

# TANK CARE

## Return Filters

# RH



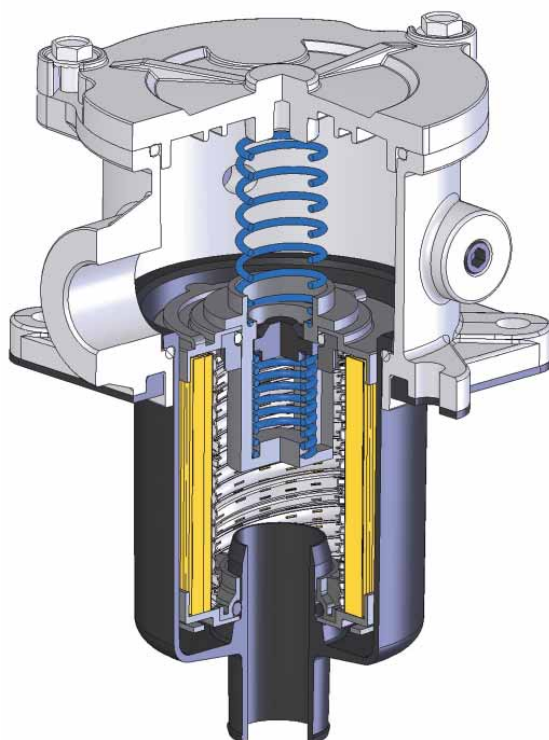
**CLOGGING INDICATOR**  
A visual or electrical indicator is available as an option and allows monitoring of the element condition. The port for the indicator is a standard feature.



**FILLING PLUG**  
The filling plug option gives the possibility of easily and efficiently filtering the oil from the drum.

**EASY REPLACEMENT**  
The top end cap includes a handle allowing an easy removal of the element and a complete cleaning of the bowl.

**NO LEAKS**  
The end cap with captive O-ring ensures a perfect seal between filter element and bowl.



### MATERIALS

Head and cover:  
Aluminium alloy

Bowl:  
Polyamide

Bypass valve:  
Polyamide

Seals:  
NBR Nitrile (fluoroelastomer)

Indicator housing:  
Brass

### PRESSURE (ISO 10771-1:2002)

Max working:  
300 kPa (3 bar)

Test:  
500 kPa (5 bar)

Bursting:  
1 MPa (10 bar)

Collapse, differential  
for the filter element (ISO 2941): 300 kPa (3 bar)

