

RF2 series

Maximum working pressure up to 2 MPa (20 bar) - Flow rate up to 615 l/min



Description

Technical data

Return filter

Maximum working pressure up to 2 MPa (20 bar)
Flow rate up to 615 l/min

RF2250 and RF2350 are ranges of return filters for side tank mounting with integrated shut-off valve for protection of the reservoir against the system contamination.

They are placed below the minimum oil level, directly connected to the return line of the system.

The shut-off valve closes automatically when the cover is removed, allowing the filter element replacement without the fluid drop.

Available features:

- Female threaded connections up to 1" and flanged connections up to 1 1/2", for a maximum flow rate of 615 l/min
- Bypass valve, to relieve excessive pressure drop across the filter media
- Magnetic filter, to hold the ferrous particles
- Visual, electrical and electronic clogging indicators

Common applications:

- Compact mobile machines
- Compact industrial equipment

Filter housing materials

- Filter body: Aluminium
- Cover: Polyamide, GF reinforced
- Valve: Polyamide, GF reinforced - Steel
- Anti-Emptying valve: Steel

Bypass valve

Opening pressure 175 kPa (1.75 bar) $\pm$ 10%

Δp element type

- Microfibre filter elements - series CU: 10 bar
- Fluid flow through the filter element from OUT to IN

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

From -25 °C to +110 °C

Note

RF2 250-350 filters mounting, see the drawings on page 263 and following

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]		Volumes [dm ³]	
	Length	1	Length	1
RF2 250		2.6		2.0
RF2 350		2.8		2.0

Flow rates [l/min]

Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
RF2 250	1	148	184	278	307	447	615	447	485
RF2 350	1	148	184	278	307	447	615	447	485

Maximum flow rate for a complete return filter with a pressure drop $\Delta p = 0.5$ bar.

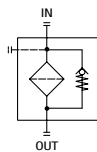
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

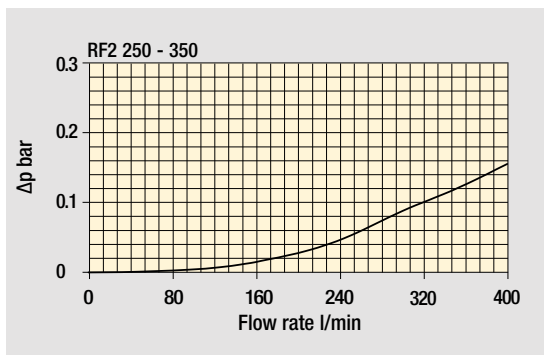
Filter series	Style B - E
RF2 250	•
RF2 350	•

Hydraulic symbols

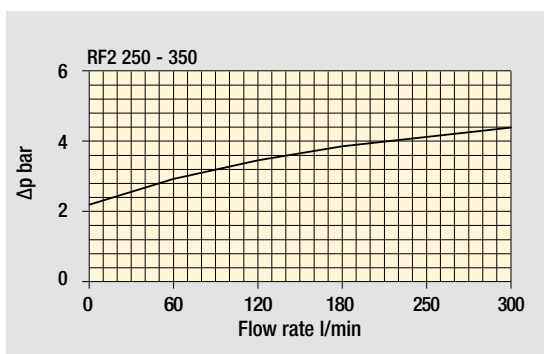


Pressure drop

Filter housings Δp pressure drop



Bypass valve pressure drop



The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

RF2 RF2250 - RF2350

Designation & Ordering code

COMPLETE FILTER

Series and size

RF2250
RF2350

Configuration example 1: RF2250 V F2 E M25 P01
Configuration example 2: RF2350 A G1 B A25 P01

Seals and treatments

A NBR
V FPM

Connections	Aux (only RF2350)	Mxx	Pxx
G1 G 1 1/2"	G 1"	•	•
G2 1 1/2" NPT	-	•	-
G3 SAE 24 - 1 7/8" - 12 UN	SAE 16 - 1 5/16" - 12 UN	•	•
G4 G 1 1/4"	-	•	-
G5 1 1/4" NPT	-	•	-
G6 SAE 20 - 1 5/8" - 12 UN	-	•	-
G7 G 1"	-	•	-
G8 1" NPT	-	•	-
G9 SAE 16 - 1 5/16" - 12 UN	-	•	-
F1 1 1/2" SAE 3000 psi/M	-	•	-
F2 1 1/2" SAE 3000 psi/UNC	-	•	-

