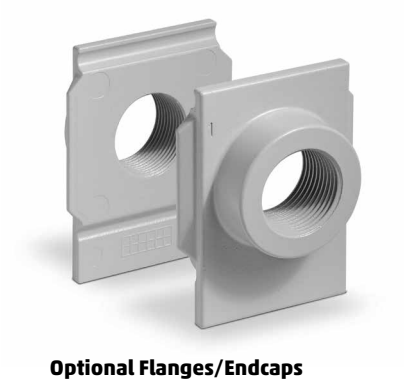
4

4 Modular FRL Series MX 3/8", 1/2", 3/4" and 1" NPTF

Summary and Features

Series MX - Modular 3/8" - 1" NPTF



Optional Flanges/Endcaps
- For easy removal of hard plumbing

Regulator
- Three Pressure range options
- Relieving, Non-Relieving, and rapid

Man
- D
- Lo
  ac
- U
  de
  ar

- Coalescing, active carbon, 5 & 25 micron elements available
- Quick-Release bayonet bowls
- Grilamid (Nylon Composite) outer shroud, inner polycarbonate
- Manual, Depressurizing & Automatic Float Drain Options available
- Visual filter blockage indicators optional
- Thumb-latch on all bowls prevents accidental opening of bowl

Lubricator –
- Venturi Design w/ 2 micron drop size
- Flow adjustment near droplet indicator
- Quick-release bayonet bowl
- Grilamid (Nylon Composite) sight-glass material w/ Nylon composite shroud over the inner polycarbonate
- Oil Refillable while pressurized
- Large volume capacity bowl

Optional Wallmount brackets

Standard assembly brackets

Isolation / Soft-Start Valve Combo –
- Solenoid or Air-Pilot activated
- Downstream quick-dump feature
- Fully adjustable pressure ramp-up during start-up
- Port tap for electronic pressure switch (ex. PM11)
- Poppet valve design Isolation/Soft-Start Valve
- 1/2" - 3/4" Silencer ports on Shut-Off valves for Quick-Exhaust feature

Standard Features –
- Inlet Pressure 0.3 – 16 bar (4.25 – 232 psi)
- Operating Temp (-5° C - 50° C, (23° F - 122° F), with Dew Point of air at least 2° C (4° F) below the min working temperature)
- Custom Assemblies available from McKinney, TX
- Low Temp versions available
- Aluminum construction w Polyurethane Enamel finish
- Modular Design w/ Simple bracket assembly system
- Single Part Number system for custom Assemblies

Filters
Series MX

Ports 3/8" - 1" NPTF
MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF
Innovative modular clamping system
Quick-Release, locking bayonet bowls

- Removal of impurities and condensate
- High flow with minimal pressure decreases
- Cartridge filters of 25 or 5 µm
- Manual, automatic, depressurizing and ported condensate drain
- Bowl locking mechanism reduces the risk of accidents
- Visual clog indicator option

This modular FRL is characterized by a modern, compact design, and high performance. The integration between metal alloys and technopolymers has allowed the realization of a reliable product, both light and strong at the same time. The unique and patented modular clamping system simplifies the mounting of components.

The Series MX appeals to a broad spectrum of markets and applications because of the savings realized in installation time, space requirements and total cost.

A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact with filtering element in HDPE
Materials	see TABLE OF MATERIALS
Ports	3/8" - 1" NPTF
Condensate capacity	MX3: 85 cc, (approx. 3 oz.), MX2: 55 cc (approx. 1.9 oz.)
Mounting	vertical in-line wall-mounting (by means of clamps)
Operating temperature	-5°C - 50°C at 16 bar with Dew Point of air at least 2° C (4° F) below the min working temperature, (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi) -5°C - 60°C at 10 bar with Dew Point of air at least 2° C (4° F) below the min working temperature
Delivered air quality (ISO 8573-1: 2010)	Class 6.8.4 with 5 µm element Class 7.8.4 with 25 µm element
Draining of condensate	manual, automatic, depressurizing and ported
Operating pressure	0.3 - 16 bar (with automatic drain 1.5 - 12 bar); (4.5 - 232 psi, with automatic drain 22 - 175 psi)
Nominal flow	see FLOW DIAGRAMS
Fluid	compressed air

CODING EXAMPLE

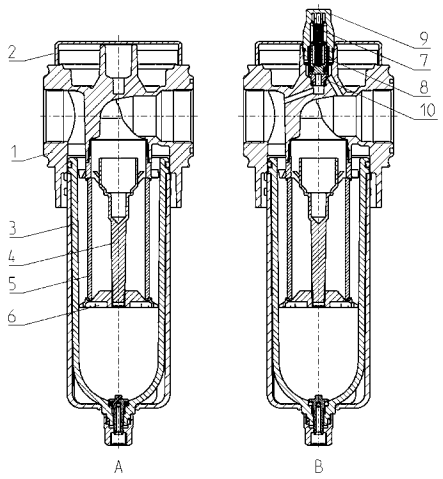
MX	2	-	3/8	-	F	0	0	1	-	__	TF

MX	SERIES
2	SIZE: 2 = 3/8" - 1/2" - 3/4" 3 = 3/4" - 1"
3/8	PORTS: 3/8 = 3/8 1/2 = 1/2 3/4 = 3/4 1 = 1
F	FILTER
0	FILTERING ELEMENT: 0 = 25 µm (standard) 1 = 5 µm
0	DRAINING OF CONDENSATE: 0 = semiautomatic-manual drain (standard) 3 = automatic drain 5 = depressuring drain, filtered orifice 8 = without drain, with port G1/8
1	Visual Indicator = not included (standard) 1 = included
	FLOW DIRECTION: = from left to right (standard) LH = from right to left (only available with automatic drain or without drain (G1/8 port)
TF	TF = NPTF ports blank = BSP ports

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

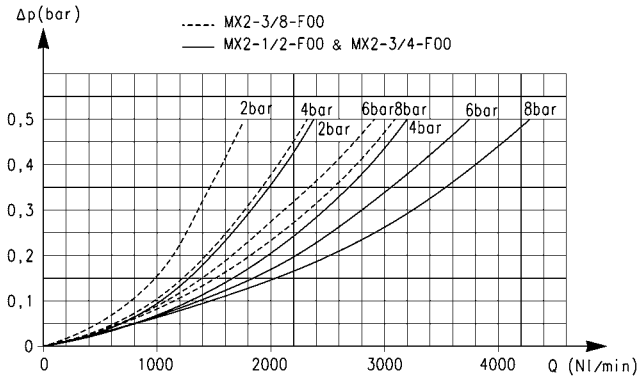
Filters Series MX - materials

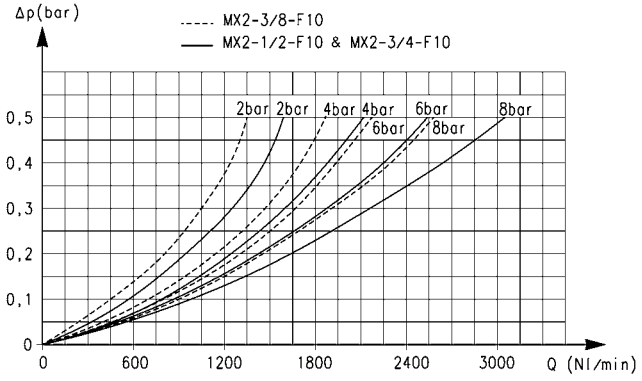
A = Filter
B = Filter with visual clog indicator



PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
3 = Bowl cover	Polycarbonate/Polyamide
4 = Valve-guide	Polyacetal
5 = Filtering element	Polyethylene
6 = Separation deflector	Polyacetal
7 = Upper spring	Stainless Steel
8 = Piston	Anodized Aluminum
9 = Visual indicator bell	Polycarbonate
10 = Visual indicator body	Brass
Seals	NBR

MX2 FILTERS FLOW DIAGRAMS





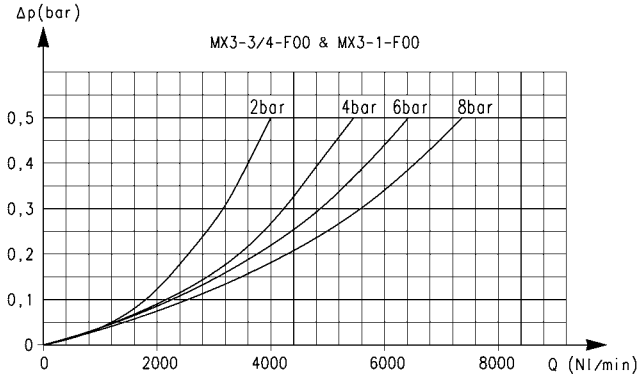
* Reference diagram for models with filtering element = 25 µm

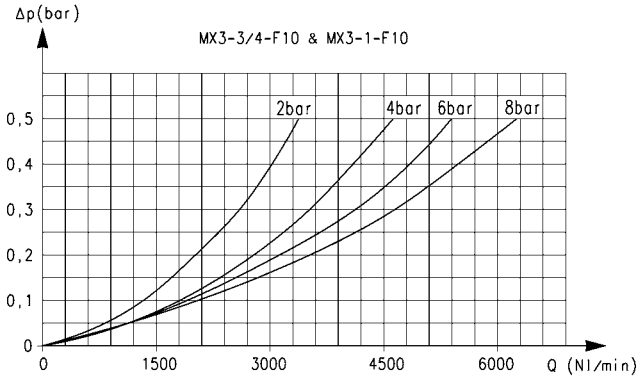
Δp = Pressure drop (bar)
Q = Flow (Nl/min)

** Reference diagram for models with filtering element = 5 µm

Δp = Pressure drop (bar)
Q = Flow (Nl/min)

MX3 FILTERS FLOW DIAGRAMS





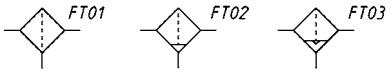
* Reference diagram for models with filtering element = 25 µm

Δp = Pressure drop (bar)
Q = Flow (Nl/min)

** Reference diagram for models with filtering element = 5 µm

Δp = Pressure drop (bar)
Q = Flow (Nl/min)

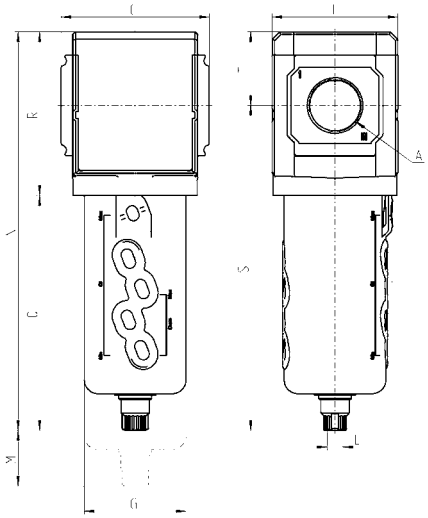
Filters Series MX - dimensions



FT01 = filter without drain with threaded port

FT02 = filter with semiautomatic manual drain

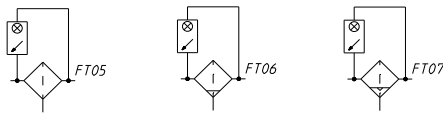
FT03 = filter with automatic or depressuring drain



DIMENSIONS (in inches)

Mod.	A	C	G	I	L	M	N	O	R	S	T	Weight (kg)
MX2-3/8-F00-TF	3/8	2.756	2.177	2.677	1/8	2.264	8.346	5.000	3.346	6.870	1.476	0.5
MX2-1/2-F00-TF	1/2	2.756	2.177	2.677	1/8	2.264	8.346	5.000	3.346	6.870	1.476	0.5
MX2-3/4-F00-TF	3/4	2.756	2.177	2.677	1/8	2.264	8.346	5.000	3.346	6.870	1.476	0.5
MX3-3/4-F00-TF	3/4	3.524	2.421	2.992	1/8	2.953	9.488	5.591	3.898	7.736	1.752	0.8
MX3-1-F00-TF	1	3.524	2.421	2.992	1/8	2.953	9.488	5.591	3.898	7.736	1.752	0.7

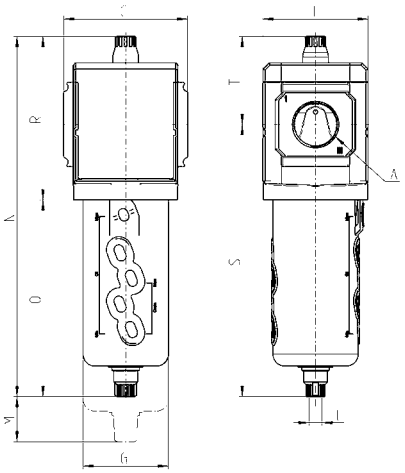
Filters Series MX - dimensions



FT05 = filter without drain with threaded port and visual indicator

FT06 = filter with semiautomatic manual drain and visual clog indicator

FT07 = filter with automatic or depressuring drain and visual clog indicator



DIMENSIONS (in inches)

Mod.	A	C	G	I	L	M	N	O	R	S	T	Weight (kg)
MX2-3/8-F001-TF	3/8	2.756	2.177	2.677	1/8	2.264	9.094	5	4.094	6.870	2.224	0.5
MX2-1/2-F001-TF	1/2	2.756	2.177	2.677	1/8	2.264	9.094	5	4.094	6.870	2.224	0.5
MX2-3/4-F001-TF	3/4	2.756	2.177	2.677	1/8	2.264	9.094	5	4.094	6.870	2.224	0.5
MX3-3/4-F001-TF	3/4	3.523	2.42	2.992	1/8	2.953	10.236	5.59	4.646	7.736	2.5	0.8
MX3-1-F001-TF	1	3.523	2.42	2.992	1/8	2.953	10.236	5.59	4.646	7.736	2.5	0.7

Coalescing Filters Series MX

Ports 3/8" - 1" NPTF
MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF
Innovative modular clamping system
Quick-Release, locking bayonet bowls

- High performance and compressed air purity
- Air quality according to ISO 8573-1 standard
- Cartridge filters 1 or 0,01 µm
- Manual, depressurizing, automatic and ported condensate drain
- Bowl locking mechanism reducing the risk of accidents
- Visual clog indicator option

This modular FRL is characterized by a modern, compact design, and high performance. The integration between metal alloys and technopolymers has allowed the realization of a reliable product, both light and strong at the same time. The unique and patented modular clamping system simplifies the mounting of components.

The Series MX appeals to a broad spectrum of markets and applications because of the savings realized in installation time, space requirements and total cost.

A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact
Materials	see TABLE OF MATERIALS
Ports	3/8" - 1" NPTF
Condensate capacity	MX3: 85 cc. (approx. 3 oz.), MX2: 55 cc (approx. 1.9 oz.)
Mounting	vertical in-line wall-mounting (by means of clamps)
Operating temperature	-5°C - 50°C at 16 bar with Dew Point of air at least 2° C (4° F) below the min working temperature, (23° F - 122°F @ 232 psi, up to 140 F MAX at 145 psi) -5°C - 60°C at 10 bar with Dew Point of air at least 2° C (4° F) below the min working temperature
Draining of condensate	manual, automatic, depressurizing and ported
Operating pressure	0.3 - 16 bar (with automatic drain 1.5 - 12 bar); (4.5 - 232 psi, with automatic drain 22 - 175 psi)
Nominal flow	see FLOW DIAGRAMS
Delivered air quality (ISO 8573-1: 2010)	Class 2.8.2 with 1 µm filter element Class 1.8.1 with 0.01 µm filter element
Residual oil content with inlet at 3 mg/m3	< 0.01mg/m³ < 0.1mg/m³
Oil retain efficiency	99.80% 97%
Particles retain efficiency	99.99999% 99.999%
Fluid	compressed air
Pre-filtering with filtering element of 1 µm Pre-filtering with filtering element of 0.01 µm	it is recommended to use a filter of 5 µm it is recommended to use a filter with residual oil of 0.1 mg/m³

CODING EXAMPLE

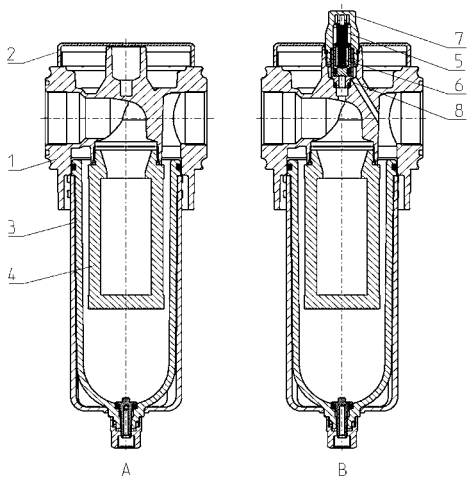
MX	2	-	3/8	-	FC	0	0	1	-	__	TF

MX	SERIES
2	SIZE: 2 = 3/8" - 1/2" - 3/4" 3 = 3/4" - 1"
3/8	PORTS: 3/8 = 3/8 1/2 = 1/2 3/4 = 3/4 1 = 1
FC	COALESCING FILTER
0	FILTERING ELEMENT: 0 = 0,01 µm (standard) 1 = 1 µm
0	DRAINING OF CONDENSATE: 0 = semiautomatic-manual drain (standard) 3 = automatic drain 5 = depressuring drain, filtered orifice 8 = without drain, with port 1/8
1	Visual Indicator = not included (standard) 1 = included
	FLOW DIRECTION: Blank = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

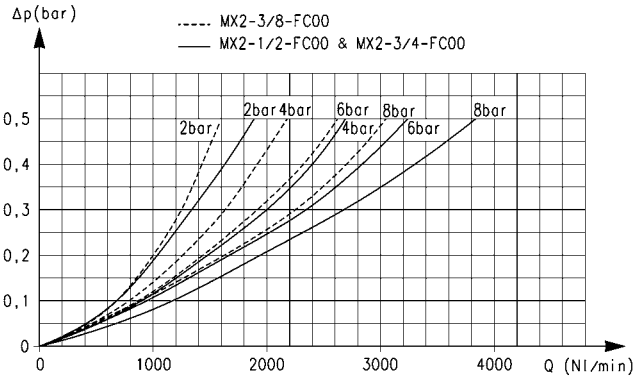
Coalescing filters Series MX - materials

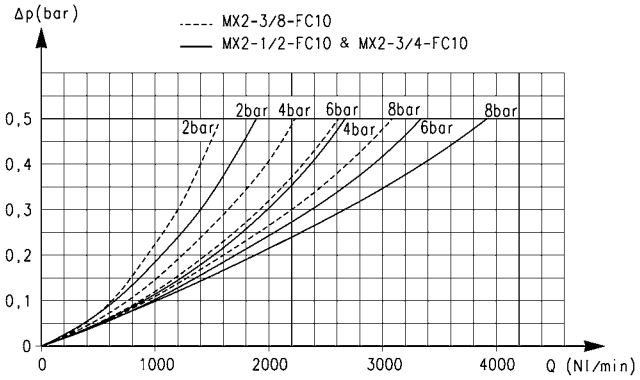
A = Filter
B = Filter with visual clog indicator



PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
3 = Bowl with technopolymer cover	Polycarbonate/Polyamide
4 = Valve-guide	Polyacetal
5 = Filtering element	Polyethylene
6 = Separation deflector	Polyacetal
7 = Upper spring	Stainless Steel
8 = Piston	Anodized Aluminum
9 = Visual indicator bell	Polycarbonate
10 = Visual indicator body	Brass
Seals	NBR

