

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

UKŁADY HYDRAULICZNE

**HYDROMA**

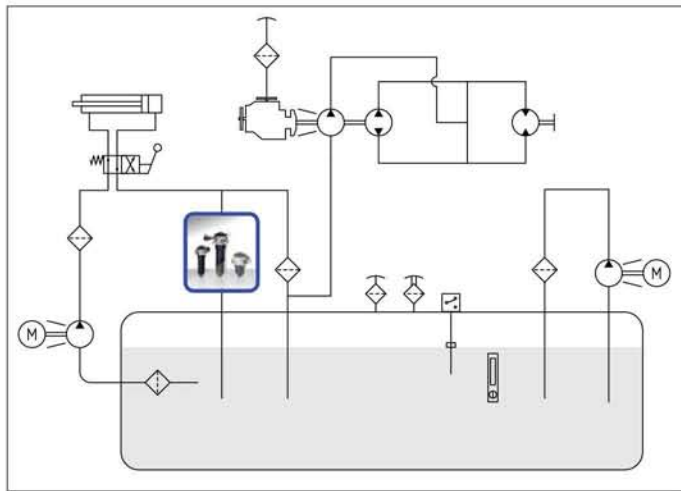
ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

# RFA



Return Filters

**TANK TOP RETURN FILTER, INBUILT BREATHER**



## 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:  $\Delta p$  170 kPa (1,7 bar)  $\pm$  0,1 (CD-CV-MS-RT)  
 $\Delta p$  250 kPa (2,5 bar)  $\pm$  0,3 (FV-FD-FC)

Filter element collapse pressure:  
 $\Delta p$  300 kPa (3 bar) CD - CV  
 $\Delta p$  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.

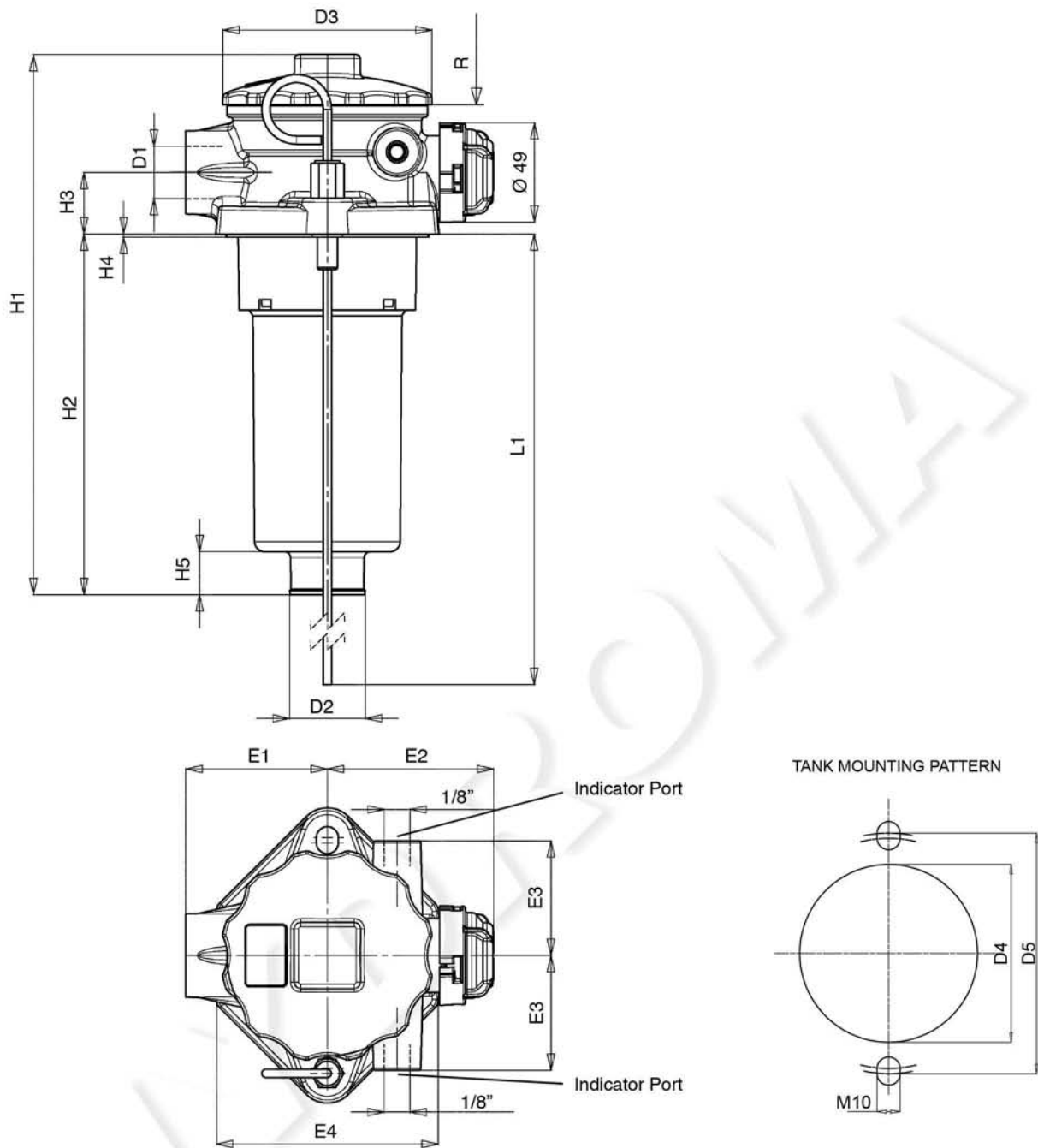
All tests performed according  
to the following standards:  
ISO 2941: Element collapse resistance test  
ISO 2942: Production integrity test  
ISO 2943: Fluids compatibility  
ISO 3723: End load test method  
ISO 3724: Flow fatigue resistance method  
ISO 3968: Pressure drop versus flow rate  
ISO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

