

# FR14MD – FR18MD

Modular filter-regulators,  
suitable for compressed air



## FEATURES

Filter-regulator for inlet pressure up to 30 bar (435 psi).

Connections 1/4" – F and 1/8" – F.

Outlet pressure is controlled by a rubber diaphragm.

Filtration: 5, 20 or 50 µm.

Overpressure relieving function.

Modular design to couple with same series: filter and lubricator.

Holes for wall mounting.

Available semi-automatic or manual condensate drain.

Available the ATEX version.

Brand  $\text{CE} \text{Ex II 2 GD Cl I CX}$ .

For use in potentially explosive atmospheres, zones: 1, 21, 2, 22 (not for mines and zone 0).

The product complies with the directive 97/23/CE PED.

Available units composed of:  
Filter-Regulator + Lubricator.

## **SPECIFICATIONS**

Filter-regulator weight: ~0.32 kg/ ~0.72 lb (transparent bowl)

~0.47 kg/~1 lb (metallic bowl)

Standard version operating temperature: -10 °C ÷ +50 °C (+14 °F ÷ +122 °F)

Main valve leakage classification: VI (bubble tight)

Flow coefficient: Kv = 0.3 Nm<sup>3</sup>/h, Cv = 0.35 US gal/min

Degree of protection: IP25

Bowl capacity: 45 cc / 1,5 US fl oz (metallic bowl)

30-45 cc / 1-1,5 US fl oz (transparent bowl)

G 1/8 port for outlet pressure gauge on both sides

Condensate level display for inlet pressure up to 20 bar

Manual or semi-automatic condensate drain

Semi-automatic drain SS: drain the condensate every time the downstream pressure is dumped.

## **MATERIALS**

Body: zinc alloy

Bowl: zinc alloy or transparent plastic "CAB"

Bonnet: PA 6.6 / POM

Filter cartridges: 5 and 20 µm PE; 50 µm sintered bronze

Main valve spring: stainless steel AISI 302

Adjusting spring: C85/AISI 302 (not in contact with the fluid)

