristics

- Coalescing filtering cartridge
particle removal $0,01 \mu\text{m}$
oil residual $0,01 \text{ ppm}$
- 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 $5 \mu\text{m}$ 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

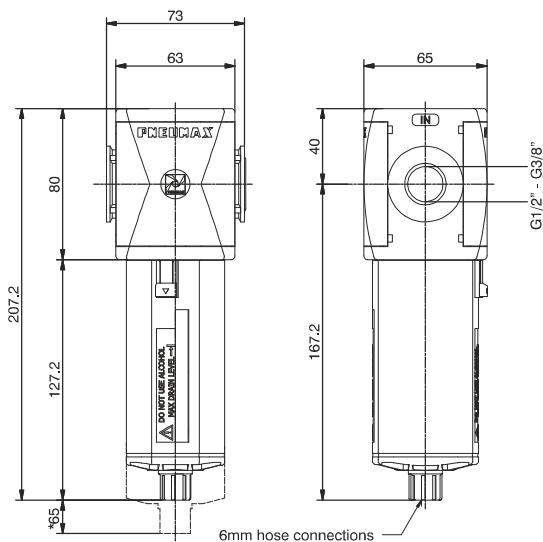
Connections	G 3/8" - G 1/2"
Nominal flow at 6,3 bar	1800 NI/min
Filter efficiency	99,99%
Max. inlet pressure	13 bar
Minimum working pressure with automatic drain	0,5 bar
Maximum working pressure with automatic drain	10 bar
Working temperature	$-5^{\circ}\text{C} \div +50^{\circ}\text{C}$
Weight with Technopolymer threads	gr. 640
Weight with threaded inserts	gr. 660
Bowl capacity	30 cm^3
Assembly positions	Vertical
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm

Ordering code

V173CDCV

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)

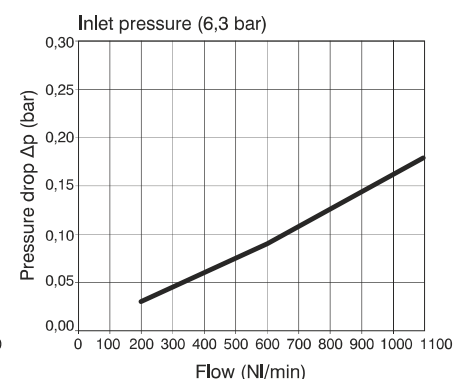
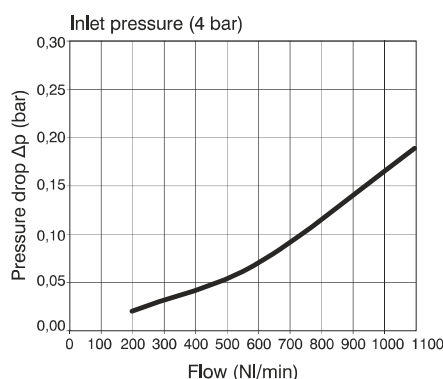
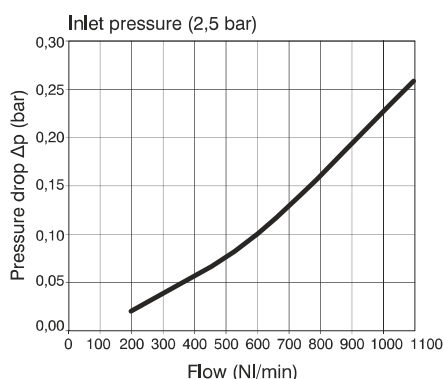
Carbon filter (DD)



*Bowl removal maximum height

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

Efficiency curve



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 input aerosol 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.

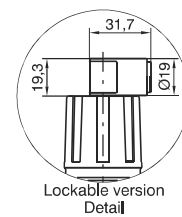
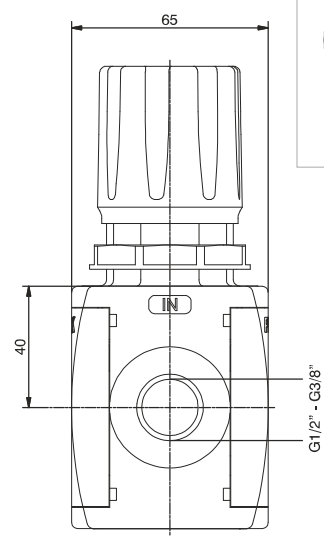
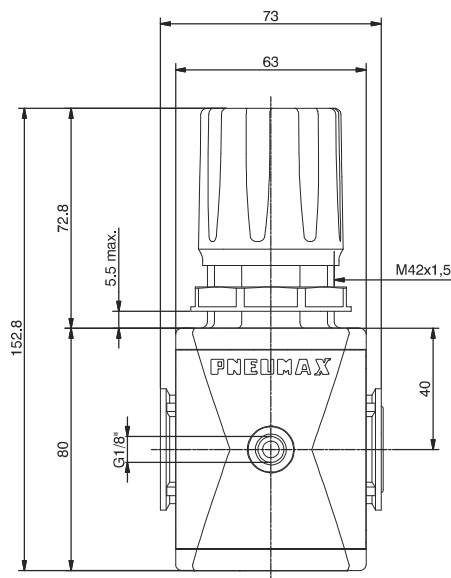
Note

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.

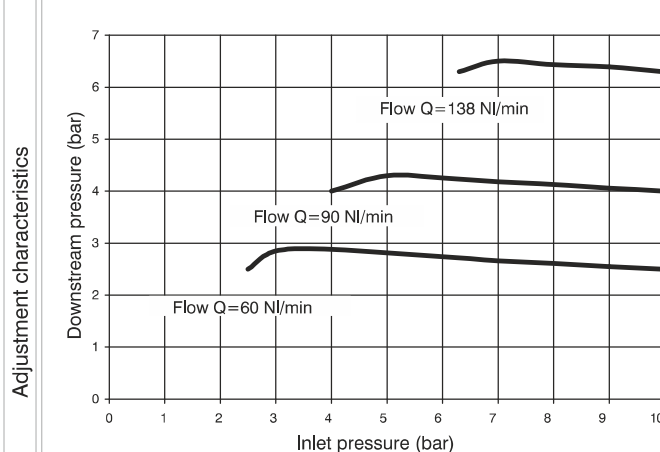
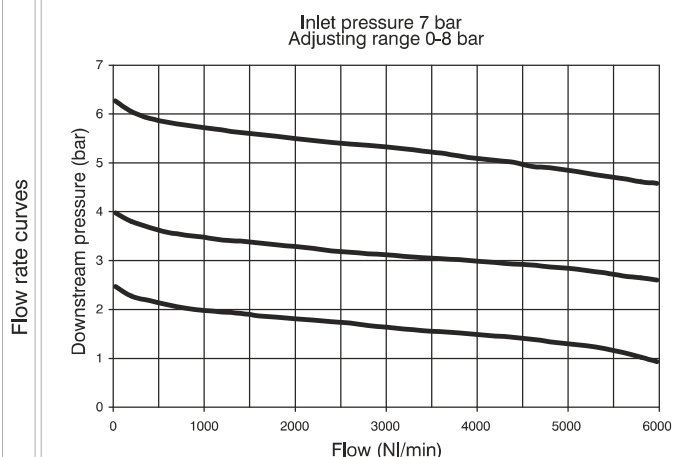
Technical characteristics

Connections	G 3/8" - G 1/2"	Ordering code
Nominal flow at 6,3 bar	1100 NI/min	
Cartridge life	2000 hours	V173CDD
Max. inlet pressure	13 bar	
Working temperature	-5°C +50°C	VERSION
Weight with Technopolymer threads	gr. 440	
Weight with threaded inserts	gr. 460	N = Metal inserts T = Technopolymer thread
Bowl capacity	30 cm ³	
Assembly positions	Vertical	CONNECTIONS
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)

Regulator (R)

Lockable version
Detail

Example: T173BRC : size 3, Regulator with Technopolymer threads, G1/2" 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	G 3/8" - G 1/2"
Max. inlet pressure	13 bar
Working temperature	-5°C +50°C
Pressure gauge connections	G 1/8"
Weight with Technopolymer threads	gr. 360
Weight with threaded inserts	gr. 380
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar
Assembly positions	Indifferent
Max. fitting torque (with Technopolymer threads)	G1/8" = 4 Nm G1/2" = 22 Nm
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm

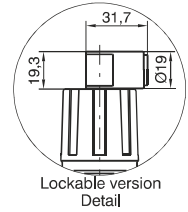
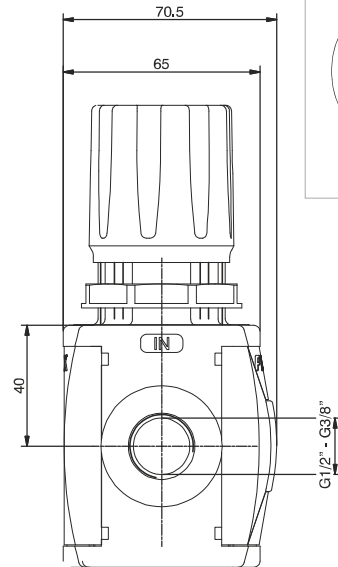
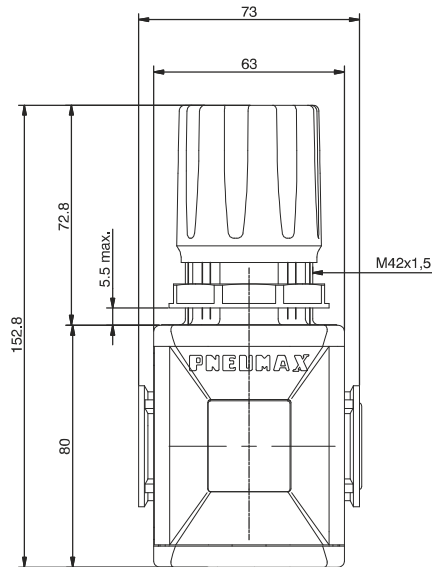
Ordering code

V173ORETO

V	VERSION
N	N = Metal inserts
T	T = Technopolymer thread
C	CONNECTIONS
A	A = G3/8" (only for "N" version)
B	B = G1/2"
C	C = G1/2" NPT (only for "N" version)
E	ADJUSTING RANGE
A	A = 0-2 bar
B	B = 0-4 bar
C	C = 0-8 bar
D	D = 0-12 bar
T	TYPE
=	= Standard *
F	F = Controlled relief + improved relieving
L	L = no relieving
R	R = Improved relieving
O	OPTIONS
=	= Standard *
K	K = Lockable version

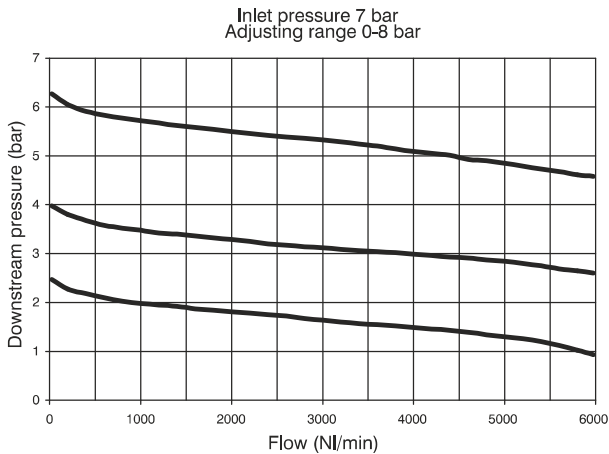
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Regulator including gauge (RM)(RW)