MX2 FLOW DIAGRAMS





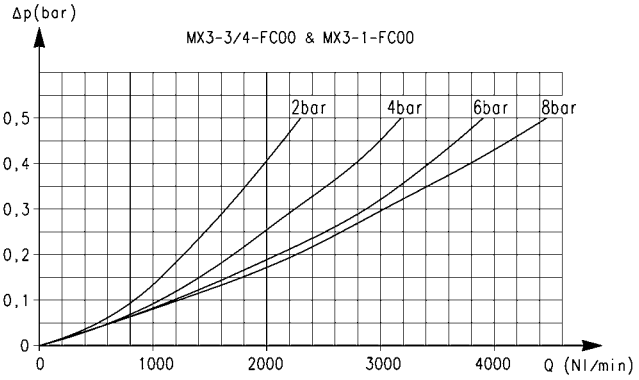
* Reference diagram for models with filtering element = 0.01 µm

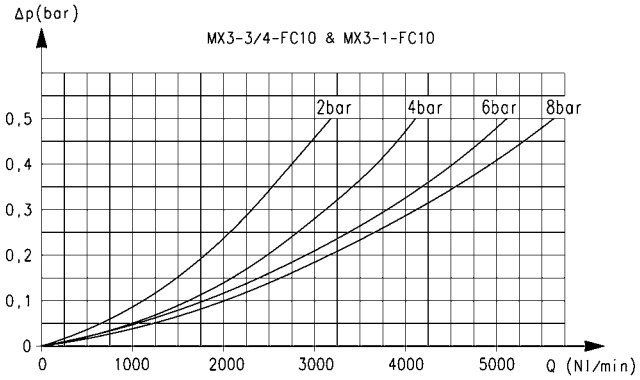
Δp = Pressure drop (bar)
Q = Flow (Nl/min)

** Reference diagram for models with filtering element = 1 µm

Δp = Pressure drop (bar)
Q = Flow (Nl/min)

MX3 FLOW DIAGRAMS





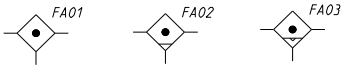
* Reference diagram for models with filtering element = 0.01 µm

Δp = Pressure drop (bar)
Q = Flow (Nl/min)

** Reference diagram for models with filtering element = 1 µm

Δp = Pressure drop (bar)
Q = Flow (Nl/min)

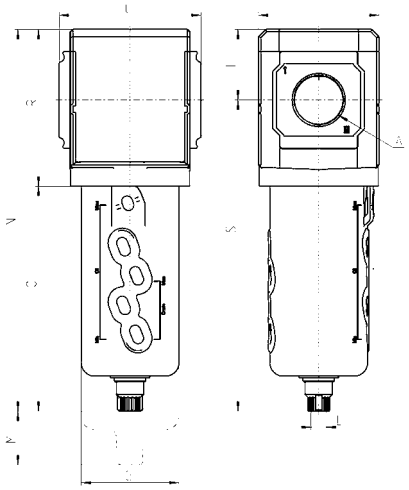
Coalescing filters Series MX - dimensions



FA01 = coalescing filter without drain with threaded port

FA02 = coalescing filter with semiautomatic manual drain

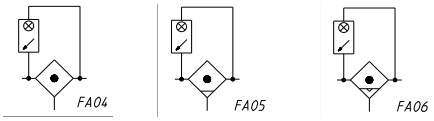
FA03 = coalescing filter with automatic or depressuring drain



DIMENSIONS (in inches)

Mod.	A	C	G	I	L	M	N	O	R	S	T	Weight (kg)
MX2-3/8-FC00-TF	3/8	2.756	2.177	2.677	1/8	2.047	8.346	5.000	3.346	6.870	1.476	0.5
MX2-1/2-FC00-TF	1/2	2.756	2.177	2.677	1/8	2.047	8.346	5.000	3.346	6.870	1.476	0.5
MX2-3/4-FC00-TF	3/4	2.756	2.177	2.677	1/8	2.047	8.346	5.000	3.346	6.870	1.476	0.5
MX3-3/4-FC00-TF	3/4	3.524	2.421	2.992	1/8	2.953	9.488	5.591	3.898	7.736	1.752	0.8
MX3-1-FC00-TF	1	3.524	2.421	2.992	1/8	2.953	9.488	5.591	3.898	7.736	1.752	0.8

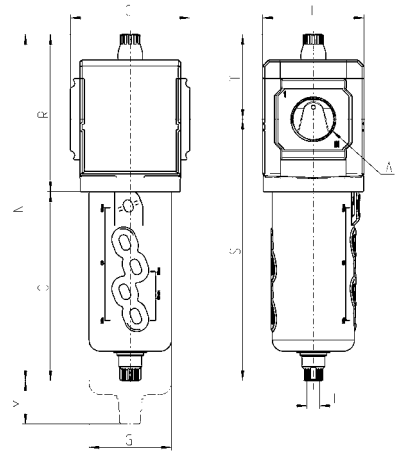
Coalescing filters Series MX - dimensions



FA01 = coalescing filter without drain with threaded port and visual clog indicator

FA02 = coalescing filter with semiautomatic manual drain and visual clog indicator

FA03 = coalescing filter with automatic or depressuring drain and visual clog indicator



DIMENSIONS (in inches)

Mod.	A	C	G	I	L	M	N	O	R	S	T	Weight (kg)
MX2-3/8-FC001-TF	3/8	2.756	2.177	2.677	1/8	2.047	9.094	5	4.094	6.870	2.224	0.5
MX2-1/2-FC001-TF	1/2	2.756	2.177	2.677	1/8	2.047	9.094	5	4.094	6.870	2.224	0.5
MX2-3/4-FC001-TF	3/4	2.756	2.177	2.677	1/8	2.047	9.094	5	4.094	6.870	2.224	0.5
MX3-3/4-FC001-TF	3/4	3.524	2.421	2.992	1/8	2.953	10.236	5.591	4.646	7.736	2.5	0.8
MX3-1-FC001-TF	1	3.524	2.421	2.992	1/8	2.953	10.236	5.591	4.646	7.736	2.5	0.8

Activated Carbon Filters Series MX

Ports 3/8" - 1" NPTF
MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF
Innovative modular clamping system
Quick-Release, locking bayonet bowls

- Removal of compressed air oil, liquid, and gas components through the active carbons
- Air quality conforming to ISO 8573-1 standard, up to class 1.7.1
- Bowl locking mechanism reducing the risk of accidents
- Visual clog indicator option

This modular FRL is characterized by a modern, compact design, and high performance. The integration between metal alloys and technopolymers has allowed the realization of a reliable product, both light and strong at the same time. The unique and patented modular clamping system simplifies the mounting of components.

The Series MX appeals to a broad spectrum of markets and applications because of the savings realized in installation time, space requirements and total cost.

A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact with activated carbon filtering element
Materials	see TABLE OF MATERIALS
Ports	3/8" - 1" NPTF
Mounting	vertical in-line wall-mounting (by means of clamps)
Operating temperature	10°C - 40°C (t max = 60°C), (50°F - 105 F, max temp. 140°F)
Draining of condensate	NO DRAINING
Operating pressure	0.3 - 16 bar (4.5 - 232 psi)
Nominal flow	see FLOW DIAGRAMS
Filtering element	Class 1.7.1
Residual oil content	< 0.003 mg/m³
Fluid	compressed air
Pre-filtering	it is recommended to use a coalescing filter with residual oil of 0,01mg/m³

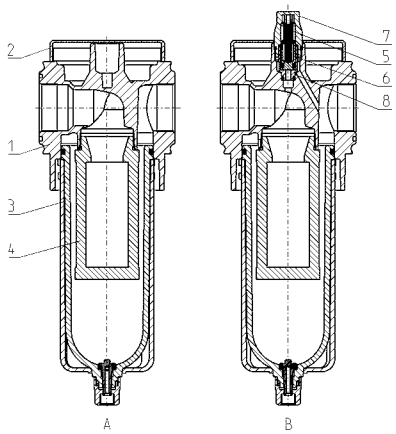
CODING EXAMPLE

MX	2	-	3/8	-	FCA	1	-	__	TF

MX	SERIES
2	SIZE: 2 = 3/8" - 1/2" - 3/4" 3 = 3/4" - 1"
3/8	PORT: 3/8 = 3/8 1/2 = 1/2 3/4 = 3/4 1 = 1
FCA	ACTIVATED CARBON FILTER
1	VISUAL BLOCKAGE INDICATOR: Blank = not present 1 = present
	FLOW DIRECTION: = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

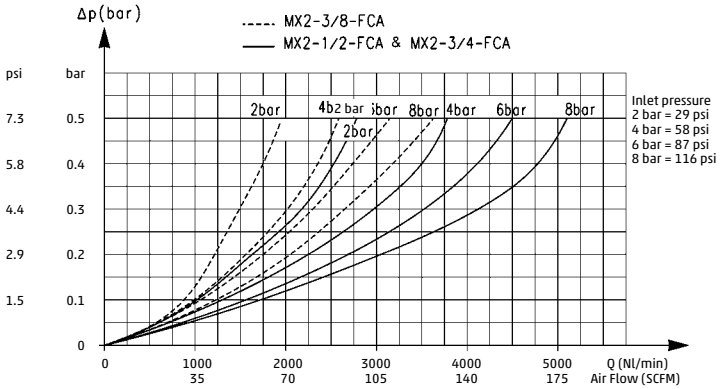
Activated carbon filters Series MX - materials



PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
3 = Bowl cover	Polycarbonate / Polyamide
4 = Filtering element	Active carbon
5 = Upper spring	Stainless steel
6 = Piston	Anodized aluminum
7 = Viewer	Polycarbonate
8 = Indicator body	Brass
Seals	NBR

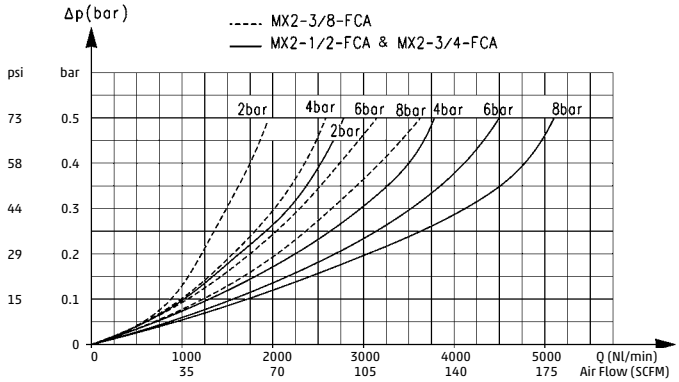
FLOW DIAGRAMS, MX3 & MX2

MX3 flow curves



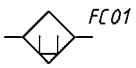
ΔP = Pressure drop
Q = Flow

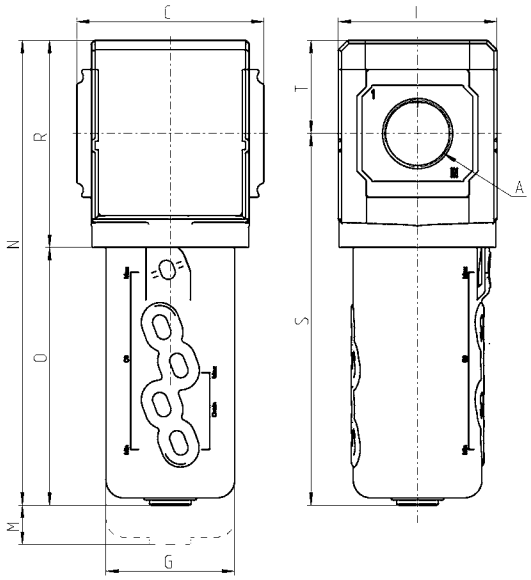
MX2 flow curves



Δp = Pressure drop
Q = Flow

Activated carbon filters Series MX - dimensions



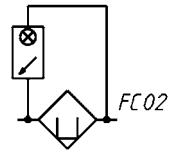


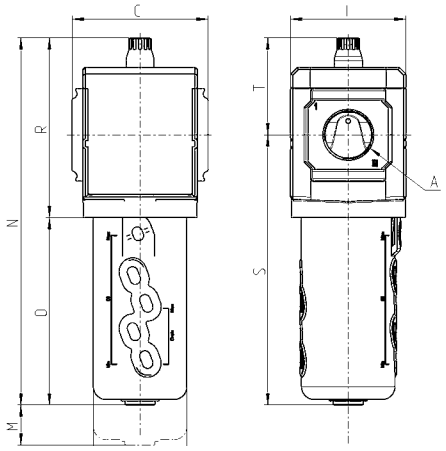
DIMENSIONS (in inche-s)

Mod.	A	C	G	I	M	N	O	R	S	T	Weight (kg)
MX2-3/8-FCA-TF	3/8	2.756	2.177	2.677	3.524	7.461	4.114	3.346	5.984	1.476	0.5
MX2-1/2-FCA-TF	1/2	2.756	2.177	2.677	3.524	7.461	4.114	3.346	5.984	1.476	0.5
MX2-3/4-FCA-TF	3/4	2.756	2.177	2.677	3.524	7.461	4.114	3.346	5.984	1.476	0.5
MX3-3/4-FCA-TF	3/4	3.524	2.421	2.992	4.213	8.740	4.843	3.898	6.988	1.752	0.8
MX3-1-FCA-TF	1	3.524	2.421	2.992	4.213	8.740	4.843	3.898	6.988	1.752	0.8

Activated carbon filters Series MX - dimensions

FC02 = activated carbon filter with visual blockage indicator





Mod.	A	C	G	I	M	N	O	R	S	T	Weight (Kg)
MX2-3/8-FCA1-TF	G3/8	70	55.3	68	89.5	208.5	104.5	104	152	56.5	0.5
MX2-1/2-FCA1-TF	G1/2	70	55.3	68	89.5	208.5	104.5	104	152	56.5	0.5
MX2-3/4-FCA1-TF	G3/4	70	55.3	68	89.5	208.5	104.5	104	152	56.5	0.5
MX3-3/4-FCA1-TF	G3/4	89.5	61.5	76	107	241	123	118	177.5	63.5	0.8
MX3-1-FCA1-TF	G1	89.5	61.5	76	107	241	123	118	177.5	63.5	0.8

Pressure Regulators Series MX

Standard Regulators MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF
Manifold mount design: 1/2" NPTF (MX2 only)
Innovative modular clamping system
Available with built-in pressure gauges or with threaded ports for gauges

- Low set-point variance, or hysteresis
- Lockable knob with adjustment stop
- Tamper-proof system via slots in handle offers a fully lockable regulator
- Integral return exhaust (relieving)
- Available as Manifold regulator, non-cascading

Reliable and repeatable set-points of the secondary reduced pressure ensures performance optimization and energy saving. Available in 2 standard spring options for regulated pressure ranges. All regulators are equipped with an integrated locking system and built-in pressure gauges for a more compact product. The regulators Series MX are suitable also for panel mountings.

The Series MX appeals to a broad spectrum of markets and applications because of the savings realized in installation time, space requirements and total cost.

A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact, diaphragm type
Materials	see TABLE OF MATERIALS
Ports	3/8" - 1" NPTF
Mounting	vertical in-line wall-mounting (by means of clamps) panel mouting
Operating temperature	-5°C - 50°C at 16 bar with Dew Point of air at least 2° C (4° F) below the min working temperature, (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi) -5°C - 60°C at 10 bar with Dew Point of air at least 2° C (4° F) below the min working temperature
Inlet pressure	0 - 16 bar (0 - 232 psi)
Outlet pressure	0,5 - 10 bar, (7 - 145 psi) or 0 - 4 bar, (0 - 60 psi) 0.5 - 7 bar (7 - 102 psi) (MX2 only)
Overpressure exhaust	with relieving or without relieving
Nominal flow	see FLOW DIAGRAMS
Fluid	compressed air
Pressure gauge	version with built-in pressure gauge or version with threaded gauge ports (1/8" on MX2 and 1/4" on MX3)

CODING EXAMPLE

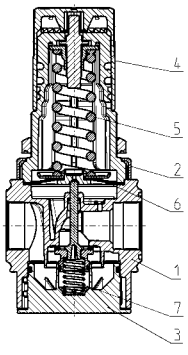
MX	2	-	3/8	-	R	0	0	4	-	__	TF

MX	SERIES
2	SIZE: 2 = 3/8" - 1/2" - 3/4" 3 = 3/4" - 1"
3/8	PORTS: 3/8 = 3/8 1/2 = 1/2 3/4 = 3/4 1 = 1
R	TYPER OF REGULATOR: R = pressure regulator M = Manifold pressure regulator (MX2 - 1/2" NPTF only)
0	OPERATING PRESSURE (1 bar = 14,5 psi) 0 = 0,5 - 10 bar (7.25 - 145 psi) 4 = 0 - 4 bar (0 - 58 psi) 7 = 0.5 - 7 bar (MX2 only) (7.25 - 103 psi)
0	DESIGN TYPE: 0 = relieving 1 = without relieving 2 = relieving, with by-pass valve 3 = without relieving, with by-pass valve
4	PRESSURE GAUGE: 0 = without pressure gauge (with threaded port for gauges) 2 = with built-in pressure gauge 0-6 bar and working pressure 0 - 4 bar 3 = with built-in pressure gauge 0-10 bar and working pressure 0 - 7 bar (MX2 only) 4 = with built-in pressure gauge 0-12 bar and working pressure 0.5 - 10 bar
	FLOW DIRECTION: = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

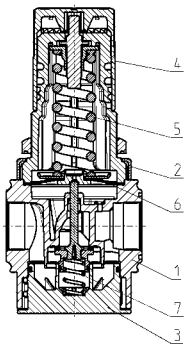
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Pressure regulators Series MX - materials

R = pressure regulator
M = Manifold pressure regulator



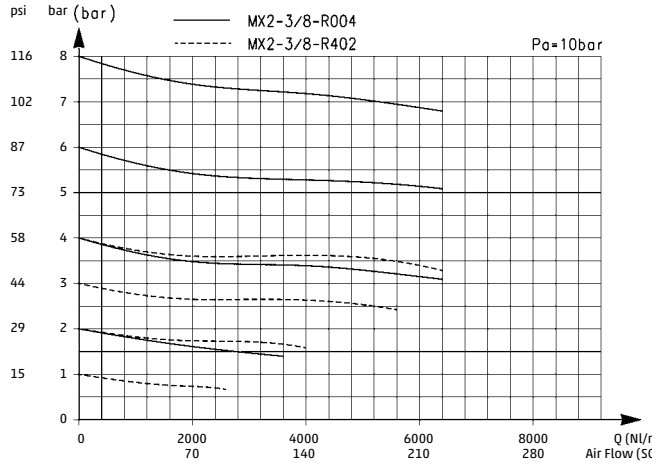
R

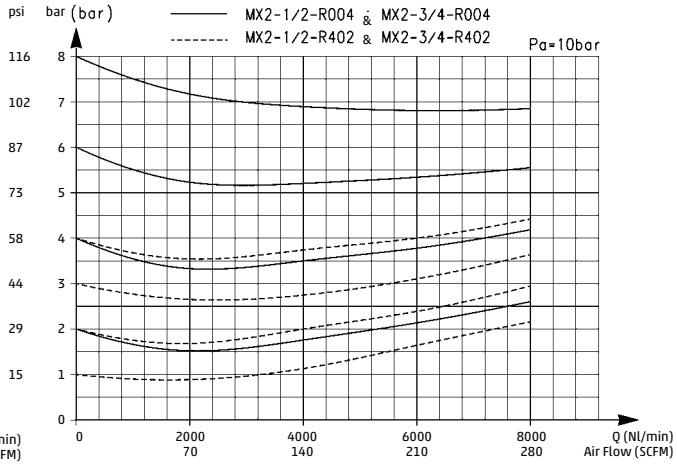


M

PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
3 = Valve holder plug	Polyacetal
4 = Regulator knob	Polyamide
5 = Upper spring	Zinc-plated steel
6 = Diaphragm	NBR
7 = Lower spring	Stainless steel
Seals	NBR

