

Mini FRL Series

								
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Accessories Pag. 16.22								

FRL Evo Series

								
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AIR TREATMENT UNIT



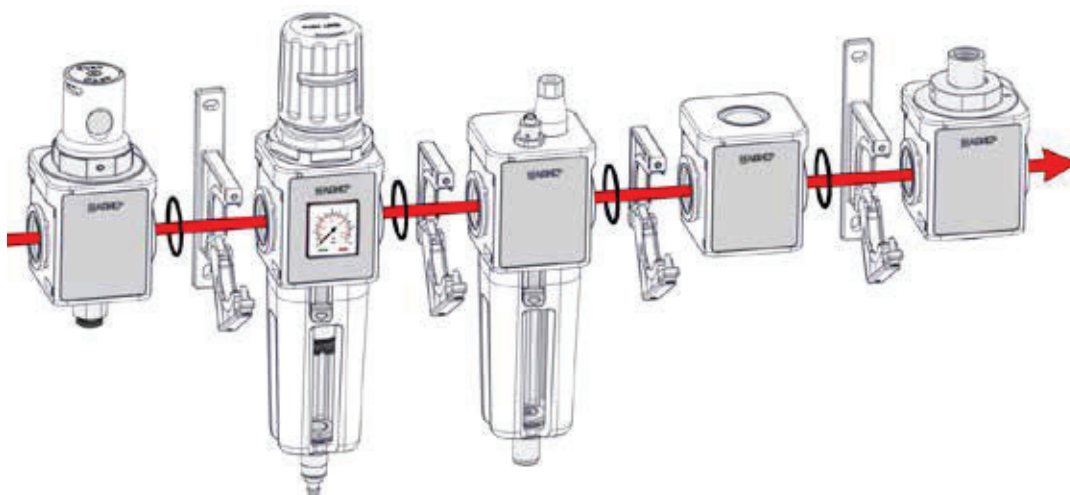
FRL Series

TECHNICAL CHARACTERISTICS FRL 1-2-3



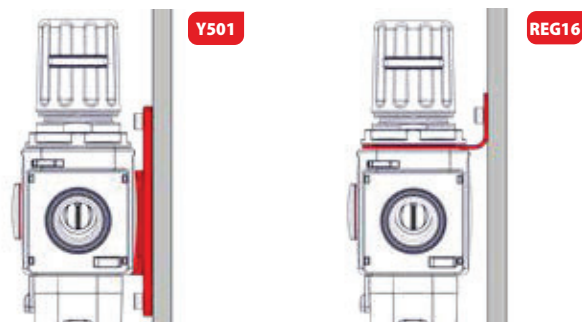
Basic Assembly

The "FRL Evo" line is modular and the connection between each unit is simplified thanks to the connection brackets. The assembly of the modules may change according to individual use. To operate, make sure the shut off valve is in the first position and the soft start valve is in the last. There is an arrow on every unit that indicates the correct direction of air flow.



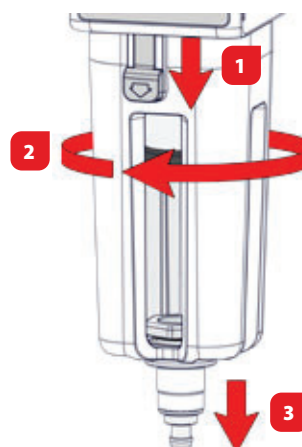
Mounting Instructions

Two types of mounting brackets are available for the FRL Evo Series to give the end user different mounting options.



Removing the Bowl

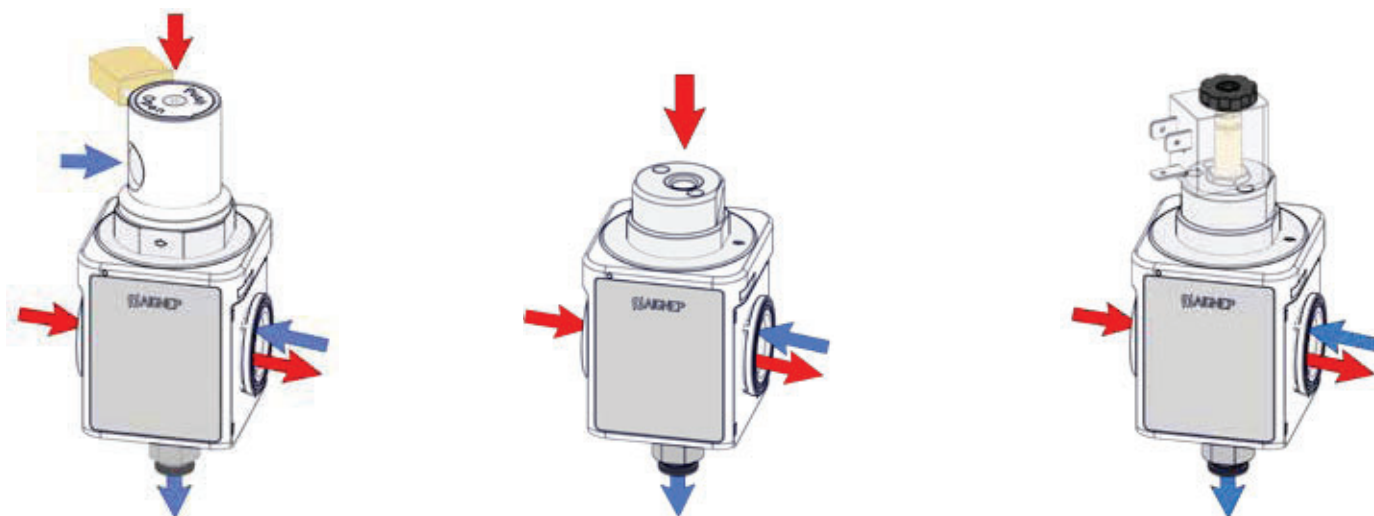
To release the bowl, press down the button with the arrow and rotate the bowl clockwise as shown in the drawing, then pull downward. The windows on the bowl allow you to see the level of condensation in the filter, or the amount of oil in the lubricator.





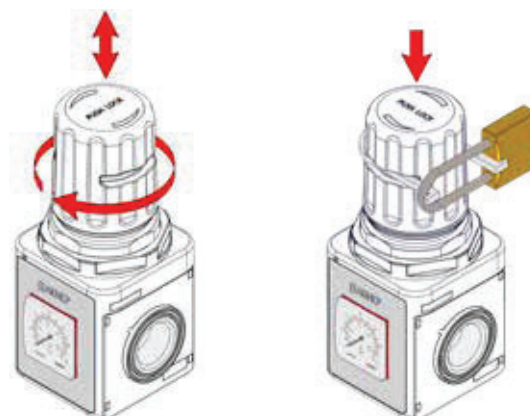
Shut Off Valves

3 versions of the Shut Off Valves are available: There are 3 available versions for the shut off valve manual with lock and anti-tampering system, pneumatic and electro-pneumatic.



Regulators

Regulators are available with a built-in Gauge or without. The adjusting knobs can lock into place and come with an anti-tampering system. Assembly kits for 1/8" Gauges are available upon request.



Regulators

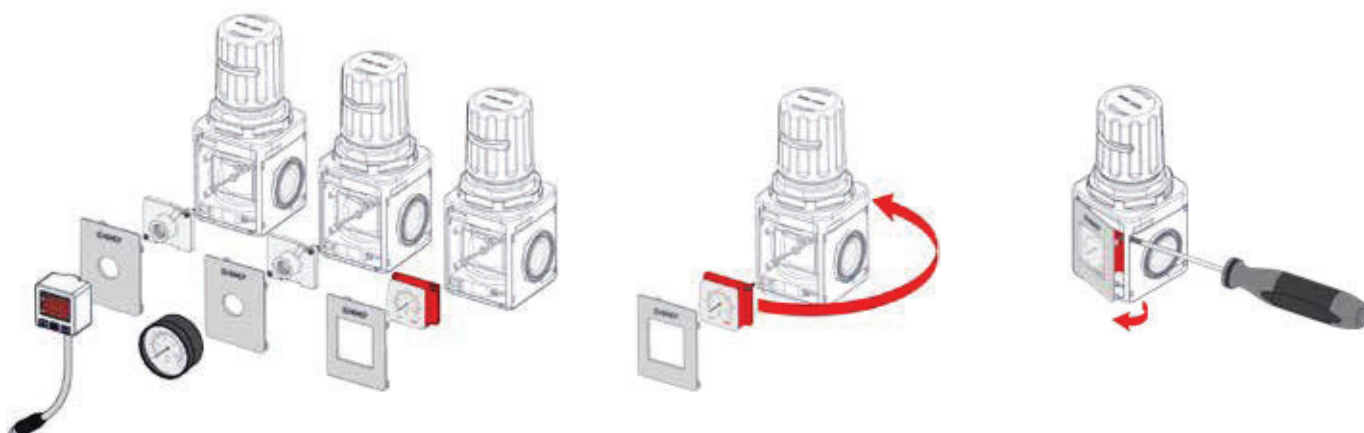
Regulators can be assembled together. Whether they have the built-in Gauge or not, they can all be connected.





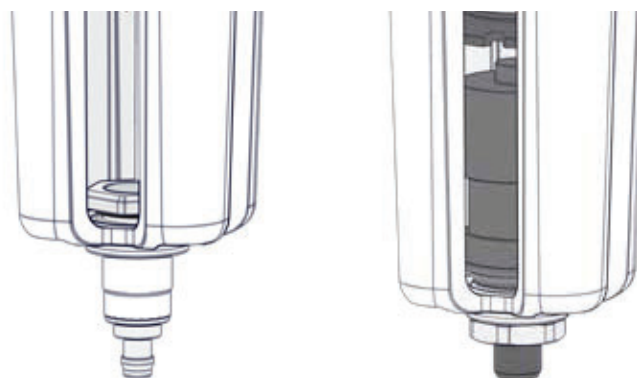
Regulators

Several options of Gauges and pressure switches are available. Gauges and pressure switches can be inverted if desired. (Y020 - Y030)



Condensation Drains

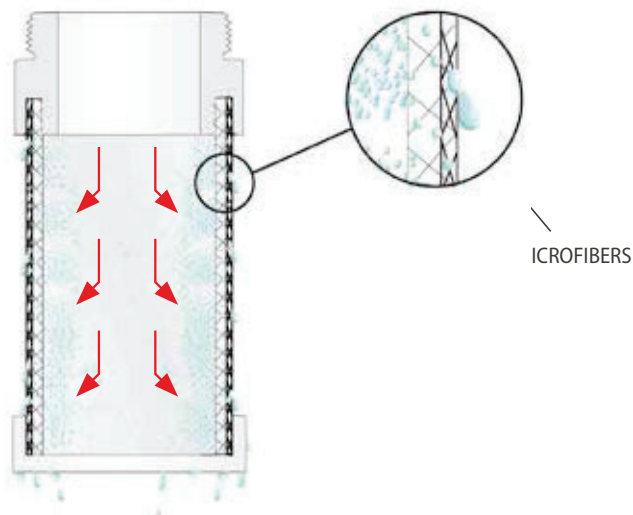
There are 2 available options for the condensation drain, with depressure drain or automatic with float.



Coalescer Filter

20 μm , 5 μm filters and 0.01 μm coalescer filter.

COALESCER CARTRIDGE

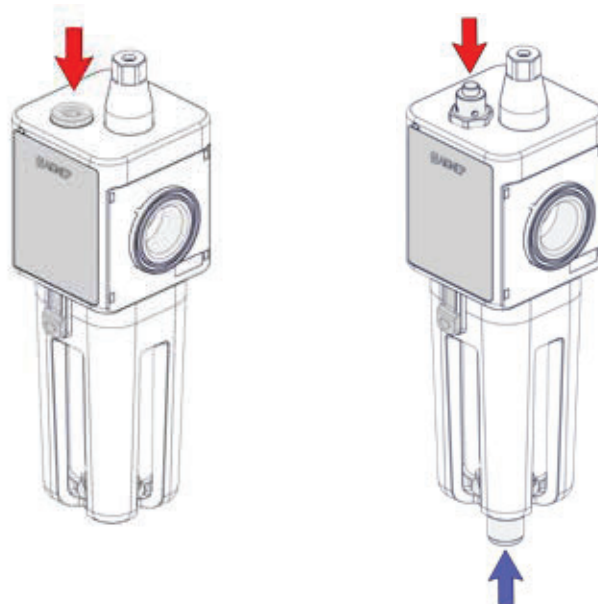


ICROFIBERS



Lubricators

The are 2 available options for the lubricator unit, with manual loading or with automatic vacuum-operated loading.



Soft Start Valve

Soft start valve with adjustment screw.