### BYPASS VALVE

Setting:  
170 kPa (1,7 bar) +/-10%

### WORKING TEMPERATURE

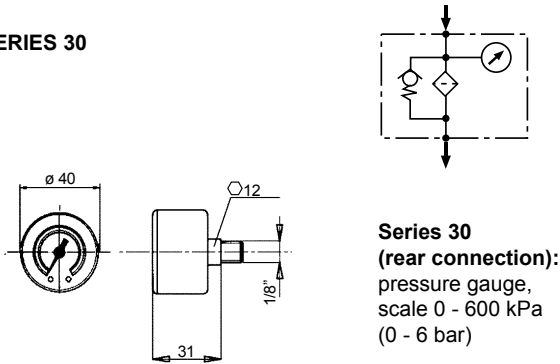
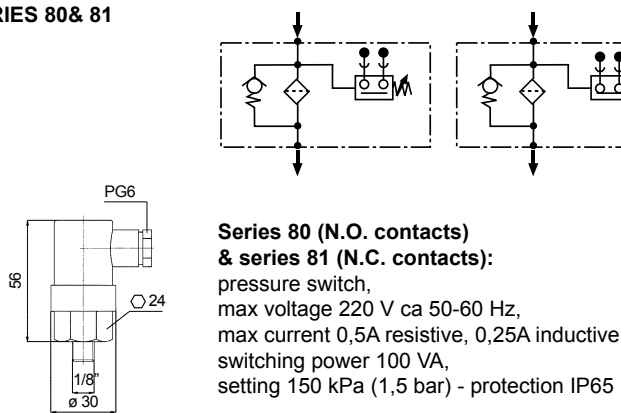
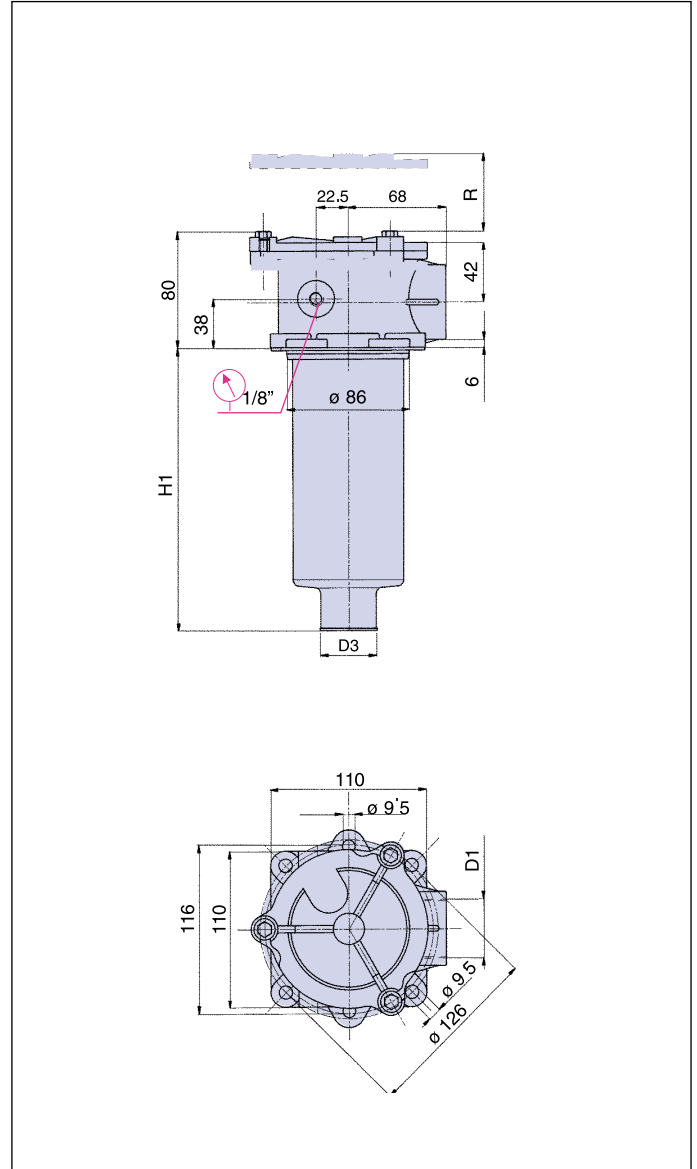
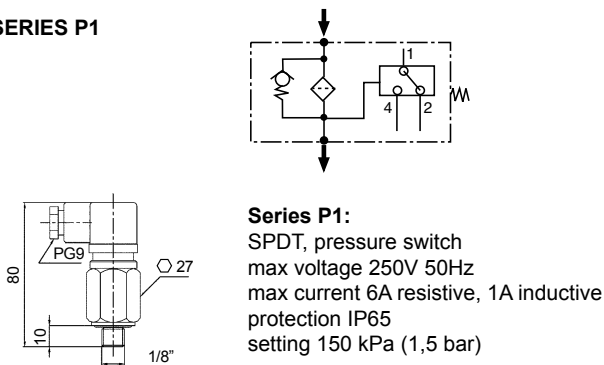
From -25° to +110° C

