



## Offline filters OLF 5

### Description

The OLF 5 and 10 series filters are used for the fine filtration of hydraulic oils offline. The series comprises numerous versions, for example with or without motor-pump unit, element removal from either top or bottom, in-tank mounting, with optional sensors for determining the cleanliness code and water content, etc. Depending on the model, flow rates up to 15 l/min and viscosities up to 7,000 mm<sup>2</sup>/s can be supported.

The Dimicron elements used are characterised by:

- Particularly high contamination retention capacity
- Environmentally safe disposal (incinerable) and
- Water retention (optional).

### Applications

- Machine tools
- Plastic injection machines
- Mobile hydraulics
- Stationary hydraulics
- Wind energy

### Advantages

- Improved component and system filter service life
- Increased machine availability
- Longer oil change intervals
- Minimum space requirement due to compact design
- High service-friendliness
- High contamination retention capacity of the elements
- Optional: Continuous monitoring of solid contamination and water saturation in the oil during cleaning
- Environmentally friendly disposal of elements through incineration

### Technical data

| Pump type                          | Vane pump            |
|------------------------------------|----------------------|
| Fluid temperature range            | 0 to 80 °C           |
| Ambient temperature range          | -20 to 40 °C         |
| Seal material                      | NBR or FKM           |
| Supply voltage / power consumption | Depending on version |
| Electrical protection class        | IP 54                |

### Preferred models (with shorter delivery times)

| Part number | Model code           |
|-------------|----------------------|
| 3073372     | OLF-5-F-Z-Z-Z-E      |
| 349565      | OLF-5-S-120-N-Z-E    |
| 3655862     | OLF-5/15-S-370-N-Z-E |

## Technical data

|                                                                             | OLF-5...                    | OLF-5/4...                  | OLF-5/15...                 | OLF-10/15...                | OLF-5/Z...                  | OLF-10/Z...                 |
|-----------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Flow rate                                                                   | 5 l/min*                    | 4 l/min*                    | 15 l/min*                   | 15 l/min*                   | 15 l/min*                   | 30 l/min*                   |
| Max. operating pressure                                                     | 3.5 bar                     | 4.5 bar                     | 4.5 bar                     | 4.5 bar                     | 6.0 bar                     | 6.0 bar                     |
| Viscosity range                                                             | 15 to 150 mm²/s             | 15 to 7000 mm²/s*           | 15 to 1000 mm²/s**          | 15 to 1000 mm²/s**          | 15 to 1000 mm²/s**          | 15 to 1000 mm²/s**          |
| <b>Permitted pressure at INLET port</b>                                     |                             |                             |                             |                             |                             |                             |
| OLF-x-S                                                                     | -0.4 to 0.6 bar             | -0.4 to 0.6 bar             | -0.4 to 0.6 bar             | –                           | –                           | –                           |
| OLF-x-E                                                                     | 10 to 50 bar                | –                           | –                           | –                           | –                           | –                           |
| OLF-x-F                                                                     | -0.4 to 6 bar               | –                           | –                           | –                           | –                           | –                           |
| OLF-x-T                                                                     | –                           | –                           | -0.4 to 0.6 bar             | -0.4 to 0.6 bar             | 6 bar                       | 6 bar                       |
| OLFCM-x-T                                                                   | –                           | –                           | -0.4 to 0.6 bar             | -0.4 to 0.6 bar             | –                           | –                           |
| <b>Hydraulic connections according to ISO 228</b>                           |                             |                             |                             |                             |                             |                             |
| OLF-x-S                                                                     | IN = ½"<br>OUT = ½"         | IN = 1"<br>OUT = 1"         | IN = 1"<br>OUT = 1"         | –                           | –                           | –                           |
| OLF-x-E                                                                     | IN = ¾"<br>OUT = ½"         | –                           | –                           | –                           | –                           | –                           |
| OLF-x-F                                                                     | IN = ½"<br>OUT = ½"         | –                           | –                           | –                           | –                           | –                           |
| OLF-x-T                                                                     | –                           | –                           | IN = 1"<br>OUT = 1"         | IN = 1"<br>OUT = 1"         | IN = ½"<br>OUT = ½"         | IN = 1"<br>OUT = 1"         |
| OLFCM-x-T                                                                   | –                           | –                           | IN = 1"<br>OUT = 1"         | IN = 1"<br>OUT = 1"         | –                           | –                           |
| <b>Filtration rating</b>                                                    |                             |                             |                             |                             |                             |                             |
| Dimicron                                                                    | 2, 5, 10<br>or 20 µm        | 2, 5, 10<br>or 20 µm        | 2, 5, 10<br>or 20 µm        | 2, 5, 10<br>or 20 µm        | 2, 5, 10<br>or 20 µm        | 2, 5, 10<br>or 20 µm        |
| Aquamicron                                                                  | 2 µm<br>or 20 µm            | 2 µm<br>or 20 µm            | 2 µm<br>or 20 µm            | 2 µm                        | 2 µm<br>or 20 µm            | 2 µm                        |
| <b>Contamination retention capacity according to ISO 16889 Δp = 2.5 bar</b> |                             |                             |                             |                             |                             |                             |
| Dimicron                                                                    | 240 g                       | 240 g                       | 240 g                       | 480 g                       | 240 g                       | 480 g                       |
| Aquamicron                                                                  | 185 g and<br>≈ 0.25 l water | 185 g and<br>≈ 0.25 l water | 185 g and<br>≈ 0.25 l water | 370 g and<br>≈ 0.50 l water | 185 g and<br>≈ 0.25 l water | 370 g and<br>≈ 0.50 l water |
| <b>Empty weight</b>                                                         |                             |                             |                             |                             |                             |                             |
| OLF-x-S                                                                     | ≈ 9 kg                      | ≈ 11 kg                     | ≈ 12 kg                     | –                           | –                           | –                           |
| OLF-x-E                                                                     | ≈ 4 kg                      | –                           | –                           | –                           | –                           | –                           |
| OLF-x-F                                                                     | ≈ 4 kg                      | –                           | –                           | –                           | –                           | –                           |
| OLF-x-T                                                                     | –                           | –                           | ≈ 13 kg                     | ≈ 15 kg                     | ≈ 5 kg                      | ≈ 6 kg                      |
| OLFCM-x-T                                                                   | –                           | –                           | ≈ 16 kg                     | ≈ 16 kg                     | –                           | –                           |
| <b>Filter element type / size</b>                                           |                             |                             |                             |                             |                             |                             |
|                                                                             | N5                          | N5                          | N5                          | N10                         | N5                          | N10                         |