Diaphragm: NBR

Main valve gasket: NBR

O-Ring: NBR

Manual drain: brass

Semi-automatic drain: PA 6

## **ACCESSORIES**

Ring-nut for panel or bracket mounting: P35013110304

Bracket for wall mounting (10 pcs): M14201

Gauge

## **SPARE PARTS**

Filter cartridges

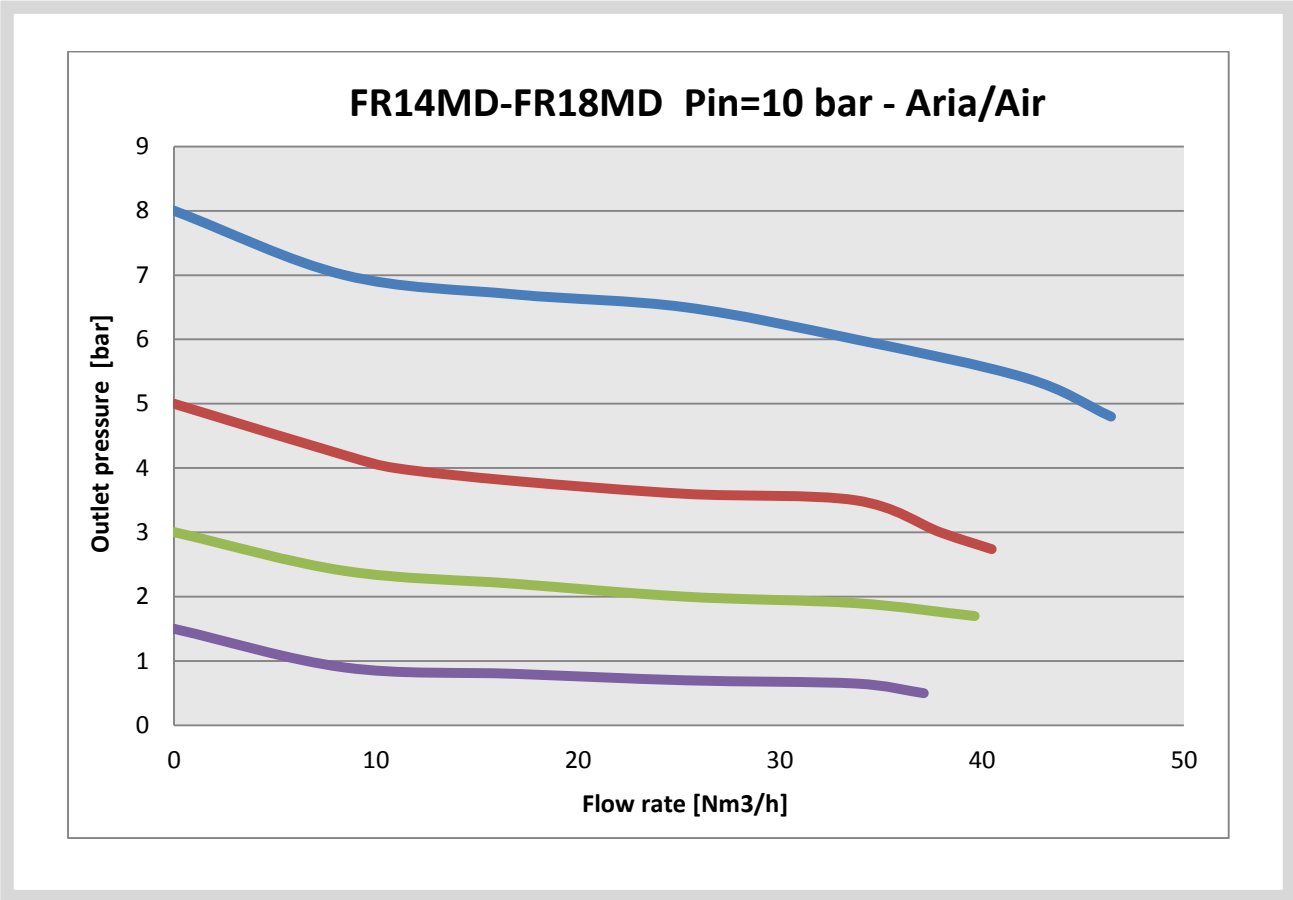
Complete kit: filter cartridge, o-ring, complete main valve, assembled diaphragm

Semi-automatic drain: C55003110304

Manual drain: M42210

Condensate display: C6001950311

flow charts



## available model types

### Filtri / Regolatore

### Filters / Regulators

Filtri/regolatori per media pressione con corpo in lega di zinco, idonei per aria compressa

Medium pressure filters/regulators with body of zinc alloy, suitable for compressed air

Corpo e tazza da fusione in lega di zinco. Struttura modulare

Cast body and bowl of zinc alloy. Modular execution

TYPE	PS bar	P.Out bar	CONNECTION IN/OUT	FILTRATION RATE	BOWL	DRAIN	CODE	MEDIUM
								<b>FR14 MD</b>
FR14 MD	12	0,8-8	G 1/4-F	20 µm	Trasp 45 cc	SS	415#N	Air
FR14 MD	16	0,8-8	G 1/4-F	20 µm	Metal 45 cc	SS	415#N	Air
FR14 MD	20	0,8-8	G 1/4-F	20 µm	Metal 45 cc	SM	415#N	Air
FR14 MD	12	0,8-8	G 1/4-F	20 µm	Trasp 30 cc	SS	415#N	Air
								<b>FR18 MD</b>
FR18 MD	12	0,8-8	G 1/8-F	20 µm	Trasp 45 cc	SS	415#M	Air
FR18 MD	16	0,8-8	G 1/8-F	20 µm	Metal 45 cc	SS	415#M	Air
FR18 MD	20	0,8-8	G 1/8-F	20 µm	Metal 45 cc	SM	415#M	Air
FR18 MD	12	0,8-8	G 1/8-F	20 µm	Trasp 30 cc	SS	415#M	Air

