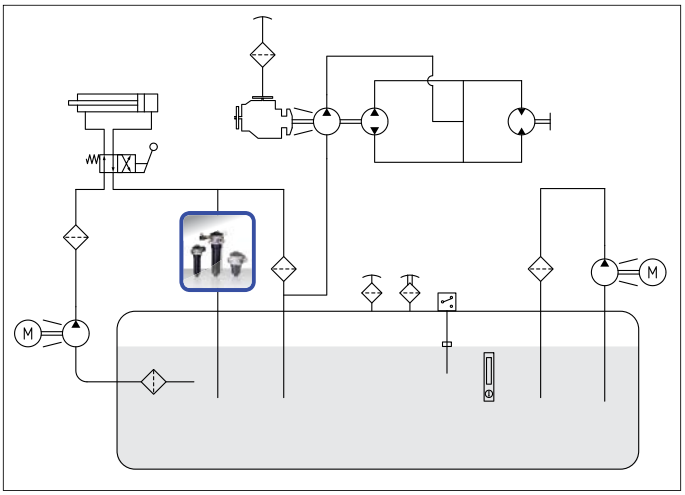
RFA

TANK TOP RETURN FILTER, INBUILT BREATHER

SOFIMA FILTERS
HYDRAULIC



RFA

1 MPa (10 bar)

Port sizes: 1/2" ÷ 1"
Flow rates: 30 ÷ 140 l/min

TECHNICAL DATA
Max. working pressure: 1 MPa (10 bar)
Fatigue test: 0 ÷ 1 MPa (10 bar) / 300.000 cycles min.
Bypass valve: Δp 170 kPa (1,7 bar) ± 0,1 (CD-CV-MS-RT)
Δp 250 kPa (2,5 bar) ± 0,3 (FV-FD-FC)

Filter element collapse pressure:
Δp 300 kPa (3 bar) CD - CV
Δp 1 MPa (10 bar) FD - FV - MS - RT

Working temperature: -25 ÷ +110°C

MATERIALS
Cover: polyamide
Head: aluminium
Bowl: polyamide
Seals: standard NBR

COMPATIBILITY (ISO 2943:1999)
Full with fluids: HH-HL-HM-HV-HTG
(according to ISO 6743/4).
For fluids different than the above mentioned,
please contact our Sales Department.

All tests performed according
to the following standards:
ISO 2941: Element collapse resistance test
ISO 2942: Production integrity test
ISO 2943: Fluids compatibility
ISO 3723: End load test method
ISO 3724: Flow fatigue resistance method
ISO 3968: Pressure drop versus flow rate
ISO 16889: Multipass test.
For further information contact our Technical Dept.