Bypass valve

B With bypass 1.75 bar
E With bypass 3 bar

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm
A06 Inorganic microfiber 6 µm
A10 Inorganic microfiber 10 µm
A16 Inorganic microfiber 16 µm
A25 Inorganic microfiber 25 µm
M25 Wire mesh 25 µm
M60 Wire mesh 60 µm
M90 Wire mesh 90 µm
P10 Resin impregnated paper 10 µm
P25 Resin impregnated paper 25 µm

Execution

P01 MP Filtri standard
Pxx Customized

FILTER ELEMENT

Element series and size

CU250

Configuration example 1: CU250 M25 N P01
Configuration example 2: CU250 A25 V P01

Filtration rating (filter media)

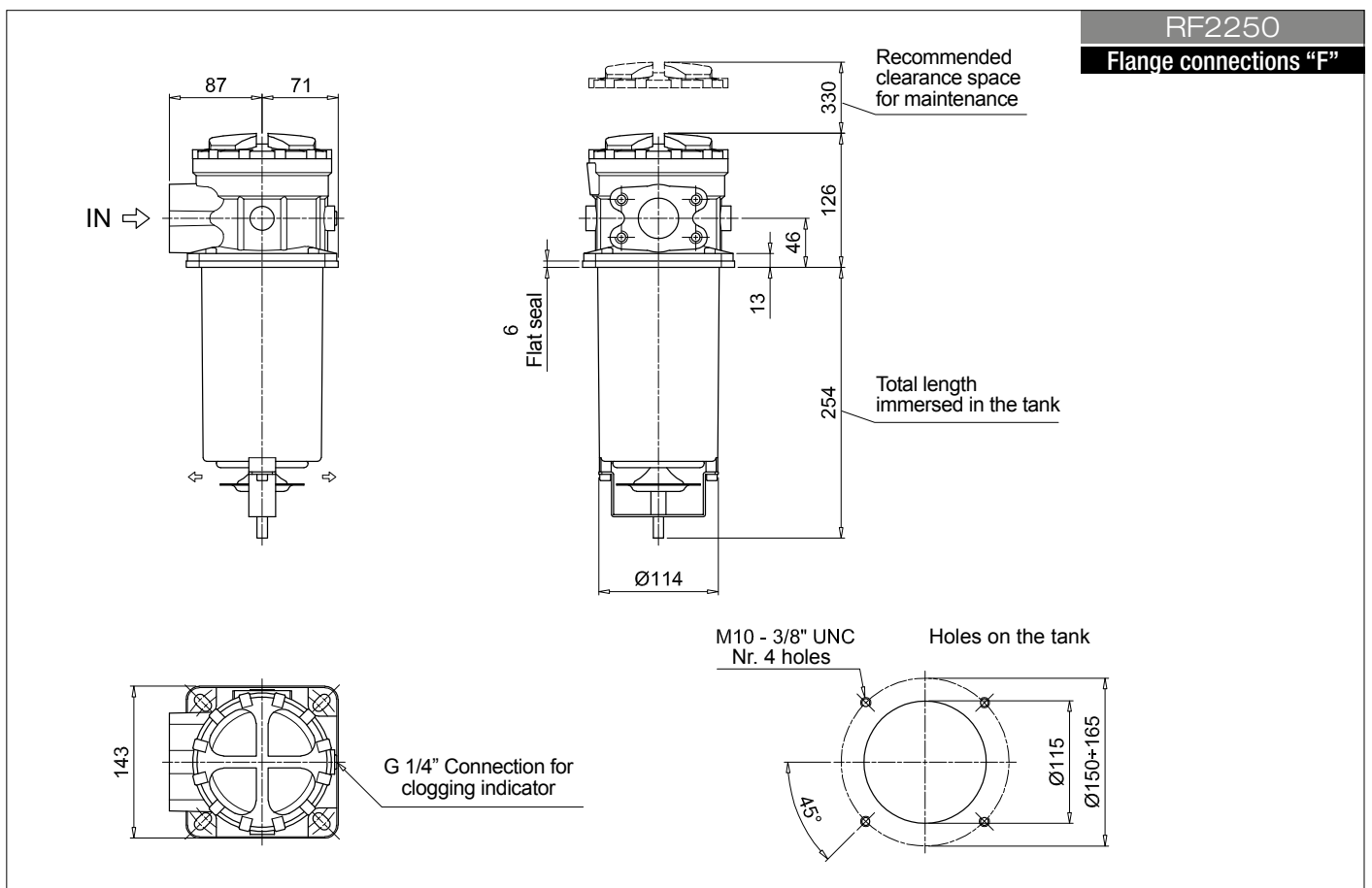
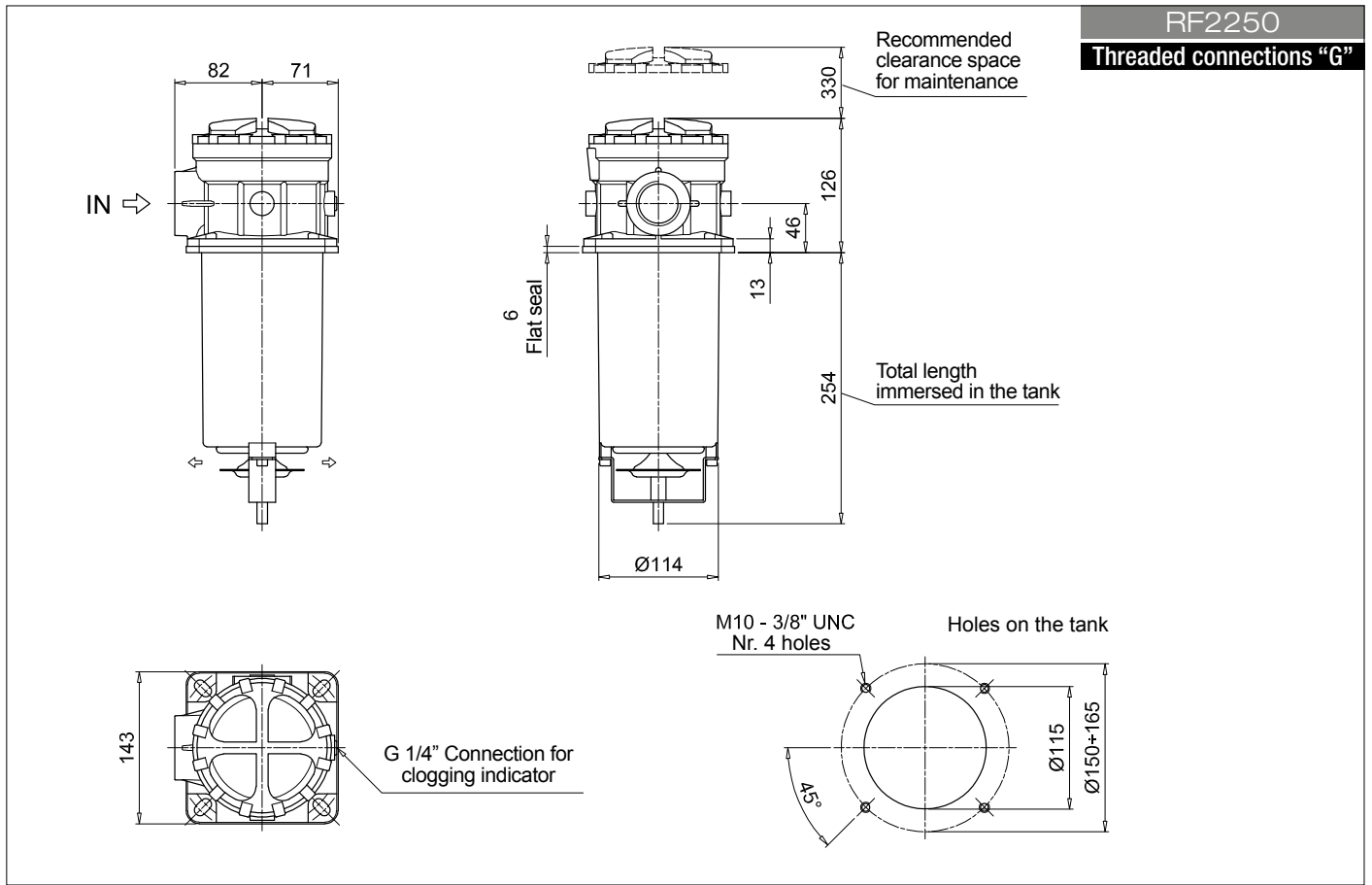
A03 Inorganic microfiber 3 µm
A06 Inorganic microfiber 6 µm
A10 Inorganic microfiber 10 µm
A16 Inorganic microfiber 16 µm
A25 Inorganic microfiber 25 µm
M25 Wire mesh 25 µm
M60 Wire mesh 60 µm
M90 Wire mesh 90 µm
P10 Resin impregnated paper 10 µm
P25 Resin impregnated paper 25 µm