N010

FILTER



TECHNICAL CHARACTERISTICS



Reference standard



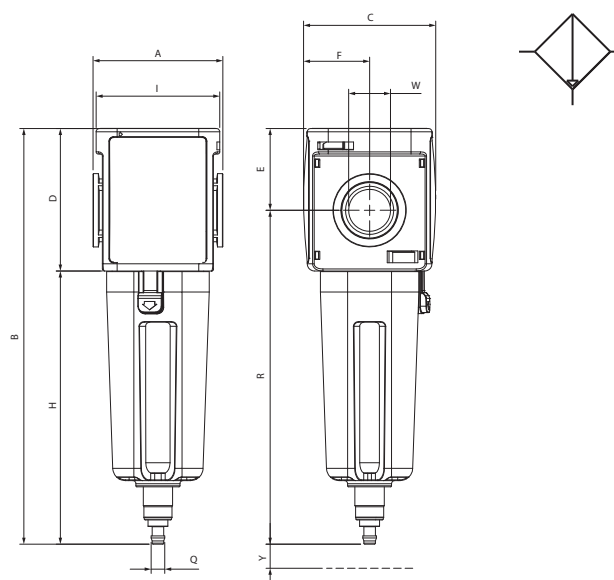
		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	2500 NI/min (88.2 cfm)	4100 NI/min (144.7 cfm)	7900 NI/min (278.9 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	BOWL CAPACITY	28 cm ³	37 cm ³	151 cm ³
	FILTRATION GRADE		5 μm 20 μm STANDARD	
	FLUID		Compressed Air	
	MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
	TEMPERATURE		-10 °C (14 F) + 50 °C (122 F)	
	MOUNTING POSITION		Vertical	



Part Numbering System

Series	Size	Thread	Filtration Grade	Condensate exhaust System
N 0 1 0	1	0 3	2	0 1 0 0 0
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF	1 = 5 μm 2 = 20 μm	1 = Depressure drain 2 = Automatic with float (max 8 bar)(116 PSI)
	FRL 2 →	04 = 3/8" NPTF 05 = 1/2" NPTF		
	FRL 3 →	07 = 3/4" NPTF 09 = 1" NPTF		

N010



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	H	I	Q	R	T
51	176	51	57	1/4" - 3/8"	32.5	25.5	119	47.5	E.D. .256 (6.5)	144	7

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	H	I	Q	R	T
62	197.5	63	68	3/8" - 1/2"	39	31.5	129.5	59	E.D. .256 (6.5)	158.5	9.5

Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	H	I	Q	R	T
90	250	92	89	3/4" - 1"	47	46	161	77.5	E.D. .256 (6.5)	203	70

DEP = Vacuum-operated

A = Automatic

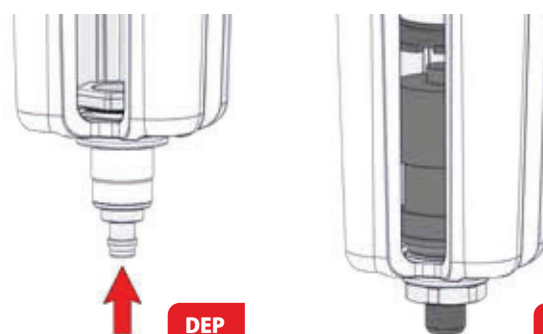
Part Number	Size	Thread (NPTF)	Filtration	Flow Rate	Exhaust
N010 103 201 000	FIL 1	1/4"	20 µm	2500 NI/min (88.2 cfm)	DEP
N010 104 201 000	FIL 1	3/8"	20 µm	2500 NI/min (88.2 cfm)	DEP
N010 104 202 000	FIL 1	3/8"	20 µm	2500 NI/min (88.2 cfm)	A
N010 204 201 000	FIL 2	3/8"	20 µm	4100 NI/min (144.7 cfm)	DEP
N010 205 201 000	FIL 2	1/2"	20 µm	4100 NI/min (144.7 cfm)	DEP
N010 205 202 000	FIL 2	1/2"	20 µm	4100 NI/min (144.7 cfm)	A
N010 307 201 000	FIL 3	3/4"	20 µm	7900 NI/min (278.9 cfm)	DEP
N010 309 201 000	FIL 3	1"	20 µm	7900 NI/min (278.9 cfm)	DEP
N010 309 202 000	FIL 3	1"	20 µm	7900 NI/min (278.9 cfm)	A



Condensation Drain

DEP: The depressure drain condensation drain is normally in the open position. It automatically drains the condensation when there is no pressure in the bowl. By pressing the hose connector, the condensation will get pressurized and drained.

A: The automatic condensation drain with float drains the condensation when the maximum level is reached independently from the air pressure in the system.



A

N015

COALESCER FILTER



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

PED
2014/68/UE

II 2GD Ex h TX
Ex

		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	600 NI/min (21.1 cfm)	750 NI/min (26.4 cfm)	1400 NI/min (49.4 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	BOWL CAPACITY	28 cm ³	37 cm ³	151 cm ³
	FILTRATION GRADE		0.01 μm	
	FLUID		5 μm filtered Compressed Air	
	MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
	TEMPERATURE		-10 °C (14 F) + 50 °C (122 F)	
	MOUNTING POSITION		Vertical	

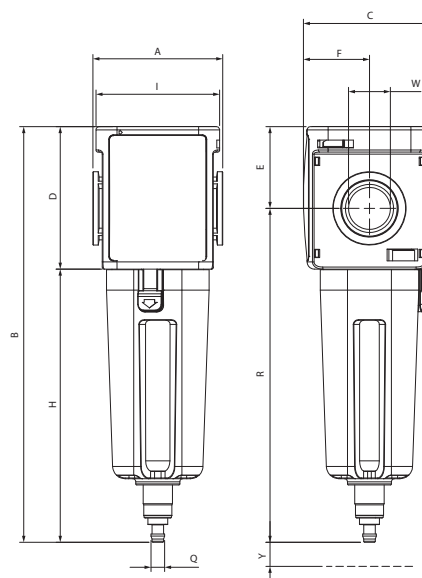


Part Numbering System

NB: With Coalescer Filter Series N015, we recommend installing a 5 μm Filter upstream.

Series	Size	Thread	Filtration Grade	Condensate exhaust System
N 0 1 5	1	0 3	4	0 1 0 0 0
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF	4 = 0.01 μm	1 = Depressure drain 2 = Automatic with float (max 8 bar) (116 PSI)
	FRL 2 →	04 = 3/8" NPTF 05 = 1/2" NPTF		
	FRL 3 →	07 = 3/4" NPTF 09 = 1" NPTF		

N015


Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	H	I	Q	R	Y
51	176	51	57	1/4" - 3/8"	32.5	25.5	119	47.5	E.D. .256 (6.5)	144	7

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	H	I	Q	R	Y
62	197.5	63	68	3/8" - 1/2"	39	31.5	129.5	59	E.D. .256 (6.5)	158.5	9.5

Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	H	I	Q	R	Y
90	250	92	89	3/4" - 1"	47	46	161	77.5	E.D. .256 (6.5)	203	70

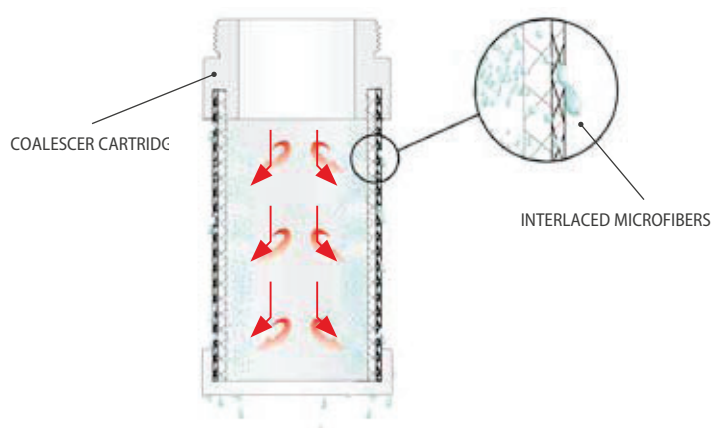
DEP = Vacuum-operated

Part Number	Size	Thread (NPTF)	Filtration	Flow Rate	Exhaust
N015 103 401 000	FC 1	1/4"	0.01 µm	600 NI/min (21.1 cfm)	DEP
N015 104 401 000	FC 1	3/8"	0.01 µm	600 NI/min (21.1 cfm)	DEP
N015 104 402 000	FC 1	3/8"	0.01 µm	600 NI/min (21.1 cfm)	A
N015 204 401 000	FC 2	3/8"	0.01 µm	750 NI/min (26.4 cfm)	DEP
N015 205 401 000	FC 2	1/2"	0.01 µm	750 NI/min (26.4 cfm)	DEP
N015 205 402 000	FC 2	1/2"	0.01 µm	750 NI/min (26.4 cfm)	A
N015 307 401 000	FC 3	3/4"	0.01 µm	1400 NI/min (49.4 cfm)	DEP
N015 309 401 000	FC 3	1"	0.01 µm	1400 NI/min (49.4 cfm)	DEP
N015 309 402 000	FC 3	1"	0.01 µm	1400 NI/min (49.4 cfm)	A



Coalescer Cartridge

The coalescer cartridge is made of a microfiber layer with an external stainless steel structure. The coalescer cartridge uses inertial impact, interception and coalescence to form liquid particles into drops. These drops will fall into the bottom of the bowl. The coalescer filter is used as an oil separator which removes oil-vapours from the air output. We recommend installing a 5 µm filter upstream to protect the coalescing filter from choking the cartridge.



N016

ACTIVE CARBON FILTER



TECHNICAL CHARACTERISTICS



Reference standard



		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	1270 NI/min (44.8 cfm)	1810 NI/min (63.9 cfm)	3500 NI/min (123.6 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	BOWL CAPACITY	28 cm ³	37 cm ³	151 cm ³
	DEGREE OF FILTRATION: ISO 8573	Output oil concentration < 0.005 mg/m ³		
	FLUID	0.01 μm Filtered Compressed Air		
	MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
	TEMPERATURE	+1.5 °C (34.7 F) + 50 °C (122 F)		
	MOUNTING POSITION	Vertical		

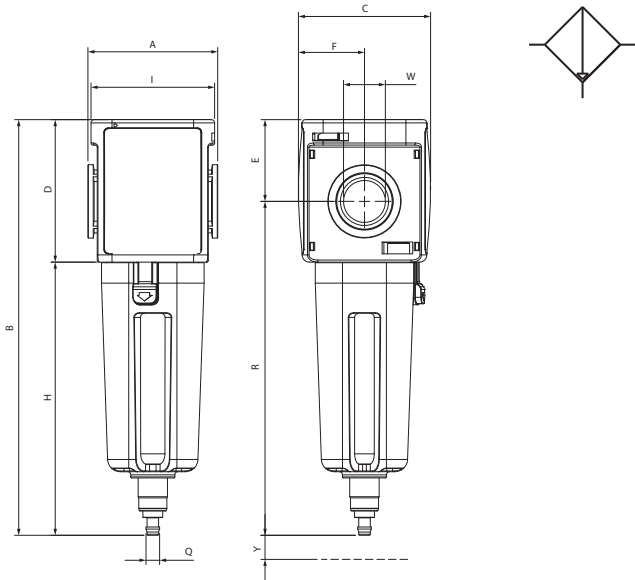


Part Numbering System

NB: With Coalescer Filter Series N015, we recommend installing a 5 μm Filter upstream.

Series	Size	Thread	Filtration Grade	Condensate exhaust System
N 0 1 6	1	0 3	5	0 1 0 0 0
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF	5 = <0.005 mg/m ³	1 = Depressure drain
	FRL 2 →	04 = 3/8" NPTF 05 = 1/2" NPTF		
	FRL 3 →	07 = 3/4" NPTF 09 = 1" NPTF		

N016



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	H	I	Q	R	Y
51	176	51	57	1/4" - 3/8"	32.5	25.5	119	47.5	E.D. .256 (6.5)	144	7

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	H	I	Q	R	Y
62	197.5	63	68	3/8" - 1/2"	39	31.5	129.5	59	E.D. .256 (6.5)	158.5	9.5

Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	H	I	Q	R	Y
90	250	92	89	3/4" - 1"	47	46	161	77.5	E.D. .256 (6.5)	203	70

DEP = Vacuum-operated

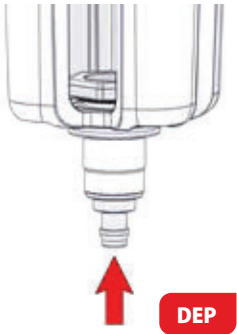
Part Number	Size	Thread (NPTF)	Filtration	Flow Rate	Exhaust
N016 103 501 000	AC 1	1/4"	< 0.005 mg/m³	1270 NI/min (44.8 cfm)	DEP
N016 104 501 000	AC 1	3/8"	< 0.005 mg/m³	1270 NI/min (44.8 cfm)	DEP
N016 204 501 000	AC 2	3/8"	< 0.005 mg/m³	1810 NI/min (63.9 cfm)	DEP
N016 205 501 000	AC 2	1/2"	< 0.005 mg/m³	1810 NI/min (63.9 cfm)	DEP
N016 307 501 000	AC 3	3/4"	< 0.005 mg/m³	3500 NI/min (123.6 cfm)	DEP
N016 309 501 000	AC 3	1"	< 0.005 mg/m³	3500 NI/min (123.6 cfm)	DEP

 It's recommended to replace the activated carbon filter (Cod. T546) every 6 months.