### COMPATIBILITY (ISO 2943:1999)

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

**OHF- 550**

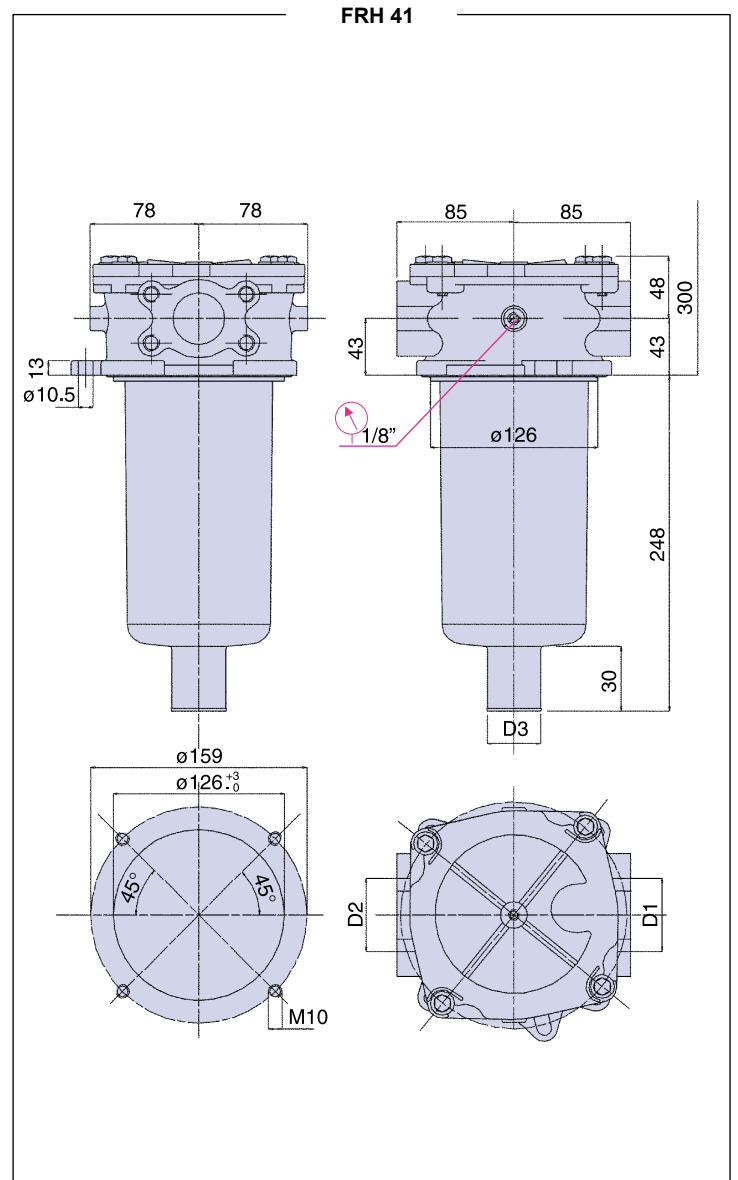
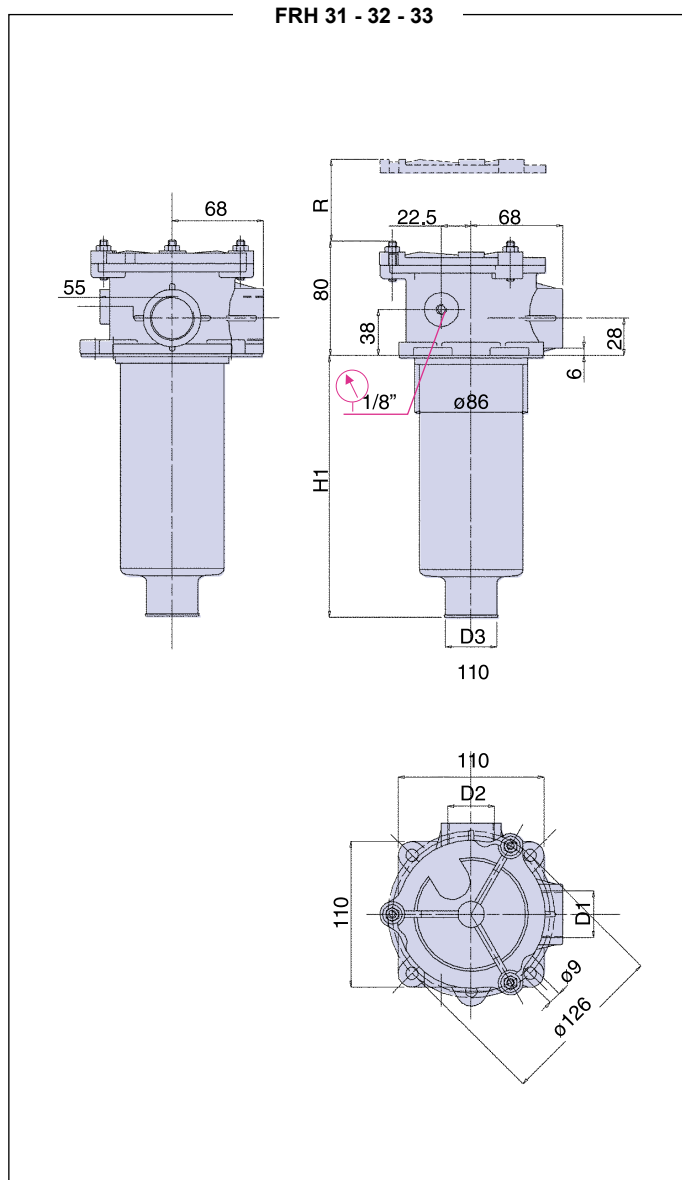