MX2 FLOW DIAGRAMS





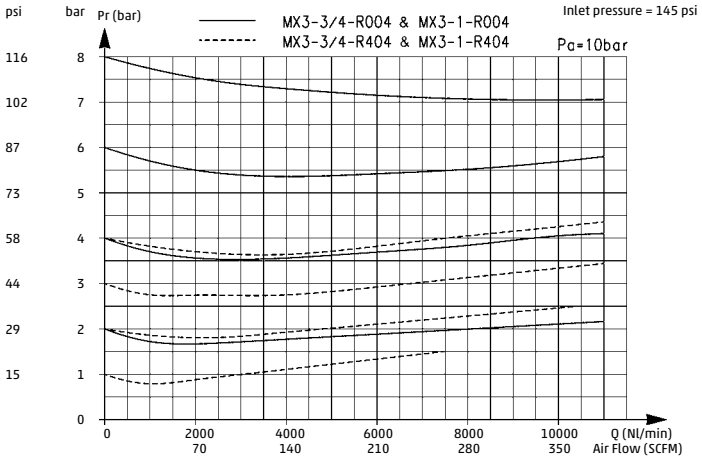
Pr = Regulated pressure
Q = Flow

Pa = Inlet pressure

Pr = Regulated pressure
Q = Flow

Pa = Inlet pressure

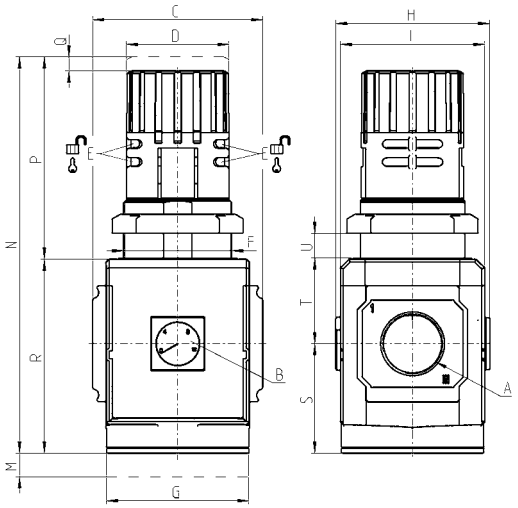
MX3 FLOW DIAGRAMS

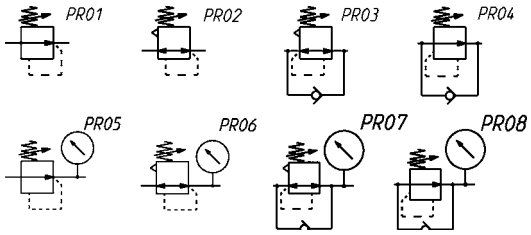


Pr = Regulated Pressure
Q = Flow

Pa = Inlet pressure

Pressure regulators Series MX - dimensions



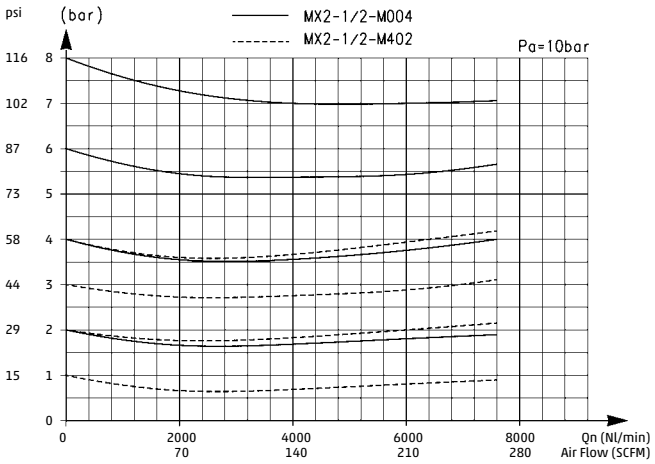


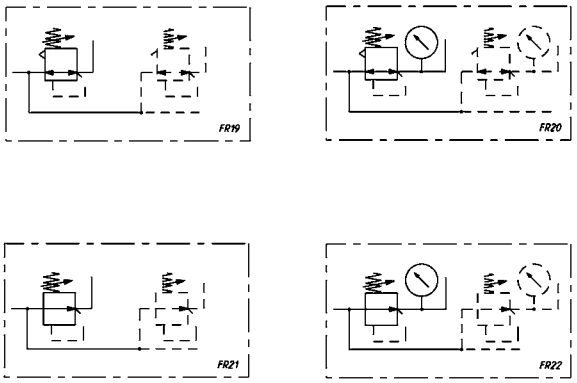
PR01 = regulator without relieving
PR02 = regulator with relieving
PR03 = regulator with relieving and by-pass valve
PR04 = regulator without relieving with by-pass valve
PR05 = regulator without relieving and with pressure gauge
PR06 = regulator with relieving and pressure gauge
PR07 = regulator with relieving, by-pass valve and pressure gauge
PR08 = reg. without reliev. with by-pass valve and pressure gauge

DIMENSIONS (in inches)

Mod.	A	B	C	D	E	F	G	H	I	M	N	P	Q	R	S	T	U	Weight (kg)
MX2-3/8-R004-TF	3/8	0-12 bar	2.756	1.772	Ø 5/32"	M47x1.5	2.756	2.933	2.677	1.772	6.535	3.071	0.197	3.465	1.988	1.476	0-13	0.6
MX2-1/2-R004-TF	1/2	0-12 bar	2.756	1.772	Ø 5/32"	M47x1.5	2.756	2.933	2.677	1.772	6.535	3.071	0.197	3.465	1.988	1.476	0-13	0.6
MX2-3/4-R004-TF	3/4	0-12 bar	2.756	1.772	Ø 5/32"	M47x1.5	2.756	2.933	2.677	1.772	6.535	3.071	0.197	3.465	1.988	1.476	0-13	0.6
MX3-3/4-R004-TF	3/4	0-12 bar	3.524	2.126	Ø 5/32"	M57x1.5	2.953	3.189	2.992	1.772	8.110	4.094	0.197	4.016	2.264	1.752	0-20	1
MX3-1-R004-TF	1	0-12 bar	3.524	2.126	Ø 5/32"	M57x1.5	2.953	3.189	2.992	1.772	8.110	4.094	0.197	4.016	2.264	1.752	0-20	1

MANIFOLD REGULATOR - FLOW DIAGRAM and PNEUMATIC SYMBOLS





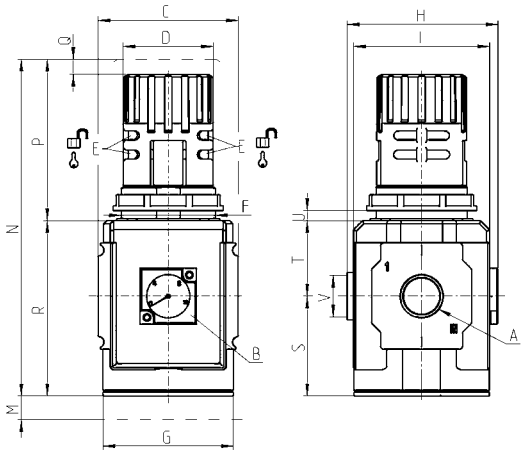
Pr = Regulated pressure
Q = Flow

Pa = Inlet pressure

FR19 = Manifold regulator with relieving and without gauge
FR20 = Manifold regulator with relieving and gauge
FR21 = Manifold regulator without relieving or gauge
FR22 = Manifold regulator without relieving and with gauge

MANIFOLD pressure regulator Series MX - dimensions

The picture on the left side shows that it is possibile to assemble a certain numer of regulators with the same inlet pressure using proper mounting kits, with or without flanges.
The regulation of the outlet pressure (OUT port) of each regulator can be set by rotating the knob clockwise or counterclockwise until the desired pressure is reached. This regulation has no effect on the inlet pressure of regulators mounted downstream.



DIMENSIONS (in inches)

Mod.	A	B	C	D	E	F	G	H	I	M	N	P	Q	R	S	T	U	V	Weight (kg)
MX2-1/2-M004	1/2	0-12 bar	2.756	1.772	5/32"	M47x1.5	2.756	2.972	2.677	1.772	6.535	3.071	0.197	3.465	1.988	1.476	0-13	G 1/2	0.6

Pneumatic Pilot Operated Pressure Regulators Series MX

New

Ports: G3/8, G1/2, G3/4
Modular - Available with built-in pressure gauges or ports for gauges

- Pneumatically operated regulation
- Minimal pressure decreases
- Integral return exhaust (relieving)

The availability of constant values of the secondary pressure ensures performance optimization and energy saving.
All regulators are equipped with an integrated locking system and built-in pressure gauges for a more compact product.

The Series MX has been realized to offer a multi-sector solution that guarantees saving in terms of installation time, space and costs.

A special configurator, available on Camozzi website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact, diaphragm type
Materials	see TABLE OF MATERIALS on the following page
Ports	G3/8 - G1/2 - G3/4
Mounting	vertical in-line wall-mounting (by means of clamps)
Operating temperature	-5°C ÷ 50°C up to 16 bar (with the dew point of the fluid lower than 2°C at the min. working temperature) -5°C ÷ 60°C up to 10 bar (with the dew point of the fluid lower than 2°C at the min. working temperature)
Inlet pressure	0 ÷ 16 bar
Outlet pressure	10 bar
Overpressure exhaust	with relieving (standard) without relieving
Nominal flow	see FLOW DIAGRAMS on the following pages
Fluid	compressed air
Pressure gauge	built-in pressure gauge (standard) with G1/8 port

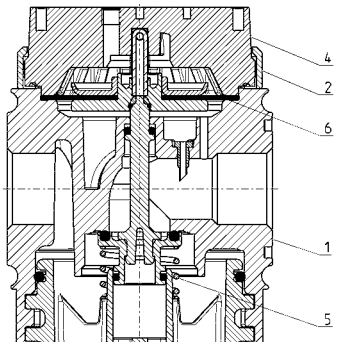
CODING EXAMPLE

MX	2	-	1/2	-	R	CP	0	0	4	-	__	-	TF

MX	SERIES
2	SIZE: 2 = G3/8 - G1/2 - G3/4
1/2	PORTS: 3/8 = G3/8 1/2 = G1/2 3/4 = G3/4
R	TYPER OF REGULATOR: R = pressure regulator
CP	TYPE OF COMMAND/PILOT SUPPLY: CP = pneumatic pilot supply
0	OPERATING PRESSURE: 0 = 7 - 145 psi (0.5 - 10 bar)
0	DESIGN TYPE: 0 = relieving (standard) 1 = without relieving
4	PRESSURE GAUGE: 0 = without pressure gauge (with threaded port for gauges) 4 = with built-in pressure gauge 0-12 and working pressure 0.5 ÷ 10 bar (standard)
	FLOW DIRECTION: = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

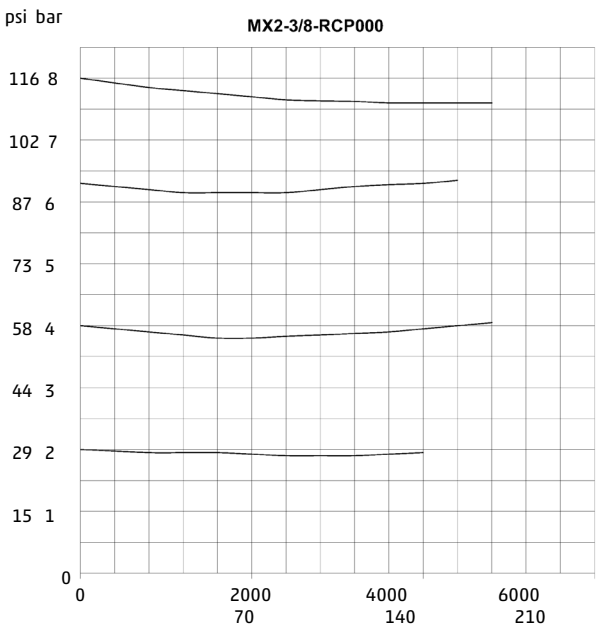
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Pneumatic pilot operated pressure regulators Series MX - materials



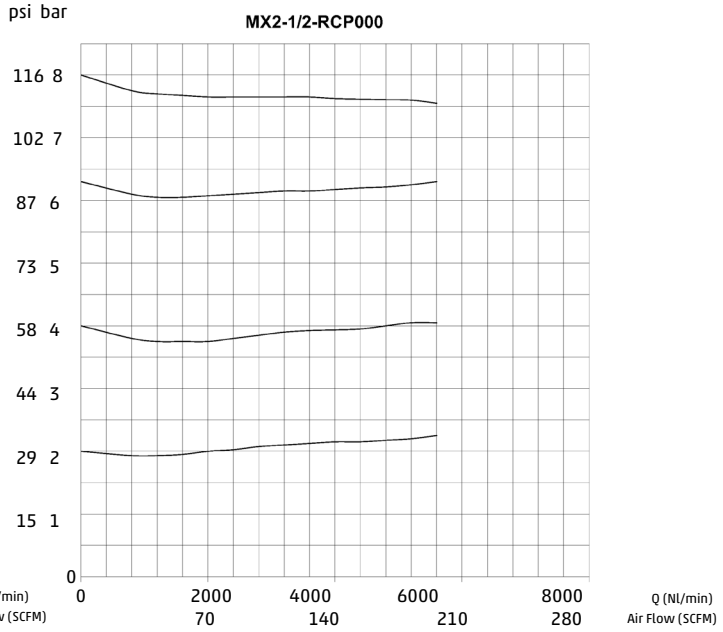
PARTS		MATERIALS
1 = Body		Aluminium
2 = Covering		Polyacetal
3 = Valve holder plug		Polyacetal
4 = Upper base		Polyamide
5 = Lower spring		Stainless steel
6 = Diaphragm		NBR
Seals		NBR

DIAGRAMS OF PNEUMATIC PILOT OPERATED PRESSURE REGULATORS



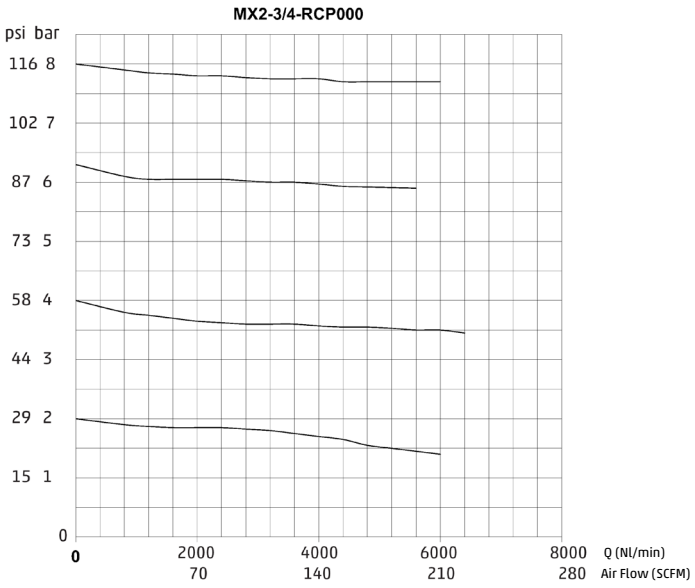
Pr = Regulated pressure (bar)
Q = Flow (Nl/min)

Inlet pressure = 10bar



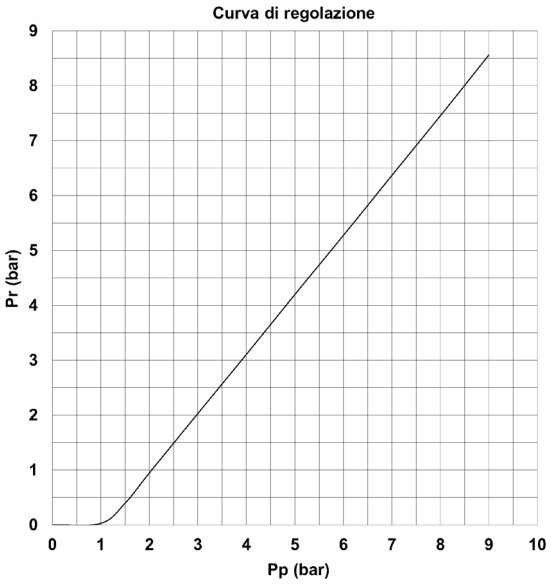
Pr = Regulated pressure (bar)
Q = Flow (Nl/min)

Inlet pressure = 10bar



Pr = Regulated pressure (bar)
Q = Flow (Nl/min)

Inlet pressure = 10bar



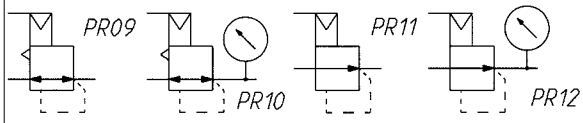
ADJUSTMENT CURVE

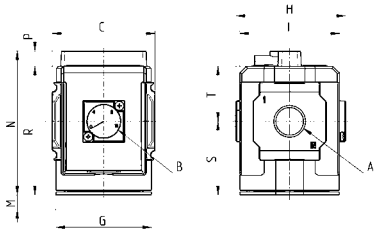
Pr = regulated pressure (bar)
Pp = pilot pressure (bar)

Inlet pressure = 10bar

Pneumatic pilot operated pressure regulators Series MX - dimensions

PR09 = reg. with relieving
PR10 = regulator with relieving and pressure gauge
PR11 = regulator without relieving
PR12 = regulator without relieving and with pressure gauge





Mod.	A	B (bar)	C	G	H	I	M	Y (Pilot supply)	N	P	R	S	T	Weight (Kg)
MX2-3/8-RCP004-TF	3/8	0 - 12	70	65	74.5	68	45	M5	98	10	88	50.5	37.5	0.5
MX2-1/2-RCP004-TF	1/2	0 - 12	70	65	74.5	68	45	M5	98	10	88	50.5	37.5	0.5
MX2-3/4-RCP004-TF	3/4	0 - 12	70	65	74.5	68	45	M5	98	10	88	50.5	37.5	0.5

Lubricators Series MX

Ports 3/8" - 1" NPTF
MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF
Innovative modular clamping system
Quick-Release, locking bayonet bowls

- Oil adjustment screw in sight glass
- Ability to refill the oil even with system under pressure
- High flow
- Oil level visible through transparent slots in bowl shroud
- Bowl locking mechanism
- Enhanced safety features

This modular FRL is characterized by a modern, compact design, and high performance. The integration between metal alloys and technopolymers has allowed the realization of a reliable product, both light and strong at the same time. The unique and patented modular clamping system simplifies the mounting of components.

The Series MX appeals to a broad spectrum of markets and applications because of the savings realized in installation time, space requirements and total cost.