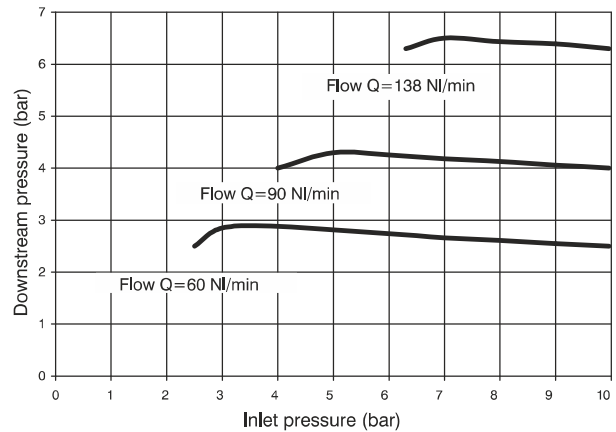


Example : T173BRMC : size 3, Regulator including gauge with Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range

Flow rate curves



Adjustment characteristics



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 3/8" - G 1/2"
Max. inlet pressure	13 bar
Working temperature	-5°C + 50°C
Weight with Technopolymer threads	gr. 370
Weight with threaded inserts	gr. 390
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar
Assembly positions	Indifferent
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm

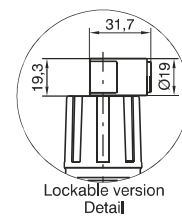
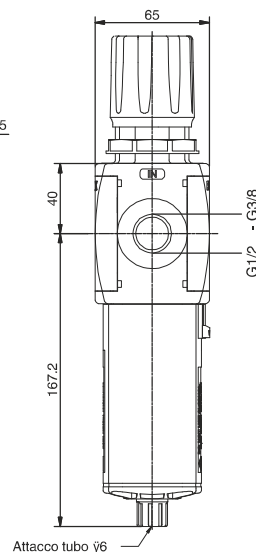
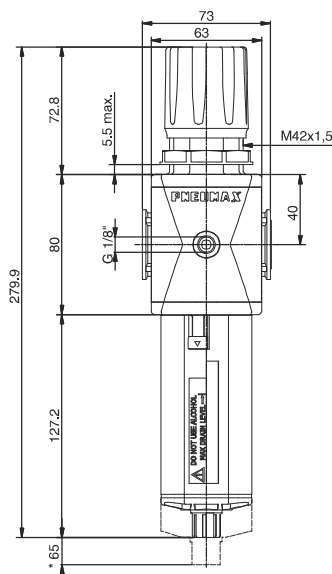
Ordering code

V173CRDGT0

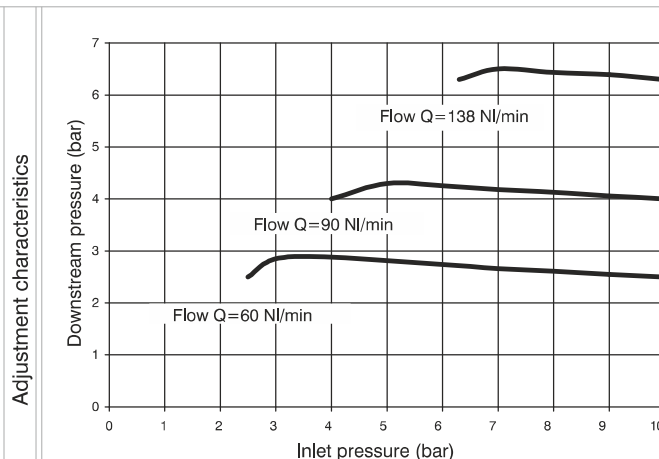
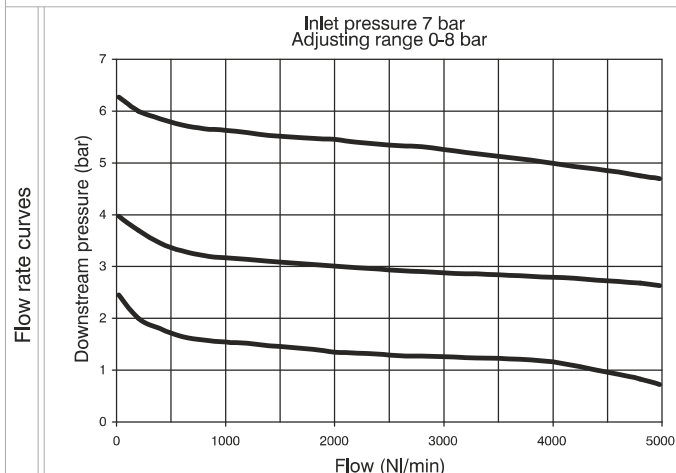
VERSION
N = Metal inserts
T = Technopolymer thread
CONNECTIONS
A = G3/8" (only for "N" version)
B = G1/2"
C = G1/2" NPT (only for "N" version)
FLOW DIRECTION
M = from left to right
W = from right to left
ADJUSTING RANGE
A = 0-2 bar
B = 0-4 bar
C = 0-8 bar
D = 0-12 bar
TYPE
= Standard *
F = Controlled relief + improved relieving
L = no relieving
R = Improved relieving
OPTIONS
= Standard *
K = Lockable version

* no additional letter required

Filter-Regulator (E)



*Bowl removal maximum height

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 (5 μ m, 20 μ m and 50 μ 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.

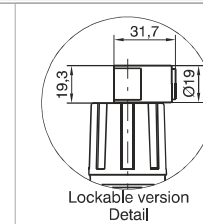
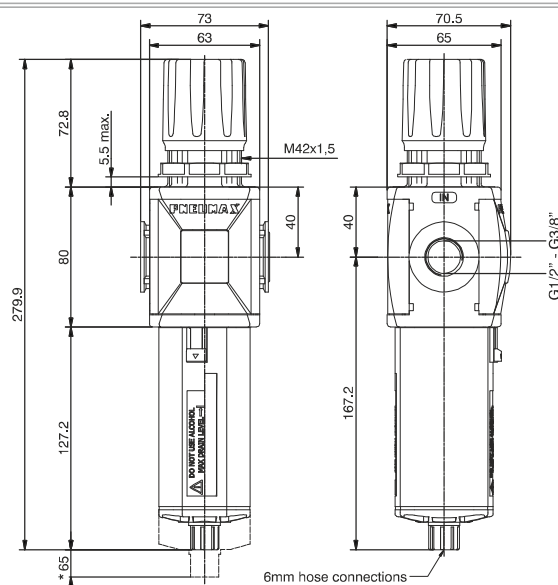
Note

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

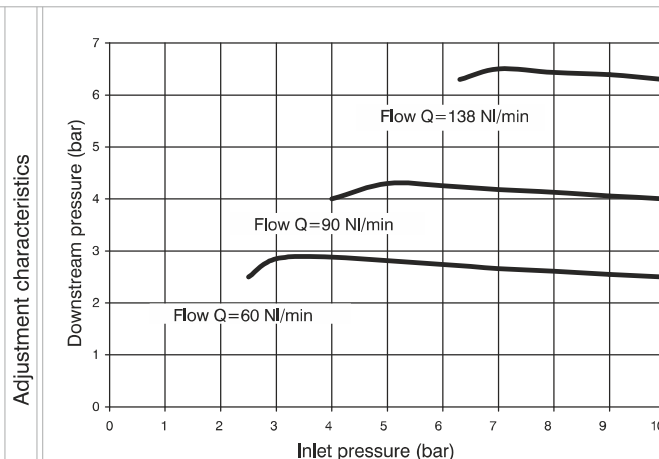
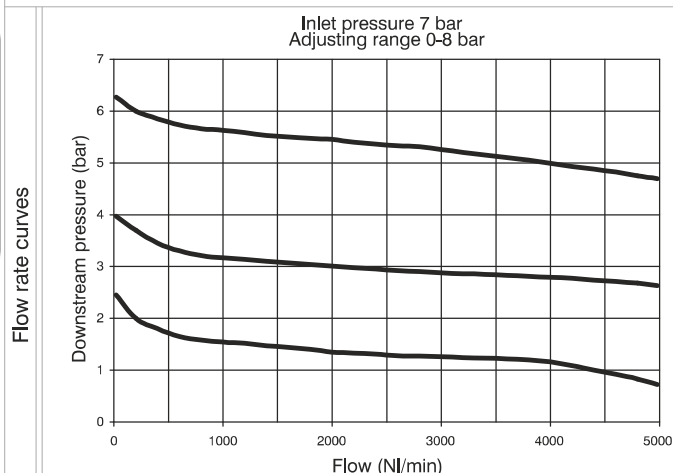
Connections	G 3/8" - G 1/2"	Ordering code
Max. inlet pressure	13 bar	
Minimum working pressure	0,5 bar	V173CESG10
with automatic drain		
Maximum working pressure	10 bar	VERSION
with automatic drain		
Working temperature	-5°C +50°C	V N = Metal inserts
Pressure gauge connections	G 1/8"	T = Technopolymer thread
Weight with Technopolymer threads	gr. 470	CONNECTIONS
Weight with threaded inserts	gr. 490	A = G3/8" (only for "N" version)
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	B = G1/2"
Filter pore size	5 μ m - 20 μ m - 50 μ m	C = G1/2" NPT (only for "N" version)
Bowl capacity	68 cm ³	FILTER PORE SIZE
Assembly positions	Vertical	A = 5 μ m
Max. fitting torque	G1/8" = 4 Nm	B = 20 μ m
(with Technopolymer threads)	G1/2" = 22 Nm	C = 50 μ m
		ADJUSTING RANGE
		A = 0-2 bar
		B = 0-4 bar
		C = 0-8 bar
		D = 0-12 bar
		TYPE
		T = Standard *
		S = Automatic drain
		OPTIONS
		O = Standard *
		K = Lockable version
Max. fitting torque	G3/8" = 25 Nm	* no additional letter required
(with threaded inserts)	G1/2" = 30 Nm	

Filter-regulator including gauge (EM)(EW)



*Bow removal maximum height

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



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 ($5\mu\text{m}$, $20\mu\text{m}$ 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)

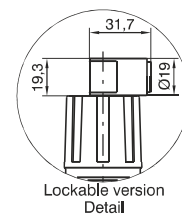
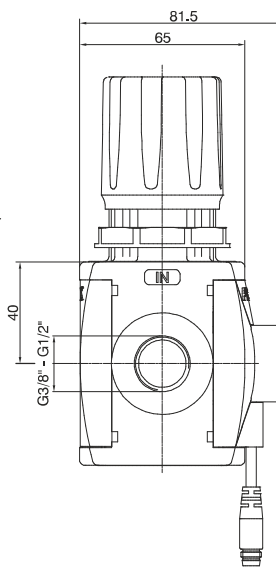
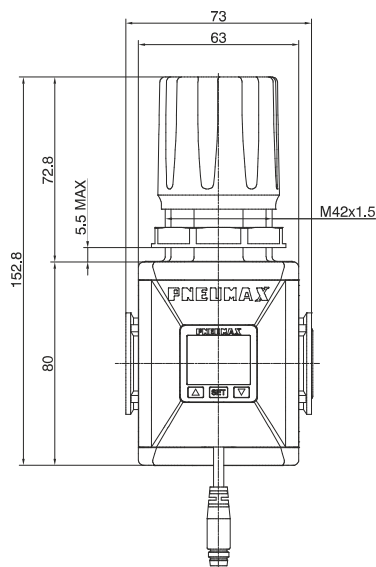
Note

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.

