

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

UKŁADY HYDRAULICZNE

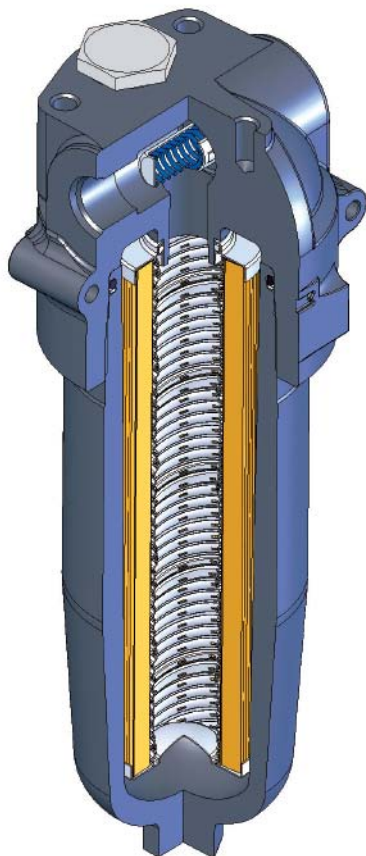
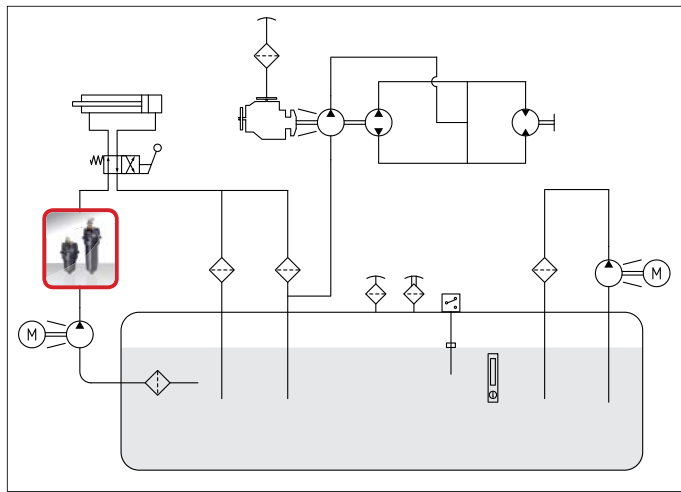
**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

# SPM



**MEDIUM PRESSURE INLINE FILTER**



## SPM

### 22 MPa (220 bar)

Port sizes: 1/2" ÷ 1"

Flow rates: 10 ÷ 130 l/min

#### TECHNICAL DATA

Max. working pressure: 22 MPa (220 bar)

Max. test pressure: 33 MPa (330 bar)

Bursting pressure: 66 MPa (660 bar)

Fatigue test: 0 ÷ 15 MPa (150 bar) / 1.000.000 cycles

Bypass valve:  $\Delta p$  350 kPa (3,5 bar)  $\pm$  10%

$\Delta p$  600 kPa (6 bar)  $\pm$  10%

Filter element collapse pressure:

standard:  $\Delta p$  2,1 MPa (21 bar)

Working temperature: -25 ÷ +110°C

#### MATERIALS

Head and bowl: anodized aluminium

Seals: standard NBR

on request FKM

#### 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.

SPM	Type			Type	CCH
		301	302		

Filter media			Filter media
FT = 5µm <sub>(e)</sub>	FT	FT	FT = 5µm <sub>(e)</sub>
FC = 7µm <sub>(e)</sub> Inorganic fiber β>1000	FC	FC	FC = 7µm <sub>(e)</sub> Inorganic fiber β>1000
FD = 12µm <sub>(e)</sub>	FD	FD	FD = 12µm <sub>(e)</sub>
FV = 21µm <sub>(e)</sub>	FV	FV	FV = 21µm <sub>(e)</sub>
CD = 10µ Paper	CD	CD	CD = 10µ Paper
CV = 25µ	CV	CV	CV = 25µ
RD = 10µ Steel wire mesh	RD	RD	RD = 10µ Steel wire mesh
MV = 25µ	MV	MV	RV = 25µ