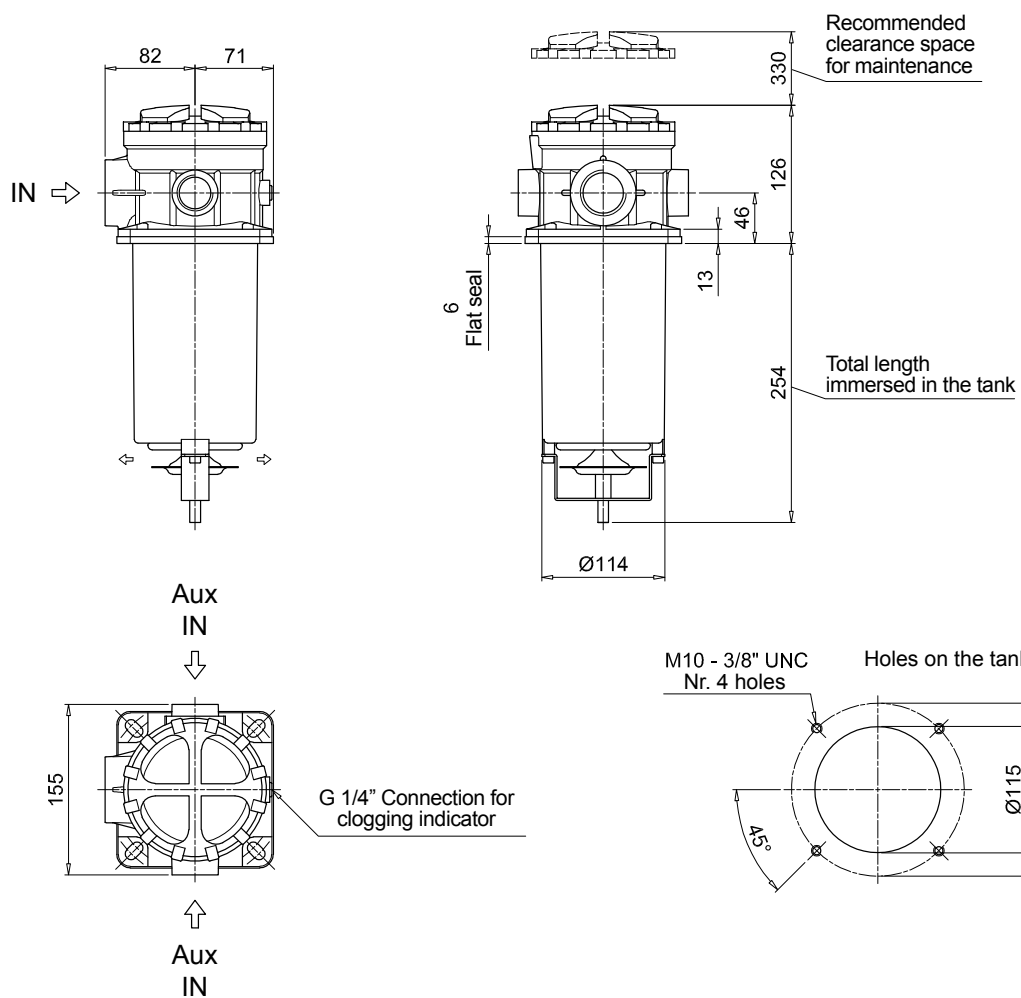
Seals and treatments

N NBR
V FPM

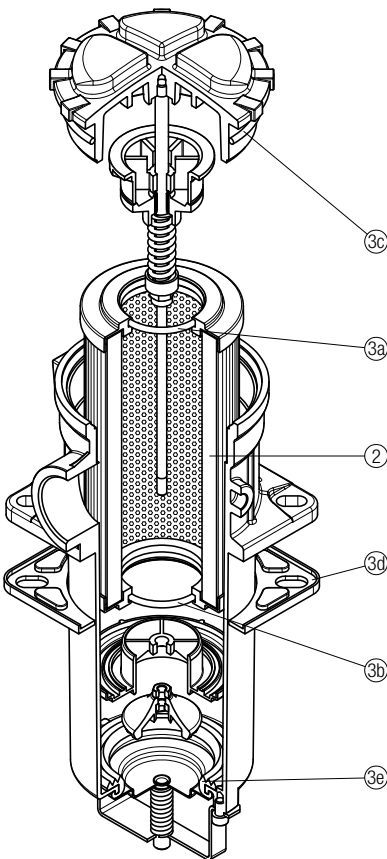
Execution

P01 MP Filtri standard
Pxx Customized





RF2 250 - 350



Q.ty: 1 pc.		Q.ty: 1 pc.	
Item:	2	3 (3a ÷ 3e)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
RF2 250	See order table	02050586	02050587
RF2 350			