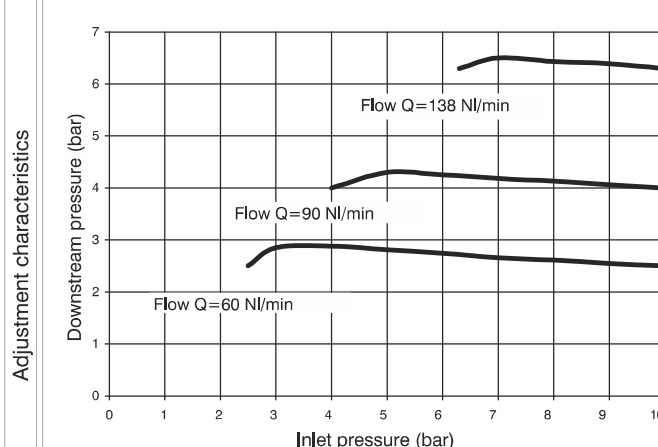
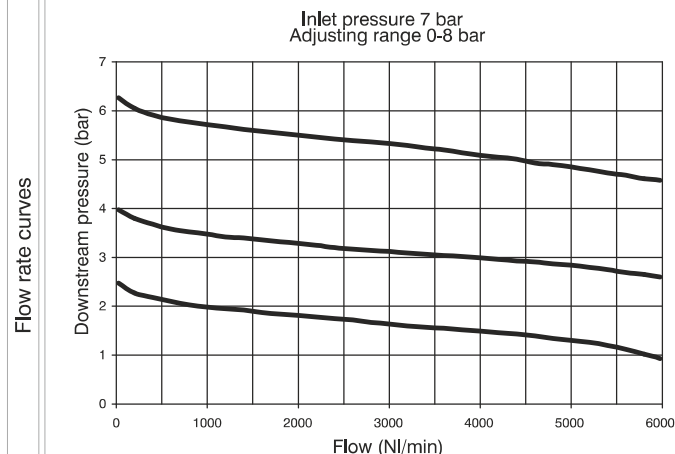
Technical characteristics

Connections	G 3/8" - G 1/2"	Ordering code
Max. inlet pressure	13 bar	V173CEDSGTO
Minimum working pressure with automatic drain	0,5 bar	V VERSION N = Metal inserts T = Technopolymer thread
Maximum working pressure with automatic drain	10 bar	C CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
Working temperature	-5°C +50°C	D FLOW DIRECTION M = from left to right W = from right to left
Weight with Technopolymer threads	gr. 480	S FILTER PORE SIZE A = 5 µm B = 20 µm C = 50 µm
Weight with threaded inserts	gr. 500	T ADJUSTING RANGE A = 0-2 bar B = 0-4 bar C = 0-8 bar D = 0-12 bar
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	O TYPE = Standard * S = Automatic drain
Filter pore size	5 µm - 20 µm - 50 µm	O OPTIONS = Standard * K = Lockable version
Bowl capacity	68 cm³	* no additional letter required
Assembly positions	Vertical	
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	

Regulator with pressure switch (RP)(RZ)

Lockable version
Detail

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"
Max. inlet pressure	13 bar
Working temperature	0°C ÷ +50°C
Weight with Technopolymer threads	gr. 370
Weight with threaded inserts	gr. 390
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar
Assembly positions	Indifferent
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm

Max. fitting torque
(with threaded inserts)

G3/8" = 25 Nm
G1/2" = 30 Nm

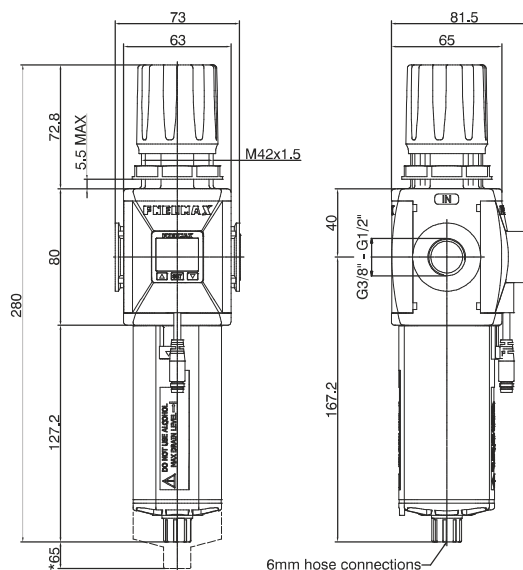
Ordering code

V173C0RDE0TOP

V	VERSION
N	Metal inserts
T	Technopolymer thread
C	CONNECTIONS
A	G3/8" (only for "N" version)
B	G1/2"
C	G1/2" NPT (only for "N" version)
D	FLOW DIRECTION
P	from left to right
Z	from right to left
G	ADJUSTING RANGE
A	0-2 bar
B	0-4 bar
C	0-8 bar
D	0-12 bar
T	TYPE
=	Standard *
F	Controlled relief + improved relieving
L	no relieving
R	Improved relieving
O	OPTIONS
=	Standard *
K	Lockable version
P	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

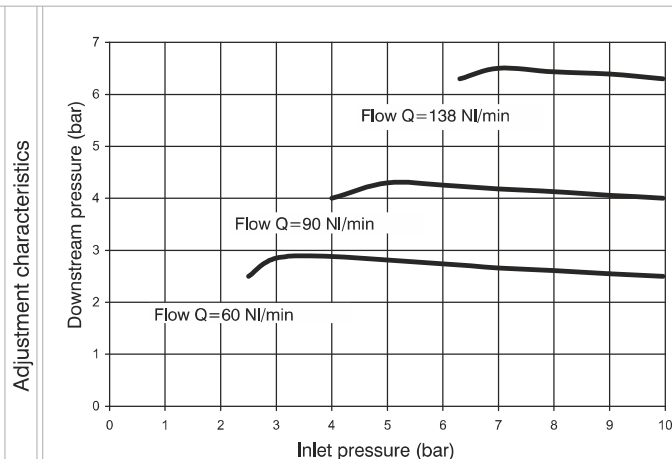
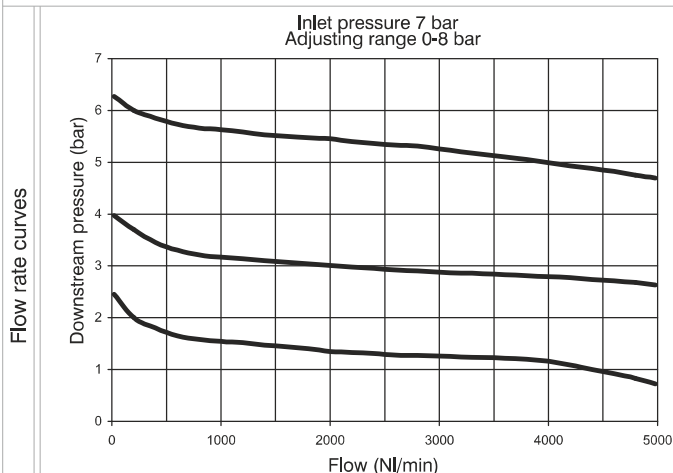
* no additional
letter required

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 50 μ 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

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 V173CEDSGT0P
Max. inlet pressure	13 bar	
Minimum working pressure	0,5 bar	VERSION
with automatic drain		N = Metal inserts
Maximum working pressure	10 bar	T = Technopolymer thread
with automatic drain		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 = G1/2" NPT (only for "N" version)
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	FLOW DIRECTION
Filter pore size	5 μ m - 20 μ m - 50 μ m	P = from left to right
Bowl capacity	68 cm ³	Z = from right to left
Assembly positions	Vertical	FILTER PORE SIZE
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	A = 5 μ m
		B = 20 μ m
		C = 50 μ m
		ADJUSTING RANGE
		A = 0-2 bar
		B = 0-4 bar
		C = 0-8 bar
		D = 0-12 bar
		TYPE
		T = Standard *
		S = Automatic drain
		OPTIONS
		O = 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

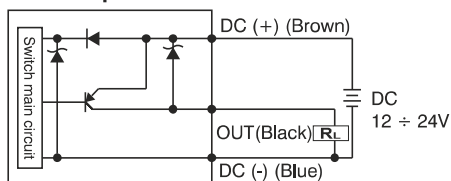


CHARACTERISTICS

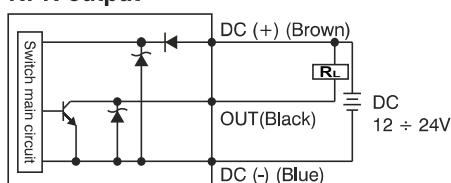
- 3 color digital LCD display, easy readout
- 4 units of measurement for pressure indication
- PNP and NPN output
- N.O. and N.C. output contact
- Not available individually, but only with a Regulator or a Filter-regulator

OUTPUT CIRCUIT WIRING DIAGRAMS

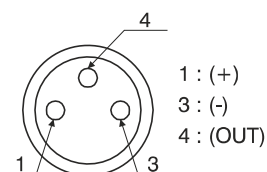
PNP output



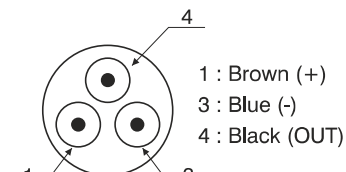
NPN output



M8 CONNECTOR PIN LAY OUT



3 WIRES CABLE LAY OUT



Cable ordering code

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

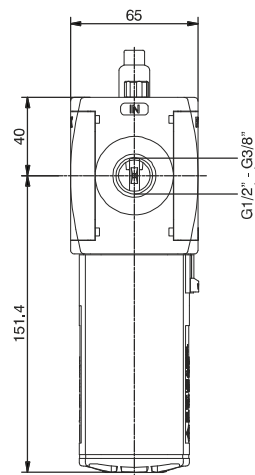
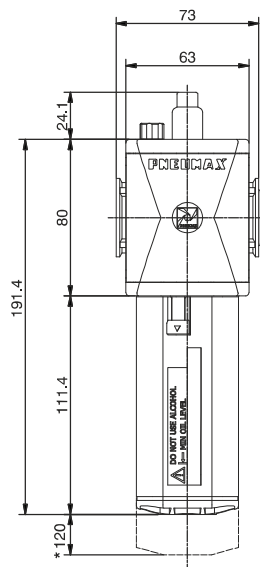
Connector



TECHNICAL CHARACTERISTICS

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/cm ² - 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 0,129mm ² , Ø4 mm, PVC

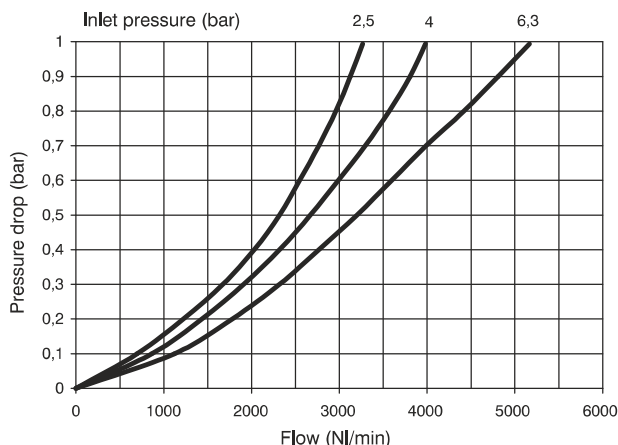
Lubricator (L)



*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).

Note

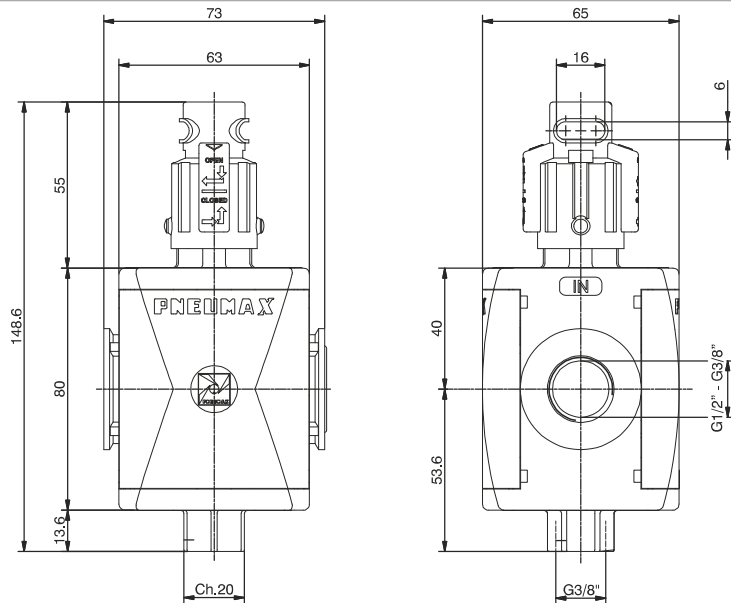
Install as close as possible to the point of use
Do not use alcohol, deterging oils or solvents.