A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact
Materials	see TABLE OF MATERIALS
Ports	3/4" - 1" NPTF
Oil capacity	MX3: 170 cc (5.75 oz), MX2: 118 cc (4.0 oz.)
Oil refilling	while under system pressure allowed by means of cap screw in head, or directly into bowl without pressure
Mounting	vertical in-line wall-mounting (by means of clamps)
Operating temperature	-5°C - 50°C at 16 bar (with Dew Point of air at least 2° C (4° F) below the min working temperature), (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi) -5°C - 60°C at 10 bar (with Dew Point of air at least 2° C (4° F) below the min working temperature)
Oil for lubrication	Use ISO VG32 oils. 3°E - 10°E , Engler (approx 32 centistokes) recommendation 1 - 5 drops every 1000 Nl of air consumed (35 SCFM) (10 drops = 1 mL = 1cm3 =.061 in3)
Droplet Size	> 2 microns
Operating pressure	0 - 16 bar (0 - 232 psi)
Min. air consumption for lubrication at 1 bar	MX2: 17 Nl/min (0.6 SCFM) MX3: 50 NL/min (1.75 SCFM)
Min. air consumption for lubrication at 6 bar	MX2: 38 Ml/min (1.3 SCFM) MX3: 90 Nl/min (3.1 SCFM)
Nominal flow	See FLOW DIAGRAMS on the following pages

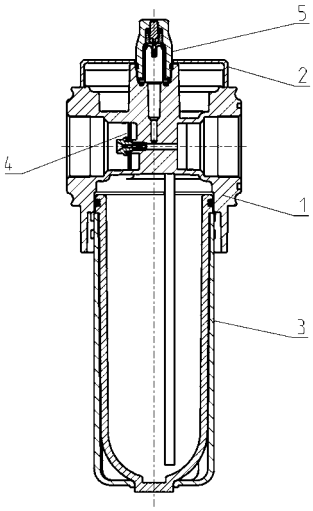
CODING EXAMPLE

MX	2	-	3/8	-	L	00	-		TF

MX	SERIES
2	SIZE: 2 = 3/8" - 1/2" - 3/4" 3 = 3/4" - 1"
3/8	PORT: 1/2 = 1/2 3/4 = 3/4 1 = 1
L	LUBRICATOR
00	DESIGN TYPE: 00 = atomized oil
	FLOW DIRECTION: = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

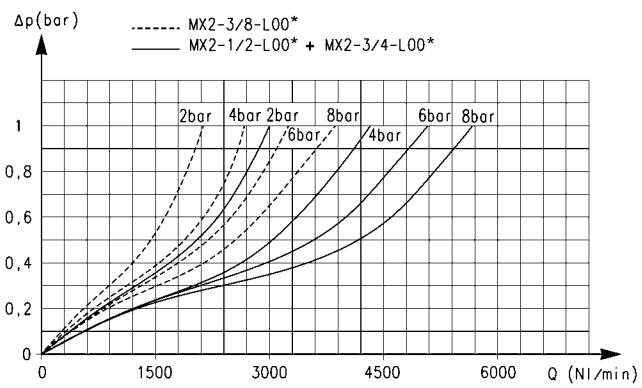
Lubricators Series MX - materials



PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
3 = Bowl with technopolymer cover	Polycarbonate/Polyamide
4 = Diaphragm	NBR
5 = Viewer	Polyamide
Seals	NBR

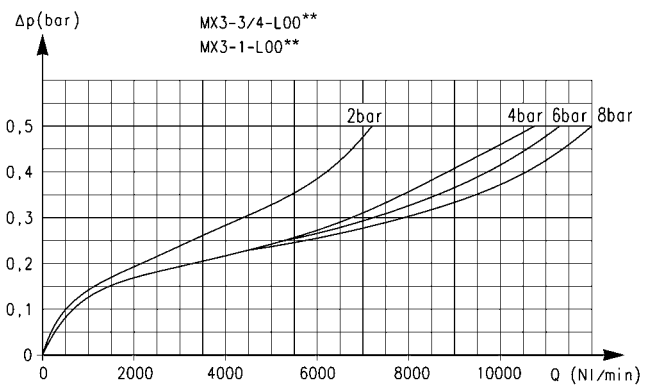
FLOW DIAGRAMS, MX2 & MX3

MX2 flow curves



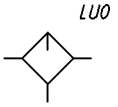
Δp = Pressure drop
Q = Flow

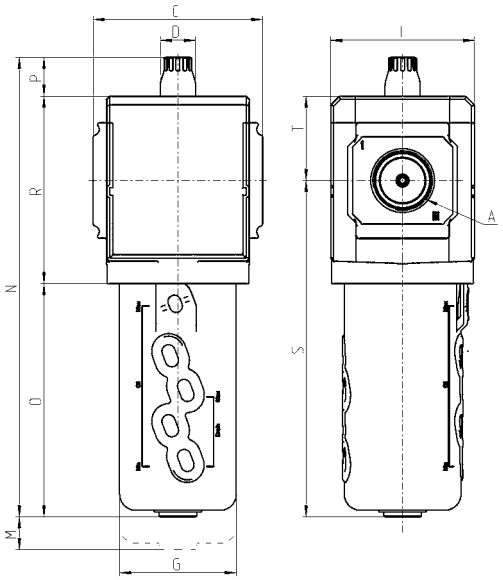
MX3 flow curves



ΔP = Pressure drop
Q = Flow

Lubricators Series MX - dimensions





DIMENSIONS (in inches)

Mod.	A	C	D	G	I	M	N	O	P	R	S	T	Weight (Kg)
MX2-3/8-L00-TF	3/8	2.756	0.728	2.185	2.677	3.327	8.268	4.114	0.807	3.346	5.984	1.476	0.5
MX2-1/2-L00-TF	1/2	2.756	0.728	2.185	2.677	3.327	8.268	4.114	0.807	3.346	5.984	1.476	0.5
MX2-3/4-L00-TF	3/4	2.756	0.728	2.185	2.677	3.327	8.268	4.114	0.807	3.346	5.984	1.476	0.5
MX3-3/4-L00-TF	3/4	3.524	0.728	2.421	2.992	3.937	9.567	4.843	0.827	3.898	7.008	1.752	0.8
MX3-1-L00-TF	1	3.524	0.728	2.421	2.992	3.937	9.567	4.843	0.827	3.898	7.008	1.752	0.8

Filter-Regulators Series MX

Ports 3/8" - 1" NPTF
MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF
Innovative modular clamping system
Quick-Release, locking bayonet bowls

- Filtering element options of 25 µm or 5 µm
- Available versions: with built-in gauge or with ports for gauge
- Lockable knob with mechanical stop and tamper-proof lock-out features
- Bowl locking mechanism

Filter-regulators Series MX integrate filter and pressure regulator in one unit. They are, therefore, compact and suitable for pre-filtering functions.

Available in relieving or non-relieving, they are equipped with a valve diaphragm for a direct pressure regulation and with an integrated condensate drain, manual, automatic, depressurizing and ported. Moreover, they can be equipped with a built-in pressure gauge.

The Series MX has been realized to offer a multi-sector solution that guarantees saving in terms of installation time, space and costs. A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact with filtering element in HDPE
Materials	see TABLE OF MATERIALS
Ports	3/8" - 1" NPTF
Condensate capacity	MX3: 85 cc, (approx. 3 oz.), MX2: 55 cc (approx. 1.9 oz.)
Mounting	vertical in-line wall-mounting (by means of clamps) panel mounting
Operating temperature	-5°C - 50°C at 16 bar (with Dew Point of air at least 2° C (4° F) below the min working temperature), (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi) -5°C - 60°C at 10 bar (with Dew Point of air at least 2° C (4° F) below the min working temperature)
Delivered air quality (ISO 8573-1: 2010)	Class 6.8.4 with 5 µm filter element Class 7.8.4 with 25 µm filter element
Draining of condensate	manual, automatic, depressurizing and ported
Operating pressure	0.3 - 16 bar (with automatic drain 1.5 - 12 bar); (4.5 - 232 psi, with automatic drain 22 - 175 psi)
Nominal flow	see FLOW DIAGRAMS
Fluid	compressed air
Pressure gauge	version with built-in pressure gauge or version with threaded gauge ports (1/8" on MX2 and 1/4" on MX3)

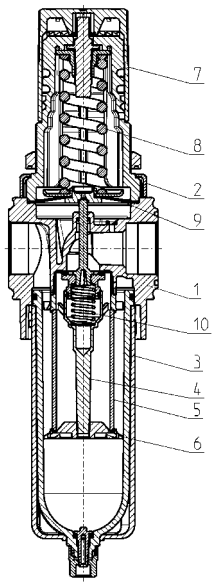
CODING EXAMPLE

MX	2	-	3/8	-	FR	0	0	0	4	-	__	-	TF

MX	SERIES
2	SIZE: 2 = 3/8" - 1/2" - 3/4" 3 = 3/4" - 1"
3/8	PORT: 3/8 = 3/8 1/2 = 1/2 3/4 = 3/4 1 = 1
FR	FILTER-REGULATOR
0	FILTERING ELEMENT WITH DESIGN TYPE: 0 = 25 µm with relieving (standard) 1 = 5 µm with relieving 2 = 25 µm without relieving (with semiautomatic-manual drain only) 3 = 5 µm without relieving (with semiautomatic-manual drain only) 4 = 25 µm with relieving and by-pass valve 5 = 5 µm with relieving and by-pass valve 6 = 25 µm without relieving, with by-pass valve 7 = 5 µm without relieving, with by-pass valve
0	DRAINING OF CONDENSATE: 0 = semiautomatic-manual drain 3 = automatic drain 5 = depressuring drain, filtered orifice 8 = without drain, with port G1/8
0	OPERATING PRESSURE: 0 = 0.5 - 10 bar (7.25 - 145 psi) 4 = 0 - 4 bar (0 - 58 psi) 7 = 0.5 - 7 bar (MX2 only) (7.25 - 103 psi)
4	PRESSURE GAUGE: 0 = without pressure gauge(with threaded port) 2 = with built-in pressure gauge 0-6 and working pressure 0 - 4 bar 3 = with built-in pressure gauge 0-10 and working pressure 0 - 7 bar (MX2 only) 4 = with built-in pressure gauge 0-12 and working pressure 0.5 - 10 bar
	FLOW DIRECTION: = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

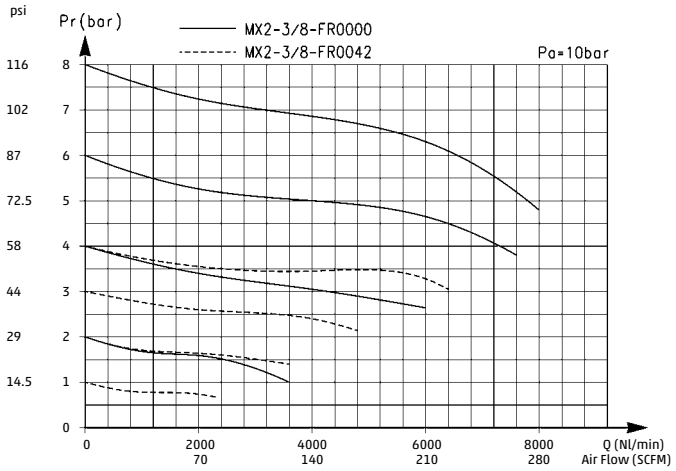
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Filter-regulators Series MX - materials



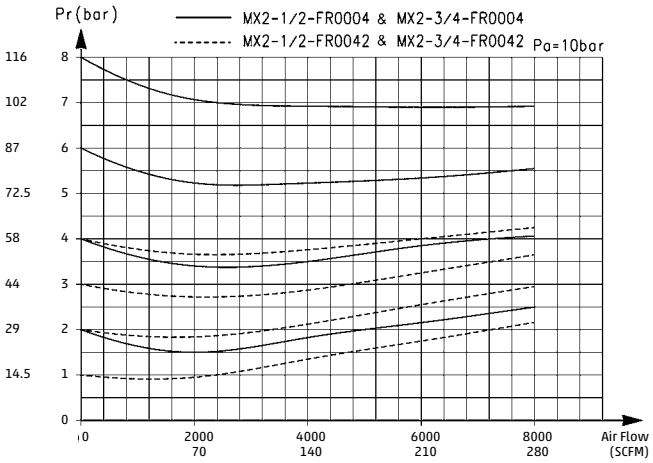
PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
3 = Bowl with technopolymer cover	Polycarbonate/Polyamide
4 = Valve guide	Polyacetal
5 = Filtering element	Polyethylene
6 = Separation deflector	Polyacetal
7 = Knob	Polyamide
8 = Upper spring	Zinc-plated steel
9 = Diaphragm	NBR
10 = Lower spring	Stainless steel
Seals	NBR

MX2 FLOW DIAGRAMS



Pr = Regulated pressure
Q = Flow

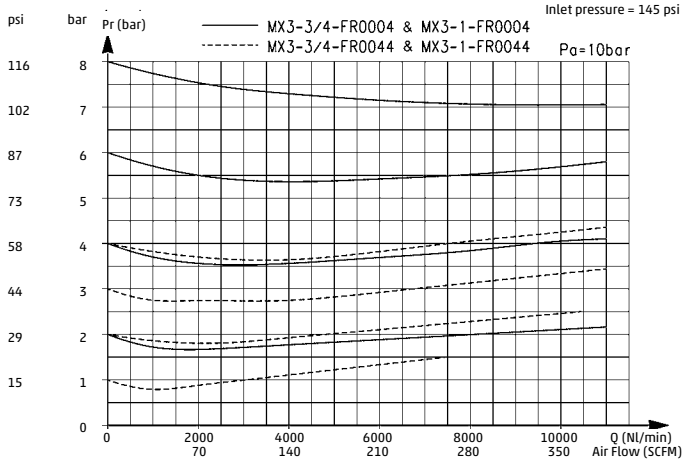
Pa = Inlet pressure



Pr = Regulated pressure
Q = Flow

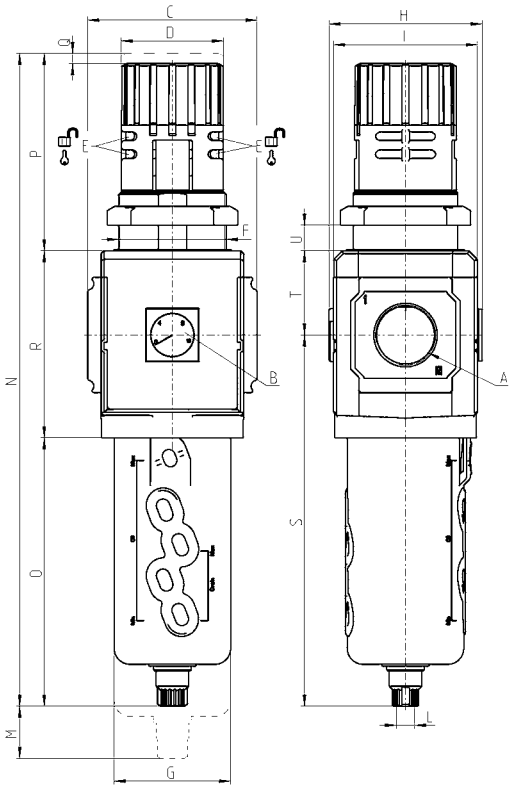
Pa = Inlet pressure

MX3 FLOW DIAGRAMS



Pr = Regulated Pressure
Q = Flow
Pa = Inlet pressure

Filter-regulators Series MX - dimensions



DIMENSIONS (in inches)

Mod.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S	T	U	Weight (kg)
MX2-3/8-FR0004-TF	3/8	0-12 bar	2.756	1.772	Ø 5/32	M47x1.5	2.185	2.933	2.677	1/8	2.598	11.417	5.000	3.071	0.197	3.346	6.870	1.476	0-16	0.8
MX2-1/2-FR0004-TF	1/2	0-12 bar	2.756	1.772	Ø 5/32	M47x1.5	2.185	2.933	2.677	1/8	2.598	11.417	5.000	3.071	0.197	3.346	6.870	1.476	0-16	0.8
MX2-3/4-FR0004-TF	3/4	0-12 bar	2.756	1.772	Ø 5/32	M47x1.5	2.185	2.933	2.677	1/8	2.598	11.417	5.000	3.071	0.197	3.346	6.870	1.476	0-16	0.8
MX3-3/4-FR0004-TF	3/4	0-12 bar	3.524	2.126	Ø 5/32	M57x1.5	2.421	3.189	2.992	1/8	2.953	13.583	5.591	4.094	0.197	3.898	7.736	1.752	0-20	1.3
MX3-1-FR0004-TF	1	0-12 bar	3.524	2.126	Ø 5/32	M57x1.5	2.421	3.189	2.992	1/8	2.953	13.583	5.591	4.094	0.197	3.898	7.736	1.752	0-20	1.3

Lockable Isolation 3/2 Way Valves Series MX

Ports 3/8" - 1" NPTF
MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF
Innovative modular clamping system
Manual, Solenoid Pilot,
Externally Indirect Air-Piloted Solenoid,
Air-Pilot controls

- Shut-off valves with manual, solenoid or air-pilot operation
- 8mm (0.315") OD hole for the lock-out feature accommodates most locks and hasps (manual valve version)
- Electro-pneumatic versions available in 24 V, 110 V or 230 V
- Quick-exhaust feature via port in base
- Silencers available on request, 1/2" - 3/4" exhaust port in base of valves for silencer assembly

Manual isolation valves allow for depressurization of the pneumatic system so that system components may be serviced safely. The system is depressurized with the de-activation of the valve.

Electropneumatic isolation valves are ideal where manual access is difficult since they allow maximum positioning flexibility and are designed to pressurize or depressurize pneumatic systems. The built-in manual override guarantees security in case of an emergency.