**CLOGGING INDICATORS**
**INSTALLATION DRAWING** - in Fluid Energy Management

**SERIES 30**

**SERIES 80 & 81**

**SERIES P1**

**DIMENSIONS AND WEIGHTS**
**FILTER HOUSING**

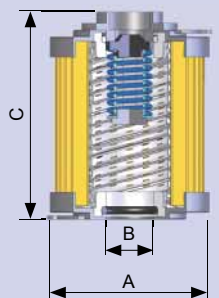
|       | D1                 | Tank hole $\varnothing$ | D3 | H1  | R   | kg   |
|-------|--------------------|-------------------------|----|-----|-----|------|
| FRH31 | 3/4" - 1" - 1 1/4" | 90                      | 27 | 106 | 165 | 0,95 |
| FRH32 | 3/4" - 1" - 1 1/4" | 90                      | 27 | 152 | 205 | 1,10 |
| FRH33 | 3/4" - 1" - 1 1/4" | 90                      | 40 | 235 | 285 | 1,25 |


**INSTALLATION DRAWING - DOUBLE PORT MODEL**

- in Fluid Energy Management


**FILTER HOUSING DOUBLE PORT MODEL**
**FILTER ELEMENT**

|       | D1     | D2     | D3 | Tank hole ø | H1  | R   | kg   | FILTER ELEMENT |    |    |     | Area (cm <sup>2</sup> ) |          |          |
|-------|--------|--------|----|-------------|-----|-----|------|----------------|----|----|-----|-------------------------|----------|----------|
|       |        |        |    |             |     |     |      |                | A  | B  | C   | kg                      | Media F+ | Media C+ |
| FRH31 | 1"     | 1"     | 27 | 90          | 106 | 165 | 0,95 | ERA31          | 70 | 28 | 85  | 0,20                    | 620      | 990      |
| FRH32 | 1"     | 1"     | 27 | 90          | 152 | 205 | 1,10 | ERA32          | 70 | 28 | 130 | 0,25                    | 1.000    | 1.600    |
| FRH33 | 1"     | 1"     | 40 | 90          | 235 | 285 | 1,25 | ERA33          | 70 | 40 | 210 | 0,40                    | 1.660    | 2.670    |
| FRH41 | 1 1/2" | 1 1/2" | -  | 127         | -   | 300 | 2,40 | ERA41          | 99 | 40 | 211 | 0,75                    | 3.800    | 4.280    |