For further information contact our Technical Dept.

RFA	Type	110	210	220	230	Type	CRA
	<b>Filter media</b>					<b>Filter media</b>	
	FC = 7µm(e) FD = 12µm(e) Inorganic fiber β>1000 FV = 21µm(e)	FC	FC	FC	FC	FC = 7µm(e) FD = 12µm(e) Inorganic fiber β>1000 FV = 21µm(e)	
	CD = 10µ Paper CV = 25µ	CD	CD	CD	CD	CD = 10µ Paper CV = 25µ	
	MS = 60µ Steel wire mesh RT = 30µ	MS	MS	MS	MS	MS = 60µ Steel wire mesh RT = 30µ	
1	<b>Seals</b>					<b>Seals</b>	1
	1 = NBR Nitrile	1	1	1	1	1 = NBR Nitrile	
B	<b>Bypass type</b>						
	B = 170 kPa (1,7 bar) > CD - CV - MS - RT 250 kPa (2,5 bar) > FC - FD - FV	B	B	B	B		
	<b>Ports</b>						
	B = BSP	B	B	B	B		
	N = NPT	N	N	N	N		
	S = SAE	S	S	S	S		
	<b>Port size</b>						
	3 = 1/2"	3	-	-	-		
	4 = 3/4"	4	4	4	4		
	5 = 1"	-	5	5	5		
	<b>Indicators</b>					<b>For filter elements</b>	
	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	
	<b>Accessories</b>						
	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		
	<b>Accessories</b>						
	S = Without	S	S	S	S		
	H = With dipstick	H	H	H	H		

**DIMENSIONAL LAYOUT**

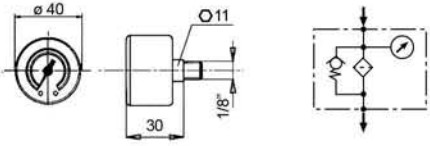
(mm)



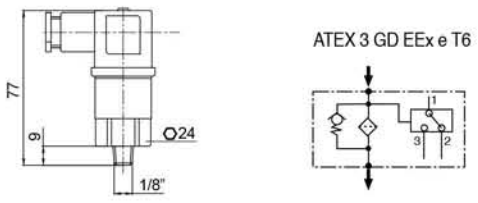
Type	D1	D2	D3	D4	D5	E1	E2	E3	E4	H1	H2	H3	H4	H5	L1	R	Weight Kg
RFA110	1/2" ÷ 3/4"	28	75	60÷63	82÷88	50	70	28	77	243	178	24	2	16	380	220	0,40
RFA210	3/4" ÷ 1"	36	104	87÷91	110÷115	70	83	37	108	200	110	30	1,5	22	370	190	0,84
RFA220	3/4" ÷ 1"	36	104	87÷91	110÷115	70	83	37	108	265	175	30	1,5	22	370	240	0,87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

## FLOW RATES

(l/min)

$\Delta p = 30 \div 40$  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/dm<sup>3</sup>.  
For different oil viscosity please contact our Sales Department for further information.

## FLOW RATES

(l/min)

for air breather element

$\Delta p$ kPa (bar)	Type	
	C (3 $\mu$ )	D (10 $\mu$ )
5 (0,05)	100	160
10 (0,10)	180	250

## DIRT HOLDING CAPACITY

(g) ISO MTD  $\Delta p = 500$  kPa (5 bar)

Type	Filter Media	
	FD $\Delta p$ 250 kPa (2,5 bar)	FV $\Delta p$ 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

(cm<sup>2</sup>)

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