The Series MX has been realized to offer a multi-sector solution that guarantees saving in terms of installation time, space and costs. A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact, spool-type, 3-way/2-position
Materials	see TABLE OF MATERIALS
Ports	3/8" - 1" NPTF
Mounting	in-line wall-mounting (by means of clamps) panel mounting, manual only
Operating temperature	-5°C - 50°C at 16 bar (with Dew Point of air at least 2° C (4° F) below the min working temperature), (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi) -5°C - 60°C at 10 bar (with Dew Point of air at least 2° C (4° F) below the min working temperature)
Operating pressure	Manual valve: -0.8 - 10 bar (26 in-Hg - 145 psi) Electro-pneumatic valve: 2 - 10 bar (30 - 145 psi) Servopilot or pneumatic valve: -0.8 - 10 bar (with pilot 3.5 - 10 bar)
Nominal flow	see FLOW DIAGRAMS
Nominal exhaust flow at 6 bar with Δp = 1 bar	MX3: 3/4" - 1" NPTF = 9200 Nl/m, (322 SCFM); MX2: 3/8" - 3/4" NPTF = 6000 Nl/min, (210 SCFM)
Fluid	compressed air

4

MODULAR FRL SERIES MX

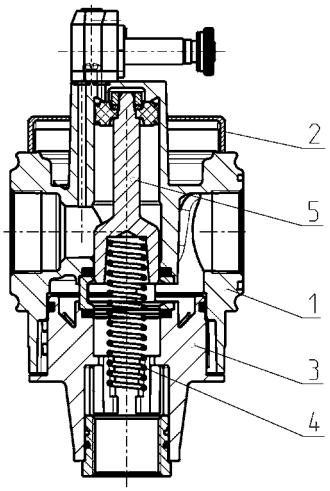
CODING EXAMPLE

MX	2	-	3/8	-	V	01	-	__	TF

MX	SERIES
2	SIZE: 2 = 3/8" - 1/2" - 3/4" 3 = 3/4" - 1"
3/8	PORT: 3/8 = 3/8 1/2 = 1/2 3/4 = 3/4 1 = 1
V	3/2-WAY VALVE
01	DESIGN TYPE: 01 = lockable manual control (lock-out design) 16 = electro-pneumatic control (solenoid pilot-operated) 17 = servo-pilot control (external air-signal pilot for solenoid w/ lower than 30 psi pressure supply) 36 = pneumatic control (air-pilot operated)
	FLOW DIRECTION: = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

Lockable isolation 3/2 way valves Series MX - materials



PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
3 = Valve holder plug	Polyacetal
4 = Lower spring	Zinc-plated steel
5 = Spool	Stainless steel (MX...V16 - V17 - V36) Aluminium (MX...V01)
Seals	NBR

FLOW DIAGRAM for valves Mod. MX...V01

MX2 flow curves

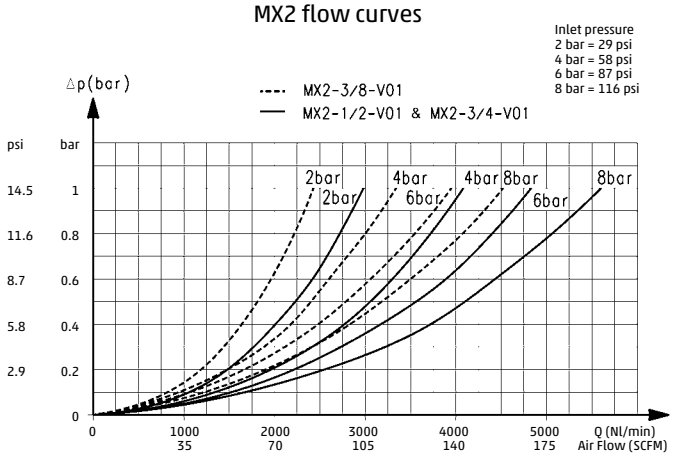


Diagram for lockable manual control valves
ΔP = Pressure drop
Q = Flow

MX3 flow curves

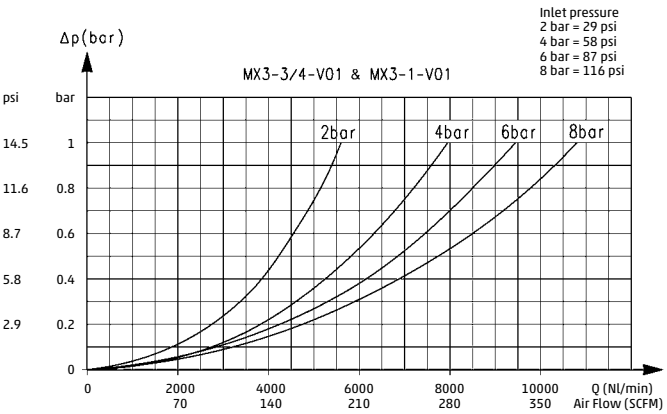
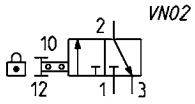


Diagram for lockable manual control valves
ΔP = Pressure drop
Q = Flow

Lockable (Lock-Out), manual valves Series MX - dimensions

Fig. 1 = closed valve, lock opening exposed, exhausting downstream pressure
Fig. 2 = open valve, "down" handle position, flow 1 to 2



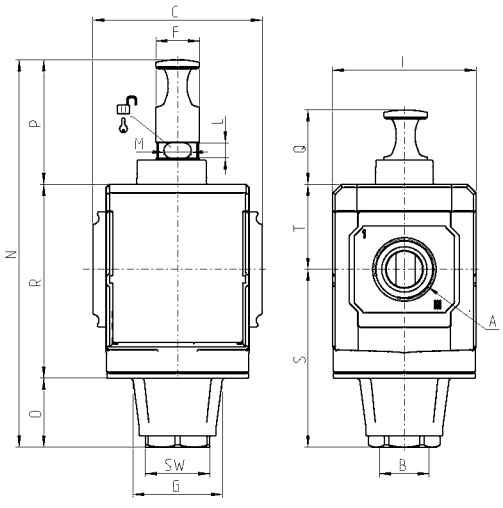


FIG.1 FIG.2

DIMENSIONS (in inches)

Mod.	A	Exhaust Port B	C	F	G	I	L	M	N	O	P	Q	R	S	SW	T	Weight (kg)
MX2-3/8-V01-TF	3/8	G 1/2	2.756	0.709	1.358	2.677	0.354	0.315	5.984	0.512	2.008	1.220	3.465	2.500	1.063	1.476	0.5
MX2-1/2-V01-TF	1/2	G 1/2	2.756	0.709	1.358	2.677	0.354	0.315	5.984	0.512	2.008	1.220	3.465	2.500	1.063	1.476	0.5
MX2-3/4-V01-TF	3/4	G 1/2	2.756	0.709	1.358	2.677	0.354	0.315	5.984	0.512	2.008	1.220	3.465	2.500	1.063	1.476	0.5
MX3-3/4-V01-TF	3/4	G 3/4	3.524	0.906	1.890	2.992	0.315	0.315	8.091	1.457	2.618	1.575	4.016	3.720	1.339	1.752	0.9
MX3-1-V01-TF	1	G 3/4	3.524	0.906	1.890	2.992	0.315	0.315	8.091	1.457	2.618	1.575	4.016	3.720	1.339	1.752	0.9

FLOW DIAGRAM for valves Mod. MX...V16 and MX...V36

MX2 flow curves

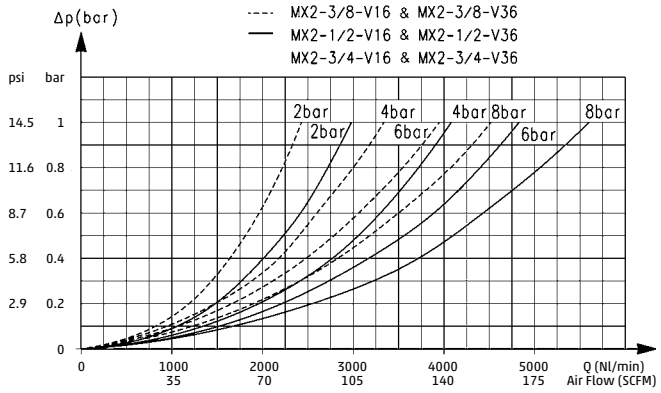


Diagram for solenoid pilot or air-pilot valves MX2

Δp = Pressure drop
Q = Flow

MX3 flow curves

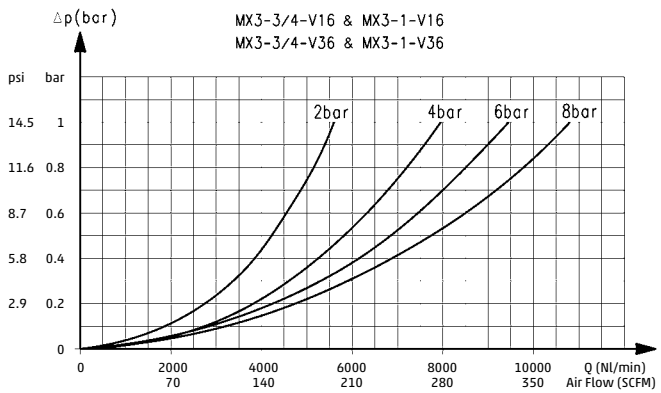
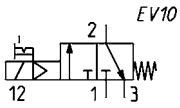


Diagram for solenoid pilot or air-pilot valves MX3

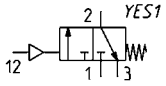
Δp = Pressure drop
Q = Flow

3/2-way isolation valves Series MX - dimensions

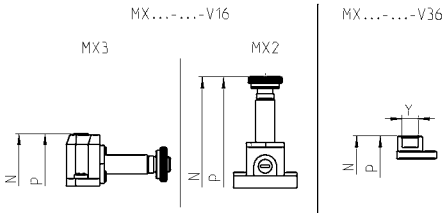
Solenoid pilot and air-pilot operated valves

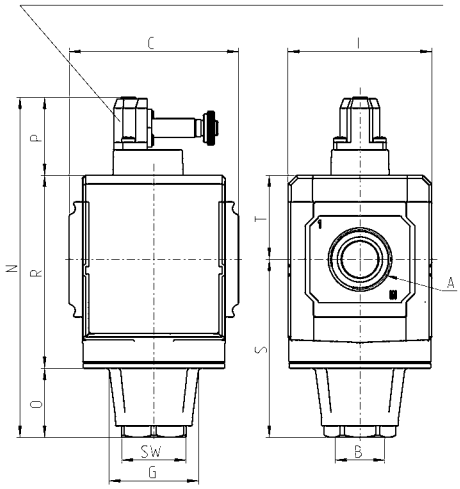


EV10 = solenoid valve, 3/2 NC, monostable, with bistable manual override



YES1 = pneumatically operated valve, 3/2, monostable, mechanical spring





DIMENSIONS (in inches)

Mod.	A	Exhaust Port B	C	G	I	N	O	P	R	S	SW	T	Pilot Port Y	Weight (Kg)
MX2-3/8-V16-TF	3/8	G 1/2	2.756	1.358	2.677	6.732	0.512	2.756	3.465	2.500	1.339	1.476	-	0.5
MX2-1/2-V16-TF	1/2	G 1/2	2.756	1.358	2.677	6.732	0.512	2.756	3.465	2.500	1.339	1.476	-	0.5
MX2-3/4-V16-TF	3/4	G 1/2	2.756	1.358	2.677	6.732	0.512	2.756	3.465	2.500	1.339	1.476	-	0.5
MX2-3/8-V36-TF	3/8	G 1/2	2.756	1.358	2.677	4.803	0.512	0.827	3.465	2.500	1.339	1.476	1/8	0.5
MX2-1/2-V36-TF	1/2	G 1/2	2.756	1.358	2.677	4.803	0.512	0.827	3.465	2.500	1.339	1.476	1/8	0.5
MX2-3/4-V36-TF	3/4	G 1/2	2.756	1.358	2.677	4.803	0.512	0.827	3.465	2.500	1.339	1.476	1/8	0.5
MX3-3/4-V16-TF	3/4	G 3/4	3.524	1.890	2.992	7.106	1.457	1.634	4.016	3.720	1.339	1.752	-	0.9
MX3-1-V16-TF	1	G 3/4	3.524	1.890	2.992	7.106	1.457	1.634	4.016	3.720	1.339	1.752	-	0.9
MX3-3/4-V36-TF	3/4	G 3/4	3.524	1.890	2.992	6.457	1.457	1.004	4.016	3.720	1.339	1.752	1/8	0.9
MX3-1-V36-TF	1	G 3/4	3.524	1.890	2.992	6.457	1.457	1.004	4.016	3.720	1.339	1.752	1/8	0.9

FLOW DIAGRAM for valves Mod. MX...V17

MX2 flow curves

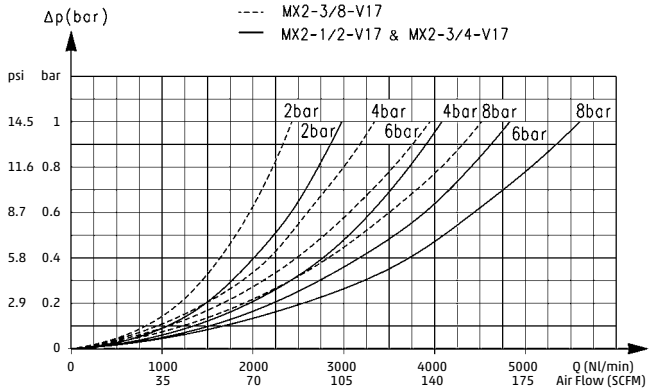


Diagram for servo-pilot control valves MX2

Δp = Pressure drop
Q = Flow

MX3 flow curves

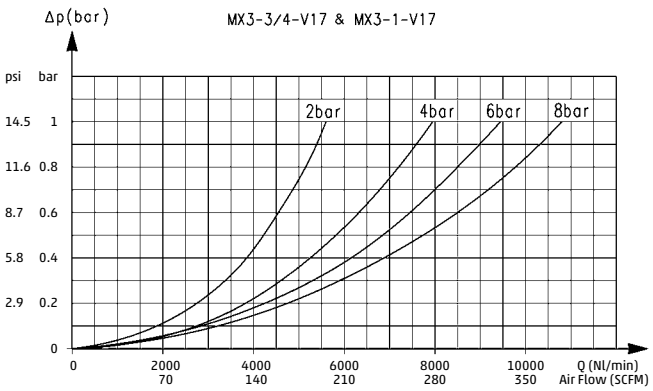


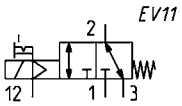
Diagram for servo-pilot control valves MX3

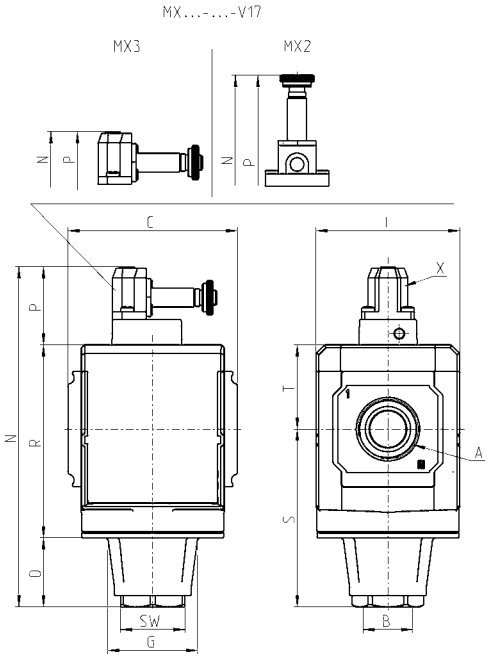
Δp = Pressure drop
Q = Flow

3/2-way isolation valves Series MX - dimensions

External air-pilot, solenoid operated (for operating line pressures below 30 psi; min. pilot pressure 30 psi) valves

EV11 = solenoid valve, 3/2, monostable, solenoid pilot with separate air supply and bistable manual override





DIMENSIONS (in inches)

Mod.	A	Exhaust Port B	C	G	I	N	O	P	R	S	SW	T	X	Weight (Kg)
MX2-3/8-V17-TF	3/8	G 1/2	2.756	1.358	2.677	6.732	0.512	2.756	3.465	2.500	1.339	1.476	M5	0.5
MX2-1/2-V17-TF	1/2	G 1/2	2.756	1.358	2.677	6.732	0.512	2.756	3.465	2.500	1.339	1.476	M5	0.5
MX2-3/4-V17-TF	3/4	G 1/2	2.756	1.358	2.677	6.732	0.512	2.756	3.465	2.500	1.339	1.476	M5	0.5
MX3-3/4-V17-TF	3/4	G 3/4	3.524	1.890	2.992	7.106	1.457	1.634	4.016	3.720	1.339	1.752	M5	0.9
MX3-1-V17-TF	1	G 3/4	3.524	1.890	2.992	7.106	1.457	1.634	4.016	3.720	1.339	1.752	M5	0.9

Soft Start Valves Series MX

Ports 3/8" - 1" NPTF
MX2 ports: 3/8", 1/2", 3/4" NPTF - MX3 ports: 3/4", 1" NPTF
Modular

- Allow for a safe, gradual pressurization of the pneumatic system from start-up
- Screw adjustment of the timing delay which regulates inlet pressure to 50% of its value before full pressurization
- Optional pressure switches are available on request

These soft start valves allow a gradual increase of the pressure in pneumatic systems. The pressure increases slowly according to the screw-adjustable regulation until it reaches half of the set value, then it increases rapidly. The valve poppet shifts slowly and securely to the open position to prevent sudden and unsafe movements of the pneumatic components in the system.

The Series MX has been realized to offer a multi-sector solution that guarantees saving in terms of installation time, space and costs. A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact, poppet-type
Materials	see TABLE OF MATERIALS
Ports	3/8" - 1" NPTF
Mounting	in-line wall-mounting (by means of clamps)
Operating temperature	-5°C - 50°C at 16 bar with Dew Point of air at least 2° C (4° F) below the min working temperature, (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi) -5°C - 60°C at 10 bar with Dew Point of air at least 2° C (4° F) below the min working temperature
Operating pressure	2 - 16 bar (30 - 232 psi)
Nominal flow (at 6 bar with ΔP 1 bar)	MX3: 8500 l/min, (298 SCFM) , MX2: 5800 Nl/min, 203 SCFM (1/2" , 3/4") MX2: 4500 Nl/min, 157 SCFM (3/8")
Fluid	compressed air

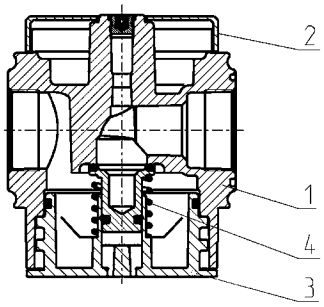
CODING EXAMPLE

MX	2	-	3/8	-	AV	-	__	TF

MX	SERIES
2	SIZE: 2 = 3/8" - 1/2" - 3/4" 3 = 3/4" - 1"
3/8	PORT: 3/8 = 3/8 1/2 = 1/2 3/4 = 3/4 1 = 1
AV	SOFT START VALVE
	FLOW DIRECTION: = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

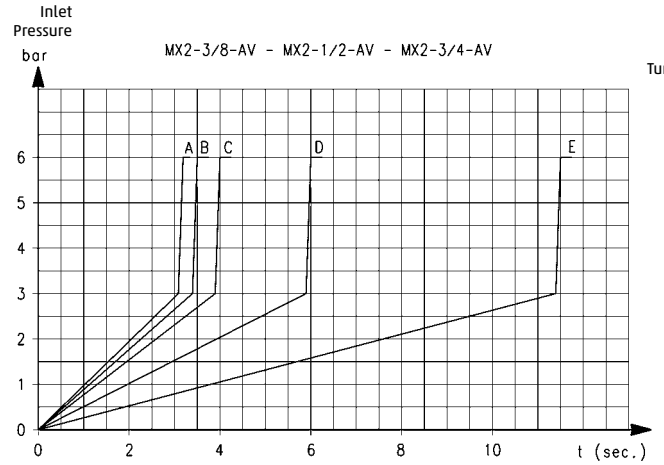
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

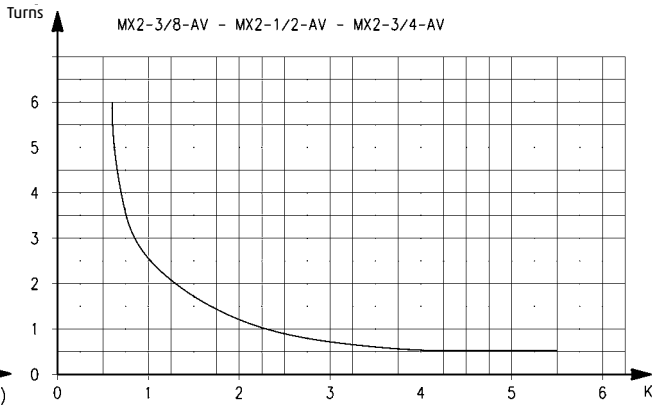
Soft start valves Series MX - materials



PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
3 = Valve holder plug	Polyacetal
4 = Lower spring	Stainless steel
Seals	NBR

MX2 DIAGRAMS FOR PRESSURISATION TIMES



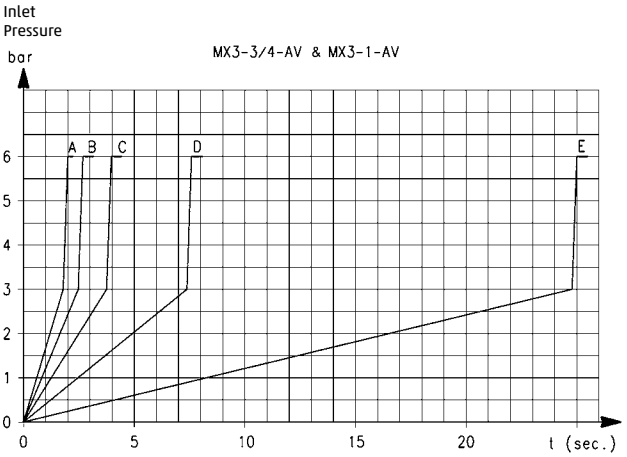


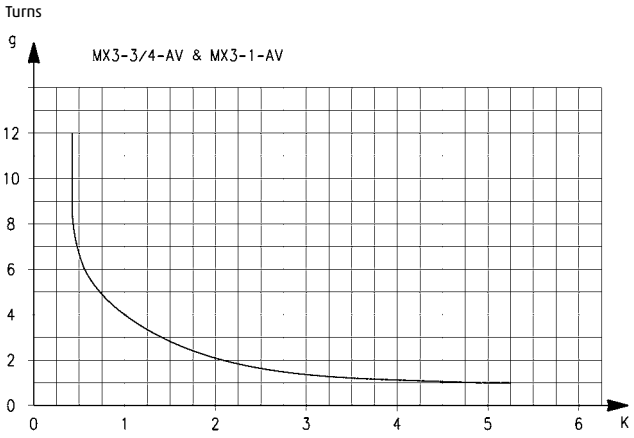
Pressurisation times as to the number of turns of the regulation screw, with downstream volume of 5 litres. A = 5 turns - B = 4 turns - C = 3 turns - D = 2 turns - E = 1 turn. K = number of turns of the regulation screw required to obtain the required pressurisation time with an inlet pressure of 6 bar. Variations of the inlet pressure can cause deviations of the pressure time by ± 20%. K = t/V
where: V = volume of the downstream system in litres; t = desired pressuring time in seconds.