Condensation Drain

DEP: The depressure drain condensation drain is normally in the open position. It automatically drains the condensation when there is no pressure in the bowl. By pressing the hose connector, the condensation will get pressurized and drained.



N020

REGULATOR



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

PED
2014/68/UE

II 2GD Ex h TX
Ex

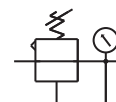
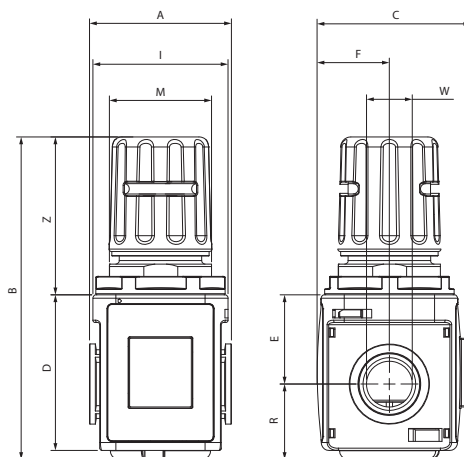
		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	2600 NI/min (91.8 cfm)	4000 NI/min (141.2 cfm)	7700 NI/min (271.9 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	REGULATION RANGE	0 ÷ 2 bar (29 PSI) 0 ÷ 4 bar (58 PSI) 0 ÷ 8 bar STANDARD (116 PSI) 0 ÷ 12 bar (174 PSI)	(FRL 1 - 2) (FRL 1 - 2) (FRL 1 - 2 - 3) (FRL 1 - 2 - 3)	
	FLUID	Compressed Air		
	MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)		
	MOUNTING POSITION	Vertical		



Part Numbering System

Series	Size	Thread	Regulation Range	Gauge system
N 0 2 0	1	0 3	0 3 0	0 0 0
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF	1 = 0÷2 bar (29 PSI) (NO G3) 2 = 0÷4 bar (58 PSI) (NO G3) 3 = 0÷8 bar (116 PSI) 4 = 0÷12 bar (174 PSI)	0 = Gauge incorporated 2 = Adapter for Gauge 1/8 NPTF (Gauge not included)
	FRL 2 →	04 = 3/8" NPTF 05 = 1/2" NPTF		
	FRL 3 →	07 = 3/4" NPTF 09 = 1" NPTF		

N020



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	I	R	M	Z
51	117	57	57	1/4" - 3/8"	32.5	25.5	47.5	28	M37 x 1.5	57

Dimensions (mm) - FRL 2

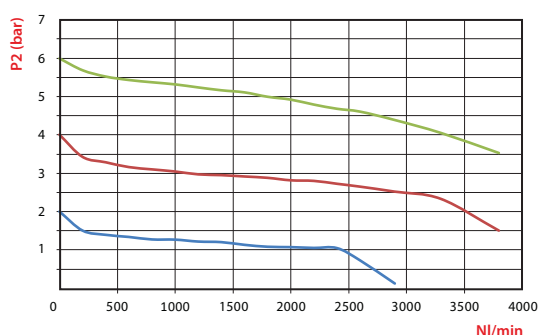
A	B	C	D	W	E	F	I	R	M	Z
62	141.5	67	68	3/8" - 1/2"	39	31.5	59	33	M37 x 1.5	72.5

Dimensions (mm) - FRL 3

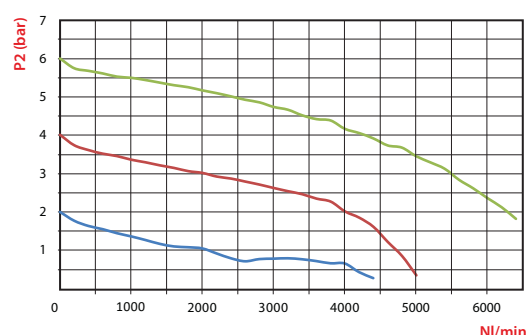
A	B	C	D	W	E	F	I	R	M	Z
90	178	96	89	3/4" - 1"	47	46	77.5	52	M59 x 1.5	79

Part Number	Size	Thread (NPTF)	Regulation	Flow Rate
N020 103 030 000	REG 1	1/4"	0 ÷ 8 bar (116 PSI)	2600 NI/min (91.8 cfm)
N020 104 030 000	REG 1	3/8"	0 ÷ 8 bar (116 PSI)	2600 NI/min (91.8 cfm)
N020 204 030 000	REG 2	3/8"	0 ÷ 8 bar (116 PSI)	4000 NI/min (141.2 cfm)
N020 205 030 000	REG 2	1/2"	0 ÷ 8 bar (116 PSI)	4000 NI/min (141.2 cfm)
N020 307 030 000	REG 3	3/4"	0 ÷ 8 bar (116 PSI)	7700 NI/min (271.9 cfm)
N020 309 030 000	REG 3	1"	0 ÷ 8 bar (116 PSI)	7700 NI/min (271.9 cfm)

FRL 1



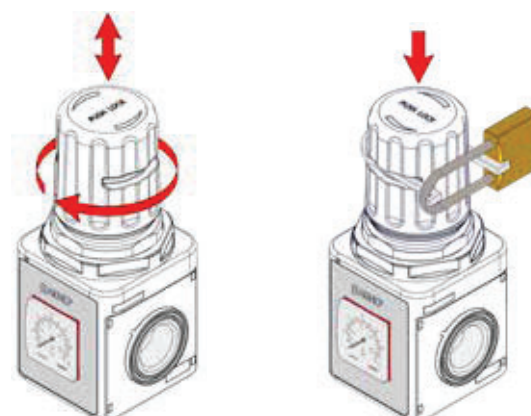
FRL 2



Regulating the Air Pressure

Follow the instructions below to set the air pressure:

- 1 Raise the knob to the regulating position.
- 2 Rotate to set the desired pressure, always in ascending order.
- 3 Press the knob down to lock into position.
The knob can be padlocked to prevent tampering.



N022

REGULATOR



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

PED
2014/68/UE

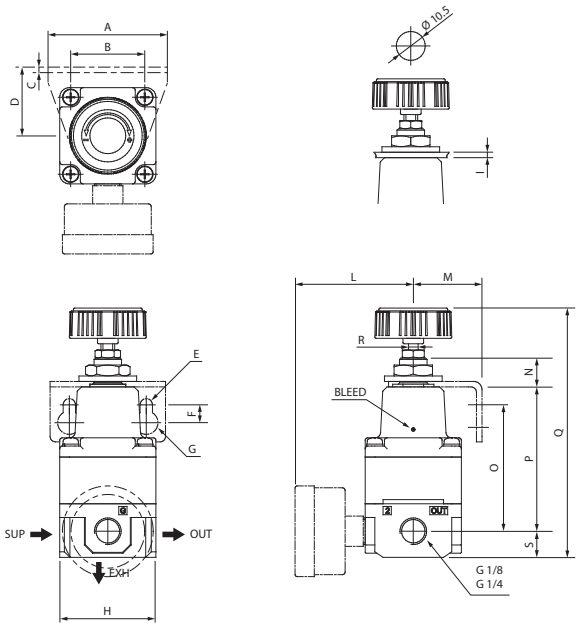
		FRL 1	FRL 2
	METALLIC THREAD	1/8" NPTF	1/4" NPTF
	AIR CONSUMPTION WITH 10 BAR	4.4 l/min (ANR) F.S. (0.155 cfm)	4.4 l/min (ANR) F.S. (0.155 cfm)
	WALL CLAMPING SCREWS	M4 x 14 M8 x 14	M5 x 18 M9 x 18
	MANOMETER FASTENING	1/8" NPTF	
	REGULATION RANGE	0 ÷ 4 bar (58 PSI) 0 ÷ 8 bar (116 PSI)	
	FLUID	Compressed Air	
	MAX PRESSURE	10 bar (145 PSI)	
	TEMPERATURE	-5 °C (23 F) + 60 °C (140 F) at 10 bar (145 PSI)	
	MOUNTING POSITION	Vertical	
	CLAMP BRACKET FOR T022 (on request)	 Cod. REG32	



Part Numbering System

Series	Size	Thread	Regulation Range
N 0 2 2	1	0 2	0 2 0 0 0 0
	FRL 1 →	02 = 1/8" NPTF	2 = 0÷4 bar (58 PSI) 3 = 0÷8 bar (116 PSI)
	FRL 2 →	03 = 1/4" NPTF	

N022



Dimensions (mm) - FRL 1

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S
42	28	2	25	Ø 4.5	6.5	Ø 8.5	35	Max 4	43	25	10.5	46	52.5	90.7	M5 x 0.5	9.5

Dimensions (mm) - FRL 2

A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S
50	36	2	30	Ø 5.5	7	Ø 9.5	59.2	Max 4	55	30	11.3	53	71	127.3	M6 x 0.5	18.5

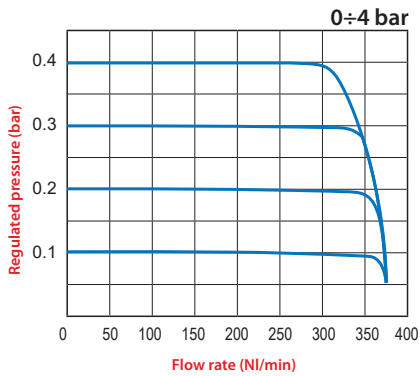
Part Number	Size	Thread (NPTF)	Regulation	Air consumption with 10 Bar
N022 102 020 000	REGP 1	1/8"	0 ÷ 4 bar (58 PSI)	4.4 l/min (ANR) F.S. (0.155 cfm)
N022 102 030 000	REGP 1	1/8"	0 ÷ 8 bar (116 PSI)	4.4 l/min (ANR) F.S. (0.155 cfm)
N022 203 020 000	REGP 2	1/4"	0 ÷ 4 bar (58 PSI)	4.4 l/min (ANR) F.S. (0.155 cfm)
N022 203 030 000	REGP 2	1/4"	0 ÷ 8 bar (116 PSI)	4.4 l/min (ANR) F.S. (0.155 cfm)

P2 (bar) NI/min 20 °C 1 bar
 Outlet pressure Air flow

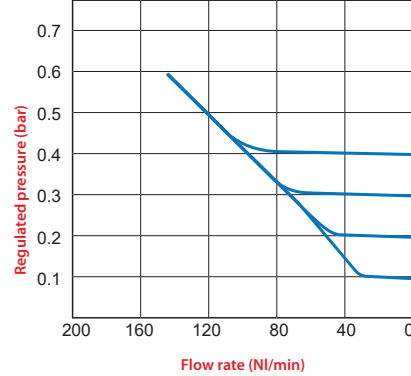
Inlet pressure 7 bar

FRL 1

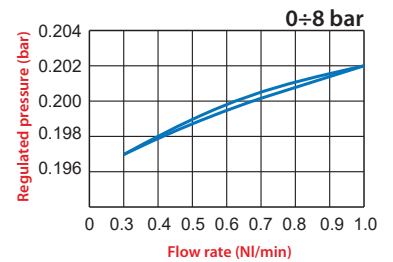
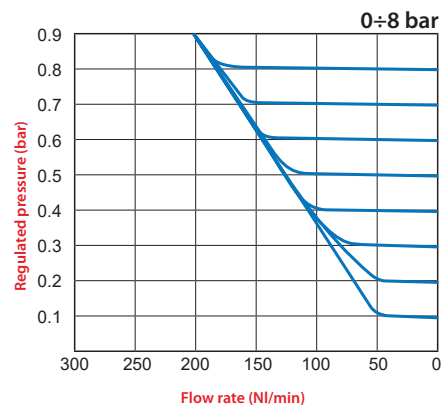
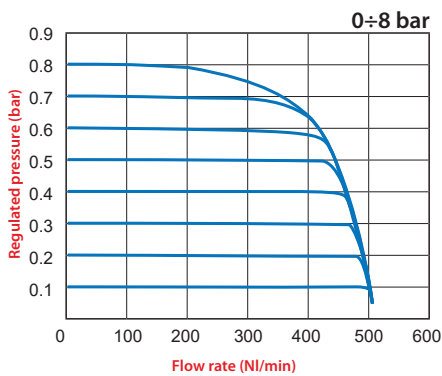
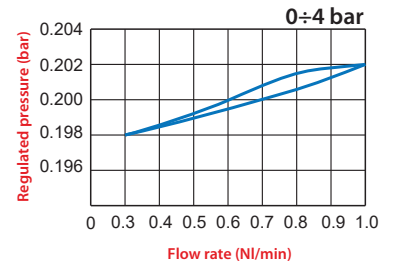
Flow feature