Technical characteristics

Connections	G 3/8" - G 1/2"	Ordering code
Max. inlet pressure	13 bar	
Working temperature	-5°C +50°C	V173CLO
Weight with Technopolymer threads	gr. 290	
Weight with threaded inserts	gr. 310	VERSION
Indicative oil drip rate	1 drop every 300/600 NI	
Oil type	FD22 - HG32	N = Metal inserts T = Technopolymer thread
Bowl capacity	136 cm ³	
Assembly positions	Vertical	CONNECTIONS
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
Min. operational flow at 6,3 bar	100 NI/min.	



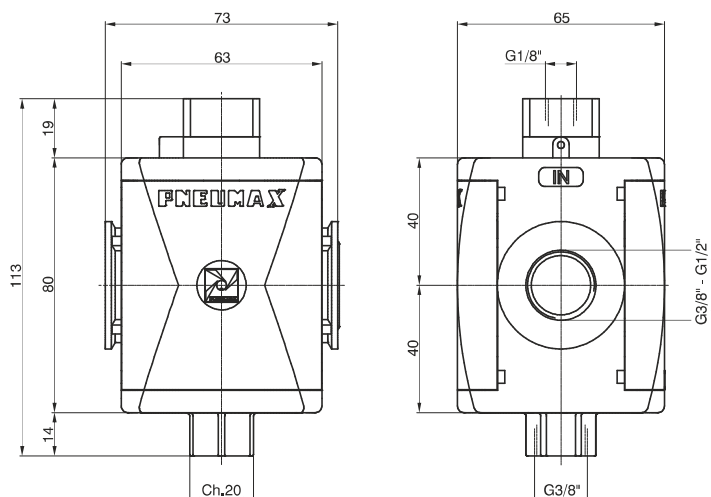
Shut-off valve (VL)



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

Operational characteristics	Technical characteristics		
<ul style="list-style-type: none">- 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.	Connections	G 3/8" - G 1/2"	Ordering code
	Max. inlet pressure	13 bar	V173CVL
	Discharge connection	G3/8"	
	Working temperature	-5°C +50°C	VERSION
	Weight with Technopolymer threads	gr. 230	N = Metal inserts
	Weight with threaded inserts	gr. 250	T = Technopolymer thread
	Assembly positions	Indifferent	CONNECTIONS
	Handle opening and closing angle	90°	A = G3/8" (only for "N" version)
	Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	B = G1/2"
	Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	C = G1/2" NPT (only for "N" version)
	Nominal flow rate at 6 bar with Δp=1	3600 NI/min.	
	Exhaust nominal flow rate at 6 bar with Δp=1	1500 NI/min.	

Pneumatic shut-off valve (VP)



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

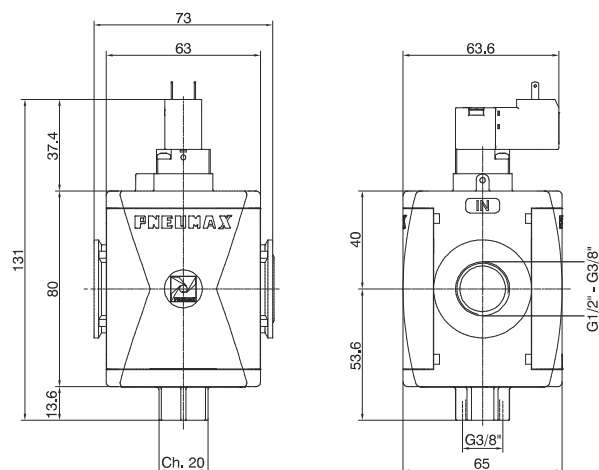
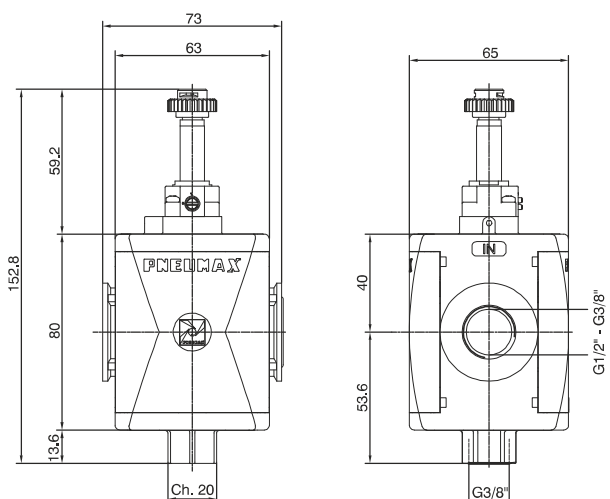
Operational characteristics

- Pneumatic operated 3 ways poppet valve.
- When the pneumatic signal is removed the valves exhaust the pneumatic circuit

Technical characteristics

Connections	G 3/8" - G 1/2"	Ordering code
Discharge connection	G3/8"	
Pilot port size	G1/8"	V173CVP
Working temperature	-5°C ÷ +50°C	
Weight with technopolymer threads	gr. 254	VERSION
Weight with threaded inserts	gr. 270	
Assembly positions	Indifferent	CONNECTIONS
Min. pressure working	2,5 bar	
Max. pressure working	10 bar	A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	
Nominal flow rate at 6 bar with Δp=1	3600 NI/min.	
Exhaust nominal flow rate at 6 bar with Δp=1	1500 NI/min.	

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"
Discharge connections	G 3/8"
Working temperature	-5°C ÷ +50°C
Weight with Technopolymer threads	290 g
Weight with threaded inserts	310 g
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 (with threaded inserts)	G3/8" = 30 Nm G1/2" = 25 Nm
Nominal flow rate at 6 bar with $\Delta p = 1$	3600 NI/min.

Exhaust nominal flow rate
at 6 bar with $\Delta p = 1$

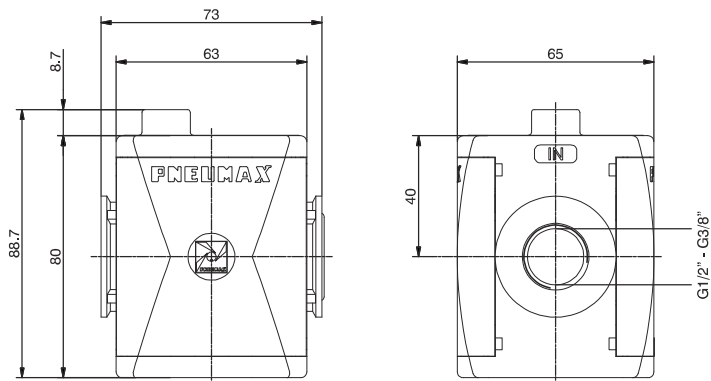
1500 NI/min.

Ordering code

V173GVEA

V	VERSION
N	= Metal inserts
T	= Technopolymer thread
C	CONNECTIONS
A	= G3/8" (only for "N" version)
B	= G1/2"
C	= G1/2" NPT (only for "N" version)
	15 mm COIL VOLTAGE
A4	= 12 V DC
A5	= 24 V DC
A6	= 24 V AC (50-60 Hz)
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)

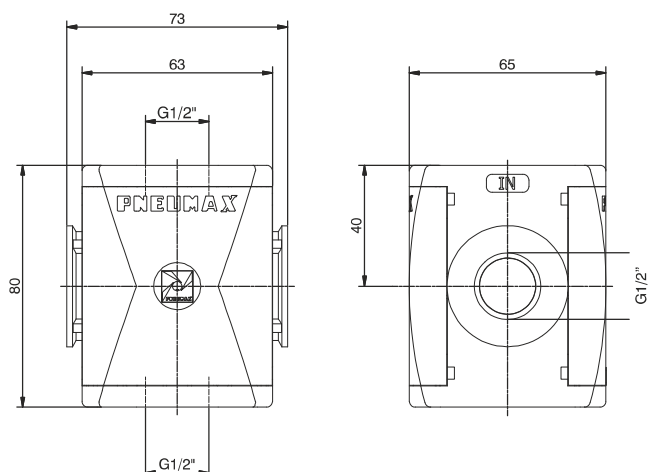
Progressive start-up valve (AP)



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

Operational characteristics	Technical characteristics		
<ul style="list-style-type: none"> - 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. 	Connections	G 3/8" - G 1/2"	Ordering code
	Max. inlet pressure	13 bar	
	Working temperature	-5°C ÷ +50°C	V173CAP VERSION N = Metal inserts T = Technopolymer thread
	Weight with Technopolymer threads	gr. 220	
	Weight with threaded inserts	gr. 240	CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
	Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
	Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	
	Assembly positions	Indifferent	
	Min. pressure working	2,5 bar	
	Nominal flow rate at 6 bar with Δp=1	3600 NI/min.	
	Fully open built in flow regulator flow rate	200 NI/min.	

Air intake (PA)

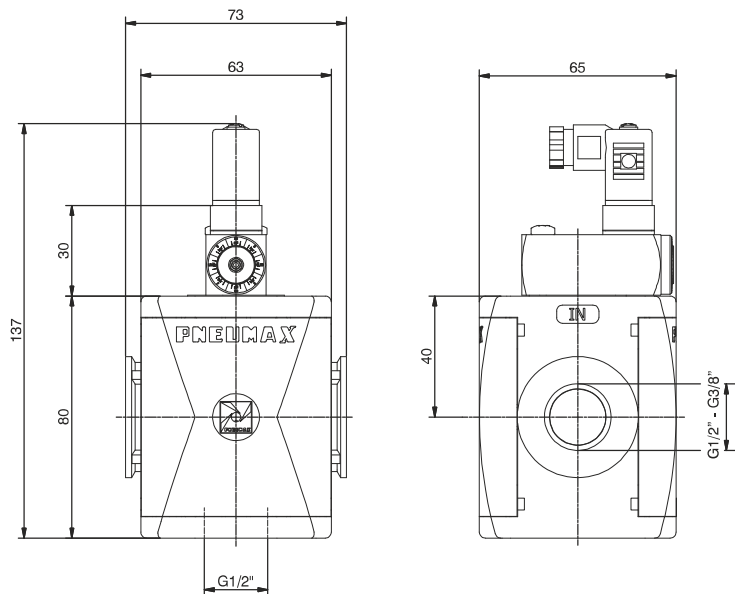


Example : T173BPA : size 3, Air intake with Technopolymer threads, G1/2" connections

Operational characteristics	Technical characteristics		
<ul style="list-style-type: none"> - Available with two G1/2" threaded connections. Attention For this product are available only Technopolymer connections	Connections	G 1/2"	Ordering code
	Max. inlet pressure	13 bar	
	Working temperature	-5°C ÷ +50°C	T173BPA
	Weight	gr. 151	
	Assembly positions	Indifferent	
	Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	



Pressure switch (PP)



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

Operational characteristics	Technical characteristics		
<ul style="list-style-type: none">- 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). <p>Attention For this product are available only Technopolymer connections</p>	Connections	G 1/2"	Ordering code
	Max. inlet pressure	13 bar	T173BPP
	Working temperature	-5°C +50°C	
	Weight	gr. 235	
	Microswitch capacity	1A	
	Grade of protection (with connector assembled)	IP 65	
	Adjusting range	2-10 bar	
	Assembly positions	Indifferent	
	Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	
	Microswitch maximum tension	250 VAC	

Connection

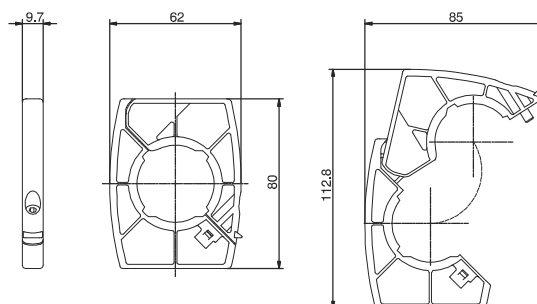
1 = neutral
2 = N.C. contact
3 = N.O. contact

DIN 43650 type C connector

Flange X

Ordering code

T173X

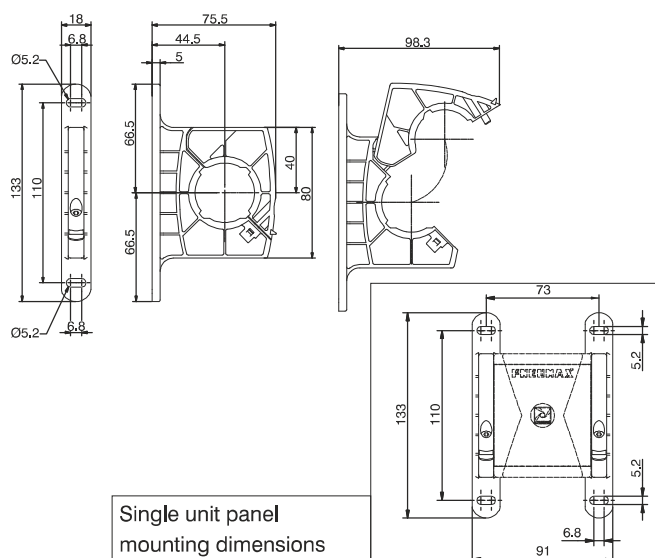


Weight 35 gr.
Example : T173X : Size 3 coupling flange
- Enables the quick connection of two functions.