EXAMPLE:
V = 5 litres
t = 16 seconds
K = 16/5 = 3,2

Using in the graph this value K, the number of turns of the regulation screw will be approx. 0,8.

MX3 DIAGRAMS FOR PRESSURISATION TIMES



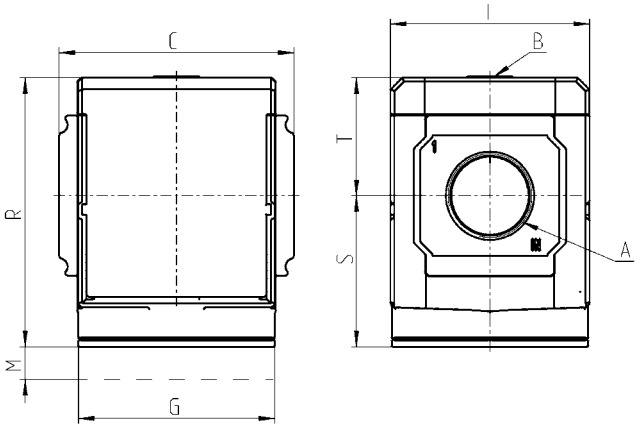


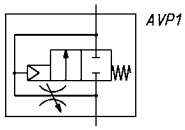
Pressurisation times as to the number of turns of the regulation screw, with downstream volume of 5 litres. A = 5 turns - B = 4 turns - C = 3 turns - D = 2 turns - E = 1 turn. K = number of turns of the regulation screw required to obtain the required pressurisation time with an inlet pressure of 6 bar. Variations of the inlet pressure can cause deviations of the pressure time by ± 20%. K = t/V
where: V = volume of the downstream system in litres; t = desired pressuring time in seconds.

EXAMPLE:
V = 5 litres
t = 16 seconds
K = 16/5 = 3,2

Using in the graph this value K, the number of turns of the regulation screw will be approx. 1,8.

Soft start valves Series MX - dimensions





DIMENSIONS (in inches)

Mod.	A	Pressure Sensor Port B	C	G	I	M	R	S	T	Weight (Kg)
MX2-3/8-AV-TF	3/8	G 1/8	2.756	2.559	2.677	1.831	3.465	1.988	1.476	0.4
MX2-1/2-AV-TF	1/2	G 1/8	2.756	2.559	2.677	1.831	3.465	1.988	1.476	0.4
MX2-3/4-AV-TF	3/4	G 1/8	2.756	2.559	2.677	1.831	3.465	1.988	1.476	0.4
MX3-3/4-AV-TF	3/4	G 1/8	3.524	2.953	2.992	1.890	4.016	2.264	1.752	0.7
MX3-1-AV-TF	1	G 1/8	3.524	2.953	2.992	1.890	4.016	2.264	1.752	0.7

Take-Off Blocks Series MX

MX2 port: 1/2" NPTF
MX3 port: 1" NPTF
Modular

- Compact design
- Available with or without an internal check-valve after take-off ports, and before modular port 2 outlet
- Pressure switches available on request

The Take-off blocks, when equipped with a check-valve, can be inserted before a lubricator to access non-lubricated air from its top and bottom distribution ports.

The Series MX has been realized to offer a multi-sector solution that guarantees saving in terms of installation time, space and costs. A special configurator, available on Camozzi's global website at http://catalogue.camozzi.com (sec. Configurators), allows the customer to choose the most suitable solution for his application, selecting single components or by configuring assembled FRLs.

GENERAL DATA

Construction	modular, compact, diaphragm-type
Materials	see TABLE OF MATERIALS
Ports	MX2: 1/2" NPTF , MX3: 1" NPTF
Take-off ports	MX2: 1/2" NPTF , MX3: 1" NPTF
Mounting	in-line wall-mounting (by means of clamps)
Operating temperature	-5°C - 50°C at 16 bar with Dew Point of air at least 2° C (4° F) below the min working temperature, (23 F - 122 F @ 232 psi, up to 140 F MAX at 145 psi) -5°C - 60°C at 10 bar with Dew Point of air at least 2° C (4° F) below the min working temperature
Operating pressure	0 - 16 bar, (0 - 232 psi)
Nominal flow at 6 bar with Δp = 1 bar	MX2-1/2-B00 = 6800 Nl/m, (238 SCFM) MX2-1/2-B01 = 5700 Nl/m, (200 SCFM) MX3-1-B00 = 14500 Nl/m, (507 SCFM) MX3-1-B01 = 10500 Nl/m, (367 SCFM)
Fluid	compressed air

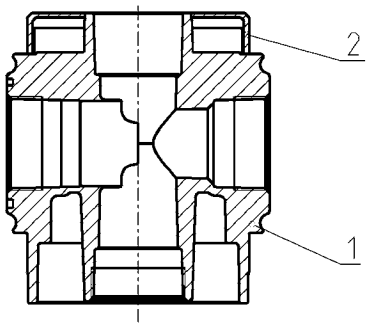
CODING EXAMPLE

MX	2	-	1/2	-	B	00	-	__	TF

MX	SERIES
2	SIZE: 2 = 1/2" NPTF 3 = 1" NPTF
1/2	1/2 = 1/2" 1 = 1"
B	TAKE-OFF BLOCK
00	DESIGN TYPE: 00 = without internal check valve 01 = with internal check valve 02 = without internal check valve, with double o-ring seat
	FLOW DIRECTION: = from left to right (standard) LH = from right to left
TF	TF = NPTF ports blank = BSP ports

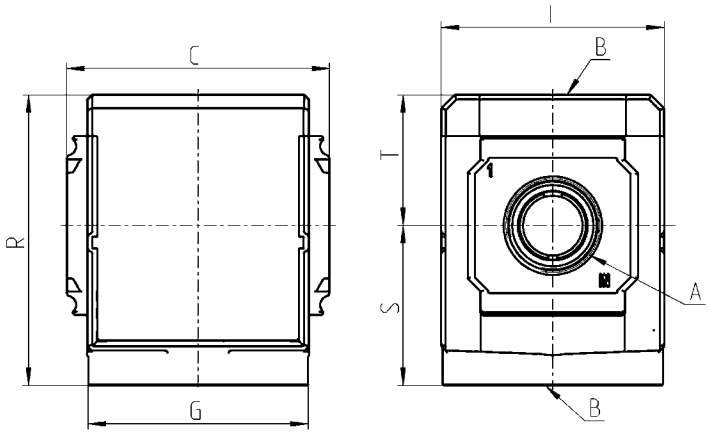
For the assembly of a single component with fixing flanges or wall-mounting, see the section "FRL Series MX Assembled"

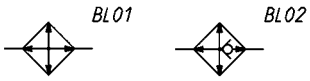
Take-off blocks Series MX - materials



PARTS	MATERIALS
1 = Body	Aluminium
2 = Covering	Polyacetal
Seals	NBR

Take-off blocks Series MX - dimensions





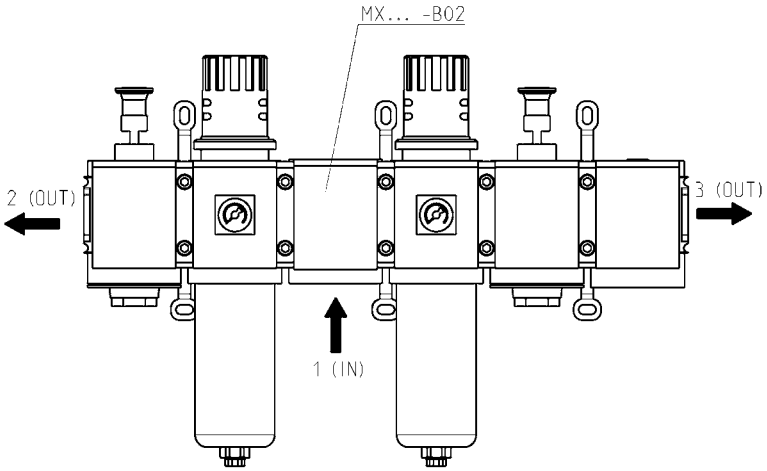
BL01 = take-off block

BL02 = take-off block with VNR

DIMENSIONS (in inches)									
Mod.	A	B	C	G	I	R	S	T	Weight (Kg)
MX2-1/2-B00-TF	1/2	1/2	2.756	2.559	2.677	3.386	1.870	1.516	0.4
MX3-1-B00-TF	1	1	3.524	2.953	2.992	3.898	2.146	1.752	0.6

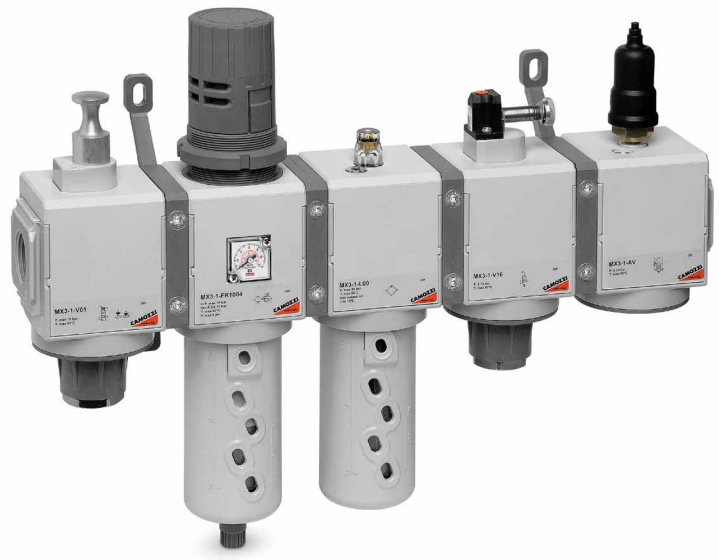
Use of the take-off block MX...- B02

The take-off block with double O-ring seat is particularly suitable when Series MX modules have to be supplied through the same pressure source. The modules which are connected to the left side are of LH kind.



FRL Series MX Pre-Assembled
(single part number codes, fully assembled)

Ports 3/8" - 1" NPTF
MX2 ports: 3/8", 1/2", 3/4" NPTF; MX3 ports: 3/4", 1" NPTF
Assembly can be specified with either standard modular brackets and/ or integrated wall-mount brackets



- » Compact design
- » Simple modularity
- » Great reliability and performance
- » Easy and quick maintenance
- » Reduced weight

The new FRL Series MX can be easily assembled through rapid clamps which allow the connection among single components creating an unlimited number of combinations.The FRL groups Series MX are also available in the already mounted version (with a single code).

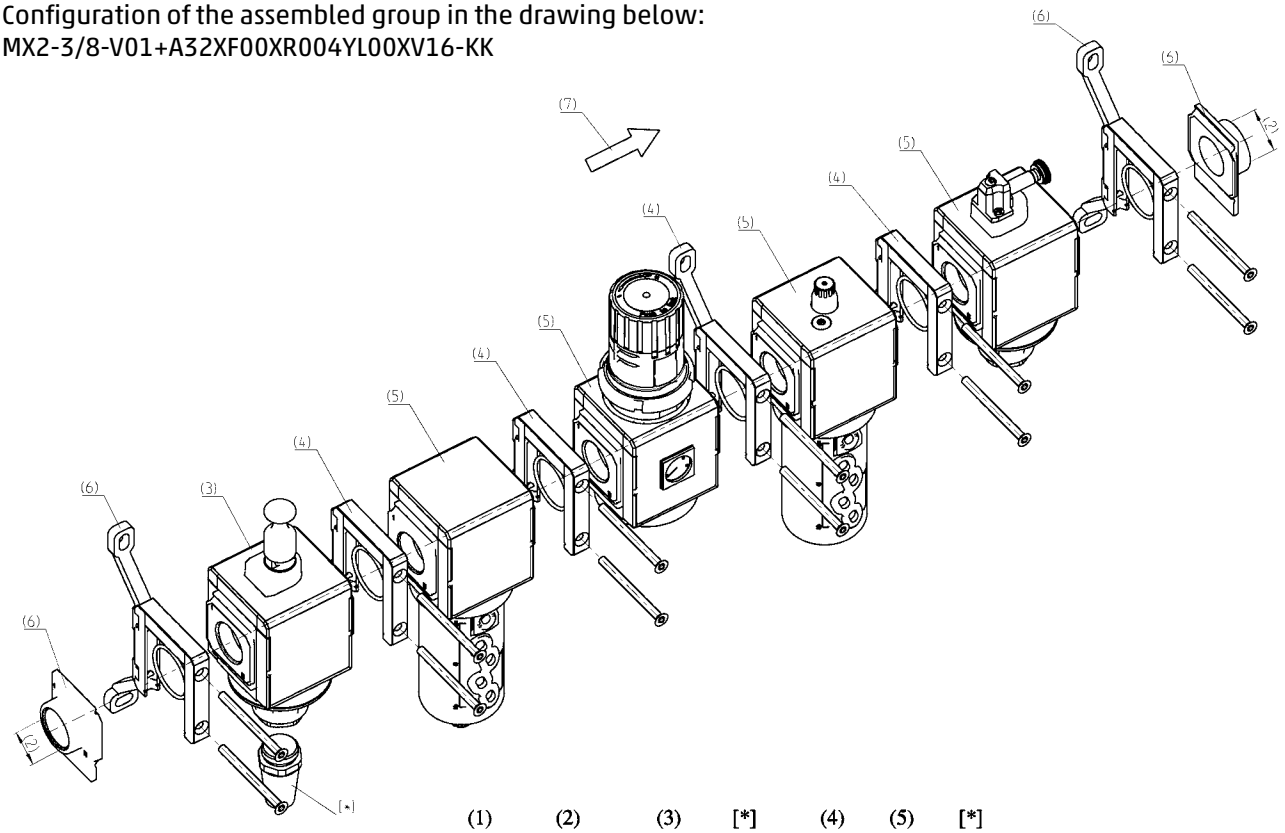
The use of three different types of rapid clamps (standard, with wall mounting screws or with wall-mount brackets) allows an easy mounting of the assembled groups and to carry out maintenance operations on the single components with no need to disassemble the group.

GENERAL DATA

Construction	modular, compact
Materials	see catalogue pages referring to the single component
Ports	3/8" - 1" NPTF
Mounting	vertical in-line wall-mounting (by means of direct screws or bracket mounts) panel mounting
Operating temperature	-5°C - 50°C at 16 bar (according to the single component characteristics) -5°C - 60°C at 10 bar (according to the single component characteristics)

ASSEMBLY GUIDE AND TEMPORARY LONG CODES FOR SERIES MX

Configuration of the assembled group in the drawing below:
MX2-3/8-V01+A32XF00XR004YL00XV16-KK



	(1)	(2)	(3)	[*]	(4)	(5)	[*]		(6)	[**]	(7)
MX	2	3/8	V01	+A32	X	F00					
					X	R004		n_X			
					Y	L00					
					X	V16			KK		

Numbers in above position boxes refer to positions called out on next page in the Code Key. Each number is called out in order of the components' thread size and assembly order, including bracket choices.

