

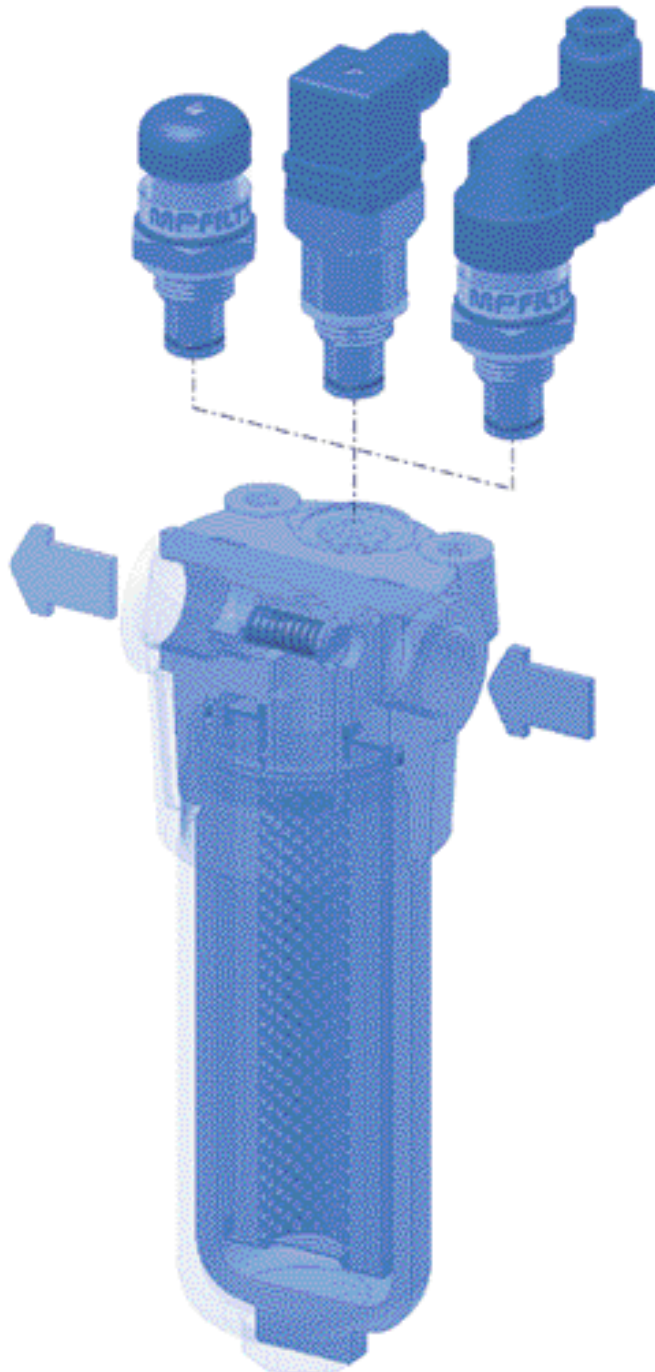
# FMM 050



# FMM

# SERIES 050

**Working pressure**  
**280 bar**

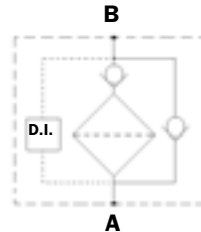
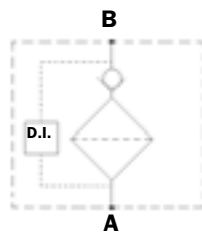
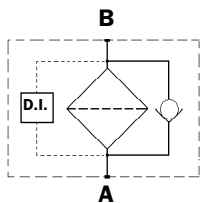
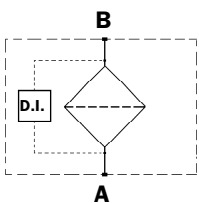


Style S

Style B

Style T

Style D



# Technical data

## Filter body (Materials)

- Head: Cast iron (chemical heat treatment)
- Housing: Steel (chemical heat treatment)
- Bypass valve: Steel

## Pressure

- Working pressure: 280 bar (28 MPa)
- Test pressure: 420 bar (42 MPa)
- Burst pressure: 840 bar (84 MPa)
- Pulsed pressure fatigue test 1,000,000 of cycles with variable pressure from 0 to 280 bar (28 MPa)

## Temperature

- From - 25°C to + 110°C

## Bypass valve

- Opening pressure 6 bar ±10%
- Other opening pressures on request.