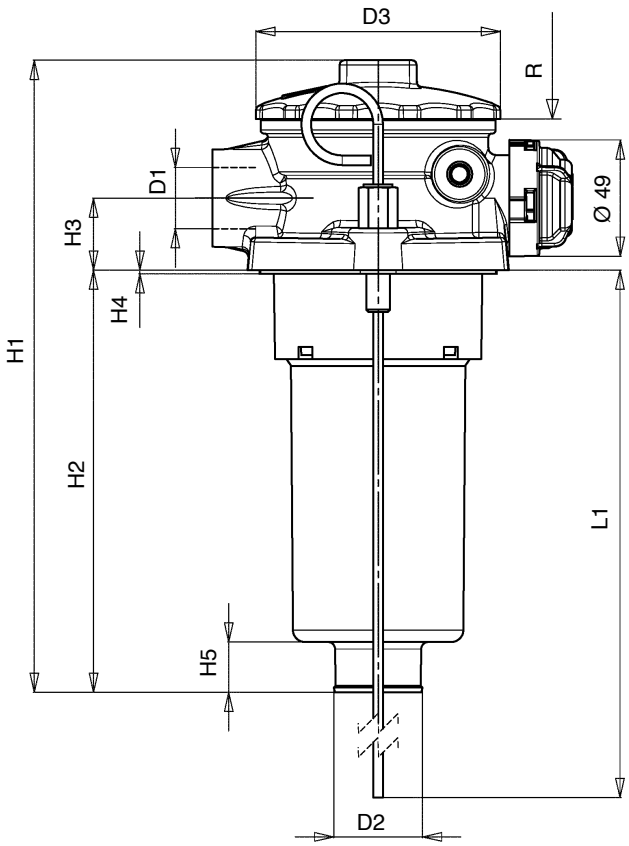
HOW TO ORDER THE COMPLETE FILTER

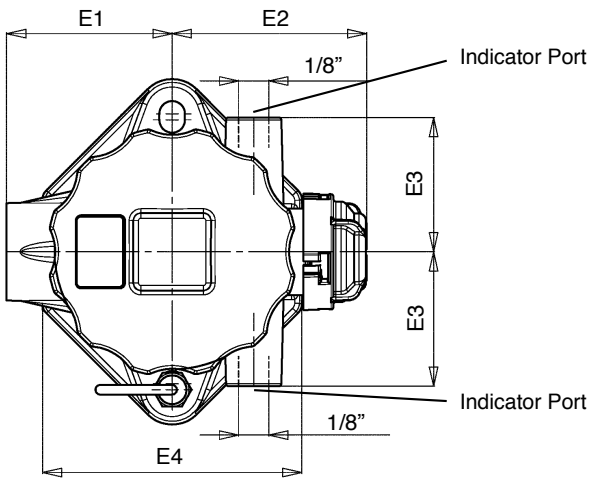
HOW TO ORDER THE FILTER ELEMENT

RFA	Type	110	210	220	230	Type	CRA
	Filter media					**Filter media**	
	FC = 7µm(c) — Inorganic fiber ß>1000	FC	FC	FC	FC	FC = 7µm(c) — Inorganic fiber ß>1000	
	FD = 12µm(c) — Inorganic fiber ß>1000	FD	FD	FD	FD	FD = 12µm(c) — Inorganic fiber ß>1000	
	FV = 21µm(c) — Inorganic fiber ß>1000	FV	FV	FV	FV	FV = 21µm(c) — Inorganic fiber ß>1000	
	CD = 10µ — Paper	CD	CD	CD	CD	CD = 10µ — Paper	
	CV = 25µ — Paper	CV	CV	CV	CV	CV = 25µ — Paper	
	MS = 60µ — Steel wire mesh	MS	MS	MS	MS	MS = 60µ — Steel wire mesh	
	RT = 30µ — Steel wire mesh	RT	RT	RT	RT	RT = 30µ — Steel wire mesh	
1	**Seals**					**Seals**	1
	1 = NBR Nitrile	1	1	1	1	1 = NBR Nitrile	
B	**Bypass type**						
	B = 170 kPa (1,7 bar) > CD - CV - MS - RT 250 kPa (2,5 bar) > FC - FD - FV	B	B	B	B		
	Ports						
	B = BSP	B	B	B	B		
	N = NPT	N	N	N	N		
	S = SAE	S	S	S	S		
	Port size						
	3 = 1/2”	3	-	-	-		
	4 = 3/4”	4	4	4	4		
	5 = 1”	-	5	5	5		
	Indicators					**For filter elements**	
	05 = Ports, plugged	05	05	05	05	All models	
	30 = Pressure gauge	30	30	30	30	All models	
	P1 = Pressure switch 150 kPa (1,5 bar) - SPDT	P1	P1	P1	P1	CD - CV - RT - MS	
	P6 = Pressure switch 200 kPa (2 bar) - SPDT	P6	P6	P6	P6	FC - FD - FV	
	Accessories						
	S = Without	S	S	S	S		
	C = With air breather, polyester	C	C	C	C		
	D = With air breather, metal wire	D	D	D	D		
	Accessories						
	S = Without	S	S	S	S		
	H = With dipstick	H	H	H	H		

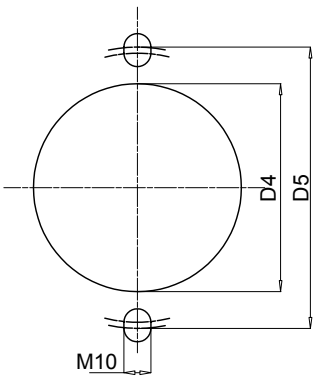
DIMENSIONAL LAYOUT

(mm)





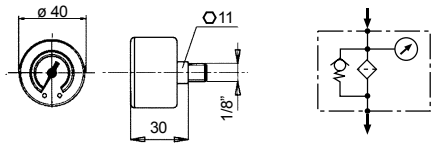
TANK MOUNTING PATTERN



Type	D1	D2	D3	D4	D5	E1	E2	E3	E4	H1	H2	H3	H4	H5	L1	R	Weight Kg
RFA110	1/2" ÷ 3/4"	28	75	60÷63	82÷88	50	70	28	77	243	178	24	2	16	380	220	0,40
RFA210	3/4" ÷ 1"	36	104	87÷91	110÷115	70	83	37	108	200	110	30	1,5	22	370	190	0,84
RFA220	3/4" ÷ 1"	36	104	87÷91	110÷115	70	83	37	108	265	175	30	1,5	22	370	240	0,87
RFA230	3/4" ÷ 1"	36	104	87÷91	110÷115	70	83	37	108	365	275	30	1,5	22	370	350	0,92

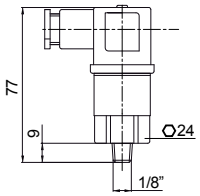
CLOGGING INDICATORS

NBR	FKM	Pressure gauge
30	-	Scale 0 ÷ 600 kPa (6 bar)

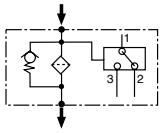


NBR	FKM	Pressure switch
P1	-	Setting 150 kPa (1,5 bar)
P6	-	Setting 200 kPa (2 bar)

SPDT, C.C. 30V: > max resistive or inductive load 3A - 1A respectively
C.A. 125 or 250V: > max resistive or inductive load 3A - 0,5A respectively
Protection IP65 - Connector DIN 43650



ATEX 3 GD EEx e T6



FLOW RATES

(l/min)

Δp = 30 ÷ 40 kPa (0,3 ÷ 0,4 bar)

Type	Filter Media					
	FD	FV	CD	CV	RT	MS
RFA110 (port 3/4")	40	50	55	60	65	70
RFA210 (port 1")	45	55	60	65	70	75
RFA220 (port 1")	70	80	85	90	95	120
RFA230 (port 1")	100	115	120	130	135	140

The reference fluid has a kinematic viscosity of 30 cSt and a density of 0,86 Kg/dm³.
For different oil viscosity please contact our Sales Department for further information.

FLOW RATES

(l/min)

for air breather element

Δp kPa (bar)	Type	
	C (3μ)	D (10μ)
5 (0,05)	100	160
10 (0,10)	180	250

DIRT HOLDING CAPACITY

(g) ISO MTD Δp = 500 kPa (5 bar)

Type	Filter Media	
	FD Δp 250 kPa (2,5 bar)	FV Δp 250 kPa (2,5 bar)
CRA110	11,5	18,4
CRA210	14,9	20,7
CRA220	21,8	34,5
CRA230	32,2	50,6

FILTER AREA

(cm²)

Type	Filter Media			
	RT	MS	CD	CV
CRA110	680	680	1225	1225
CRA210	660	660	1500	1500
CRA220	1004	1004	2295	2295
CRA230	1524	1524	3495	3495