\* When the viscosity is high, the flow rate can be significantly lower.

\*\* For basic type OLFCM maximum 15 to 200 mm²/s

– Model not available

## Model code

**OLF - 5 - S - 120-N - N5DM002 - E / -7.5**

### Model

OLF = OffLine Filter  
 OLFCM = OffLine Filter with FluidCondition Monitoring  
 (only with size 5/15, 10/15 and toploader version)  
 (permitted viscosity range 5 to 200 mm²/s)

### Size and nominal flow rate

5 = 5 l/min (not for toploader version)  
 5/4 = 4 l/min (for lubrication systems)  
 5/15 = 15 l/min  
 10/15 = 15 l/min (for N10 elements, only for toploader version)  
 5/Z = only filter (only for toploader version)  
 10/Z = only filter (only for toploader version)

### Version

S = standard with motor (OLF-5, OLF-5/4, OLF-5/15)  
 E = flow control valve (10 to 50 bar) without motor (OLF-5)  
 T = toploader with or without motor (OLF-5/15, OLF-10/15, OLF-5/Z, OLF-10/Z)  
 F = only filter (OLF-5)

Standard sealing material is NBR (specification can be omitted).

For versions in FKM (FPM, Viton®), add "V" here, for example: OLF-5-SV-...

### Voltage supply

|       | OLF 5                | OLF 5/4              | OLF 5/15             | OLF 10/15            |
|-------|----------------------|----------------------|----------------------|----------------------|
| 120-N | 120 W, 3x400 V 50 Hz | –                    | –                    | –                    |
| 120-M | 120 W, 1x230 V 50 Hz | –                    | –                    | –                    |
| 120-K | 120 W, 1x120 V 60 Hz | –                    | –                    | –                    |
| 370-N | –                    | 370 W, 3x400 V 50 Hz | 370 W, 3x400 V 50 Hz | 370 W, 3x400 V 50 Hz |
| 370-M | –                    | 370 W, 1x230 V 50 Hz | 370 W, 1x230 V 50 Hz | 370 W, 1x230 V 50 Hz |
| 370-K | –                    | 370 W, 1x120 V 60 Hz | 370 W, 1x120 V 60 Hz | 370 W, 1x120 V 60 Hz |
| 200-U | 200 W, 24 VDC        | –                    | 200 W, 24 VDC        | 200 W, 24 VDC        |
| Z-Z   | No drive             | –                    | –                    | –                    |

– Not available

Others on request!

### Element type

N 5 DM 002 = DIMICRON filtration rating 2 µm absolute  
 N 5 DM 005 = DIMICRON filtration rating 5 µm absolute  
 N 5 DM 010 = DIMICRON filtration rating 10 µm absolute  
 N 5 DM 020 = DIMICRON filtration rating 20 µm absolute  
 N 5 AM 002 = AQUAMICRON filtration rating 2 µm absolute  
 N 5 AM 020 = AQUAMICRON filtration rating 20 µm absolute  
 N 10 DM 002 = DIMICRON filtration rating 2 µm absolute  
 N 10 DM 005 = DIMICRON filtration rating 5 µm absolute  
 N 10 DM 010 = DIMICRON filtration rating 10 µm absolute  
 N 10 DM 020 = DIMICRON filtration rating 20 µm absolute  
 N 10 AM 002 = AQUAMICRON filtration rating 2 µm absolute  
 Z = without filter element

### Clogging indicator

E = back pressure gauge (standard for OLF-5)  
 F = pressure switch, electric (VR2F.0)  
 BM = visual differential pressure indicator (VM2BM.1) (standard for OLF-5/15)  
 C = electric differential pressure indicator (VM2C.0)  
 D = visual-electrical differential pressure indicator (VM2D.0)  
 Z = without clogging indicator

