# **IDAC** INTERNATIONAL



# **Inline Filters LFR** up to 250 l/min, up to 120 bar



**ELEMENT FLOW DIRECTION FROM IN TO OUT** 

### 1. TECHNICAL **SPECIFICATIONS**

### 1.1 FILTER HOUSING Construction

The filter housings are designed in accordance with international regulations. They consist of a filter housing and a screw-on cover plate. The element is top-removable. Standard equipment:

- mounting holes in the housing
- magnetic core built into cover plate
- without bypass valve
- oil drain plug

### 1.2 FILTER ELEMENTS

HYDAC filter elements are validated and their quality is constantly monitored according to the following standards:

• ISO 2941, ISO 2942, ISO 2943 ISO 3968, ISO 11170, ISO 16889

### Contamination retention capacities in g

| Glass fibre (ULP) |      |       |       |  |  |  |
|-------------------|------|-------|-------|--|--|--|
|                   | 5 µm | 10 μm | 25 µm |  |  |  |
| 20                | 1.45 | 2.61  | 2.9   |  |  |  |
| 45                | 3.35 | 6.03  | 6.7   |  |  |  |
| 80                | 4.18 | 7.51  | 8.35  |  |  |  |
| 150               | 5.25 | 9.45  | 10.5  |  |  |  |
| 250               | 8.5  | 15.3  | 17    |  |  |  |

| Glass fibre with pre-filter (UHC) |       |       |       |  |  |  |  |
|-----------------------------------|-------|-------|-------|--|--|--|--|
|                                   | 5 µm  | 10 µm | 20 µm |  |  |  |  |
| 20                                | 4.64  | 6.96  | 7.83  |  |  |  |  |
| 45                                | 10.72 | 16.08 | 18.09 |  |  |  |  |
| 80                                | 13.36 | 20.04 | 22.55 |  |  |  |  |
| 150                               | 16.8  | 25.2  | 28.35 |  |  |  |  |
| 250                               | 27.2  | 40.8  | 45.9  |  |  |  |  |

Filter elements are available with the following pressure stability values:

Glass fibre (ULP): 6 bar Glass fibre with pre-filter

6 bar (UHC): Wire mesh (WR): 6 bar Other filtration ratings on request

### 1.3 SEALS

NBR (= Perbunan)

### 1.4 SPECIAL MODELS

- Port for clogging indicator
- Without magnetic core
- Bypass valve built into the head
- Seals in FPM, EPDM

#### FILTER SPECIFICATIONS

| Nominal pressure                           | 120 bar                               |
|--|---------------------------------------|
| Temperature range                          | -10 °C to +120 °C                     |
| Material of filter housing                 | EN-GJS                                |
| Material of cover plate                    | EN-GJS: LFR 20 to 80                  |
|  | 9SMn28k: LFR 150 to 250               |
| Type of clogging indicator                 | VM (differential pressure measurement |
|  | up to 210 bar operating pressure)     |
| Pressure setting of the clogging indicator | 2 bar (others on request)             |
| Bypass cracking pressure (optional)        | 2.5 bar (others on request)           |

# **Inline Filter LPFR** up to 250 l/min, up to 25 bar

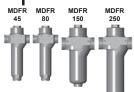


**ELEMENT FLOW DIRECTION FROM IN TO** OUT

### **FILTER SPECIFICATIONS**

| Nominal pressure                           | 25 bar                                |
|--|---------------------------------------|
| Temperature range                          | -10 °C to +120 °C                     |
| Material of filter housing                 | EN-GJS: LPFR 20 to 250                |
| Material of cover plate                    | EN-GJS: LPFR 20 to 80                 |
|  | EN-GJL: LPFR 150 to 250               |
| Type of clogging indicator                 | VM (differential pressure measurement |
|  | up to 210 bar operating pressure)     |
| Pressure setting of the clogging indicator | 2 bar (others on request)             |
| Bypass cracking pressure (optional)        | 2.5 bar (others on request)           |

# **Inline Filter MDFR** up to 250 l/min, up to 250 bar



**ELEMENT FLOW DIRECTION FROM IN TO** OUT

### **FILTER SPECIFICATIONS**

| Nominal pressure                           | 250 bar                               |  |  |  |
|--|---------------------------------------|--|--|--|
| Temperature range                          | -10 °C to +120 °C                     |  |  |  |
| Material of filter housing                 | EN-GJS                                |  |  |  |
| Material of cover plate                    | S355JR: MDFR 45 to 80                 |  |  |  |
|  | EN-GJS: MDFR 150 to 250               |  |  |  |
| Type of clogging indicator                 | VD (differential pressure measurement |  |  |  |
|  | up to 400 bar operating pressure)     |  |  |  |
| Pressure setting of the clogging indicator | 2 bar (others on request)             |  |  |  |
| Bypass cracking pressure (optional)        | 2.5 bar (others on request)           |  |  |  |