Trasp = Tazza trasparente / Transparent bowl

Metal = Tazza metallica / Metal bowl

SS = Scarico semiautomatico / Semiautomatic drain

SM = Scarico manuale / Manual drain

#### ATTACCHI DIVERSI DA STANDARD / CONNECTION DIFFERENT FROM STANDARD

Attacchi entrata/uscita NPT / Inlet/outlet connections NPT

#### ESECUZIONI DIVERSE DA STANDARD / EXECUTIONS DIFFERENT FROM STANDARD

Pressioni uscita diverse. P.out 0,2-1,5 / 0,3-3 / 1,5-15 bar / Outlet pressure different. P.out 0,2-1,5 / 0,3-3 / 1,5-15 bar

Pressione uscita pretarata / Pre-set outlet pressure

Pressione uscita tarata fissa, vite con dado cieco / Fixed outlet pressure, screw with cap nut

Esecuzione con scarico manuale / Manual drain

Esecuzione con filtrazione 5 micron / Filtration rate 5 micron

O-ring diversi da standard - FPM / O-ring different of standard - FPM

O-ring diversi da standard - EPDM / O-ring different from standard - EPDM

Versione non Relieving / Non Relieving execution

Stampigliatura su specifica del cliente / Not standard branding

#### ACCESSORI / ACCESSORIES

Ricambio per scarico semiautomatico in nylon C55003110304 / Spare semiautomatic drain of nylon C55003110304

Ricambio per scarico manuale M42210 / Spare for manual drain M42210

Elemento filtrante 5 micron di ricambio P25011690306 / Spare filter element 5 micron P25011690306

Visualizzatore tazza C6001950311 / Level visual sight for bowl C6001950311

Ghiera P35013110304 / Ring nut P35013110304

Staffa metallica M14201 - Confezione 10 pezzi / Bracket M14201 - 10 Pieces

## generating the product code

FR. MD			
AA	BB	CC	D E FF
AA	Attacchi / Connections	M0	G 1/8
		N0	G 1/4
		U0	1/8" NPT
		V0	1/4" NPT
BB	Tazza / Bowl	01	Tazza LL SS - 16 bar
		02	Tazza LL SM - 20 bar
		07	Tazza trasp SS - 12 bar
		10	Tazza trasp SS - 30cc - 12 bar
CC	Intervallo uscita / Outlet range	A0	0,2 - 1,5 bar
		B0	0,3 - 3 bar
		D0	0,8 - 8 bar
		E0	1,5-15 bar
D	Filtrante / Filter	A	5µm
		B	20µm
E	Marchiato / Marked	I	ID
FF	Accessori / Accessories	00	Nessun accessorio