Seals			Seals
1 = NBR Nitrile	1	1	1 = NBR Nitrile
2 = FKM Fluoroelastomer	2	2	2 = FKM Fluoroelastomer

Bypass type		
S = Whitout	S	S
D = 350 kPa (3,5 bar)	D	D
C = 600 kPa (6 bar)	C	C

Ports		
B = BSP	B	B
N = NPT	N	N
S = SAE	S	S

Port size		
3 = 1/2" (NPT not available)	3	3
4 = 3/4"	4	4
5 = 1"	5	5

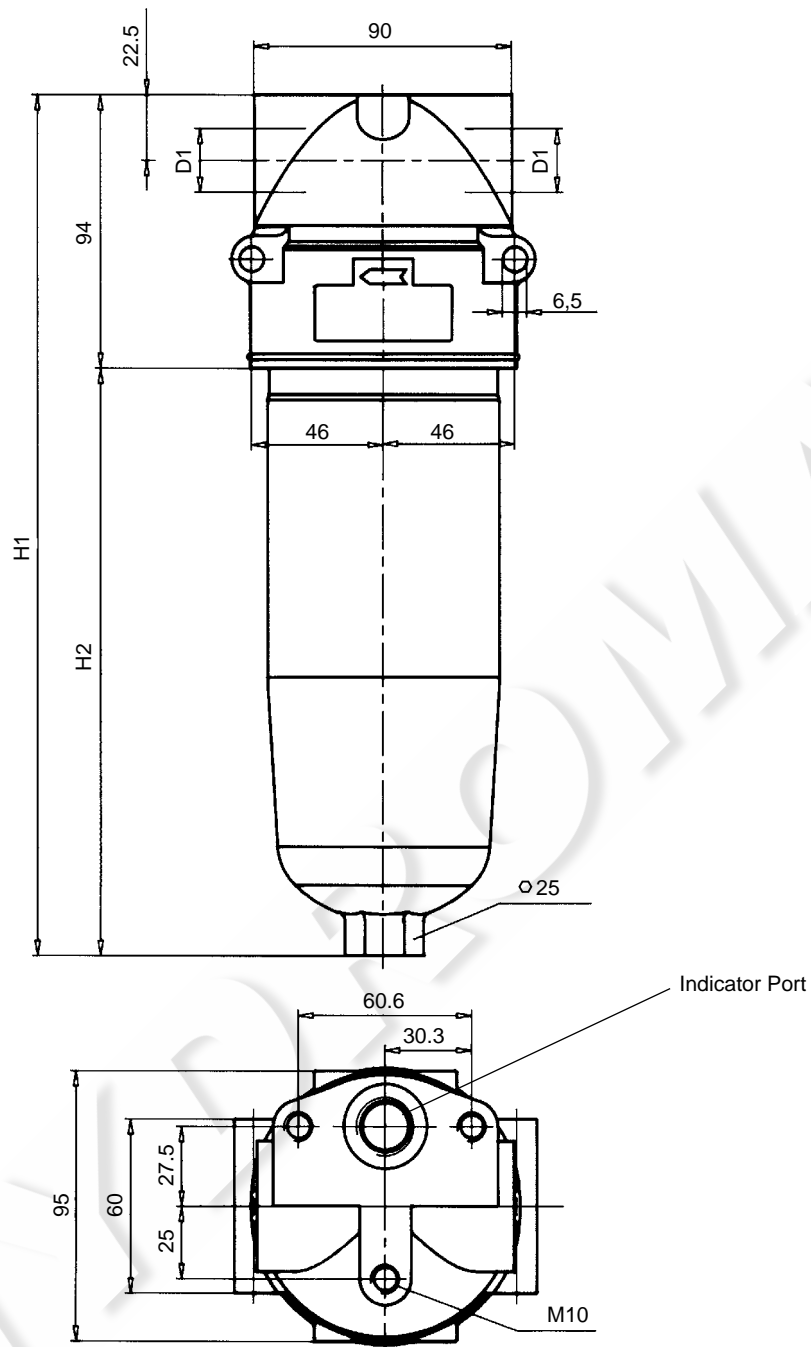
Indicators			
03 = Port, plugged	03	03	
5D = Visual differential 250 kPa (2,5 bar)	5D	5D	
5E = Visual differential 500 kPa (5 bar)	5E	5E	
6D = Electrical differential 250 kPa (2,5 bar)	6D	6D	
6E = Electrical differential 500 kPa (5 bar)	6E	6E	
7D = 6D with LED	7D	7D	
7E = 6E with LED	7E	7E	
T6 = Electrical 250 kPa (2,5 bar) with thermostat 30°C	T6	T6	Indicator 72 - 76 on request only
T2 = Electrical 500 kPa (5 bar) with thermostat 30°C	T2	T2	