### 2. MODEL CODE

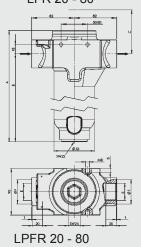
### 2.1 COMPLETE FILTER

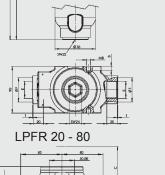
| Туре                | Filter material of element  | Size                          | Operating pressure   | Port                                   | Clogging indicator (VA)  | Type<br>code   | Modification number                                   | Supplementary details   |
|---------------------|---|-------------------------------|--|--|--|--|---|---|
| LFR<br>LPFR<br>MDFR | ULP=Glass fibre<br>UHC=Glass fibre<br>with pre-filter<br>WR=Wire mesh | 20*<br>45<br>80<br>150<br>250 | D=25 bar<br>(only LPFR)<br>I=120 bar<br>(only LFR)<br>M=250 bar<br>(only MDFR) | B=G 1/2<br>C=G 3/4<br>D=G1<br>F=G1 1/2 | W=no port<br>for indicator<br>B=visual<br>C=electrical<br>D=visual /<br>electrical | 1=indic. on right in flow direction 2=indic. on left in flow direction 3=no indic. | .x=<br>the latest<br>version<br>is always<br>supplied | -V= FPM direction (Viton) -B= special bypass cracking pressure -OM= without magnetic core |

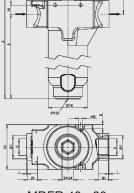
<sup>\*</sup> Size 20 only possible for LPFR and LFR!

### 3. DIMENSIONS

LFR 20 - 80

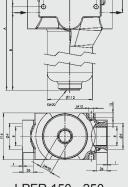




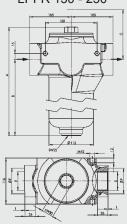


MDFR 40 - 80

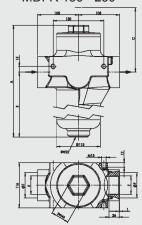
LFR 150 - 250



LPFR 150 - 250



MDFR 150 - 250



| LFR | Α   | В   | С   | E    | FØ | Weight incl.<br>element [kg] |
|-----|-----|-----|-----|------|----|------------------------------|
| 20  | 212 | 167 | 180 | G ½  | 34 | 5.3                          |
| 45  | 312 | 267 | 250 | G ¾  | 42 | 5.8                          |
| 80  | 312 | 267 | 280 | G 1  | 47 | 6.6                          |
| 150 | 354 | 273 | 335 | G 1½ | 68 | 14.2                         |
| 250 | 454 | 373 | 435 | G 1½ | 65 | 15.0                         |

| LPFR | Α   | В   | E     | FØ | Weight incl.<br>element [kg] |
|------|-----|-----|-------|----|------------------------------|
| 20   | 212 | 167 | G ½   | 34 | 5.3                          |
| 45   | 312 | 267 | G 3/4 | 42 | 5.8                          |
| 80   | 312 | 267 | G 1   | 47 | 6.6                          |
| 150  | 354 | 273 | G 1½  | 68 | 14.2                         |
| 250  | 454 | 373 | G 1½  | 65 | 15.0                         |

| MDFR | Α   | В   | С   | E     | FØ | Weight incl.<br>element [kg] |
|------|-----|-----|-----|-------|----|------------------------------|
| 45   | 360 | 274 | 275 | G ¾   | 42 | 7.9                          |
| 80   | 360 | 274 | 305 | G 1   | 47 | 8.6                          |
| 150  | 405 | 282 | 365 | G11/2 | 65 | 18.4                         |
| 250  | 505 | 382 | 465 | G 1½  | 68 | 19.0                         |

### **NOTE**

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

## HYDAC FILTERTECHNIK GMBH

Industriegebiet

D-66280 Sulzbach/Saar

Tel.: 0 68 97 / 509-01 Fax: 0 68 97 / 509-300 Internet: www.hydac.com E-Mail: filter@hydac.com