Relief characteristics 0÷4 bar

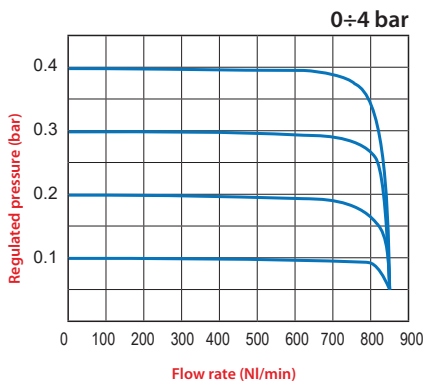


Pressure characteristics

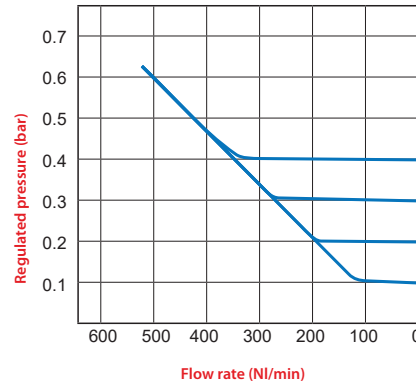


FRL 2

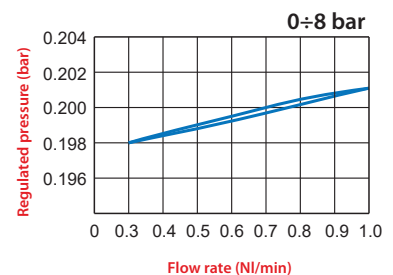
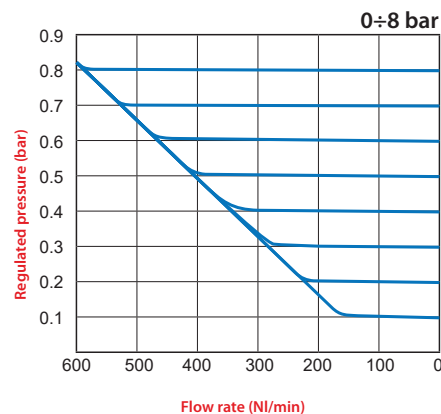
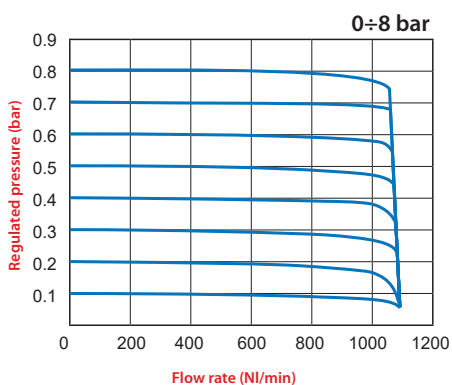
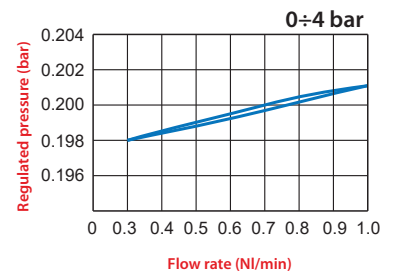
Flow feature



Relief characteristics 0÷4 bar



Pressure characteristics



N025

FRONTAL REGULATOR



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

PED
2014/68/UE

II 2GD Ex h TX

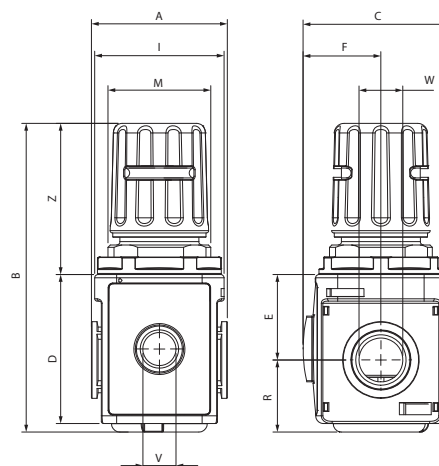
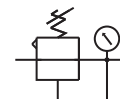
		FRL 1	FRL 2
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm
	6 bar FLOW RATE with Δp 1 bar	2700 NI/min (95.3 cfm)	3500 NI/min (123.6 cfm)
	MOUNTING SCREWS	M5 x 15	
	REGULATION RANGE	0 ÷ 2 bar (29 PSI) 0 ÷ 4 bar (58 PSI) 0 ÷ 8 bar STANDARD (116 PSI) 0 ÷ 12 bar (174 PSI)	
	FLUID	Compressed Air	
	MAX PRESSURE	15 bar (217 PSI)	
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)	
	MOUNTING POSITION	Vertical	
	FRONT THREADED	1/8" NPTF	3/8" NPTF



Part Numbering System

Series	Size	Thread	Regulation Range	Gauge System
N 0 2 5	1	0 3	0 3 0	0 0 0
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF	1 = 0÷2 bar (29 PSI) 2 = 0÷4 bar (58 PSI) 3 = 0÷8 bar (116 PSI) 4 = 0÷12 bar (174 PSI)	0 = SX Gauge incorporated - Front 1 = DX Gauge incorporated - Back 2 = SX Adapter for Gauge 1/8 Gas - Front 3 = DX Adapter for Gauge 1/8 Gas - Back
	FRL 2 →	04 = 3/8" NPTF 05 = 1/2" NPTF		

N025



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	I	R	M	Z	V
51	117	57	57	1/4" - 3/8"	32.5	31	47.5	28	M37 x 1.5	57	1/8

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	I	R	M	Z	V
62	141.5	67	68	3/8" - 1/2"	39	35.5	59	33	M37 x 1.5	72.5	3/8"

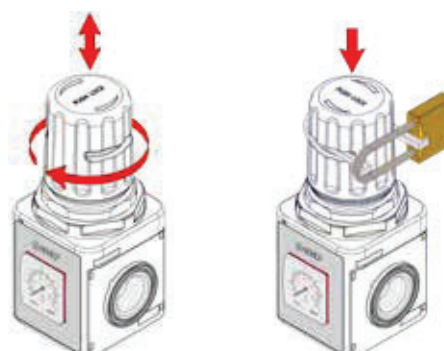
Part Number	Size	Thread (NPTF)	Regulation	Flow Rate
SX Gauge incorporated - Front				
N025 103 030 000	REG F 1	1/4"	0 ÷ 8 bar (116 PSI)	2700 NI/min (95.3 cfm)
N025 104 030 000	REG F 1	3/8"	0 ÷ 8 bar (116 PSI)	2700 NI/min (95.3 cfm)
N025 204 030 000	REG F 2	3/8"	0 ÷ 8 bar (116 PSI)	3500 NI/min (123.6 cfm)
N025 205 030 000	REG F 2	1/2"	0 ÷ 8 bar (116 PSI)	3500 NI/min (123.6 cfm)
DX Gauge incorporated - Back				
N025 103 030 001	REG F 1	1/4"	0 ÷ 8 bar (116 PSI)	2700 NI/min (95.3 cfm)
N025 104 030 001	REG F 1	3/8"	0 ÷ 8 bar (116 PSI)	2700 NI/min (95.3 cfm)
N025 204 030 001	REG F 2	3/8"	0 ÷ 8 bar (116 PSI)	3500 NI/min (123.6 cfm)
N025 205 030 001	REG F 2	1/2"	0 ÷ 8 bar (116 PSI)	3500 NI/min (123.6 cfm)



Regulating the Air Pressure

Follow the instructions below to set the air pressure:

- 1 Raise the knob to the regulating position.
- 2 Rotate to set the desired pressure, always in ascending order.
- 3 Press the knob down to lock into position.
The knob can be padlocked to prevent tampering.



Regulators

Regulators can be assembled together. Whether they have the built-in Gauge or not, they all can be connected.



N030

FILTER REGULATOR



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

PED
2014/68/UE

II 2GD Ex h TX
Ex

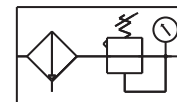
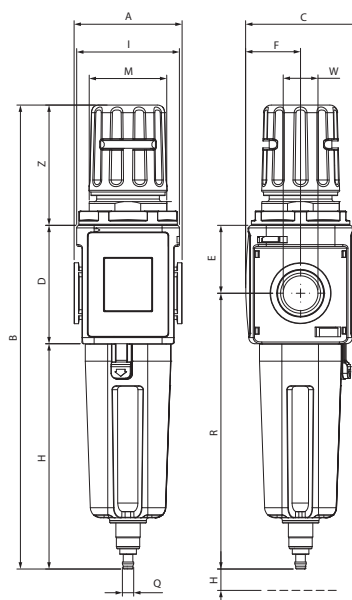
		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	2000 NI/min (77.6 cfm)	3000 NI/min (116.5 cfm)	5800 NI/min (204.8 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	BOWL CAPACITY	28 cm³	37 cm³	151 cm³
	FILTRATION GRADE	5 μm 20 μm STANDARD		
	REGULATION RANGE	0 ÷ 2 bar (29 PSI) 0 ÷ 4 bar (58 PSI) 0 ÷ 8 bar STANDARD (116 PSI) 0 ÷ 12 bar (174 PSI)		
	FLUID	Compressed Air		
	MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)		
	MOUNTING POSITION	Vertical		



Part Numbering System

Series	Size	Thread	Filtration Grade	Regulation Range	Condensate exhaust System	Gauge System
N 0 3 0	1	0 3	2	3	1	0 0 0
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF	1 = 5 μm 2 = 20 μm	1 = 0÷2 bar (29 PSI) (NO G3) 2 = 0÷4 bar (58 PSI) (NO G3) 3 = 0÷8 bar (116 PSI) 4 = 0÷12 bar (174 PSI)	1 = Depressure drain 2 = Automatic with float (max 8 bar)(max 116 PSI)	0 = Gauge incorporated 2 = Adapter for Gauge 1/8 NPTF (Gauge not included)
	FRL 2 →	04 = 3/8" NPTF 05 = 1/2" NPTF				
	FRL 3 →	07 = 3/4" NPTF 09 = 1" NPTF				

N030



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	H	I	M	R	Q	Z	Y
51	233	57	57	1/4" - 3/8"	32.5	25.5	119	47.5	M37 x 1.5	144	E.D.256 (6.5)	57	7

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	H	I	M	R	Q	Z	Y
62	270	67	68	3/8" - 1/2"	39	31.5	129.5	59	M47 x 1.5	158.5	E.D.256 (6.5)	72.5	9.5

Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	H	I	M	R	Q	Z	Y
90	329	96	89	3/4" - 1"	47	46	161	77.5	M59 x 1.5	203	E.D.256 (6.5)	79	70

DEP = Vacuum-operated

A = Automatic

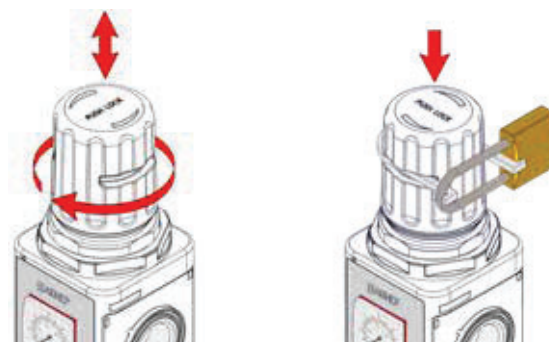
Part Number	Size	Thread (NPTF)	Filtration	Regulation	Flow Rate	Exhaust
N030 103 231 000	FR 1	1/4"	20 µm	0 ÷ 8 bar (116 PSI)	2000 NI/min (77.6 cfm)	DEP
N030 104 231 000	FR 1	3/8"	20 µm	0 ÷ 8 bar (116 PSI)	2000 NI/min (77.6 cfm)	DEP
N030 104 232 000	FR 1	3/8"	20 µm	0 ÷ 8 bar (116 PSI)	2000 NI/min (77.6 cfm)	A
N030 204 231 000	FR 2	3/8"	20 µm	0 ÷ 8 bar (116 PSI)	3000 NI/min (116.5 cfm)	DEP
N030 205 231 000	FR 2	1/2"	20 µm	0 ÷ 8 bar (116 PSI)	3000 NI/min (116.5 cfm)	DEP
N030 205 232 000	FR 2	1/2"	20 µm	0 ÷ 8 bar (116 PSI)	3000 NI/min (116.5 cfm)	A
N030 307 231 000	FR 3	3/4"	20 µm	0 ÷ 8 bar (116 PSI)	5800 NI/min (204.8 cfm)	DEP
N030 309 231 000	FR 3	1"	20 µm	0 ÷ 8 bar (116 PSI)	5800 NI/min (204.8 cfm)	DEP
N030 309 232 000	FR 3	1"	20 µm	0 ÷ 8 bar (116 PSI)	5800 NI/min (204.8 cfm)	A



Regulating the Air Pressure

Follow the instructions below to set the air pressure:

- 1 Raise the knob to the regulating position.
- 2 Rotate to set the desired pressure, always in ascending order.
- 3 Press the knob down to lock into position.
The knob can be padlocked to prevent tampering.