## Elements type Δp

- Micro fibre filter elements series N: 20 bar
- Micro fibre filter elements series H: 210 bar
- Stainless steel mesh elements series N: 20 bar
- Oil flow from exterior to interior.

## Seals

- Standard Nitrile (NBR) series A
- Optional FPM series V

## Weights without filter elements (kg)

### Length

- FMM050-1 2,6
- FMM050-2 3.6
- FMM050-3 3.9
- FMM050-4 4.5
- FMM050-5 6.1

## Filter internal volumes (dm³)

### Length

- FMM050-1 0.38
- FMM050-2 0.48
- FMM050-3 0.58
- FMM050-4 0.69
- FMM050-5 0.86

## Connections

In-line Inlet/Outlet

## Compatibility

- Bodies compatible with:  
Mineral oils to ISO 2943 - aqueous emulsions  
Synthetic fluids, water glycol.
- Filter elements compatible with:  
Mineral oils to ISO 2943 - aqueous emulsions  
Synthetic fluids, water glycol.

- Nitrile (NBR) seals series A, compatible with:  
Mineral oils to ISO 2943 - aqueous emulsions  
Synthetic fluids, water glycol.
- V series FPM seals, compatible with:  
Synthetic fluids type HS-HFDR-HFDS-HFDU.

## Filter Element Area

Filter element in stainless steel mesh

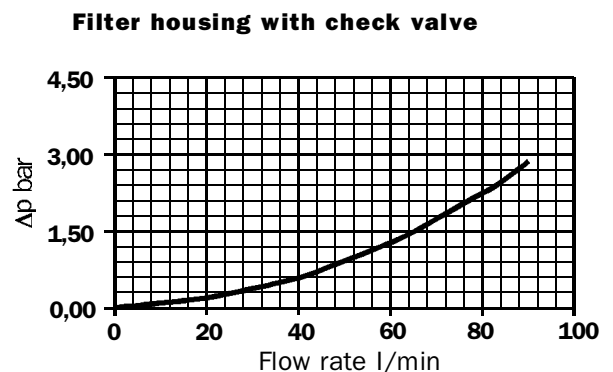
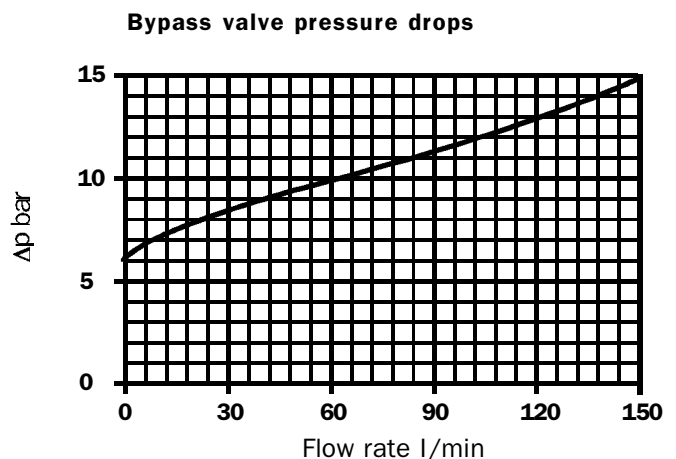
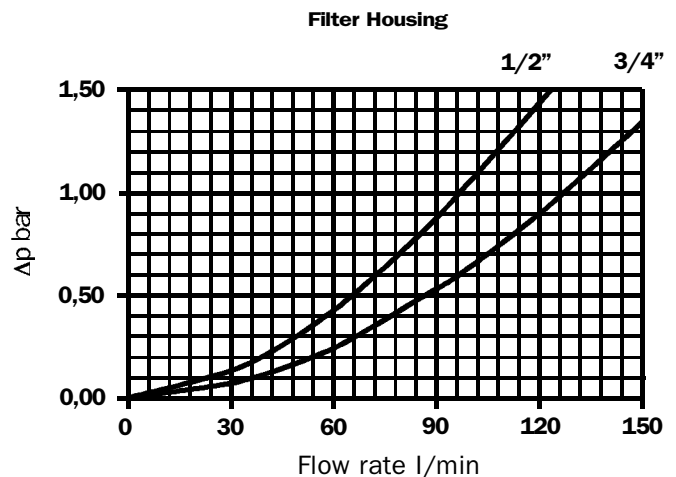
Type	Length				
	1	2	3	4	5
HP050	450	700	1000	1300	2100