Position 1 is for general family body size (in this case, 2)
Position 2 is for thread port size options (in this case, 3/8" ports)
Position 3 is the first component (in this case, a "...-V01" lock-out valve with a 2931 1/2 silencer accessory)
Positions 4 & 5 will continue to repeat for each additional component and the bracket that typically comes before it
Position 6 is final outer edge bracket choices, with or without flange units
Position 7 is only for optional right-to-left assembly/flow diagram requests

Positions 3 & 5 will require in most cases that the entire callout of the module be assembled with its unique features (such as the above regulator called out as "R004")

Positions 4 & 6, outer brackets and intermediate brackets, utilize the same abbreviated letters for bracket styles, EXCEPT if wall-mount flanges are desired (see Code Key place "6" for options - 'HH' 'JJ' and 'KK' for the end bracket sets to include the wall flange kits)

ASSEMBLY GUIDE AND TEMPORARY LONG CODES FOR SERIES MX

MX	2	-	3/8	-	V01	X	F00	-	KK	-	LH	TF

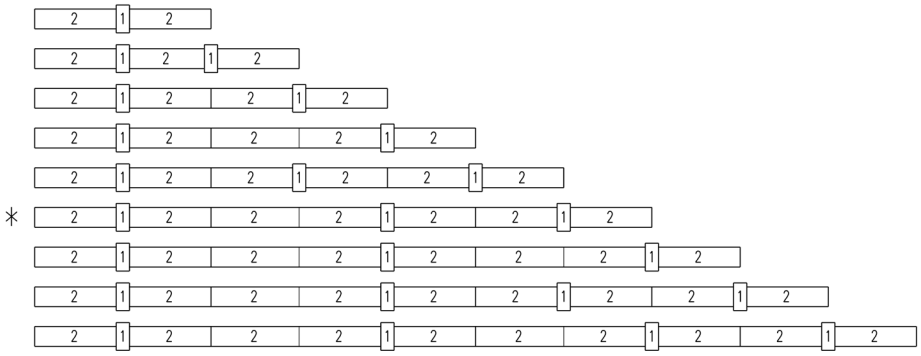
MX		SERIES
2	(1)	SIZE: 2 = 3/8 - 1/2 - 3/4 3 = 3/4 - 1
3/8	(2)	IN / OUT THREADS: 3/8 = 3/8" 1/2 = 1/2" 3/4 = 3/4" 1 = 1"
V01	(3)	MODULE + [*] (to configure the modules, see the single components pages): F... = Filter FC... = Coalescing filter FCA... = Activated carbons filter R... = Pressure regulator L... = Lubricator FR... = Filter-Regulator V... = Lockable isolation valve AV... = Soft start valve B... = Take-off block (MX2: 3/8", 1/2" only - MX3: 3/4", 1")
	[*]	The following ACCESSORIES codes could be added after each individual module which they are assembled into: REGULATOR AND FILTER-REGULATOR MX2 +A56 = M053-P06 (Pressure gauge) +A57 = M053-P10 (Pressure gauge) +A58 = M063-P12 (Pressure gauge) LOCKABLE ISOLATION VALVE MX2 +A30 = 2901 1/2'' (Silencier) +A31 = 2921 1/2'' (Silencier) +A32 = 2931 1/2'' (Silencier) +A33 = 2938 1/2'' (Silencier) SOFT START VALVE +A00 = PM11-NA (Pressure switch, normally open) +A01 = PM11-NC (Pressure switch, normally closed) TAKE-OFF BLOCK MX2 +A08 = PM11-NA (normally open pressure switch) with fitting for fixing to the module +A09 = PM11-NC (normally closed pressure switch) with fitting for fixing to the module +A03 = PM11-SC with fitting for fixing to the module **Example: MX2-3/8-V01+A32XF00-KK-LH** REGULATOR AND FILTER-REGULATOR MX3 +A60 = M063-P06 (Pressure gauge) +A61 = M063-P12 (Pressure gauge) LOCKABLE ISOLATION VALVE MX3 +A34 = 2901 3/4'' (Silencier) +A35 = 2921 3/4'' (Silencier) +A36 = 2931 3/4'' (Silencier) TAKE-OFF BLOCK MX3 +A06 = PM11-NA (normally open pressure switch) with fitting for fixing to the module +A07 = PM11-NC (normally closed pressure switch) with fitting for fixing to the module +A02 = PM11-SC with fitting for fixing to the module **Example: MX3-3/4-V01+A36XF00-KK-LH**
X	(4)	MODULES CONNECTION X = Rapid clamp kit Z = Rapid clamp kit with wall fixing screw Y = Rapid clamp kit with wall fixing brackets
F00	(5) + [*]	see MODULE (3)
KK	(6)	TERMINAL CONNECTIONS + [**] Blank = no end-plate flanges connection HH = n° 1 rapid clamp kit with flanges (IN / OUT) JJ = n° 1 rapid clamp kit with wall fixing screws + flanges (IN / OUT) KK = n° 1 rapid clamp kit with wall fixing brackets + flanges (IN / OUT)
	[**]	WALL CONNECTION (optional if wall mounting of Regulator or Filter-Regulator only, by way of panel bracket Mod. S): REGULATOR and FILTER-REGULATOR S = Bracket (only with clamps mod. X or HH) Codes examples: MX3-1-R..XV..-S; MX3-1-R..XV..-HSH
LH	(7)	FLOW DIRECTION: = from left to right (standard) LH = from right to left
	(4) + (5) + [*]	REPEATABLE COMBINATION for a "n" number of times
TF		TF = NPTF ports Blank = BSP ports

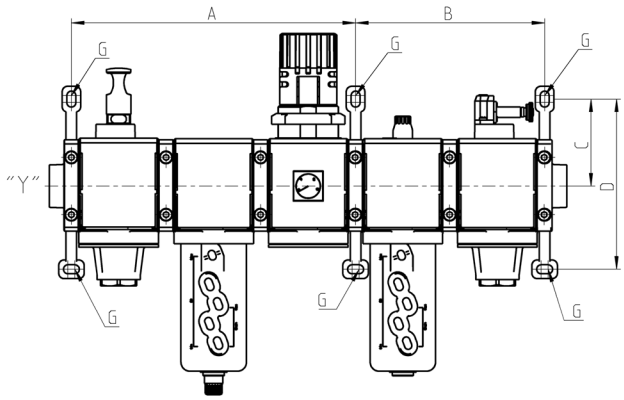
Wall mounting dimensions and positioning scheme

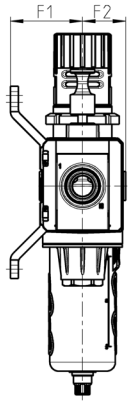
Legend of the POSITIONING SCHEME:
1 = rapid clamp with wall fixing screw
or with wall fixing bracket
2 = module / flange

* POSITIONING SCHEME referring to drawings " Y " and " Z ".

Legend of the ASSEMBLED GROUPS DRAWINGS:
" Y " = with rapid clamps with wall fixing brackets (MX...-Y)
" Z " = with rapid clamp with wall fixing screws (MX...-Z)
G = wall mount screw hole

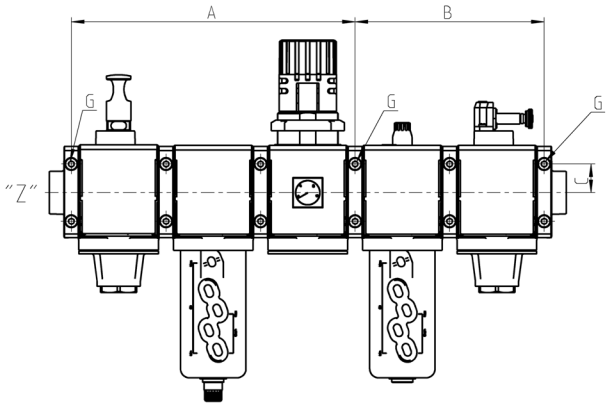


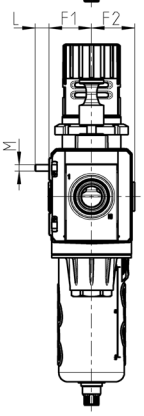




Temporary Assembly Guide: Ex.:
MX3-3/4-V01XF00XR004YL00XV16-KK TF

Notes:
3/4" NPTF unit, w/o silencers
or switch accessories.
Utilizing wall-mount brackets and flange end-plates





Temporary Assembly Guide Ex.:
MX3-1-V01XF00ZR004ZL00XV16-HH TF

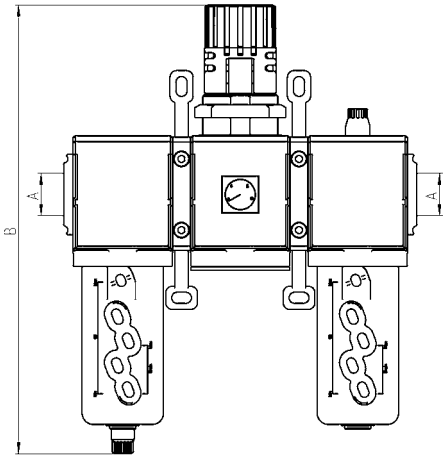
Notes:
1" NPTF unit, w/o silencers
or switch accessories.
Utilizing only rapid mounting clamps, wall screws and flange end-plates.

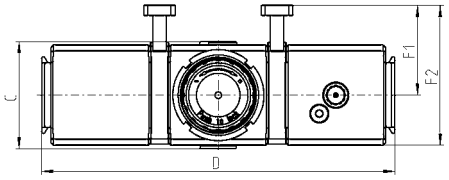
Dimensions in millimeters (mm)

Mod.	A	B	C	D	F1	F2	L	M
MX2-Y	210	140	68,5	134,5	70	37	-	-
MX2-Z	210	140	23	-	37,5	37	13,5	M5
MX3-Y	267	178	82	160	68	40,5	-	-
MX3-Z	267	178	27	-	40,5	40,5	13	M6

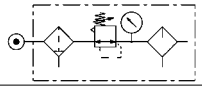
Composition of the assembled group 000001

Components:
Filter
Regulator
Lubricator



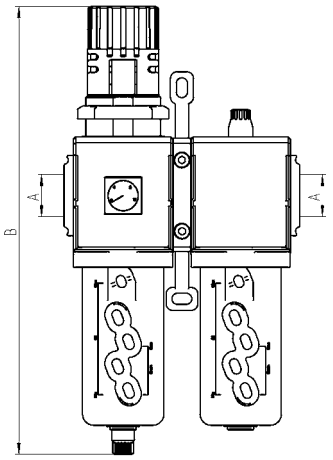


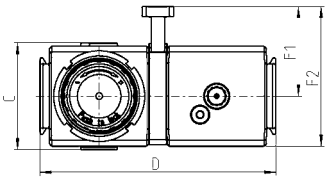
Mod.	A	B	C	D	F1	F2
MX2-3/8-000001	G3/8	289	74,5	210	70	104,5
MX2-1/2-000001	G1/2	289	74,5	210	70	104,5
MX2-3/4-000001	G3/4	289	74,5	210	70	104,5
MX3-3/4-000001	G3/4	345	81	268,5	68	106
MX3-1-000001	G1	345	81	268,5	68	106



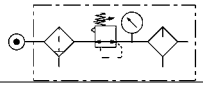
Composition of the assembled group 000002

Components:
Filter-regulator
Lubricator



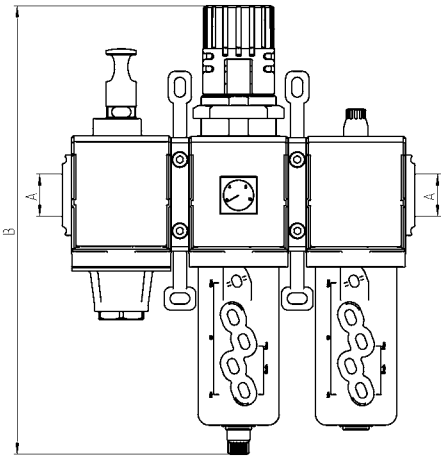


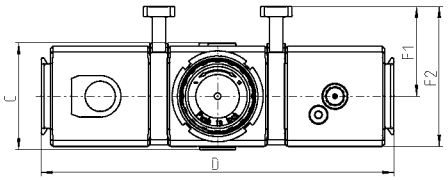
Mod.	A	B	C	D	F1	F2
MX2-3/8-000002	G3/8	289	74,5	140	70	104,5
MX2-1/2-000002	G1/2	289	74,5	140	70	104,5
MX2-3/4-000002	G3/4	289	74,5	140	70	104,5
MX3-3/4-000002	G3/4	345	81	179	68	106
MX3-1-000002	G1	345	81	179	68	106

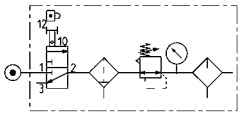


Composition of the assembled group 000003

Components:
Lockable isolation 3/2-way valve
Filter-regulator
Lubricator



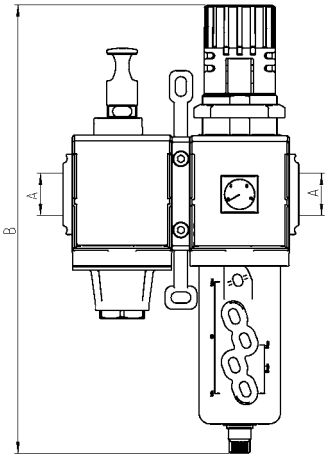




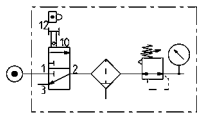
Mod.	A	B	C	D	F1	F2
MX2-3/8-000003	G3/8	289	74,5	210	70	104,5
MX2-1/2-000003	G1/2	289	74,5	210	70	104,5
MX2-3/4-000003	G3/4	289	74,5	210	70	104,5
MX3-3/4-000003	G3/4	345	81	268,5	68	106
MX3-1-000003	G1	345	81	268,5	68	106

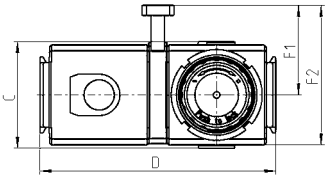
Composition of the assembled group 000004

Components:
Lockable isolation 3/2-way valve
Filter-regulator



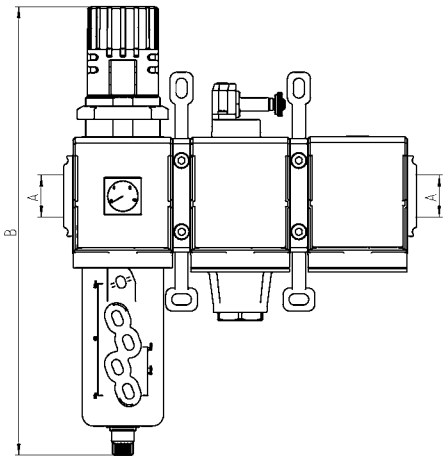
Mod.	A	B	C	D	F1	F2
MX2-3/8-000004	G3/8	289	74,5	140	70	104,5
MX2-1/2-000004	G1/2	289	74,5	140	70	104,5
MX2-3/4-000004	G3/4	289	74,5	140	70	104,5
MX3-3/4-000004	G3/4	345	81	179	68	106
MX3-1-000004	G1	345	81	179	68	106

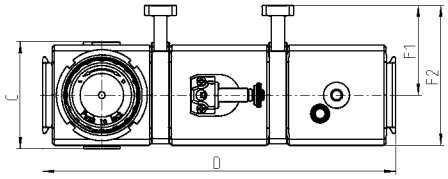




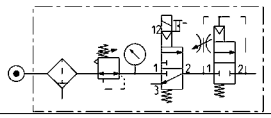
Composition of the assembled group 000005

Components:
Filter-regulator
Lockable isolation 3/2-way valve
Soft start valve



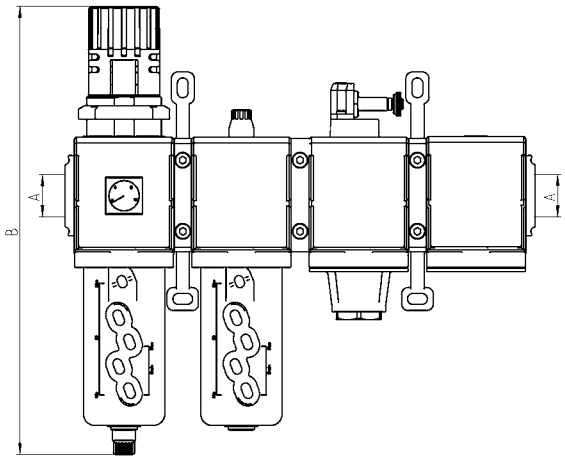


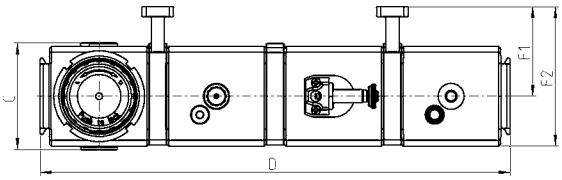
Mod.	A	B	C	D	F1	F2
MX2-3/8-000005	G3/8	289	74,5	210	70	104,5
MX2-1/2-000005	G1/2	289	74,5	210	70	104,5
MX2-3/4-000005	G3/4	289	74,5	210	70	104,5
MX3-3/4-000005	G3/4	345	81	268,5	68	106
MX3-1-000005	G1	345	81	268,5	68	106



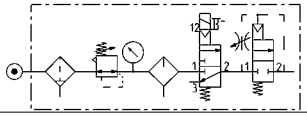
Composition of the assembled group 000006

Components:
Filter-regulator
Lubricator
Lockable isolation 3/2-way valve
Soft start valve



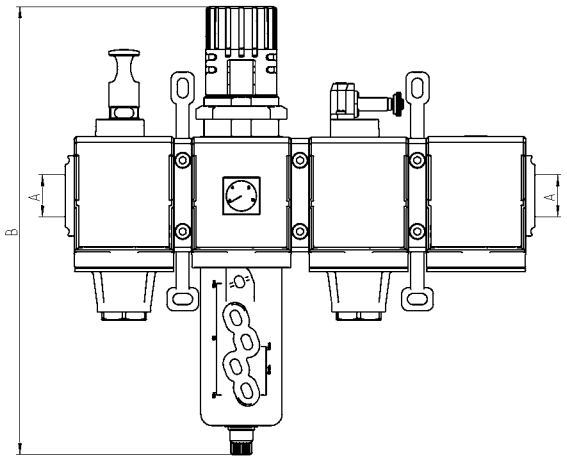


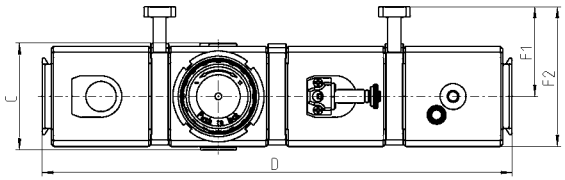
Mod.	A	B	C	D	F1	F2
MX2-3/8-000006	G3/8	289	74,5	280	70	104,5
MX2-1/2-000006	G1/2	289	74,5	280	70	104,5
MX2-3/4-000006	G3/4	289	74,5	280	70	104,5
MX3-3/4-000006	G3/4	345	81	358	68	106
MX3-1-000006	G1	345	81	358	68	106

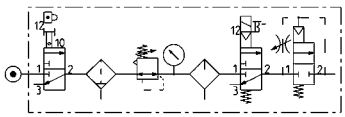


Composition of the assembled group 000007

Components:
Lockable isolation 3/2-way valve
Filter-regulator
Lockable isolation 3/2-way valve
Soft start valve



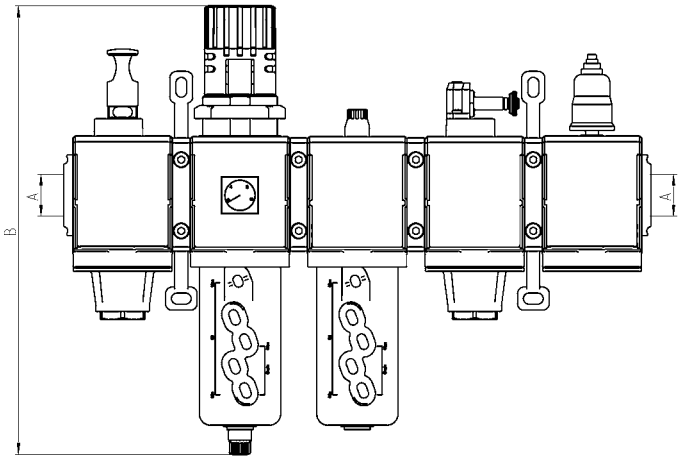


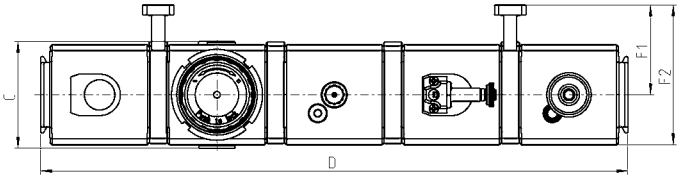


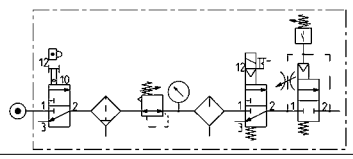
Mod.	A	B	C	D	F1	F2
MX2-3/8-000007	G3/8	289	74,5	280	70	104,5
MX2-1/2-000007	G1/2	289	74,5	280	70	104,5
MX2-3/4-000007	G3/4	289	74,5	280	70	104,5
MX3-3/4-000007	G3/4	345	81	358	68	106
MX3-1-000007	G1	345	81	358	68	106

Composition of the assembled group 000008

Components:
Lockable isolation 3/2-way valve
Filter-regulator
Lubricator
Lockable isolation 3/2-way valve
Soft start valve + pressure switch (NO)