N040

LUBRICATOR



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

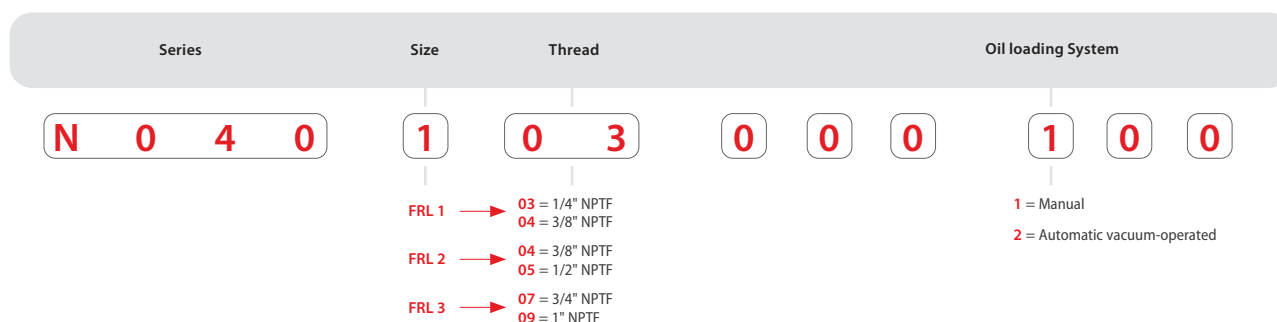
PED
2014/68/UE

II 2GD Ex h TX
Ex

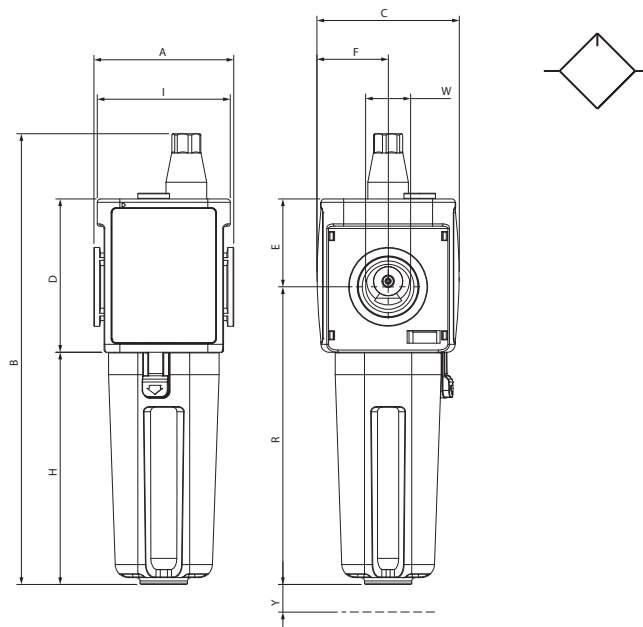
		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	3400 NI/min (120 cfm)	6100 NI/min (215.4 cfm)	11700 NI/min (413.1 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	BOWL CAPACITY	28 cm³	37 cm³	151 cm³
	FLUID	Compressed Air		
	MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)		
	MOUNTING POSITION	Vertical		
	RECOMMENDED OILS	CLASS ISO 22 ISO 3448 NORMA		



Part Numbering System



N040



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	H	I	R	Y
51	178.5	51	57	1/4" - 3/8"	32.5	25.5	92.5	47.5	117.5	7

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	H	I	R	Y
62	200	63	68	3/8" - 1/2"	39	31.5	103	59	132	9.5

Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	H	I	R	Y
90	254	92	89	3/4" - 1"	47	46	136	77.5	178	19

DEP = Manual

A = Automatic vacuum-operated

Part Number	Size	Thread (NPTF)	Flow Rate	Oil loading System
N040 103 000 100	LUB 1	1/4"	3400 NI/min (120 cfm)	M
N040 104 000 100	LUB 1	3/8"	3400 NI/min (120 cfm)	M
N040 104 000 200	LUB 1	3/8"	3400 NI/min (120 cfm)	A
N040 204 000 100	LUB 2	3/8"	6100 NI/min (215.4 cfm)	M
N040 205 000 100	LUB 2	1/2"	6100 NI/min (215.4 cfm)	M
N040 205 000 200	LUB 2	1/2"	6100 NI/min (215.4 cfm)	A
N040 307 000 100	LUB 3	3/4"	11700 NI/min (413.1 cfm)	M
N040 309 000 100	LUB 3	1"	11700 NI/min (413.1 cfm)	M
N040 309 000 200	LUB 3	1"	11700 NI/min (413.1 cfm)	A



Lubricators

The oil is added to the lubricator unit by unscrewing the cap on the top or by removing the bowl. Make sure that there is no pressure running inside the unit. You can adjust the oil flow by using a screwdriver. We recommend adding one drop of oil every 300-600 NI/min.

M



Lubricators

The vacuum-operated oil loading enables the bowl to be filled with oil automatically. The system is activated by a button on the top. The newly added oil, positioned at a lower height relatively to the lubricator unit, flows into the bowl thanks to a G1/8" attachment positioned on the bottom side of the unit. Stop adding oil once it reaches the maximum level, shown by the windows on the side of the bowl.

A



M

Push start button to prime the oil.



A

Oil primer

N050 - FRL 1 / FRL2

MANUAL SHUT OFF VALVE

TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

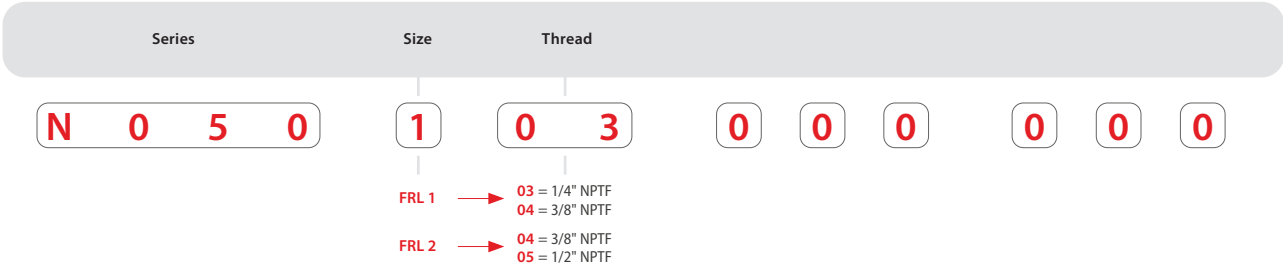
2011/65/CE
RoHS

PED
2014/68/UE

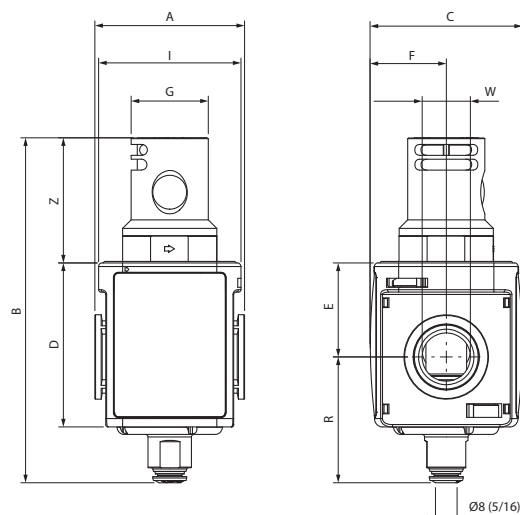
II 2GD Ex h TX


		FRL 1	FRL 2
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm
	6 bar FLOW RATE with Δp 1 bar	2700 NI/min (95.3 cfm)	3500 NI/min (123.6 cfm)
	MOUNTING SCREWS	M5 x 15	
	FLUID	Compressed Air	
	MAX PRESSURE	10 bar (145 PSI)	
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)	
	MOUNTING POSITION	Vertical	

Part Numbering System



N050



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	G	I	R	Z
51	134	51	57	1/4" - 3/8"	32.5	25.5	32	47.5	46	56

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	G	I	R	Z
62	143	63	68	3/8" - 1/2"	39	31.5	32	59	52	51

M = Manual

Part Number	Size	Thread (NPTF)	Flow Rate	Function	Drive
N050 103 000 000	V3V 1	1/4"	2700 NI/min (95.3 cfm)	NC	M
N050 104 000 000	V3V 1	3/8"	2700 NI/min (95.3 cfm)	NC	M
N050 204 000 000	V3V 2	3/8"	3500 NI/min (123.6 cfm)	NC	M
N050 205 000 000	V3V 2	1/2"	3500 NI/min (123.6 cfm)	NC	M



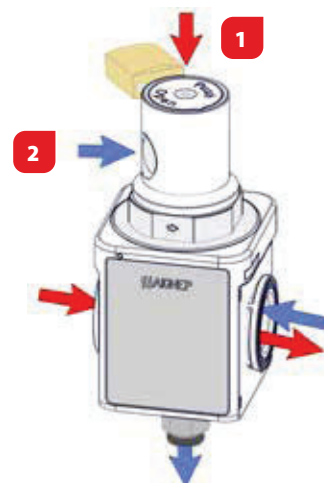
Shut Off Valves

The shut off valve gets activated in the following phases:

1. By pressing the trigger switch 1, the primary circuit opens.

2. By pressing button 2, the primary circuit closes and the secondary circuit drains.

This latter position can be padlocked.



N050 - FRL 3

MANUAL SHUT OFF VALVE

TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

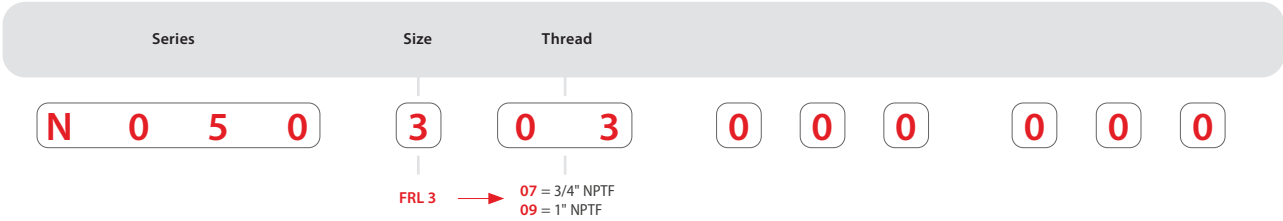
2011/65/CE
RoHS

PED
2014/68/UE

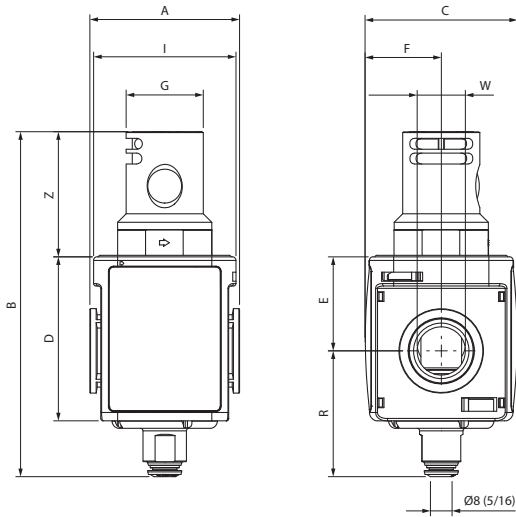
II 2GD Ex h TX


FRL 3		
	METALLIC THREAD	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	6700 NI/min (236.6 cfm)
	MOUNTING SCREWS	M6 x 15
	FLUID	Compressed Air
	MAX PRESSURE	3 - 10 bar (43 - 145 PSI)
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)
	MOUNTING POSITION	Vertical

Part Numbering System



N050



Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	G	I	R	Z
90	199	92	89	3/4" - 1"	47	46	32	77.5	67	85

M = Manual

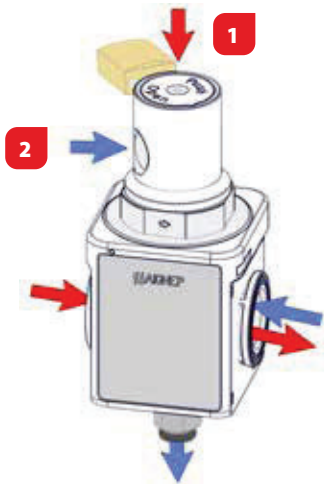
Part Number	Size	Thread (NPTF)	Flow Rate	Function	Drive
N050 307 000 000	V3V 3	3/4"	6700 NI/min (236.6 cfm)	NC	M/S
N050 309 000 000	V3V 3	1	6700 NI/min (236.6 cfm)	NC	M/S



Shut Off Valves

The shut off valve gets activated in the following phases:

1. By pressing the trigger switch 1, the primary circuit opens.
2. By pressing button 2, the primary circuit closes and the secondary circuit drains.
This latter position can be padlocked.