Values expressed in **cm<sup>2</sup>**

## Pressure drops Δp Housing

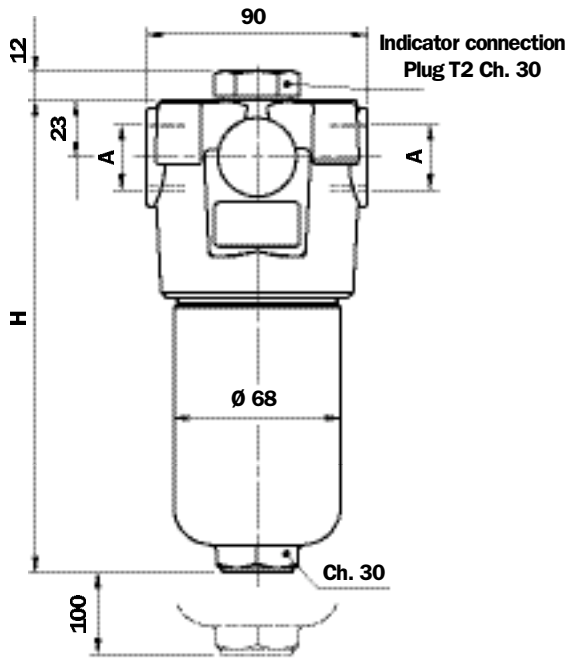
The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> to ISO 3968.

Δp varies proportional with density.

