

## MAR

### 1,2 MPa (12 bar)

Port sizes: 3/4" ÷ 1" 1/2

Flow rates: 30 ÷ 205 l/min

#### TECHNICAL DATA

Max. working pressure: 1,2 MPa (12 bar)

Max. test pressure: 1,5 MPa (15 bar)

Bursting pressure: 2,5 MPa (25 bar)

Fatigue test: 0 ÷ 1,2 MPa (12 bar) / 100.000 cycles

Bypass valve:  $\Delta p$  170 kPa (1,7 bar)  $\pm 10\%$

Filter element collapse pressure:  $\Delta p$  400 kPa (4 bar)

Working temperature: -25 ÷ +110°C

#### MATERIALS

Head: aluminium

Canister: steel

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

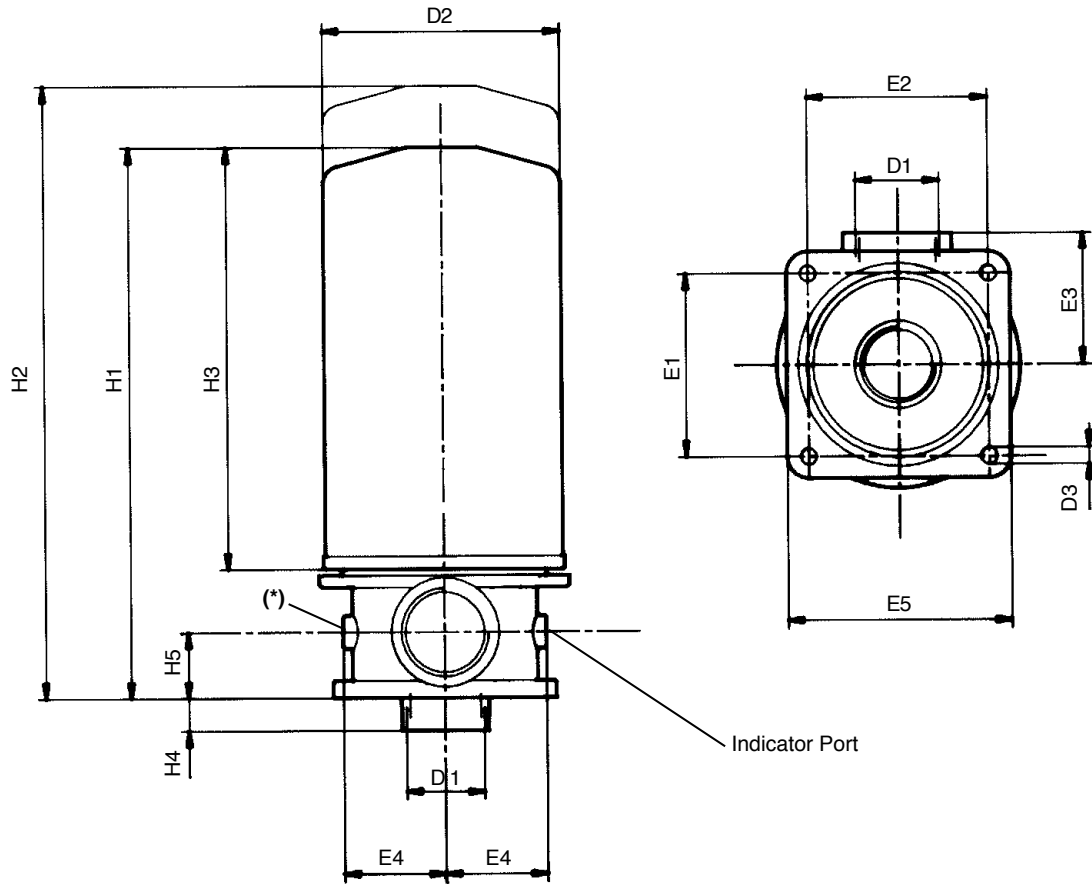
ISO 16889: Multipass test.

For further information contact our Technical Dept.

|            |  |     |     |     |     |  |            |
|------------|--|-----|-----|-----|-----|--|------------|
| <b>MAR</b> | Type   |     |     |     |     | Type   | <b>CCA</b> |
|            |  | 151 | 152 | 301 | 302 |  |            |
|            | Filter media                                   |     |     |     |     | Filter media                                   |            |
|            | FT = 5µm(c)                                    | FT  | FT  | FT  | FT  | FT = 5µm(c)                                    |            |
|            | FC = 7µm(c) Inorganic fiber β>1000             | FC  | FC  | FC  | FC  | FC = 7µm(c) Inorganic fiber β>1000             |            |
|            | FD = 12µm(c)                                   | FD  | FD  | FD  | FD  | FD = 12µm(c)                                   |            |
|            | FV = 21µm(c)                                   | FV  | FV  | FV  | FV  | FV = 21µm(c)                                   |            |
|            | CD = 10µ Paper                                 | CD  | CD  | CD  | CD  | CD = 10µ Paper                                 |            |
|            | CV = 25µ                                       | CV  | CV  | CV  | CV  | CV = 25µ                                       |            |
|            | MS = 60µ Steel wire mesh                       | MS  | MS  | MS  | MS  | MS = 60µ Steel wire mesh                       |            |
|            | MN = 90µ                                       | MN  | MN  | MN  | MN  | MN = 90µ                                       |            |
|            | Seals  |     |     |     |     | Seals  |            |
|            | 1 = NBR Nitrile                                | 1   | 1   | 1   | 1   | 1 = NBR Nitrile                                |            |
| <b>M</b>   | Bypass type                                    |     |     |     |     | Bypass type                                    | <b>M</b>   |
|            | M = 170 kPa (1,7 bar) with anti-drain membrane | M   | M   | M   | M   | M = 170 kPa (1,7 bar) with anti-drain membrane |            |
| <b>B</b>   | Ports  |     |     |     |     |  |            |
|            | B = BSP  | B   | B   | B   | B   |  |            |
|            | Port size                                      |     |     |     |     |  |            |
|            | 4 = 3/4"                                       | 4   | 4   | -   | -   |  |            |
|            | 7 = 1" 1/2                                     | -   | -   | 7   | 7   |  |            |
|            | Indicators                                     |     |     |     |     |  |            |
|            | 05 = 1/8" ports, plugged                       | 05  | 05  | 05  | 05  |  |            |
|            | 30 = Pressure gauge                            | 30  | 30  | 30  | 30  |  |            |
|            | P1 = Pressure switch                           | P1  | P1  | P1  | P1  |  |            |
| <b>XX</b>  | Accessories                                    |     |     |     |     |  |            |
|            | XX = Not available                             | XX  | XX  | XX  | XX  |  |            |