N051

PNEUMATIC SHUT OFF VALVE



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

PED
2014/68/UE

II 2GD Ex h TX
Ex

	FRL 1	FRL 2	FRL 3
METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
6 bar FLOW RATE with Δp 1 bar	2700 NI/min (95.3 cfm)	3500 NI/min (123.6 cfm)	6700 NI/min (236.6 cfm)
MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
FLUID	Compressed Air		
MAX PRESSURE	10 bar (145 PSI)	10 bar (145 PSI)	13 bar (188 PSI)
MINIMUM DRIVING PRESSURE	2.5 bar (36 PSI)	2.5 bar (36 PSI)	-
TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)		
MOUNTING POSITION	Vertical		

FRL 3		
	INLET PRESSURE bar (PSI)	MINIMUM DRIVING PRESSURE bar (PSI)
	2 (29)	2 (29)
	4 (58)	3.5 (50)
	6 (87)	4.7 (68)
	8 (116)	5.8 (84)
	10 (145)	7 (101)



Part Numbering System

Series

Size

Thread

N 0 5 1

1

0 3

0

0

0

0

0

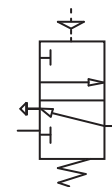
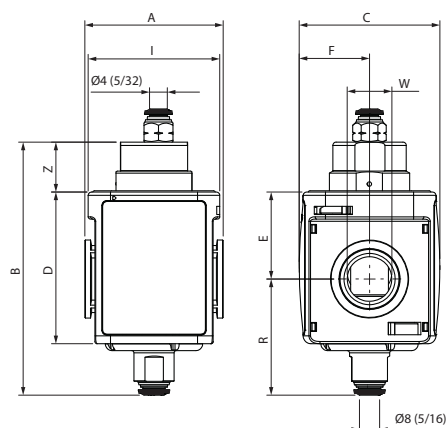
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FRL 1 → 03 = 1/4" NPTF
04 = 3/8" NPTF

FRL 2 → 04 = 3/8" NPTF
05 = 1/2" NPTF

FRL 3 → 07 = 3/4" NPTF
09 = 1" NPTF

N051



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	I	R	Z
51	98	51	57	1/4" - 3/8"	32.5	25.5	47.5	46	19.5

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	I	R	Z
62	113.5	63	68	3/8" - 1/2"	39	31.5	59	52	22

Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	I	R	Z
90	141	92	89	3/4" - 1"	47	46	77.5	67	26.5

P = Pneumatic

Part Number	Size	Thread (NPTF)	Flow Rate	Function	Drive
N051 104 000 000	V3V 1	3/8"	2700 NI/min (95.3 cfm)	NC	P
N051 205 000 000	V3V 2	1/2"	3500 NI/min (123.6 cfm)	NC	P
N051 309 000 000	V3V 3	1"	6700 NI/min (236.6 cfm)	NC	P



Shut Off Valves

The pneumatic shut off valve gets activated in the following phases:

1. By pressurising the pilot "P", the primary circuit opens.
2. By removing pressure from the operator "P", the primary circuit closes and the secondary circuit drains.



N052

MANUAL/ELECTRO-PNEUMATIC SHUT OFF VALVE



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH✓

2011/65/CE

PED
2014/68/UE

|| 2GD Ex h TX

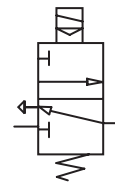
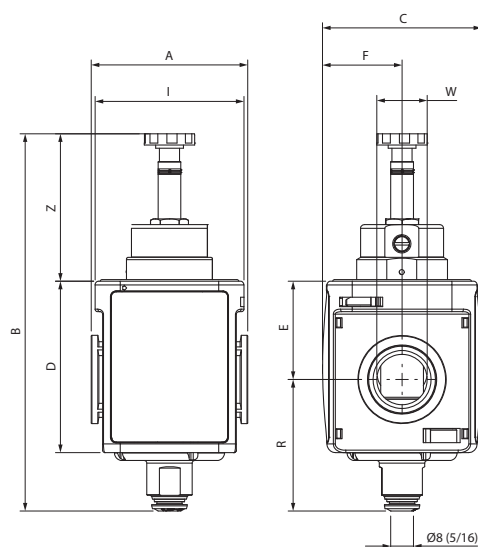

		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	2700 NI/min (95.3 cfm)	3500 NI/min (123.6 cfm)	6700 NI/min (236.6 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	FLUID	Compressed Air		
	OPERATING PRESSURE	from 2.5 bar (36 PSI) to 10 bar (145 PSI)		
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)		
	MOUNTING POSITION	Vertical		
	SOLENOID	See Chapter 18 - page 18.24 - 18.25		



Part Numbering System

Series	Size	Thread
N 0 5 2	1	0 3
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF
	FRL 2 →	04 = 3/8" NPTF 05 = 1/2" NPTF
	FRL 3 →	07 = 3/4" NPTF 09 = 1" NPTF

N052



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	I	R	Z
51	98	51	57	1/4" - 3/8"	32.5	25.5	47.5	46	55

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	I	R	Z
62	113.5	63	68	3/8" - 1/2"	39	31.5	59	52	58

Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	I	R	Z
90	169	92	89	3/4" - 1"	47	46	77.5	67	55

*NB: Standard without solenoid

EP = Electro-pneumatic

Part Number	Size	Thread (NPTF)	Flow Rate	Function	Drive
N052 104 000 000	V3V 1	3/8"	2700 NI/min (95.3 cfm)	NC	EP
N052 205 000 000	V3V 2	1/2"	3500 NI/min (123.6 cfm)	NC	EP
N052 309 000 000	V3V 3	1"	6700 NI/min (236.6 cfm)	NC	EP

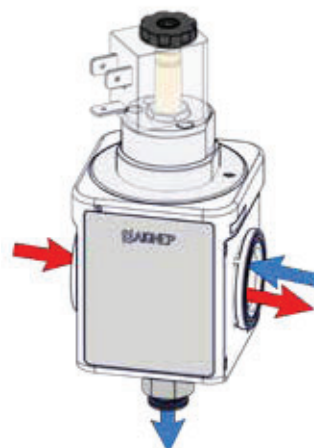
NB: ATEX II 2GD Ex h TX category can be reclassified in accordance to the kind of solenoid applied.



Shut Off Valves

The electro-pneumatic shut off valve gets activated in the following phases:

1. By activating the electric impulse, the primary circuit opens.
2. By removing the electric impulse, the primary circuit closes and the secondary circuit drains.



N060

SOFT START VALVE



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

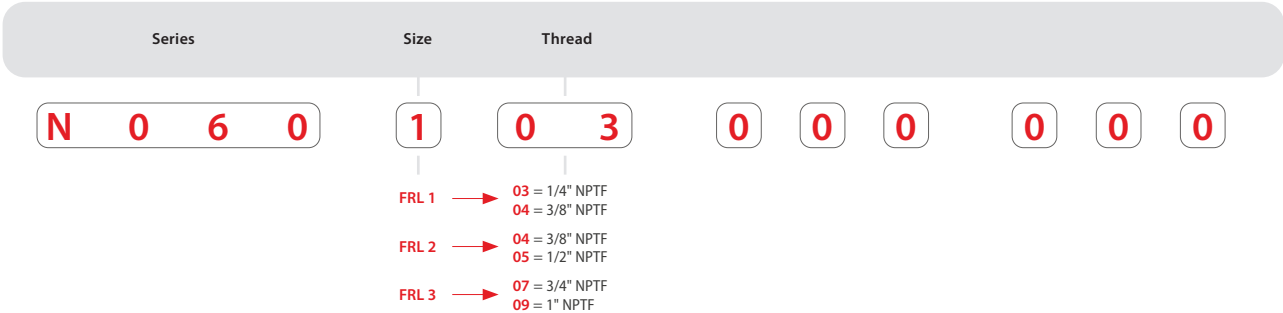
PED
2014/68/UE

II 2GD Ex h TX
Ex

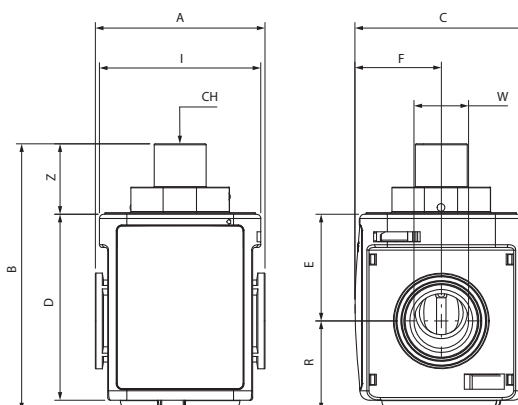
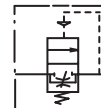
		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	2700 NI/min (95.3 cfm)	3500 NI/min (123.6 cfm)	6700 NI/min (236.6 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	MAXIMUM INLET PRESSURE	10 bar (145 PSI)		
	FLUID	Compressed Air		
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)		
	ASSEMBLY POSITION	Vertical		
	MOUNTING POSITION	End of all FRL components		



Part Numbering System



N060



Dimensions (mm) - FRL 1

A	B	C	D	W	E	F	I	R	Z	CH
51	84.5	51	57	1/4" - 3/8"	32.5	25.5	47.5	28	23.5	5

Dimensions (mm) - FRL 2

A	B	C	D	W	E	F	I	R	Z	CH
62	97.5	63	68	3/8" - 1/2"	39	31.5	59	33	25	5

Dimensions (mm) - FRL 3

A	B	C	D	W	E	F	I	R	Z	CH
90	84.5	92	89	3/4" - 1"	47	46	77.5	67	24	5

Part Number	Size	Thread (NPTF)	Flow Rate
N060 103 000 000	APE 1	1/4"	2700 NI/min (95.3 cfm)
N060 104 000 000	APE 1	3/8"	2700 NI/min (95.3 cfm)
N060 204 000 000	APE 2	3/8"	3500 NI/min (123.6 cfm)
N060 205 000 000	APE 2	1/2"	3500 NI/min (123.6 cfm)
N060 307 000 000	APE 3	3/4"	6700 NI/min (236.6 cfm)
N060 309 000 000	APE 3	1"	6700 NI/min (236.6 cfm)



Soft Start Valve

Our soft start valve is a pneumatic device that allows a pneumatic circuit to be pressurised gradually. With the adjustment screw shown in the drawing to the right, you can progressively increase or decrease the air flow introduced to your pneumatic circuit. This valve is designed to completely open the air flow of your circuit at 50% of the inlet pressure.