Flange Y

Ordering code

T173Y

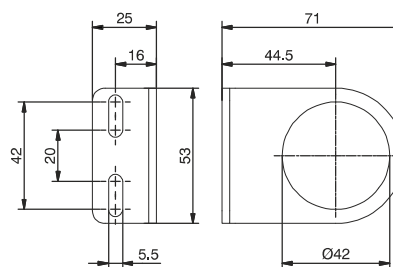


Weight 48 gr.
Example : T173Y : Size 3 coupling flange with mounting holes
- Used to couple together two elements and to panel mount them.
- Used to panel mount one single element.

Fixing bracket

Ordering code

T17250



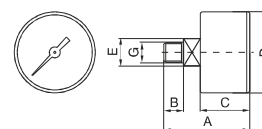
Weight 71 gr.
- Allows for regulators and filter regulators to be panel mounted.

Pressure gauge

Ordering code

17070

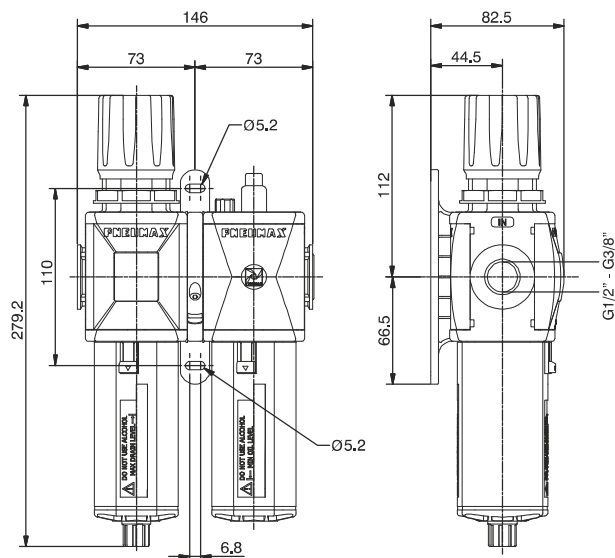
VERSION	
A	Dial Ø40
B	Dial Ø50
SCALE	
A	Scale 0-4 bar
B	Scale 0-6 bar
C	Scale 0-12 bar



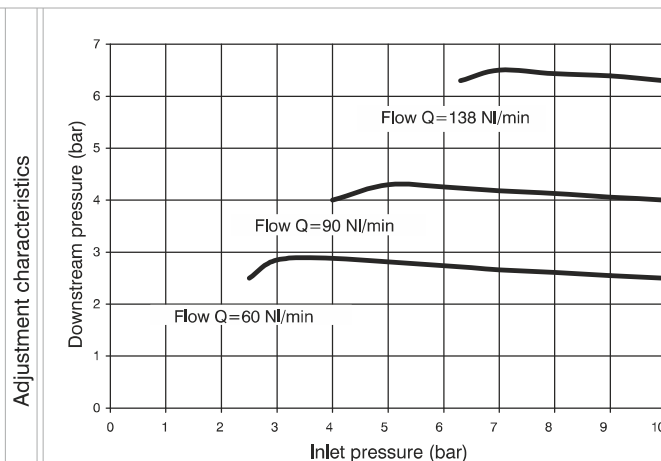
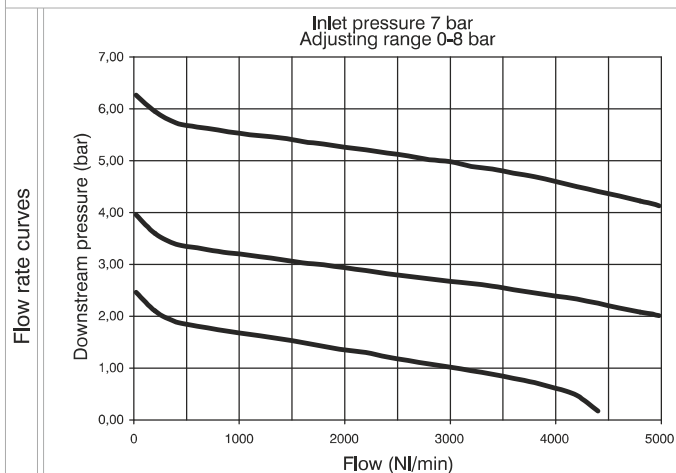
DIMENSIONS						
CODE	A	B	C	D	E	G
17070A	44	10	26	41	14	1/8"
17070B	45	10	27	49	14	1/8"

Weight gr.
60
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 μ m 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.

Technical characteristics

Connections	G 3/8" - G 1/2"
Max. inlet pressure	13 bar
Working temperature	-5°C + 50°C
Weight with Technopolymer threads	gr. 809
Weight with threaded inserts	gr. 849
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar
Filter pore size	5 μ m - 20 μ m - 50 μ m
Bowl capacity	68 cm ³
Indicative oil drip rate	1 drop every 300/600 NI
Oil type	FD22 - HG32
Bowl capacity	136 cm ³
Assembly positions	Vertical
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm
Min. operational flow at 6,3 bar	100 NI/min.

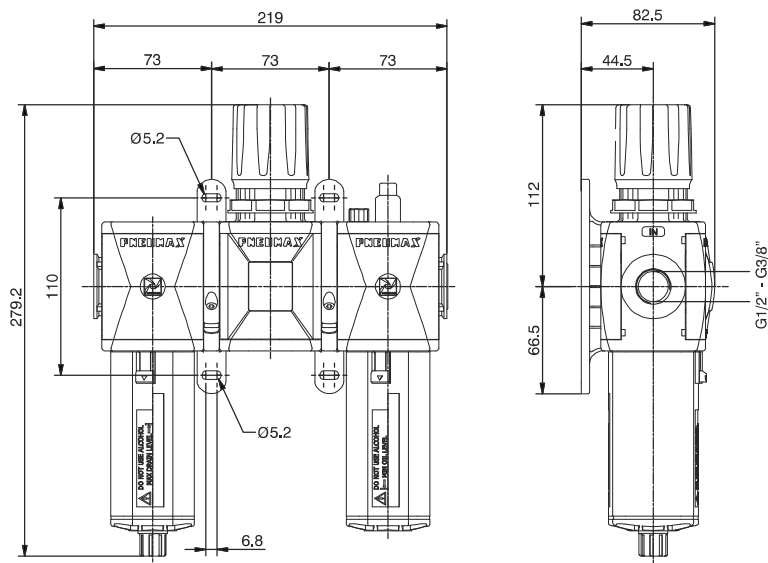
Ordering code

GV173CTSOD

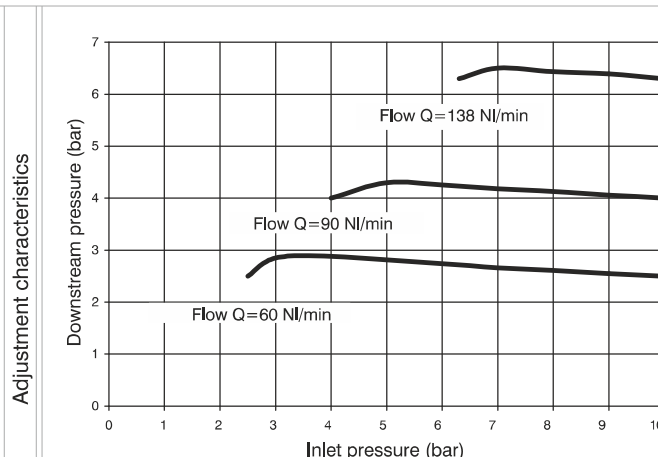
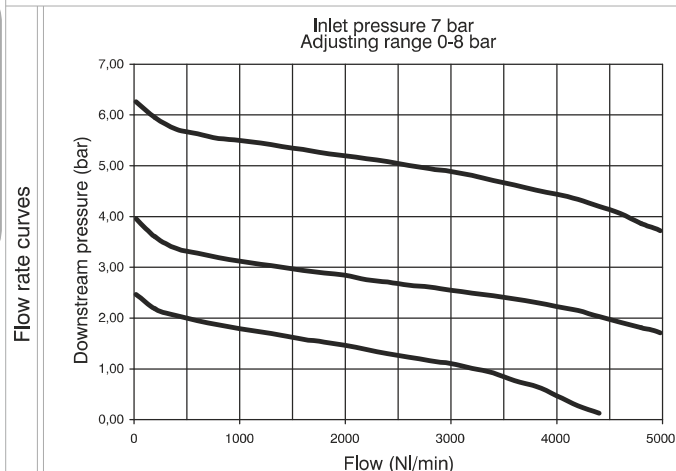
V	VERSION N = Metal inserts T = Technopolymer thread
C	CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
T	TYPE H = Built in gauge J = G1/8" gauge connection
S	FILTER PORE SIZE ADJUSTING RANGE C = 5 μ m / 0-8 bar D = 5 μ m / 0-12 bar G = 20 μ m / 0-8 bar H = 20 μ m / 0-12 bar N = 50 μ m / 0-8 bar P = 50 μ m / 0-12 bar
O	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
D	FLOW DIRECTION = Standard (from left to right) W = from right to left

* no additional letter required

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



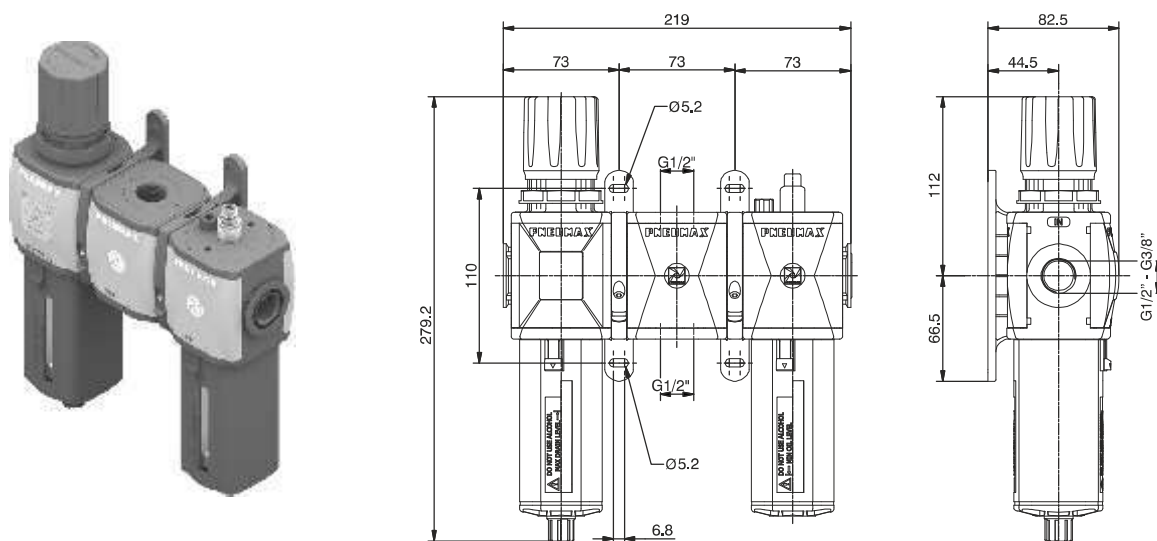
Example : GT173BKG : size 3 combined group comprising Filter, Regulator and Lubricator Technopolymer threads, G1/2" connections, 0 to 8 bar adjusting range and 20 µm filter pore size