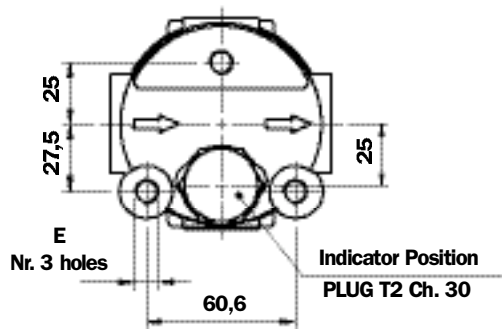


# FMM 050

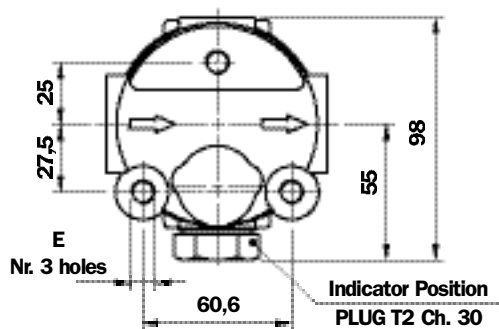
## Dimensions



### With standard indicator



### Option P03 with indicator at 90°



**NB.** Differential indicator versions are supplied with plug T2.

### Recommended maximum flow rate

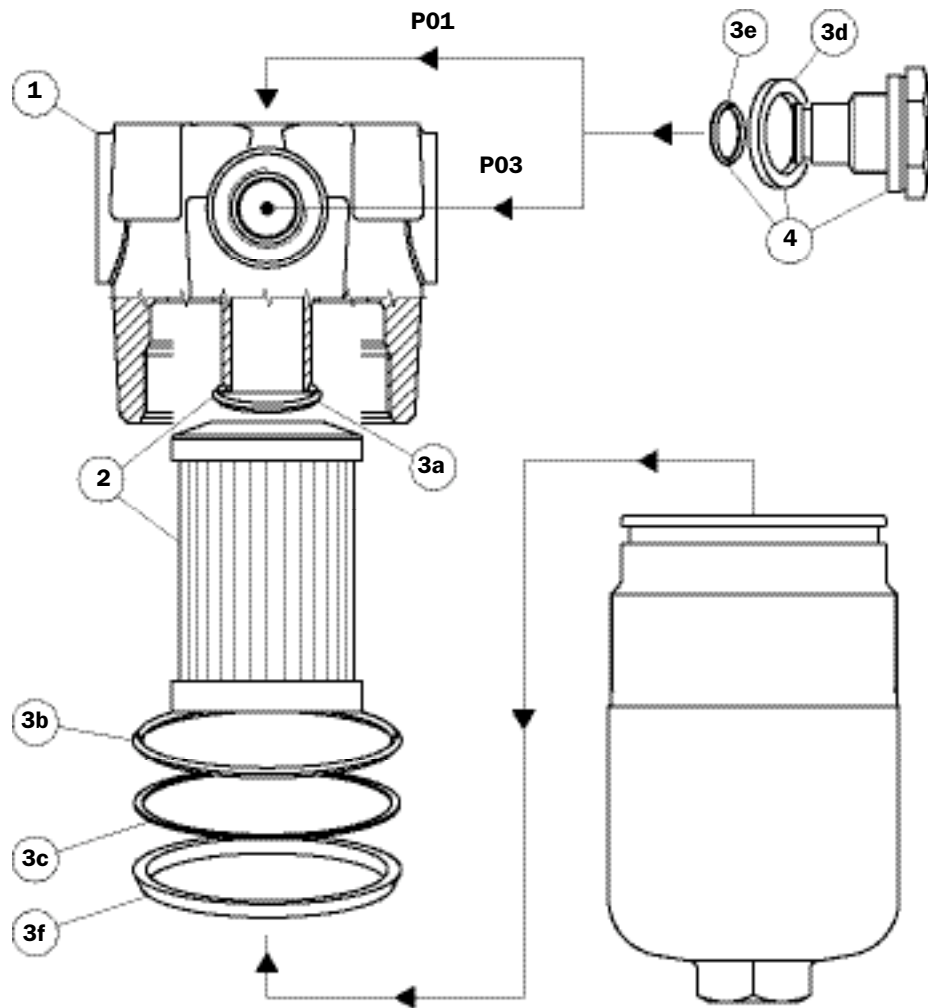
- Pressure drop of complete filter equal to  $\Delta p$  1.5 bar.
- Oil kinematic viscosity 30 mm<sup>2</sup>/s (cSt).
- Density 0.86 kg/dm<sup>3</sup>.
- Connections of filter under test G 3/4".

Filter element type	Flow rate l/min Series N	Flow rate l/min Series H	Filter Length
A03	44	30	1
A06	44	40	
A10	80	58	
A16	82	60	
A25	110	75	
M25	140	-	2
A03	53	45	
A06	58	50	
A10	87	78	
A16	100	90	
A25	125	119	
M25	140	-	3
A03	68	59	
A06	71	62	
A10	100	92	
A16	110	100	
A25	135	130	
M25	140	-	4
A03	85	75	
A06	92	82	
A10	118	106	
A16	120	112	
A25	135	135	
M25	145	-	5
A03	110	94	
A06	112	98	
A10	130	112	
A16	135	120	
A25	140	140	
M25	152	-	

A Threaded Connections		E Depth 15 mm
18x1,5	ISO 6149	M10
22x1,5	ISO 6149	M10
G 1/2"		M10
G 3/4"		M10
1/2" NPT		3/8" UNC
3/4" NPT		3/8" UNC
SAE 8 (3/4" - 16 UNF)		3/8" UNC
SAE 12 (1 1/16" - 12 UN)		3/8" UNC