N090

AIR DISTRIBUTOR



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

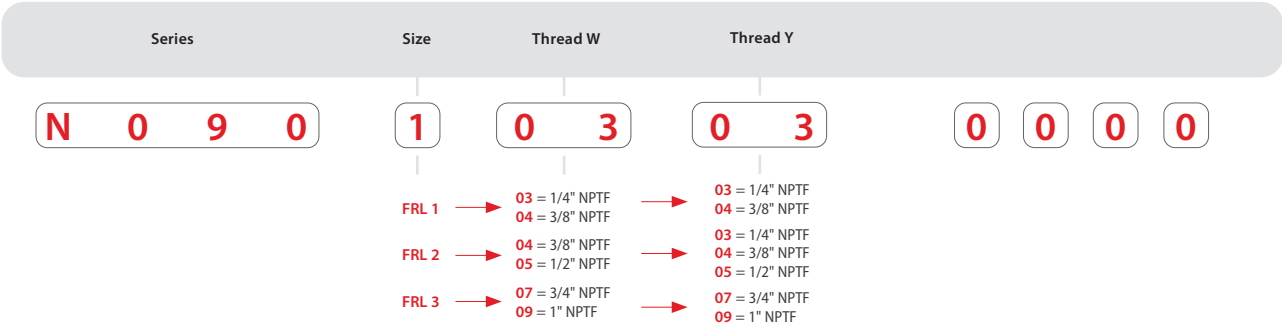
PED
2014/68/UE

II 2GD Ex h TX
Ex

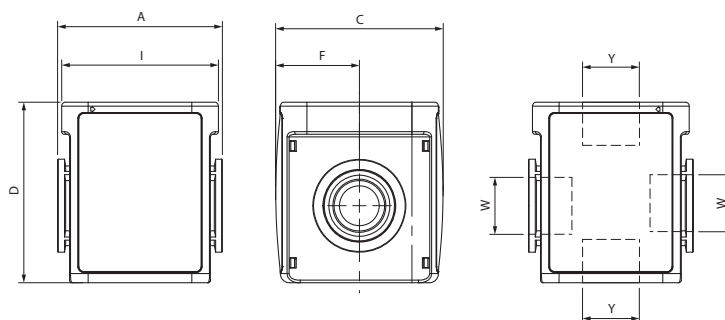
		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	3400 NI/min (120 cfm)	6100 NI/min (215.4 cfm)	11700 NI/min (413.1 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	FLUID	Compressed Air		
	MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
	TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)		
	MOUNTING POSITION	Vertical		



Part Numbering System



N090



Dimensions (mm) - FRL 1

A	C	D	W	F	I	Y
51	51	57	1/4" - 3/8"	25.5	47.5	1/4" - 3/8"

Dimensions (mm) - FRL 2

A	C	D	W	F	I	Y
62	63	68	3/8" - 1/2"	31.5	59	1/4" - 3/8" - 1/2"

Dimensions (mm) - FRL 3

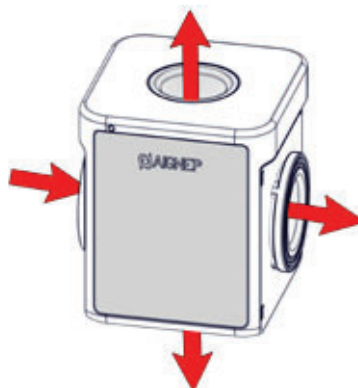
A	C	D	W	F	I	Y
90	92	89	3/4" - 1"	46	77.5	3/4" - 1"

Part Number	Size	Thread (NPTF)	Flow Rate
N090 103 030 000	DIS 1	1/4" - 1/4"	3400 NI/min (120 cfm)
N090 104 030 000	DIS 1	3/8" - 1/4"	3400 NI/min (120 cfm)
N090 104 040 000	DIS 1	3/8" - 3/8"	3400 NI/min (120 cfm)
N090 204 030 000	DIS 2	3/8" - 1/4"	6100 NI/min (215.4 cfm)
N090 204 040 000	DIS 2	3/8" - 3/8"	6100 NI/min (215.4 cfm)
N090 205 030 000	DIS 2	1/2" - 1/4"	6100 NI/min (215.4 cfm)
N090 205 050 000	DIS 2	1/2" - 1/2"	6100 NI/min (215.4 cfm)
N090 307 070 000	DIS 3	3/4" - 3/4"	11700 NI/min (413.1 cfm)
N090 209 090 000	DIS 3	1" - 1"	11700 NI/min (413.1 cfm)



Air Distributor

The air distributor allows you to branch off your air flow to several components such as pressure switches and other units. The air distributor can be placed anywhere in your air treatment unit.



N100

FR + L



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

PED
2014/68/UE

II 2GD Ex h TX
Ex

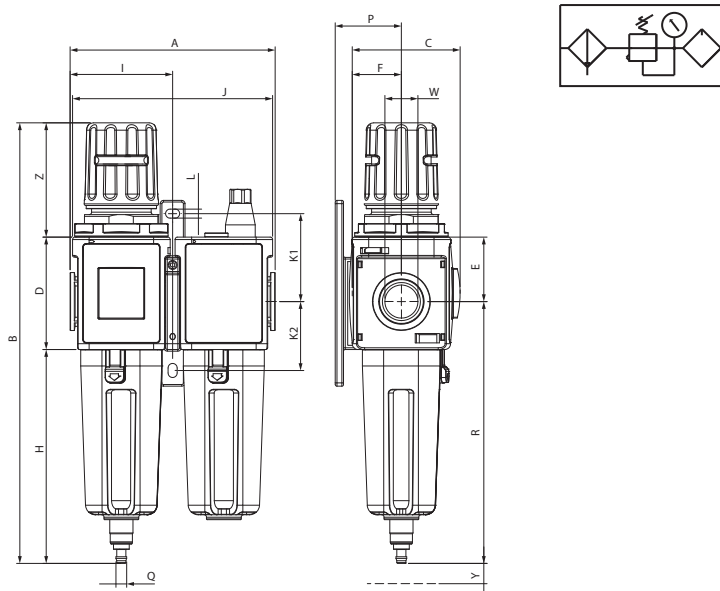
	FRL 1	FRL 2	FRL 3
METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
6 bar FLOW RATE with Δp 1 bar	1500 NI/min (52.9 cfm)	2700 NI/min (95.3 cfm)	5200 NI/min (183.6 cfm)
MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
BOWL CAPACITY	28 cm³	37 cm³	151 cm³
FILTRATION GRADE	5 μm 20 μm STANDARD		
REGULATION RANGE	0 ÷ 2 bar (29 PSI) 0 ÷ 4 bar (58 PSI) 0 ÷ 8 bar STANDARD (116 PSI) 0 ÷ 12 bar (174 PSI)		
FLUID	Compressed Air		
MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
TEMPERATURE	-10 °C (14 F) + 50 °C (122 F)		
MOUNTING POSITION	Vertical		



Part Numbering System

Series	Size	Thread	Filtration Grade	Regulation Range	Condensate exhaust System	Oil loading System	Gauge system
N 1 0 0	1	0 3	2	3	1	1	0 0
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF 05 = 1/2" NPTF 07 = 3/4" NPTF 09 = 1" NPTF	1 = 5 μm 2 = 20 μm	1 = 0÷2 bar (29 PSI) (NO G3) 2 = 0÷4 bar (58 PSI) (NO G3) 3 = 0÷8 bar (116 PSI) 4 = 0÷12 bar (174 PSI)	1 = Depressure drain 2 = Automatic with float (max 8 bar) (max 116 bar)	1 = Manual 2 = Automatic vacuum-operated	0 = Gauge incorporated 2 = Adapter for Gauge 1/8 NPTF (Gauge not included)

N100



Dimensions (mm) - FRL 1

A	B	C	D	E	F	H	I	J	K1	K2	L	P	Q	R	W	Y	Z
102	233	57	57	32.5	25.5	119	47.5	98.5	45	35.5	5.5	34.5	E.D.256 (6.5)	144	1/4"-3/8"	7	57

Dimensions (mm) - FRL 2

A	B	C	D	E	F	H	I	J	K1	K2	L	P	Q	R	W	Y	Z
124	270	67	68	39	31.5	129.5	59	121	53	41.5	5.5	40	E.D.256 (6.5)	158.5	3/8"-1/2"	9.5	72.5

Dimensions (mm) - FRL 3

A	B	C	D	E	F	H	I	J	K1	K2	L	P	Q	R	W	Y	Z
180	329	96	89	47	46	161	77.5	167.5	66	55	6.5	58	E.D.256 (6.5)	203	3/4"-1"	70	79

DEP = Vacuum-operated

A = Automatic

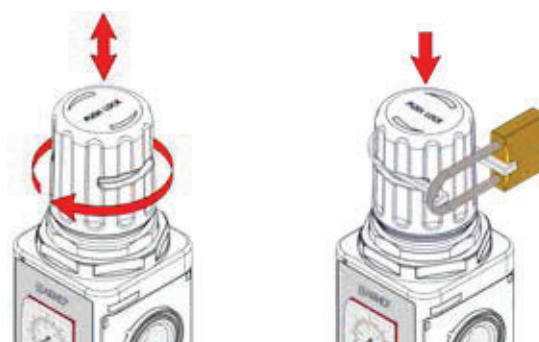
Part Number	Size	Thread (NPTF)	Filtration	Regulation	Flow Rate	Exhaust
N100 103 231 100	FR+L1	1/4"	20 µm	0 ÷ 8 bar (116 PSI)	1500 NI/min (52.9 cfm)	DEP
N100 104 231 100	FR+L1	3/8"	20 µm	0 ÷ 8 bar (116 PSI)	1500 NI/min (52.9 cfm)	DEP
N100 104 232 100	FR+L1	3/8"	20 µm	0 ÷ 8 bar (116 PSI)	1500 NI/min (52.9 cfm)	A
N100 204 231 100	FR+L2	3/8"	20 µm	0 ÷ 8 bar (116 PSI)	2700 NI/min (95.3 cfm)	DEP
N100 205 231 100	FR+L2	1/2"	20 µm	0 ÷ 8 bar (116 PSI)	2700 NI/min (95.3 cfm)	DEP
N100 205 232 100	FR+L2	1/2"	20 µm	0 ÷ 8 bar (116 PSI)	2700 NI/min (95.3 cfm)	A
N100 307 231 100	FR+L3	3/4"	20 µm	0 ÷ 8 bar (116 PSI)	5200 NI/min (183.6 cfm)	DEP
N100 309 231 100	FR+L3	1"	20 µm	0 ÷ 8 bar (116 PSI)	5200 NI/min (183.6 cfm)	DEP
N100 309 232 100	FR+L3	1"	20 µm	0 ÷ 8 bar (116 PSI)	5200 NI/min (183.6 cfm)	A



Regulating the Air Pressure

Follow the instructions below to set the air pressure:

- 1 Raise the knob to the regulating position.
- 2 Rotate to set the desired pressure, always in ascending order.
- 3 Press the knob down to lock into position.
The knob can be padlocked to prevent tampering.



N400

FIL + FC



TECHNICAL CHARACTERISTICS



Reference standard

1907/2006
REACH

2011/65/CE
RoHS

PED
2014/68/UE

II 2GD Ex h TX
Ex

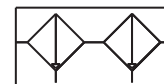
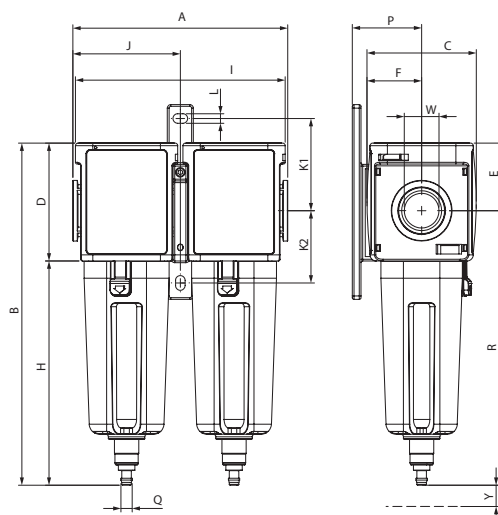
		FRL 1	FRL 2	FRL 3
	METALLIC THREAD	1/4" NPTF 3/8" NPTF	3/8" NPTF 1/2" NPTF	3/4" NPTF 1" NPTF
	TORQUE SPECIFICATIONS	Max 15 Nm	Max 20 Nm	Max 50 Nm
	6 bar FLOW RATE with Δp 1 bar	600 NI/min (21.1 cfm)	750 NI/min (26.4 cfm)	1400 NI/min (49.4 cfm)
	MOUNTING SCREWS	M5 x 15	M5 x 15	M6 x 15
	BOWL CAPACITY	28 cm³	37 cm³	151 cm³
	FILTRATION GRADE		5 μm + 0.01 μm	
	FLUID		Compressed Air	
	MAX PRESSURE	15 bar (217 PSI)	15 bar (217 PSI)	13 bar (188 PSI)
	TEMPERATURE		-10 °C (14 F) + 50 °C (122 F)	
	CONDENSATION EXHAUST		Vacuum-operated	
	MOUNTING POSITION		Vertical	



Part Numbering System

Series	Size	Thread	Filtration Grade	Condensate exhaust System
N 4 0 0	1	0 3	4	0 1 0 0 0
	FRL 1 →	03 = 1/4" NPTF 04 = 3/8" NPTF	4 = 0.01 μm	1 = Depressure drain 2 = Automatic with float (max 8 bar) (116 PSI)
	FRL 2 →	04 = 3/8" NPTF 05 = 1/2" NPTF		
	FRL 3 →	07 = 3/4" NPTF 09 = 1" NPTF		