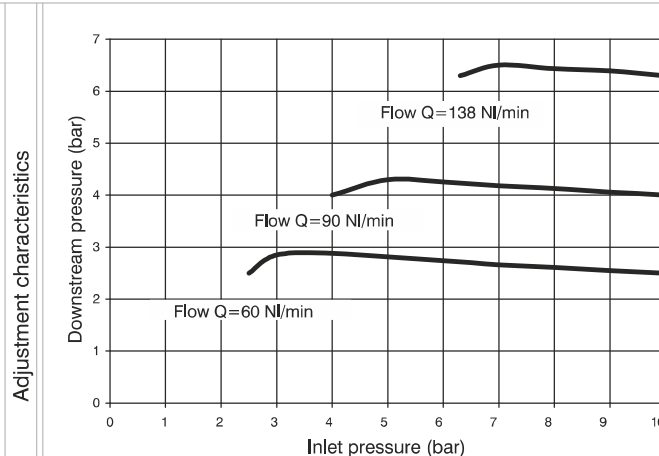
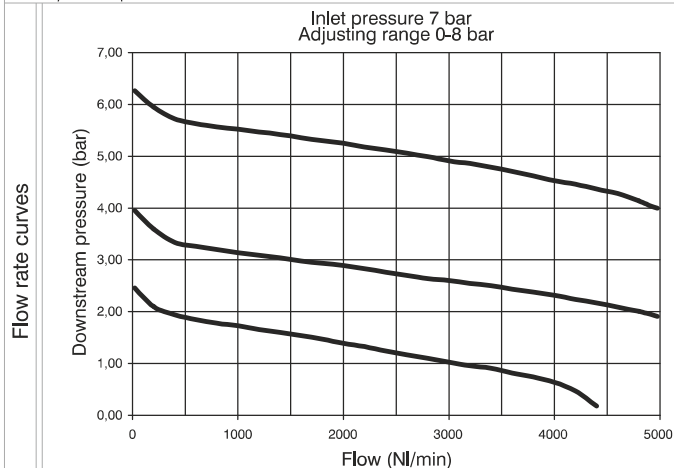
Operational characteristics		Technical characteristics	
Combined group comprising Filter, Regulator with built in manometer and Lubricator assembled with two (Y) type coupling kits for panel mounting.		Connections	G 3/8" - G 1/2"
Integrated manometer 0-12 bar as standard (for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)		Max. inlet pressure	13 bar
		Working temperature	-5°C + 50°C
		Weight with Technopolymer threads	gr. 1058
		Weight with threaded inserts	gr. 1118
Note		Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar
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.		Filter pore size	5 µm - 20 µm - 50 µm
		Bowl capacity	68 cm ³
		Indicative oil drip rate	1 drop every 300/600 NI
		Oil type	FD22 - HG32
		Bowl capacity	136 cm ³
		Assembly positions	Vertical
		Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm
		Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm
		Min. operational flow at 6,3 bar	100 NI/min.
		Ordering code	
		GV173C1S00	
		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)	
		TYPE	
		1 K = Built in gauge	
		T = G1/8" gauge connection	
		FILTER PORE SIZE	
		ADJUSTING RANGE	
		C = 5 µm / 0-8 bar	
		D = 5 µm / 0-12 bar	
		G = 20 µm / 0-8 bar	
		H = 20 µm / 0-12 bar	
		N = 50 µm / 0-8 bar	
		P = 50 µm / 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	

* 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 µm 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"
Max. inlet pressure	13 bar
Working temperature	-5°C +50°C
Weight with Technopolymer threads	gr. 999
Weight with threaded inserts	gr. 1039
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar
Filter pore size	5 µm - 20 µm - 50 µm
Bowl capacity	68 cm ³
Indicative oil drip rate	1 drop every 300/600 NI
Oil type	FD22 - HG32
Bowl capacity	136 cm ³
Assembly positions	Vertical
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm
Min. operational flow at 6,3 bar	100 NI/min.

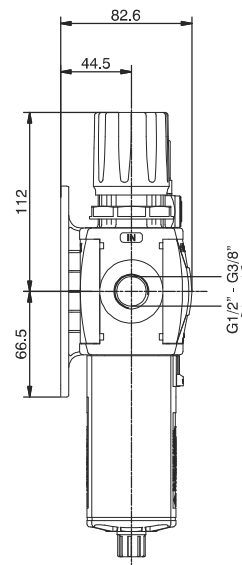
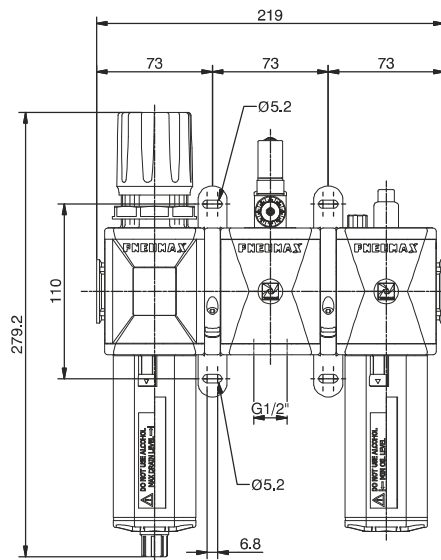
Ordering code

GV173CTSD

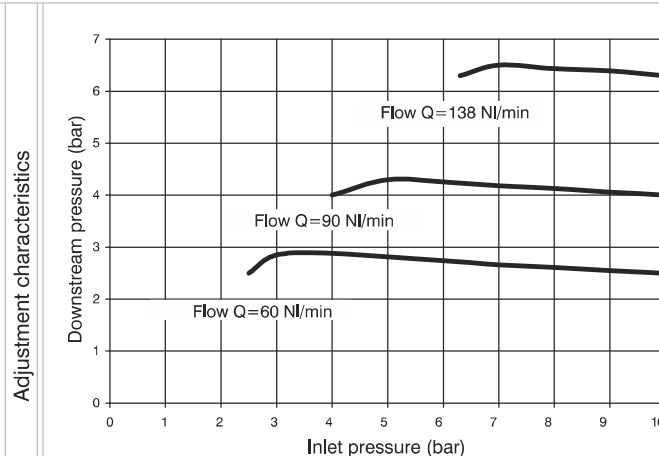
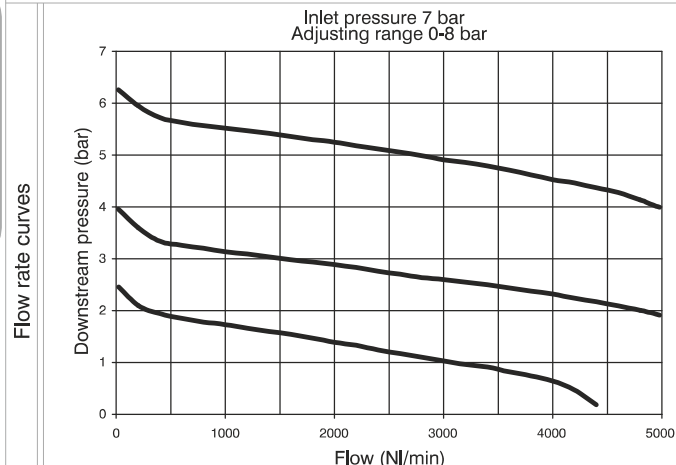
V	VERSION N = Metal inserts T = Technopolymer thread
C	CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
T	TYPE N = Built in gauge P = G1/8" gauge connection
S	FILTER PORE SIZE ADJUSTING RANGE C = 5 µm / 0-8 bar D = 5 µm / 0-12 bar G = 20 µm / 0-8 bar H = 20 µm / 0-12 bar N = 50 µm / 0-8 bar P = 50 µm / 0-12 bar
O	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
D	FLOW DIRECTION = Standard (from left to right) W = from right to left

* no additional letter required

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



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 µm 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

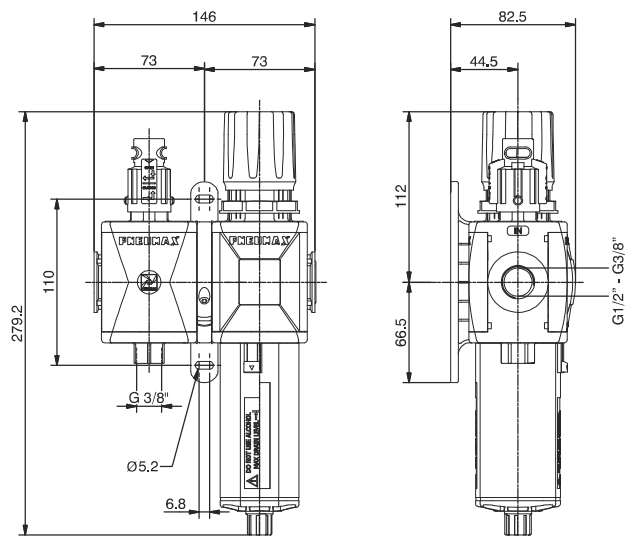
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics

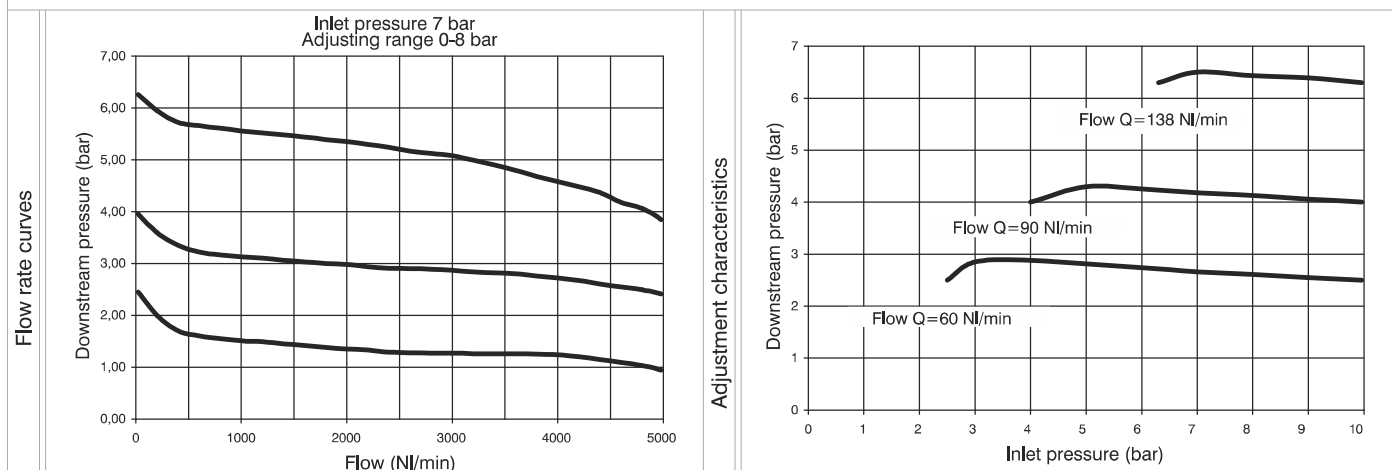
Connections	G 3/8" - G 1/2"	Ordering code GV173CTSO0
Max. inlet pressure	13 bar	
Working temperature	-5°C + 50°C	
Weight with Technopolymer threads	gr. 1083	
Weight with threaded inserts	gr. 1123	VERSION V N = Metal inserts T = Technopolymer thread CONNECTIONS G A = G3/8" (only for "N" version) C B = G1/2" C = G1/2" NPT (only for "N" version) TYPE 1 R = Built in gauge C = G1/8" gauge connection FILTER PORE SIZE ADJUSTING RANGE C = 5 µm / 0-8 bar S D = 5 µm / 0-12 bar G = 20 µm / 0-8 bar H = 20 µm / 0-12 bar N = 50 µm / 0-8 bar P = 50 µm / 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 D = Standard (from left to right) W = from right to left
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	
Filter pore size	5 µm - 20 µm - 50 µm	
Bowl capacity	68 cm ³	
Indicative oil drip rate	1 drop every 300/600 NI	Min. operational flow at 6,3 bar
Oil type	FD22 - HG32	
Bowl capacity	136 cm ³	
Assembly positions	Vertical	
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	100 NI/min.
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	