Filter Length	H mm
1	158
2	195
3	237
4	285
5	407

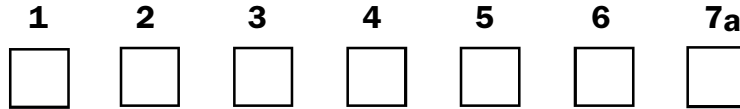
# Spare parts FMM050



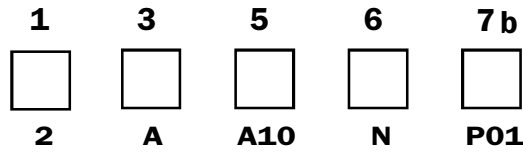
Pos.	Description	Qty.	FMM 050 series FILTER 050 1 - 2 - 3 - 4 - 5	
1	Complete filter	1	See order table	
2	Filter Element	1	See order table	
3	Seals kit	1	NBR 02050314	FPM 02050315
3a	O-Ring for filter element	1	OR 3093 Ø 23.47 x 2.62	
3b	O-Ring for housing	1	OR 3225 Ø 56.82 x 2.62	
3c	Anti-extrusion ring	1	Parbak 139 Ø 56.03 x 2.18	
3d	Bonded seal	1	G 1/2" - FPM	
3e	O-Ring	1	OR 2050 Ø 12.42 x 1.78 - FPM	
3f	Protection seal	1	01026521	
4	Indicator connection plug	1	T2	
-	Indicator	1	See order table	

# Ordering information FMM050

## Filter assembly FMM 050



## Filter element HP 050

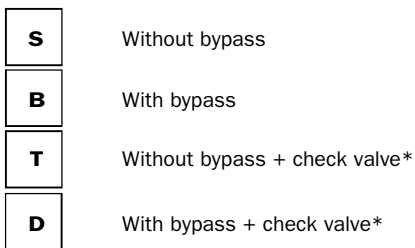


Example: HP050

### 1 - Filter lengths

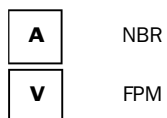


### 2 - Bypass valve

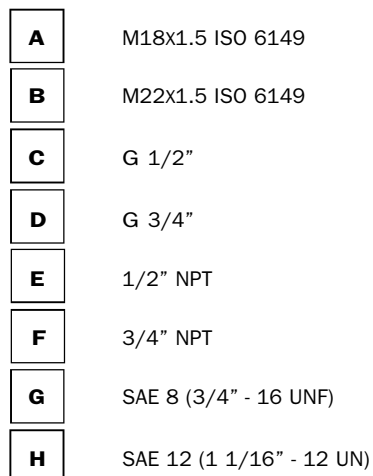


\*Reduced cross-section oilways

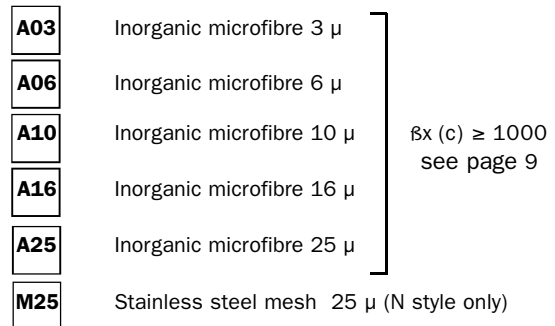
### 3 - Seals



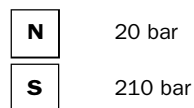
### 4 - Threaded connections



### 5 - Filter elements

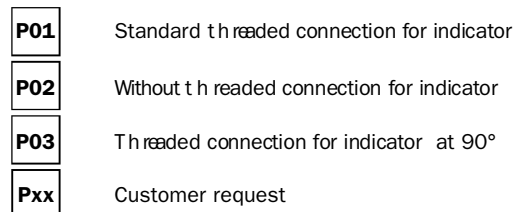


### 6 - Filter elements differential pressure

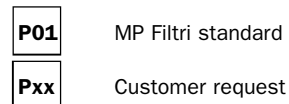


### 7 - Options

#### a) Filter



#### b) Filter element



DIFFERENTIAL INDICATORS (see page 15)

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