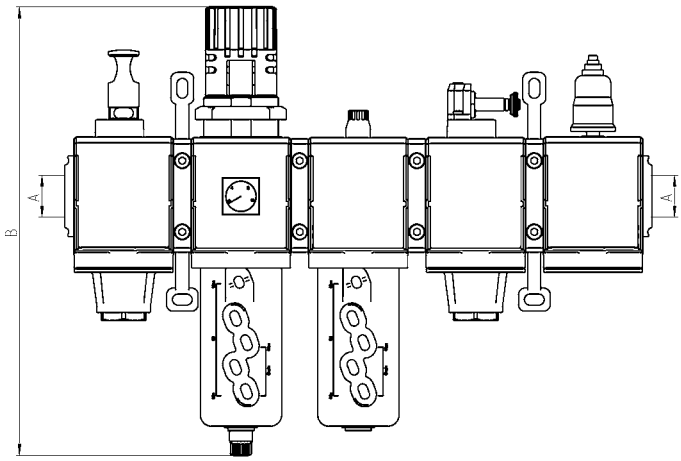


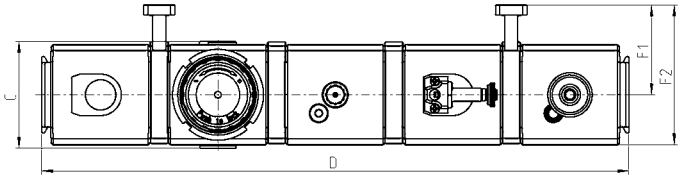


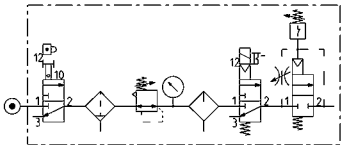
Mod.	A	B	C	D	F1	F2
MX2-3/8-000008	G3/8	289	74,5	350	70	104,5
MX2-1/2-000008	G1/2	289	74,5	350	70	104,5
MX2-3/4-000008	G3/4	289	74,5	350	70	104,5
MX3-3/4-000008	G3/4	345	81	447,5	68	106
MX3-1-000008	G1	345	81	447,5	68	106

Composition of the assembled group 000009

Components:
Lockable isolation 3/2-way valve
Filter-regulator
Lubricator
Lockable isolation 3/2-way valve
Soft start valve + pressure switch
(NC)



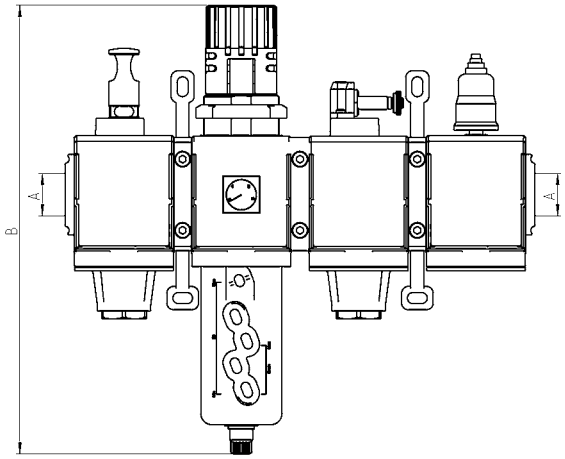


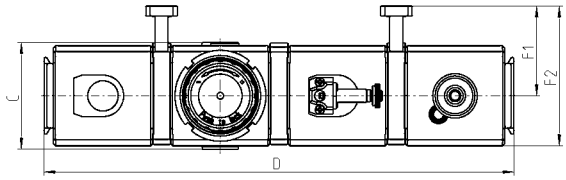


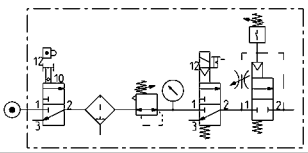
Mod.	A	B	C	D	F1	F2
MX2-3/8-000009	G3/8	289	74,5	350	70	104,5
MX2-1/2-000009	G1/2	289	74,5	350	70	104,5
MX2-3/4-000009	G3/4	289	74,5	350	70	104,5
MX3-3/4-000009	G3/4	345	81	447,5	68	106
MX3-1-000009	G1	345	81	447,5	68	106

Composition of the assembled group 000010

Components:
Lockable isolation 3/2-way valve
Filter-regulator
Lockable isolation 3/2-way valve
Soft start valve + pressure switch
(NO)



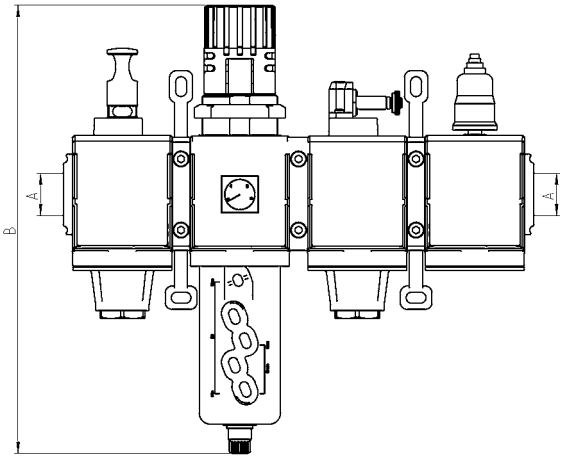


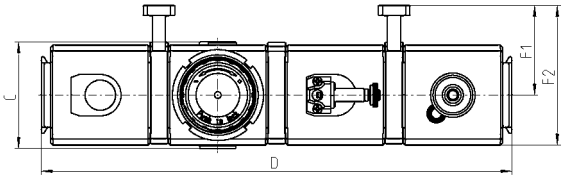


Mod.	A	B	C	D	F1	F2
MX2-3/8-000010	G3/8	289	74,5	280	70	104,5
MX2-1/2-000010	G1/2	289	74,5	280	70	104,5
MX2-3/4-000010	G3/4	289	74,5	280	70	104,5
MX3-3/4-000010	G3/4	345	81	358	68	106
MX3-1-000010	G1	345	81	358	68	106

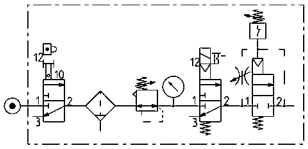
Composition of the assembled group 000011

Components:
Lockable isolation 3/2-way valve
Filter-regulator
Lockable isolation 3/2-way valve
Soft start valve + pressure switch (NC)



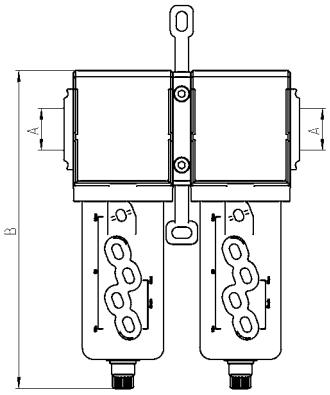


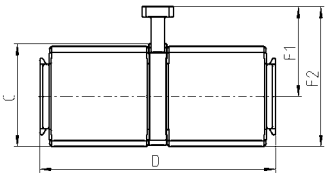
Mod.	A	B	C	D	F1	F2
MX2-3/8-000011	G3/8	289	74,5	280	70	104,5
MX2-1/2-000011	G1/2	289	74,5	280	70	104,5
MX2-3/4-000011	G3/4	289	74,5	280	70	104,5
MX3-3/4-000011	G3/4	345	81	358	68	106
MX3-1-000011	G1	345	81	358	68	106



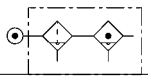
Composition of the assembled group 000012

Components:
Filter
Coalescing filter





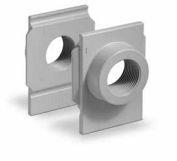
Mod.	A	B	C	D	F1	F2
MX2-3/8-000012	G3/8	210	72	140	70	104,5
MX2-1/2-000012	G1/2	210	72	140	70	104,5
MX2-3/4-000012	G3/4	210	72	140	70	104,5
MX3-3/4-000012	G3/4	231	78	179	68	106
MX3-1-000012	G1	231	78	179	68	106



ACCESSORIES FOR SERIES MX

Rapid clamps

Rapid clamps with brackets



Terminal flanges (IN/OUT)

Fixing brackets for regulators

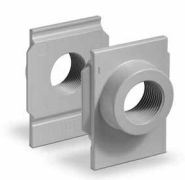
Block for pressure gauge fixing

Assembly O-ring

MX built-in pressure gauge

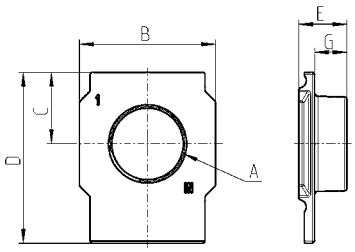
Systems of rapid connections designed to make mounting easier.

Terminal flanges (IN/OUT) for series MX (Threaded End-plates)



The kit is supplied with:
- n°1 flange INLET side
- n°1 flange OUTLET side

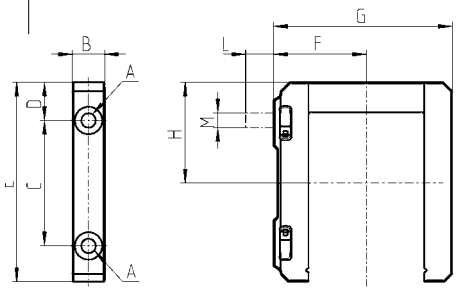
Materials: painted aluminum flanges



DIMENSIONS (in inches)

Mod.	A (NPTF)	B	C	D	E	G
MX2-3/8-FL-TF	3/8	1.969	1.043	2.500	0.669	0.433
MX2-1/2-FL-TF	1/2	1.969	1.043	2.500	0.669	0.433
MX2-3/4-FL-TF	3/4	1.969	1.043	2.500	0.669	0.433
MX3-3/4-FL-TF	3/4	2.283	1.201	2.874	0.807	0.531
MX3-1-FL-TF	1	2.283	1.201	2.874	0.807	0.531

Rapid clamps kit for series MX



Kit MX2-X supplied with: 1 rapid clamp, 1 O-ring OR 3125**, 2 hexagonal nuts M5, 2 screws M5x69.

Kit MX2-Z supplied with: 1 rapid clamp, 1 O-ring OR 3125**, 1 hexagonal nut M5, 1 screw M5x69, 1 screw M5x85 for wall fixing.

** OR 3125 can be ordered separately (cod. 160-39-11/19)

Materials: technopolymer clamp, NBR O-ring, zinc-plated steel nuts and screws.

The kit MX3-X is supplied with:
1 rapid clamp, 1 O-ring, OR 38X2.8 **
2 square nuts, 2 screws M6x75

The kit MX3-Z is supplied with:
1 rapid clamp, 1 O-ring, OR 38X2.8 **
1 square nut, 1 screw M6x75,
1 screw M6x90 for direct wall-mounting

**OR 38X2.8 can be ordered separately (mod. OR 38X2.8 NBR)

DIMENSIONS (in inches)

Mod.	A	B	C	D	E	F	G	H	L	M	
MX2-X	0.205	0.472	1.811	0.551	2.894	1.476	2.776	1.457		-	
MX2-Z	0.205	0.472	1.811	0.551	2.894	1.476	2.776	1.457	0.551	M5	*
MX3-X	0.244	0.551	2.126	0.650	3.386	1.575	3.031	1.713		-	
MX3-Z	0.244	0.551	2.126	0.650	3.386	1.575	3.031	1.713	0.512	M6	*

* kit with wall mounting screw

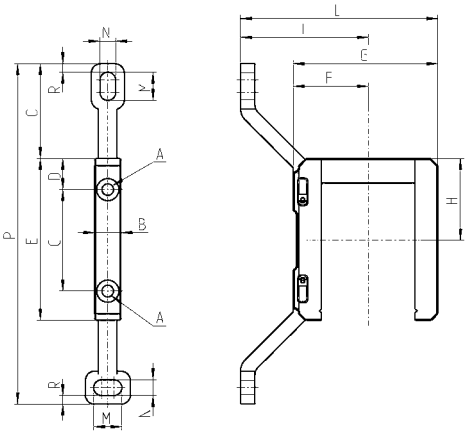
Rapid clamp kit with wall mount brackets for series MX

The kit MX3-Y is supplied with:
1 wall rapid clamp, 1 O-ring, OR 3150 **
2 square nuts, 2 screws M6x75
**OR 38X2.8 can be ordered separately (mod. OR 38X2.8 NBR)

The kit MX2-Y is supplied with:
1 wall rapid clamp, 1 O-ring OR 3125 **, 2 hexagonal nuts, 2 screws M5x69.

** OR 3125 can be separately ordered (mod. 160-39-11/19)

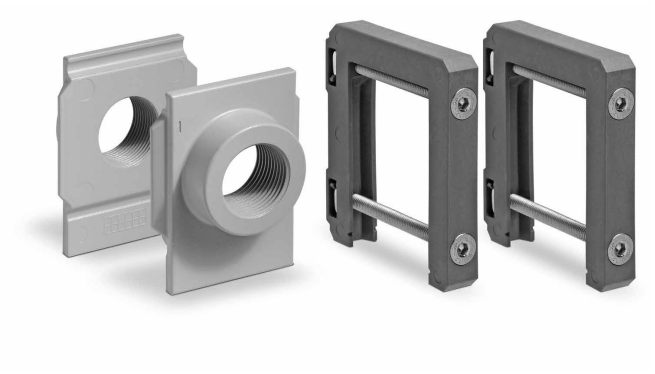
Materials: technopolymer clamp, NBR O-ring, zinc-plated steel nuts and screws.



DIMENSIONS (in inches)

Mod.	A	B	C	D	E	F	G	H	I	L	M	N	O	P	R
MX2-Y	0.205	0.472	1.811	0.551	2.894	1.280	2.776	1.457	2.776	4.055	0.472	0.256	1.654	5.984	0.157
MX3-Y	0.244	0.551	2.126	0.650	3.386	1.575	3.031	1.713	2.677	4.134	0.591	0.331	1.988	7.126	0.177

Assembly brackets and flange kit for series MX



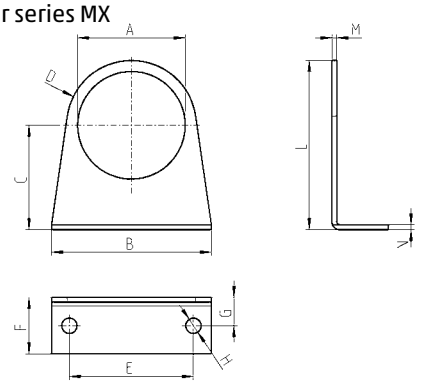
Mod.	The kit is supplied with:
MX2-3/8-HH-TF	1x MX2-3/8-FL-TF + 2x MX2-X
MX2-1/2-HH-TF	1x MX2-1/2-FL-TF + 2x MX2-X
MX2-3/4-HH-TF	1x MX2-3/4-FL-TF + 2x MX2-X
MX2-3/8-JJ-TF	1x MX2-3/8-FL-TF + 2x MX2-Z
MX2-1/2-JJ-TF	1x MX2-1/2-FL-TF + 2x MX2-Z
MX2-3/4-JJ-TF	1x MX2-3/4-FL-TF + 2x MX2-Z
MX3-3/4-HH-TF	1x MX3-3/4-FL-TF + 2x MX3-X
MX3-1-HH-TF	1x MX3-1-FL-TF + 2x MX3-X
MX3-3/4-JJ-TF	1x MX3-3/4-FL-TF + 2x MX3-Z
MX3-1-JJ-TF	1x MX3-1-FL-TF + 2x MX3-Z

Wall-mount brackets and flange kit for series MX

Mod.	The kit is supplied with:
MX2-3/8-KK-TF	1x MX2-3/8-FL-TF + 2x MX2-Y
MX2-1/2-KK-TF	1x MX2-1/2-FL-TF + 2x MX2-Y
MX2-3/4-KK-TF	1x MX2-3/4-FL-TF + 2x MX2-Y
MX3-3/4-KK-TF	1x MX3-3/4-FL-TF + 2x MX3-Y
MX3-1-KK-TF	1x MX3-1-FL-TF + 2x MX3-Y

Single wall-mount bracket for regulator or filter-regulator series MX

The kit is supplied with 1 zinc-plated steel bracket

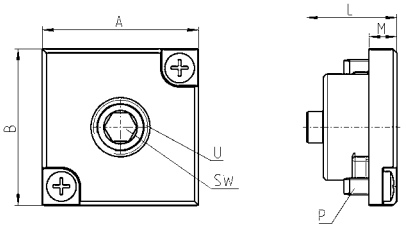


Mod.	A	B	C	D	E	F	G	H	L	M	N
MX2-S	Ø 1.858	2.874	2.382	R 1.161	2.126	0.984	0.591	Ø 0.244	3.543	0.098	0.098
MX3-S	Ø 2.252	3.346	2.185	R 1.358	2.598	1.181	0.591	Ø 0.323	3.543	0.098	0.098

DIMENSIONS (in millimeters)

Threaded block for mounting external gauge

The kit is supplied with:
1 block
1 plug
2 screws
1 seal



DIMENSIONS							
Mod.	A	B	L	M	P	U	SW
MX2-R26/1-P	28	28	16.5	5	M3X7	1/8	5
MX3-R26/1-P	28	28	16.5	5	M3X7	1/4	6

MX Built-in pressure gauge

The kit is supplied with:
1 gauge
2 screws
1 seal

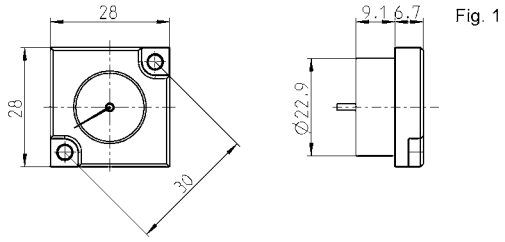


Fig. 1

Mod.	Range
MX3-R30/W-P	0-2.5 bar (0-36 psi)
MX3-R31/W-P	0-6 bar (0-87 psi)
MX3-R32/W-P	0-10 bar (0-145 psi)
MX3-R33/W-P	0-12 bar (0-174 psi)

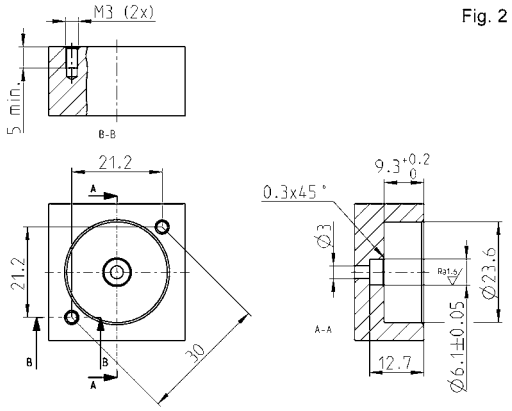
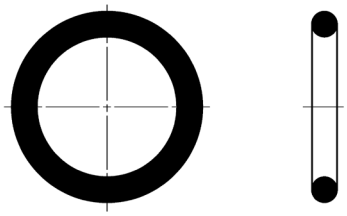


Fig. 2

Fig. 1 = pressure gauge
Fig. 2 = seat

O-ring for assembling Series MC - MX



Mod.	O-ring	For assembly between units and/or end-plates	*
458-33/1	OR 2068	MC104	*
80-26-11/4T	OR 3100	MC238 - MC202	*
160-39-11/19	OR 3125	MX2	*
OR 38X2.8 NBR	OR 38X2.8	MX3	*

* spare parts only