* no additional letter required

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



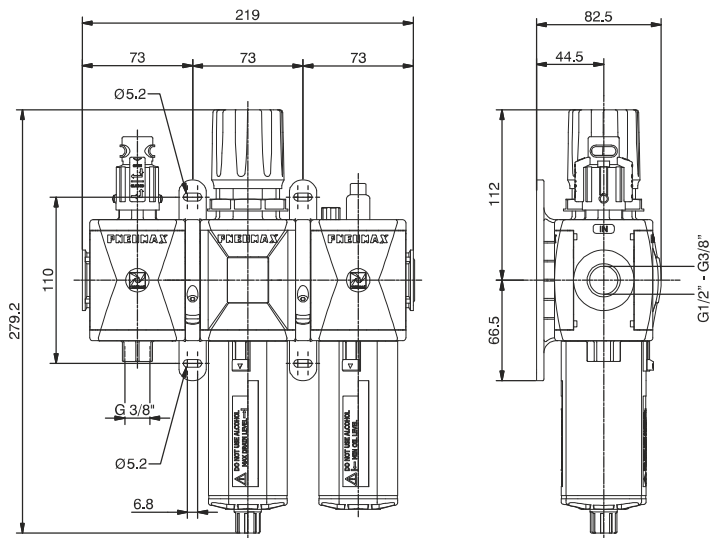
Example : GT173BVGG : size 3 combined group comprising Shut-off valve, Filter-regulator Technopolymer threads, G1/2" connections 0 to 8 bar adjusting range and 20 µm filter pore size



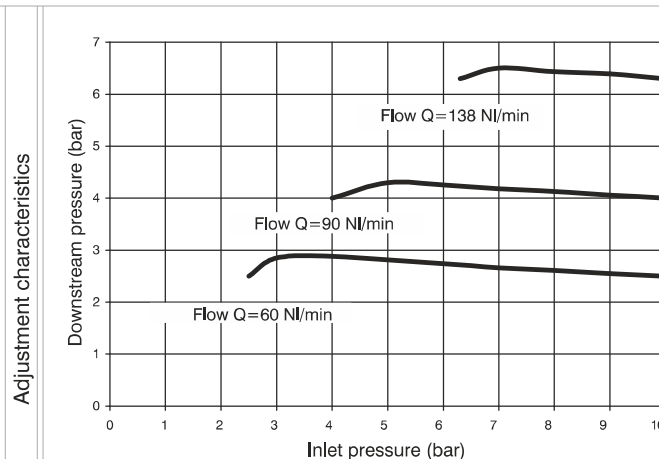
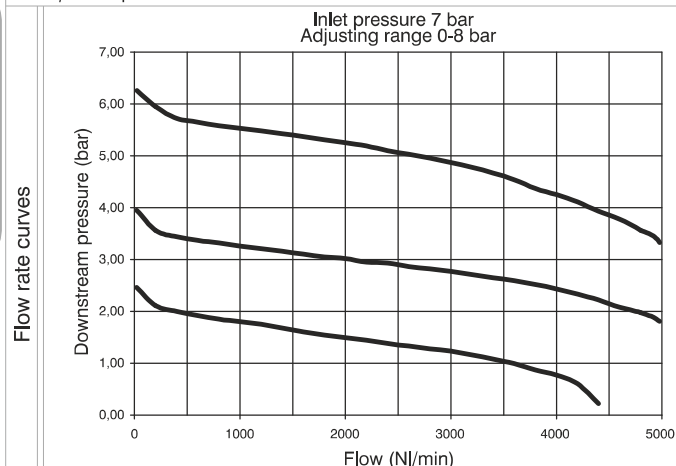
Operational characteristics	Technical characteristics		Ordering code
Combined group comprising manual shut-off valve, Filter-regulator with built in manometer, assembled with one (Y) type coupling kit for panel mountings.	Connections	G 3/8" - G 1/2"	GV173CTSD0
Integrated manometer 0-12 bar as standard (for 0-8 and 0-12 bar range) and 0-4 bar (for 0-2 and 0-4 range)	Max. inlet pressure	13 bar	
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.	Working temperature	-5°C +50°C	VERSION N = Metal inserts T = Technopolymer thread
	Weight with Technopolymer threads	gr. 749	
	Weight with threaded inserts	gr. 789	CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
	Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	
	Filter pore size	5 µm - 20 µm - 50 µm	TYPE VG = Built in gauge VU = G1/8" gauge connection
	Bowl capacity	68 cm³	
	Indicative oil drip rate	1 drop every 300/600 NI	FILTER PORE SIZE ADJUSTING RANGE C = 5 µm / 0-8 bar D = 5 µm / 0-12 bar G = 20 µm / 0-8 bar H = 20 µm / 0-12 bar N = 50 µm / 0-8 bar P = 50 µm / 0-12 bar
	Oil type	FD22 - HG32	
	Bowl capacity	136 cm³	OPTIONS = Standard * S = Automatic drain
	Assembly positions	Vertical	
	Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	FLOW DIRECTION = Standard (from left to right) W = from right to left
	Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	
	Min. operational flow at 6,3 bar	100 NI/min.	

* 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 µm 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

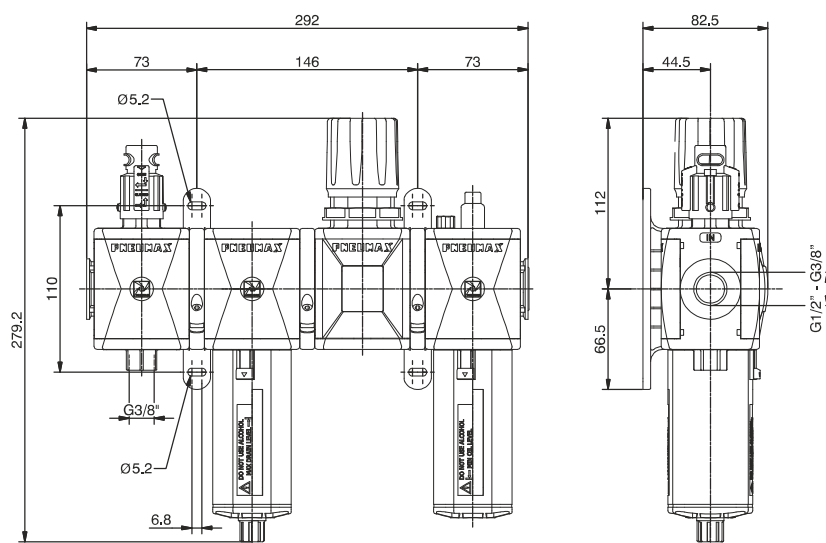
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics

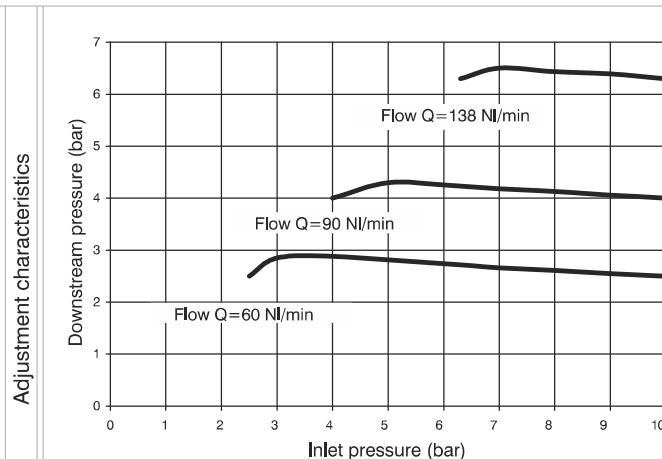
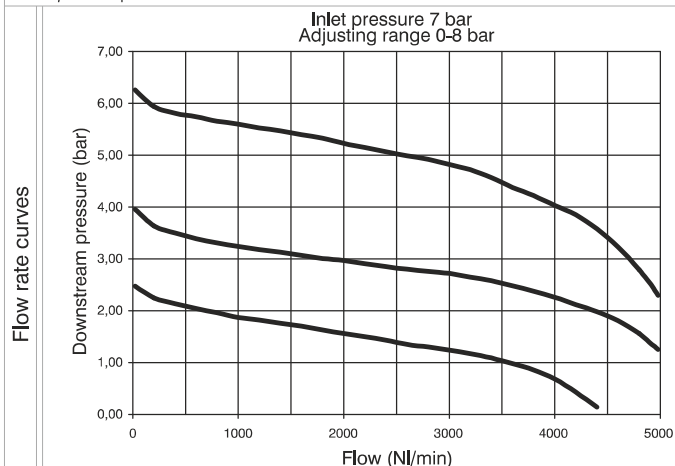
Connections	G 3/8" - G 1/2"	Ordering code GV173C1S00
Max. inlet pressure	13 bar	
Working temperature	-5°C +50°C	VERSION V N = Metal inserts T = Technopolymer thread
Weight with Technopolymer threads	gr. 1078	
Weight with threaded inserts	gr. 1138	CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	
Filter pore size	5 µm - 20 µm - 50 µm	TYPE 1 VH = Built in gauge VJ = G1/8" gauge connection
Bowl capacity	68 cm ³	
Indicative oil drip rate	1 drop every 300/600 NI	FILTER PORE SIZE ADJUSTING RANGE C = 5 µm / 0-8 bar D = 5 µm / 0-12 bar G = 20 µm / 0-8 bar H = 20 µm / 0-12 bar N = 50 µm / 0-8 bar P = 50 µm / 0-12 bar
Oil type	FD22 - HG32	
Bowl capacity	136 cm ³	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
Assembly positions	Vertical	
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	FLOW DIRECTION = Standard (from left to right) D = from right to left
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	
Min. operational flow at 6,3 bar	100 NI/min.	