## CODE COMPOSITION EXAMPLE

**415# N0 02 D0 B I 00**

**415#:** Filter-regulator MD

**N0:** Connections G 1/4

**02:** Metallic bowl, PS= 20 bar and manual drain

**D0:** Outlet pressure range 0,8 – 8 bar (11,6 – 116 psi)

**B:** Filtration 20 µm

**I:** Insert DEAL

**00:** No accessories

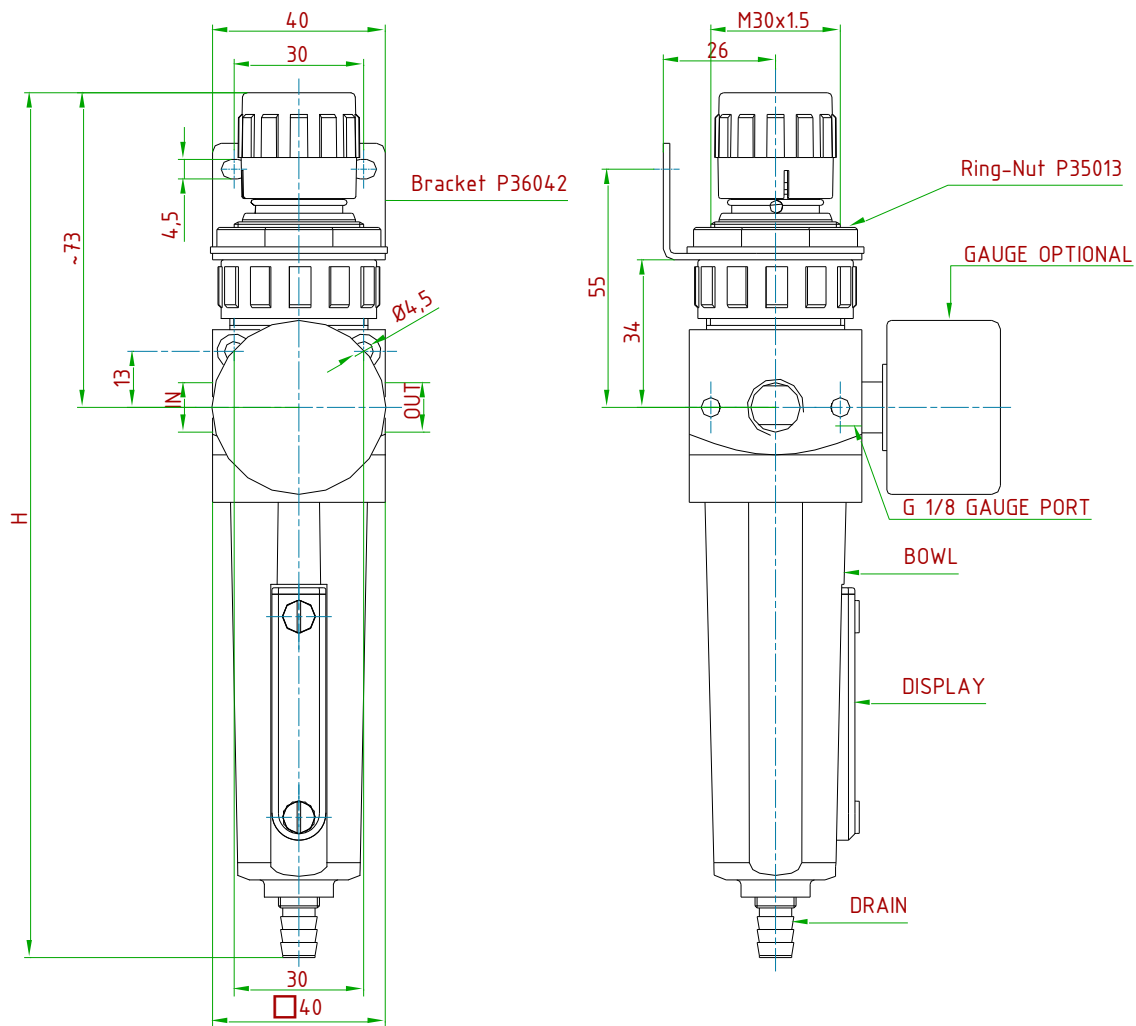
# technical drawings (all dimensions in mm)

Bracket and Ring.Nut to be ordered separately

Order number bracket: M14201

Order number Ring-Nut: P35013110304

Pout [bar]	GAUGE-ORDER NUMBER	GAUGE RANGE [bar]
0.2÷1.5	0ABMAA19	0÷2.5
0.3÷3	0ABMAA20	0÷6
0.5÷5	0ABMAA21	0÷12
0.8÷8	0ABMAA22	0÷16
1.5÷15	0ABMAA23	0÷25



TYPE	IN/OUT
FR14 MD 1/4"GF	G 1/4"-F
FR18 MD 1/8"GF	G 1/8"-F
FR14 MD 1/4"NPTF	1/4"NPT-F
FR18 MD 1/8"NPTF	1/8"NPT-F

GAS FILTRATION	
CARTRIDGE	MATERIAL
5 µm	PE
20 µm	PE
50 µm	BRONZE

PS [bar]	BOWL CAPACITY	BOWL	DRAIN	NOTE	H
12	45 cc	TRANSPARENT	SEMI-AUTOMATIC	-	~195
12	45 cc	TRANSPARENT	MANUAL	-	~191
12	30 cc	TRANSPARENT	PUSH VALVE	-	~165
12	30 cc	TRANSPARENT	SEMI-AUTOMATIC	-	~168
12	30 cc	TRANSPARENT	MANUAL	-	~163
16	45 cc	ZINC ALLOY	SEMI-AUTOMATIC	-	~201
20	45 cc	ZINC ALLOY	MANUAL	-	~196
30	45 cc	ZINC ALLOY	MANUAL	NO DISPLAY	~196
30	45 cc	ZINC ALLOY	NO DRAIN	NO DISPLAY	~187

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