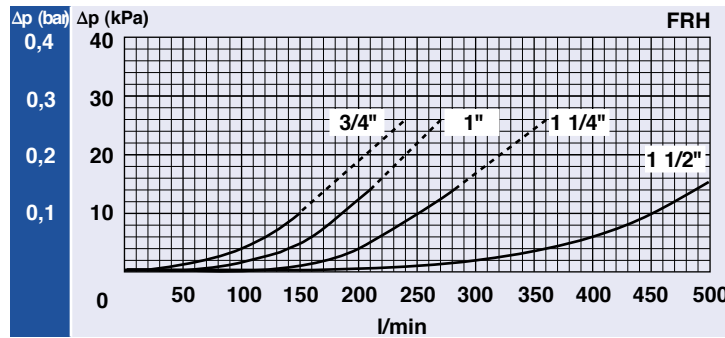


## PRESSURE DROP CURVES ( $\Delta p$ )

- in Fluid Energy Management

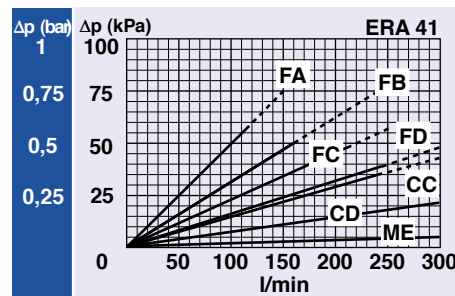
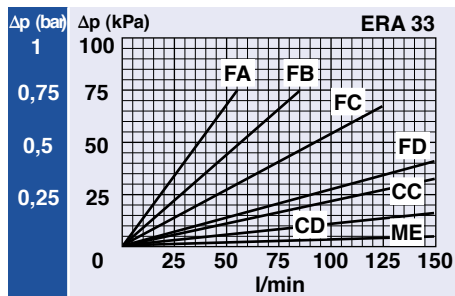
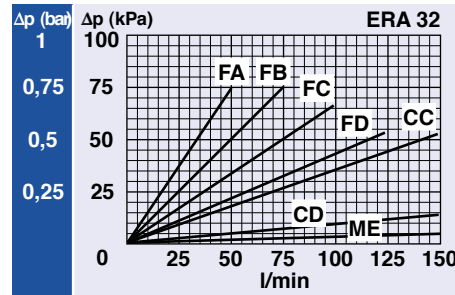
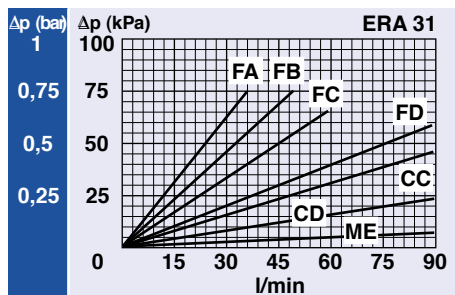
The "Assembly Pressure Drop ( $\Delta p$ )" is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 50 kPa (0,5 bar).

### FILTER HOUSING PRESSURE DROP (mainly depending on the port size)



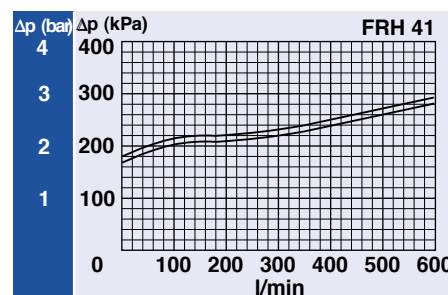
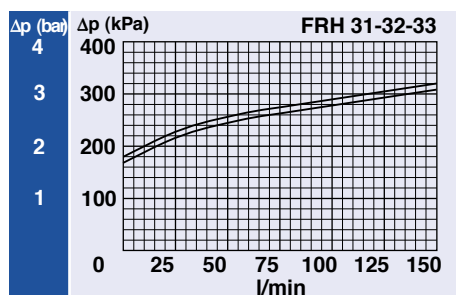
### CLEAN FILTER ELEMENT PRESSURE DROP WITH F+, C+ AND ME MEDIA

(depending both on the internal diameter of the element and on the filter media)



### BYPASS VALVE PRESSURE DROP

When selecting the filter size, these curves must be taken into account if it is foreseen that any flow peak is to be absorbed by the bypass valve, it also must be of proper configuration to avoid pressure peaks. The valve pressure drop is directly proportional to fluid specific gravity.



N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 kg/dm<sup>3</sup>; for fluids with different features, please consider the factors described in the first part of this catalogue. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968:2005. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