* 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

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

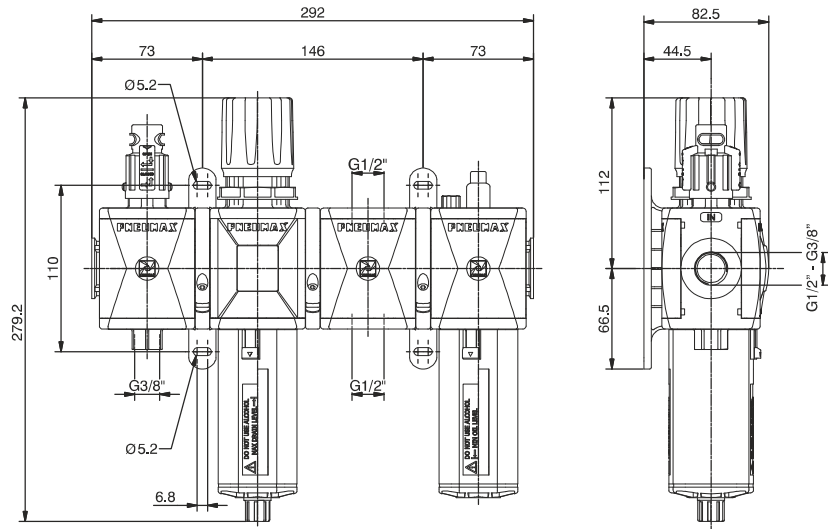
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics

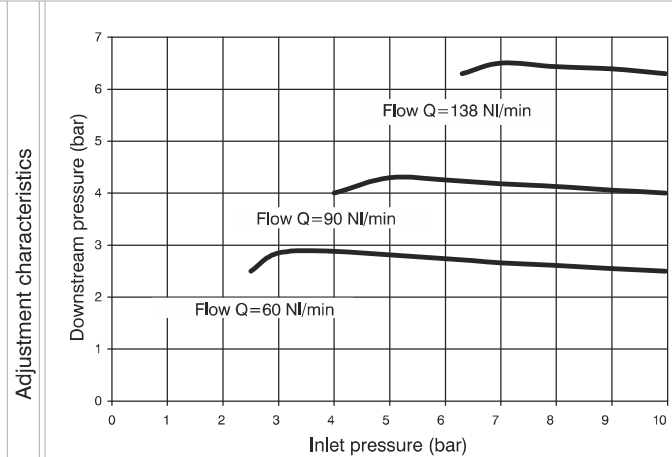
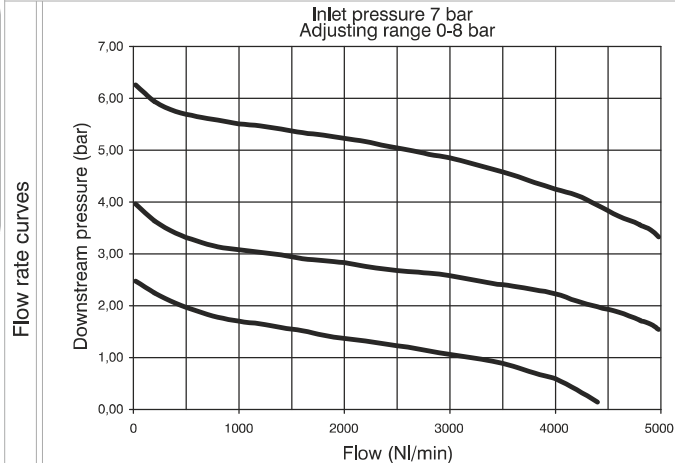
Connections	G 3/8" - G 1/2"	Ordering code
Max. inlet pressure	13 bar	
Working temperature	-5°C +50°C	GV173CTS0D
Weight with Technopolymer threads	gr. 1308	
Weight with threaded inserts	gr. 1388	VERSION
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	
Filter pore size	5 µm - 20 µm - 50 µm	CONNECTIONS
Bowl capacity	68 cm ³	
Indicative oil drip rate	1 drop every 300/600 NI	TYPE
Oil type	FD22 - HG32	
Bowl capacity	136 cm ³	FILTER PORE SIZE ADJUSTING RANGE
Assembly positions	Vertical	
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	OPTIONS
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	
Min. operational flow at 6,3 bar	100 NI/min.	FLOW DIRECTION

* no additional letter required

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 µm filter pore size



Operational characteristics

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

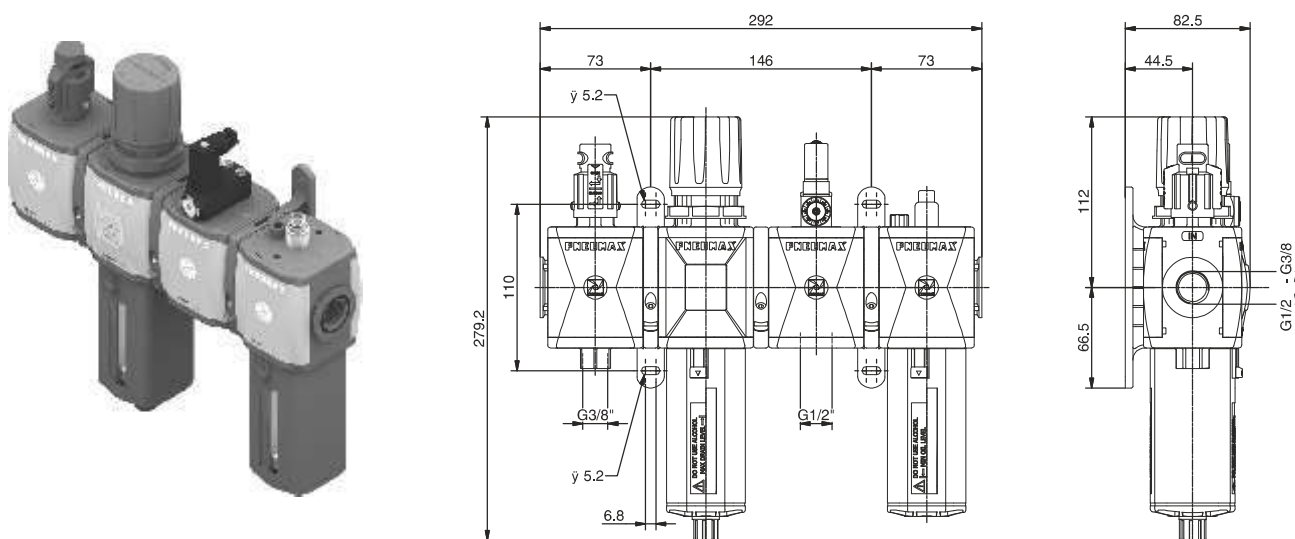
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics

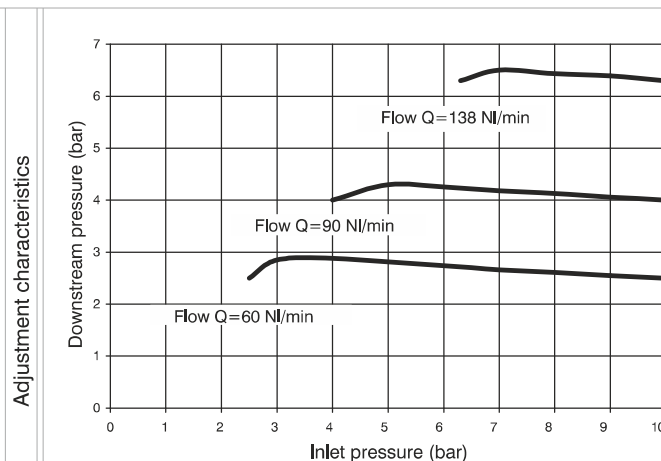
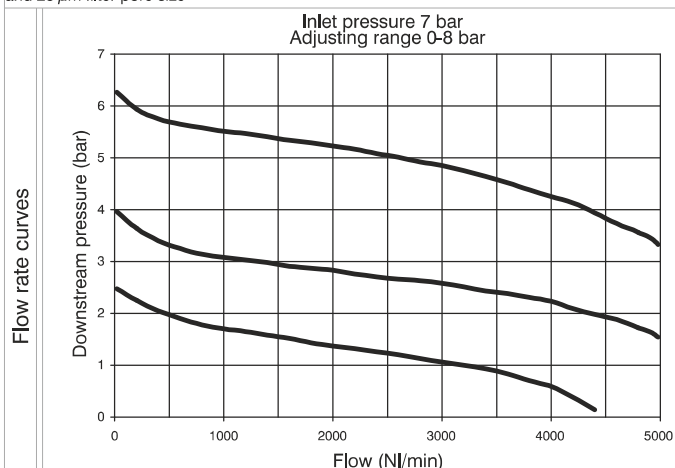
Connections	G 3/8" - G 1/2"	Ordering code GV173CTSO0
Max. inlet pressure	13 bar	
Working temperature	-5°C + 50°C	VERSION N = Metal inserts T = Technopolymer thread
Weight with Technopolymer threads	gr. 1249	
Weight with threaded inserts	gr. 1309	CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	
Filter pore size	5 µm - 20 µm - 50 µm	TYPE VN = Built in gauge VP = G1/8" gauge connection
Bowl capacity	68 cm ³	
Indicative oil drip rate	1 drop every 300/600 NI	FILTER PORE SIZE ADJUSTING RANGE C = 5 µm / 0-8 bar D = 5 µm / 0-12 bar G = 20 µm / 0-8 bar H = 20 µm / 0-12 bar N = 50 µm / 0-8 bar P = 50 µm / 0-12 bar
Oil type	FD22 - HG32	
Bowl capacity	136 cm ³	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
Assembly positions	Vertical	
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	FLOW DIRECTION = Standard (from left to right) W = from right to left
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	
Min. operational flow at 6,3 bar	100 NI/min.	

* 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

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

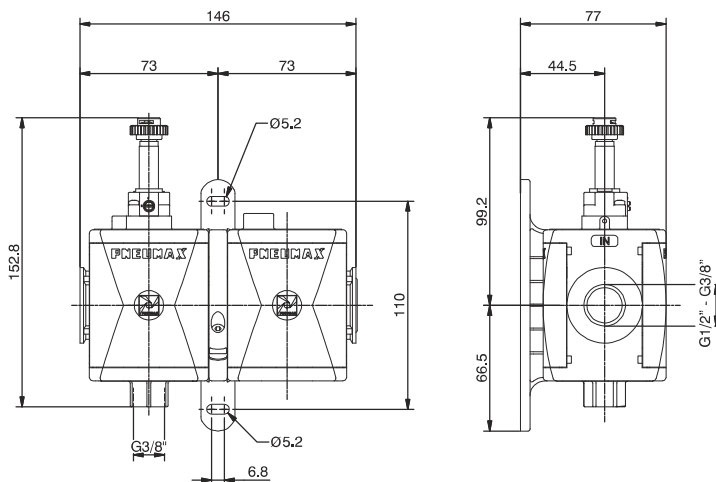
The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics

Connections	G 3/8" - G 1/2"	Ordering code
Max. inlet pressure	13 bar	
Working temperature	-5°C + 50°C	GV173CTSD0
Weight with Technopolymer threads	gr. 1333	
Weight with threaded inserts	gr. 1393	VERSION N = Metal inserts T = Technopolymer thread
Pressure range	0-2 bar / 0-4 bar 0-8 bar / 0-12 bar	
Filter pore size	5 μ m - 20 μ m - 50 μ m	CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
Bowl capacity	68 cm ³	
Indicative oil drip rate	1 drop every 300/600 NI	TYPE VR = Built in gauge VC = G1/8" gauge connection
Oil type	FD22 - HG32	
Bowl capacity	136 cm ³	FILTER PORE SIZE ADJUSTING RANGE C = 5 μ m / 0-8 bar D = 5 μ m / 0-12 bar G = 20 μ m / 0-8 bar H = 20 μ m / 0-12 bar N = 50 μ m / 0-8 bar P = 50 μ m / 0-12 bar
Assembly positions	Vertical	
Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	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
Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	
Min. operational flow at 6,3 bar	100 NI/min.	FLOW DIRECTION = Standard (from left to right) W = from right to left

* no additional letter required

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 Progressive start-up valve assembled with a (Y) type coupling kit for panel mounting.	Connections	G 3/8" - G 1/2"	Ordering code
	Max. inlet pressure	10 bar	GV173CSA
	Min. inlet pressure	2.5 bar	
	Working temperature	-5°C +50°C	V VERSION N = Metal inserts T = Technopolymer thread C CONNECTIONS A = G3/8" (only for "N" version) B = G1/2" C = G1/2" NPT (only for "N" version)
	Weight with Technopolymer threads	gr. 549	
	Weight with threaded inserts	gr. 589	
	Assembly positions	Indifferent	
	Max. fitting torque (with Technopolymer threads)	G1/2" = 22 Nm	A 15 mm COIL VOLTAGE A4 = 12 V DC A5 = 24 V DC A6 = 24 V AC (50-60 Hz) 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 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)
	Max. fitting torque (with threaded inserts)	G3/8" = 25 Nm G1/2" = 30 Nm	
	Flow at 6 bar with $\Delta p=1$	2800 NI/min.	