When the filter is ordered with FKM seals, the first digit of the indicator code is a letter (please see page 188-189).

XX	Accessories		
	XX = Not available	XX	XX

**DIMENSIONAL LAYOUT**

(mm)



Type	D1	H1	H2	Weight Kg
SPM 301	1/2" - 3/4" - 1"	205	111	1,7
SPM 302		298	197	2,2

## CLOGGING INDICATORS

NBR	FKM	Differential VISUAL indicators
5D	AD	Setting 250 kPa (2,5 bar)
5E	AE	Setting 500 kPa (5 bar)

Recommended tightening torque 90 Nm

NBR	FKM	Differential ELECTRICAL indicators
6D	CD	Setting 250 kPa (2,5 bar)
6E	CE	Setting 500 kPa (5 bar)

Recommended tightening torque 90 Nm

NBR	FKM	Differential ELECTRICAL indicators with LED (24 V) for visual indication
7D	ED	Setting 250 kPa (2,5 bar)
7E	EE	Setting 500 kPa (5 bar)

Recommended tightening torque 90 Nm

NBR	FKM	Differential ELECTRICAL indicators with THERMOSTAT 30°C
T6	DD	Setting 250 kPa (2,5 bar)
T2	DE	Setting 500 kPa (5 bar)

Recommended tightening torque 90 Nm

NBR	FKM	Differential VISUAL ELECTRICAL indicators
76	E6	Setting 250 kPa (2,5 bar)
72	E2	Setting 500 kPa (5 bar)

Recommended tightening torque 90 Nm

SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively  
 C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650

**FLOW RATES**

(l/min)

Type	Filter Media	$\Delta p$		
		50 kPa (0,5 bar)	100 kPa (1 bar)	150 kPa (1,5 bar)
SPM 301	FT	25	55	70
	FC	27	62	81
	FD	39	73	95
	FV	62	110	130
	CD	80	130	130
	CV	110	130	130
	RD	100	130	130
	MV	112	130	130

Type	Filter Media	$\Delta p$		
		50 kPa (0,5 bar)	100 kPa (1 bar)	150 kPa (1,5 bar)
SPM 302	FT	34	63	79
	FC	38	73	90
	FD	50	84	104
	FV	75	119	130
	CD	122	130	130
	CV	130	130	130
	RD	130	130	130
	MV	130	130	130

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.

**DIRT HOLDING CAPACITY**(g) ISO MTD  $\Delta p = 500$  kPa (5 bar)

Type	Filter Media			
	FT	FC	FD	FV
CCH 301	5,1	6,7	7,4	10,9
CCH 302	9,4	12,6	14,0	19,6

**FILTER AREA**(cm<sup>2</sup>)

Type	Filter Media			
	RD	MV	CD	CV
CCH 301	770	770	975	975
CCH 302	1455	1455	1785	1785