Designation & Ordering code

BAROMETRIC (PRESSURE) INDICATORS

Series				Configuration example 1: BEA A 15 H A 41 P01 EX									
BE Electrical pressure indicator				Configuration example 2: BL A 20 H A 71 P01									
BL Electrical/Visual pressure indicator				Configuration example 3: BV R 14 P01									
BV Visual pressure indicator				Configuration example 4: BV P 20 H P01									
Type	BE	BL	BV										
A Standard type	•	•	A Axial connection pressure gauge										
M With wired electrical connection	•	-	R Radial connection pressure gauge										
T With thermal switch	•	-	P Visual indicator with automatic reset										
			Q Visual indicator with manual reset										
Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ								
14 1.4 bar	-	-	-	•	-								
15 1.5 bar	•	-	•	-	•								
20 2.0 bar	•	•	•	-	•								
25 2.5 bar	-	•	-	•	-								
Seals	BE	BLA	BVA-BVR	BVP-BVQ									
H HNBR	•	•	-	•									
Thermostat	BEA-BEM	BET	BLA										
A Without thermostat	•	-	•										
F With thermostat	-	•	-										
Electrical connections					BEA	BEM	BET	BL					
10 Connection AMP Superseal series 1,5					-	-	•	-					
30 Connection Deutsch DT-04-2-P					-	-	•	-					
41 Connection via four-core cable					-	•	-	-					
50 Connection EN 175301-803					•	-	-	-					
51 Connection EN 175301-803, transparent base with lamps 24 Vdc					-	-	-	•					
52 Connection EN 175301-803, transparent base with lamps 110 Vdc					-	-	-	•					
53 Connection EN 175301-803, transparent base with lamps 230 Vac					-	-	-	•					
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc					-	-	-	•					
Option													
P01 MP Filtri standard													
Pxx Customized													
Certifications					BEA	BEM-BET	BL	BV					
Without					•	•	•	•					
EX ATEX certification					•	-	-	-					
UL UL certification					•	-	-	-					

DIFFERENTIAL PRESSURE INDICATORS

Series
DE Electrical differential pressure indicator
DL Electrical/Visual differential pressure indicator
DT Electrical differential pressure indicator
DV Visual differential pressure indicator

Configuration example 1:	DE	M	20	H	F	50	P01
Configuration example 2:	DE	U	50	V	A	50	P01
Configuration example 3:	DL	E	20	V	A	71	P01
Configuration example 4:	DT	A	20	H	F	70	P01
Configuration example 5:	DV	M	20	V			P01

Type	DE	DL	DT
A Standard type	•	•	•
M With wired electrical connection	•	-	-
U Standard type 210 bar, UL certified	•	-	-
E For high power supply	-	•	-
S Compact version	•	-	-

DV
A With automatic reset
M With manual reset
S With automatic reset

Pressure setting	DEA	DEM	DEU	DES	DL	DT	DVA	DVM	DVS
12 1.2 bar	-	-	-	•	-	-	-	-	•
20 2.0 bar	•	•	•	-	•	•	•	•	-
25 2.5 bar	-	-	-	•	-	-	-	-	•

Seals	DEA	DEM	DEU	DES	DL	DT	DVA	DVM	DVS
H HNBR	•	•	-	•	•	•	•	•	•
V FPM	•	•	•	-	•	•	•	•	-

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
A Without thermostat	•	•	•	•	•	•	-
F With thermostat	-	•	-	-	-	•	•

Electrical connections	DEA	DEM	DEU	DES	DLA	DLE	DT
10 Connection AMP Superseal series 1.5	-	•	-	•	-	-	-
20 Connection AMP Timer Junior	-	•	-	-	-	-	-
30 Connection Deutsch DT-04-2-P	-	•	-	•	-	-	-
35 Connection Deutsch DT-04-3-P	-	•	-	-	-	-	-
50 Connection EN 175301-803	•	-	•	-	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	-	•	-	-
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	-	•	-	-
70 Connection IEC 61076-2-101 D (M12)	-	-	-	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	-	•	-	-
80 Connection Stud #10-32 UNF	-	-	-	•	-	-	-

Option
P01 MP Filtri standard
Pxx Customized

Certifications	DEU	OTHERS
Without	-	•
UL UL certification	•	-

PLUGS

Series
T2 Plug
T4 Plug

Seals	T2	T4
A NBR	-	•
H HNBR	•	-
V FPM	•	-

Configuration example	T2	H
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