N400



Dimensions (mm) - FRL 1

A	B	C	D	E	F	H	I	J	K1	K2	L	P	Q	R	W	Y	Z
102	176	57	57	32.5	25.5	119	47.5	98.5	45	35.5	5.5	34.5	E.D.256 (6.5)	144	1/4"-3/8"	7	57

Dimensions (mm) - FRL 2

A	B	C	D	E	F	H	I	J	K1	K2	L	P	Q	R	W	Y	Z
124	197.5	67	68	39	31.5	129.5	59	121	53	41.5	5.5	40	E.D.256 (6.5)	158.5	3/8"-1/2"	9.5	72.5

Dimensions (mm) - FRL 3

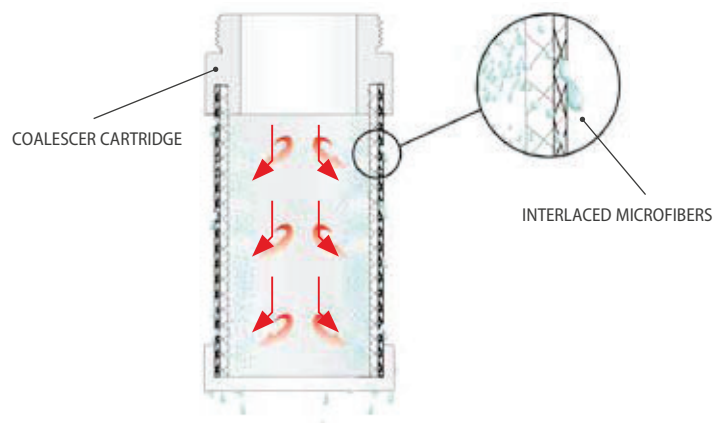
A	B	C	D	E	F	H	I	J	K1	K2	L	P	Q	R	W	Y	Z
180	250	96	89	47	46	161	77.5	167.5	66	55	6.5	58	E.D.256 (6.5)	203	3/4"-1"	70	79

Part Number	Size	Thread (NPTF)	Filtration	Flow Rate
N400 103 401 000	FIL+FC 1	1/4"	5 µm + 0.01 µm	600 NI/min (21.1 cfm)
N400 104 401 000	FIL+FC 1	3/8"	5 µm + 0.01 µm	600 NI/min (21.1 cfm)
N400 204 401 000	FIL+FC 2	3/8"	5 µm + 0.01 µm	750 NI/min (26.4 cfm)
N400 205 401 000	FIL+FC 2	1/2"	5 µm + 0.01 µm	750 NI/min (26.4 cfm)
N400 307 401 000	FIL+FC 3	3/4"	5 µm + 0.01 µm	1400 NI/min (49.4 cfm)
N400 309 401 000	FIL+FC 3	1"	5 µm + 0.01 µm	1400 NI/min (49.4 cfm)



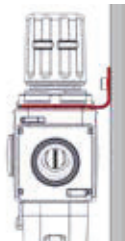
Coalescer Cartridge

The coalescer cartridge is made of a microfiber layer with an external stainless steel structure. The coalescer cartridge uses inertial impact, interception and coalescence to form liquid particles into drops. These drops will fall into the bottom of the bowl. The coalescer filter is used as an oil separator which removes oil-vapours from the air output. We recommend installing a 5 µm filter upstream to protect the coalescing filter from choking the cartridge.



REG16

CLAMP BRACKET



Part Number	
REG16 1Y 50 00 ZI	FRL 1
REG16 2Y 50 00 ZI	FRL 2
REG16 3Y 50 00 ZI	FRL 3

Y501

WALL MOUNT BRACKET



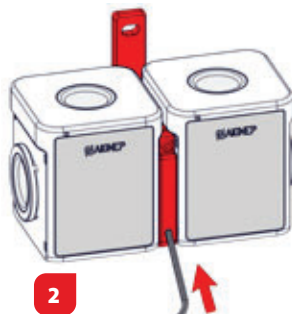
Part Number	
Y501 100 000 000	FRL 1
Y501 200 000 000	FRL 2
Y501 300 000 000	FRL 3

Y502

CONNECTION BRACKET



Part Number	
Y502 100 000 000	FRL 1
Y502 200 000 000	FRL 2
Y502 300 000 000	FRL 3



T545

COALESCER FILTER



Part Number

T545 10Y 000 000	FRL 1
T545 20Y 000 000	FRL 2
T545 30Y 000 000	FRL 3

T546

ACTIVE CARBON FILTER



Part Number

T546 10Y 000 000	FRL 1
T546 20Y 000 000	FRL 2
T546 30Y 000 000	FRL 3

It's recommended to replace the activated carbon filter (Cod. T546) every 6 months for (Cod. Y016).

FIL04

SINTERED FILTER



Part Number

FIL04 1Y3 805 SC	FRL 1	5 µm
FIL04 2Y3 805 SC	FRL 1	20 µm
FIL04 1Y3 820 SC	FRL 2	5 µm
FIL04 2Y3 820 SC	FRL 2	20 µm
FIL04 3Y3 820 SC	FRL 3	5 µm
FIL04 3Y3 820 SC	FRL 3	20 µm

Y520

BOWL FOR FILTER UNIT



Part Number

Y520 100 001 000	FRL 1	DEP
Y520 100 002 000	FRL 1	A
Y520 200 001 000	FRL 2	DEP
Y520 200 002 000	FRL 2	A
Y520 300 001 000	FRL 3	DEP
Y520 300 002 000	FRL 3	A

*DEP: Depressure drain

*A: Automatic with float

Y530

BOWL FOR LUBRICATOR UNIT



Part Number

Y530 100 000 100	FRL 1	MAN
Y530 100 000 200	FRL 1	A
Y530 200 000 100	FRL 2	MAN
Y530 200 000 200	FRL 2	A
Y530 300 000 100	FRL 3	MAN
Y530 300 000 200	FRL 3	A

*MAN: Manual oil loading system

*A: Automatic oil loading system

MAS1

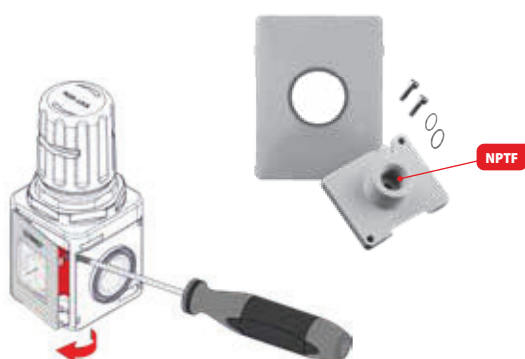
GAUGE



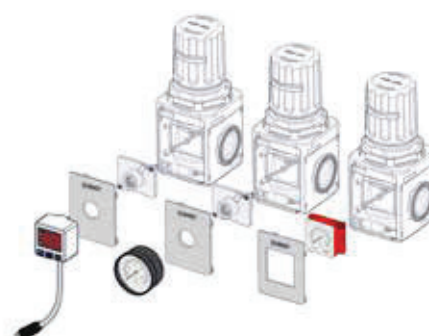
Part Number		Bar
MAS1 1N0 020 000	FRL 1	0 - 4
MAS1 1N0 040 000	FRL 1	0 - 12
MAS1 2N0 020 000	FRL 2	0 - 4
MAS1 2N0 040 000	FRL 2	0 - 12
MAS1 3N0 020 000	FRL 3	0 - 12

MAS0

GAUGE ADAPTER NPTF 1/8 NPTF



Part Number		NPTF
MAS0 112 000 000	FRL 1	1/8
MAS0 212 000 000	FRL 2	1/8
MAS0 312 000 000	FRL 3	1/8

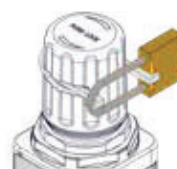


Y503

PADLOCK FOR ADJUSTER AND ADJUSTER FILTER KIT



Part Number	
Y503 100 000 000	FRL 1
Y503 200 000 000	FRL 2
Y503 300 000 000	FRL 3



Gauge



Reference Standard

EN 837-1

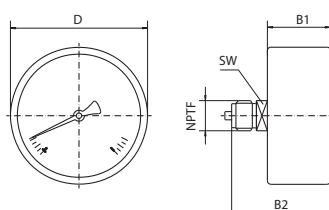
IP31
EN 60 529


Media

- Compressed Air
- Inert gases
- Steam
- Non-highly viscose and non-crystallizing liquids

MAN09

Gauge BACK CONNECTION



Code	bar	D	B1	B2	SW	G (NPTF)
MAN09 N2 040 000	0 ÷ 12	40	25	41.5	12	1/8
			min		max	
			- 20 °C			+ 60 °C

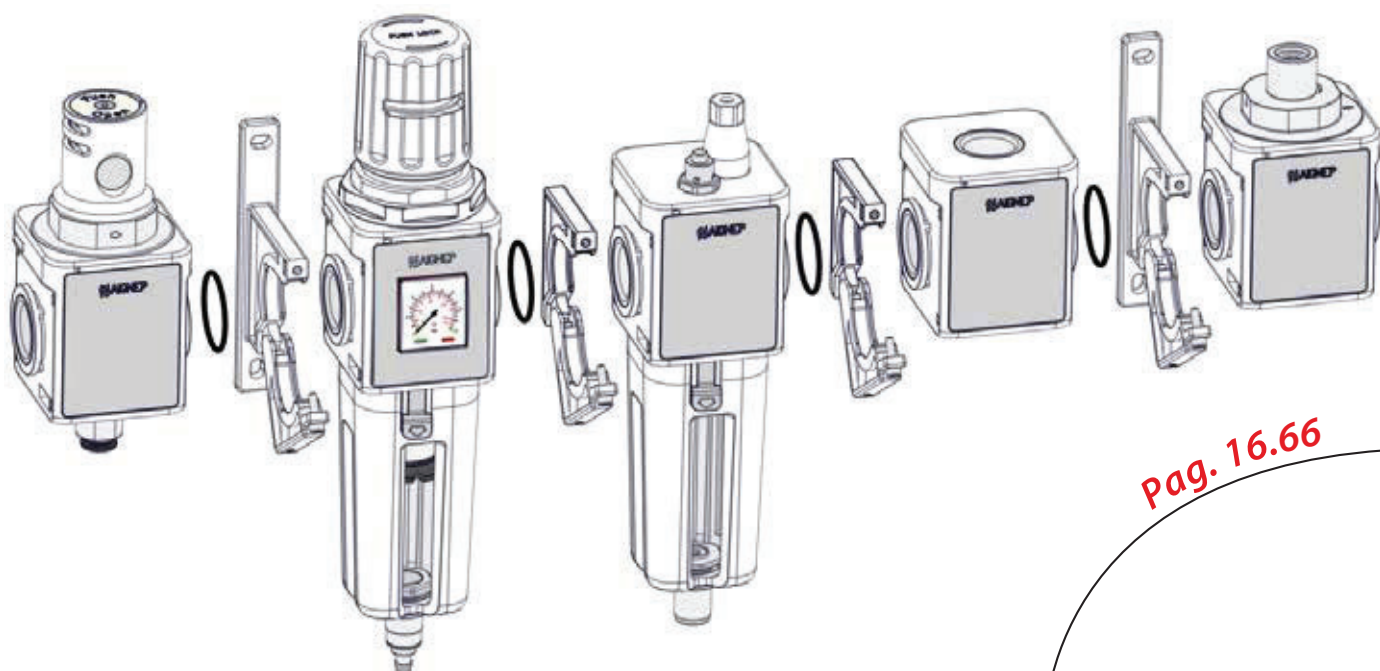


Temperature

- 20 °C

+ 60 °C

SET YOUR FRL EVO



Pag. 16.66

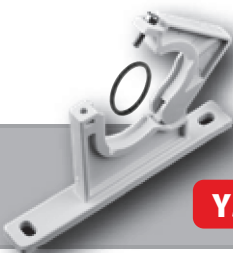
EXAMPLE:

	CODE ELEMENTS	 Y501	 Y502
1° POS	N050 103 000 000	☐	☒
2° POS	N030 103 231 000	☒	☐

Introduce the element code and accessory code into the table below to configure your FRL Evo

 Y501	 Y502
☐	☒
☒	☐
☐	☒

SET YOUR FRL EVO



Y501



Y502

	CODE ELEMENTS		
1° POS	-----		
	+	→	☐ ☐
2° POS	-----		
	+	→	☐ ☐
3° POS	-----		
	+	→	☐ ☐
4° POS	-----		
	+	→	☐ ☐
5° POS	-----		
	+	→	☐ ☐
6° POS	-----		
	+	→	☐ ☐
7° POS	-----		
	+	→	☐ ☐
8° POS	-----		
	+	→	☐ ☐
9° POS	-----		
	+	→	☐ ☐
10° POS	-----		