**DIMENSIONAL LAYOUT**

(mm)

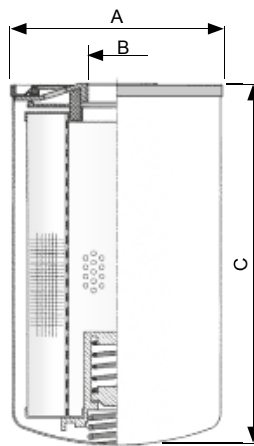


| Type        | D1        | D2  | D3 | H1  | H2  | H3  | H4 | H5 | E1  | E2  | E3 | E4 | E5  | Weight Kg |
|-------------|-----------|-----|----|-----|-----|-----|----|----|-----|-----|----|----|-----|-----------|
| MAR 151 ... | 3/4" BSP  | 96  | 7  | 196 | 216 | 145 | 18 | 25 | 70  | 70  | 50 | 39 | 90  | 1,3       |
| MAR 152 ... | 3/4" BSP  | 96  | 7  | 241 | 261 | 191 | 18 | 25 | 70  | 70  | 50 | 39 | 90  | 1,6       |
| MAR 301 ... | 1"1/2 BSP | 129 | 9  | 252 | 282 | 181 | 18 | 36 | 100 | 100 | 72 | 56 | 124 | 2,1       |
| MAR 302 ... | 1"1/2 BSP | 129 | 9  | 297 | 327 | 226 | 18 | 36 | 100 | 100 | 72 | 56 | 124 | 2,2       |

**SPIN-ON ELEMENTS DIMENSIONAL LAYOUT**

(mm)

| Type          | A   | B          | C   |
|---------------|-----|------------|-----|
| CCA 151 ... M | 95  | 3/4" BSP   | 145 |
| CCA 152 ... M | 95  | 3/4" BSP   | 191 |
| CCA 301 ... M | 129 | 1" 1/4 BSP | 181 |
| CCA 302 ... M | 129 | 1" 1/4 BSP | 226 |



## CLOGGING INDICATORS

| NBR   | FKM | Pressure gauge              |  |
|---|-----|-----------------------------|--|
| 30  | -   | Scale 0 ÷ 600 kPa (600 bar) |  |
| NBR   | FKM | Pressure switch             |  |
| P1  | -   | Setting 150 kPa (1,5 bar)   |  |
| SPDT, C.C. 30V: > max resistive or inductive load 3A - 1A respectively<br>C.A. 125 or 250V: > max resistive or inductive load 3A - 0,5A respectively<br>Protection IP65 - Connector DIN 43650 |     |                             |  |

## FLOW RATES

(l/min)

$\Delta p = 40 \div 50 \text{ kPa} (0,4 \div 0,5 \text{ bar})$

| Type    | Filter Media |     |     |     |     |     |     |     |
|---------|--------------|-----|-----|-----|-----|-----|-----|-----|
|         | FT           | FC  | FD  | FV  | CD  | CV  | MS  | MN  |
| MAR 151 | 30           | 35  | 48  | 65  | 68  | 73  | 80  | 80  |
| MAR 152 | 34           | 41  | 55  | 69  | 74  | 80  | 90  | 90  |
| MAR 301 | 87           | 102 | 118 | 125 | 130 | 170 | 190 | 190 |
| MAR 302 | 92           | 110 | 125 | 135 | 150 | 188 | 205 | 205 |

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  $\Delta p = 400 \text{ kPa} (4 \text{ bar})$

| Type        | Filter Media |      |      |      |
|-------------|--------------|------|------|------|
|             | FT           | FC   | FD   | FV   |
| CCA 151...M | 12,3         | 17,2 | 19,6 | 30,0 |
| CCA 152...M | 20,8         | 29,2 | 33,3 | 50,4 |
| CCA 301...M | 25,5         | 35,7 | 40,9 | 62,3 |
| CCA 302...M | 33,8         | 47,3 | 53,8 | 82,5 |

## FILTER AREA

(cm<sup>2</sup>)

| Filter Media |      |      |      |
|--------------|------|------|------|
| MS           | MN   | CD   | CV   |
| 980          | 980  | 3305 | 3305 |
| 1390         | 1390 | 4745 | 4745 |
| 1940         | 1940 | 5560 | 5560 |
| 2570         | 2570 | 7360 | 7360 |