E, F not for sizes / version OLF-5/15

BM, C, D not for sizes / version OLF-5-S

For BM, C, D, there is no back pressure gauge

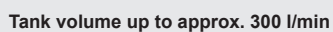
### Supplementary details

C = with ContaminationSensor CS 1310 (without display)  
 CD = with ContaminationSensor CS 1320 (with display)  
 AC = with ContaminationSensor CS 1310 and AquaSensor AS1000 (without display)  
 ACD = with ContaminationSensor CS 1320 and AquaSensor AS3000 (with display)  
 7.5 = with 7.5 bar pressure relief valve

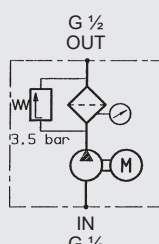
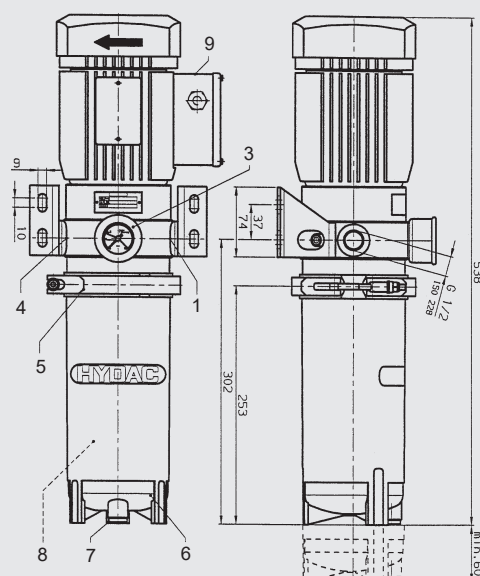
(OLF-5-E...)



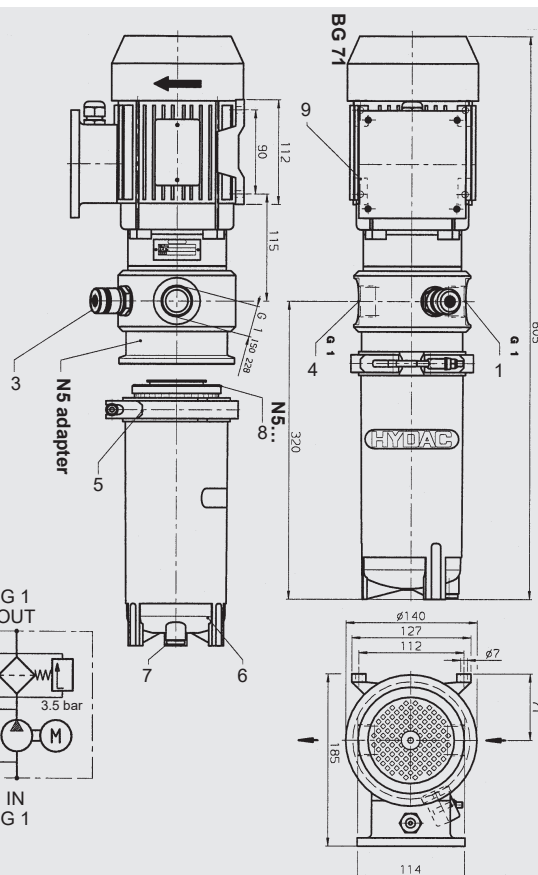
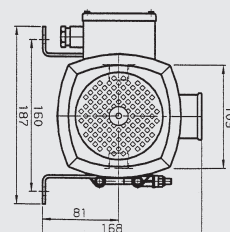
**Tank volume up to approx. 2000 l/min**



 Viscosity range at which the max. flow rate is achieved only after roughly 10 minutes in the case of an unfilled pump.



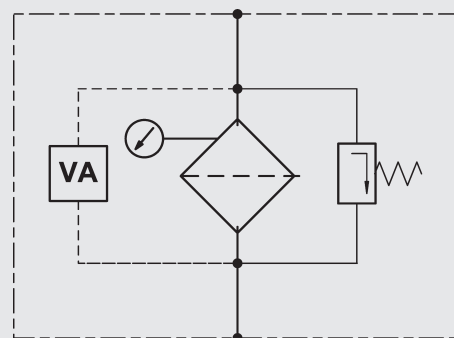
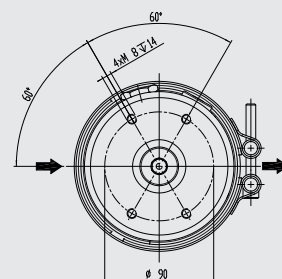
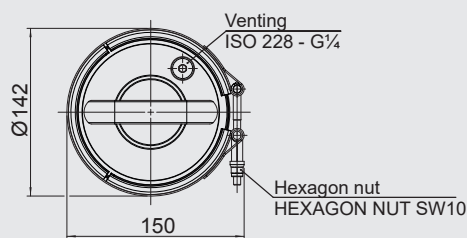
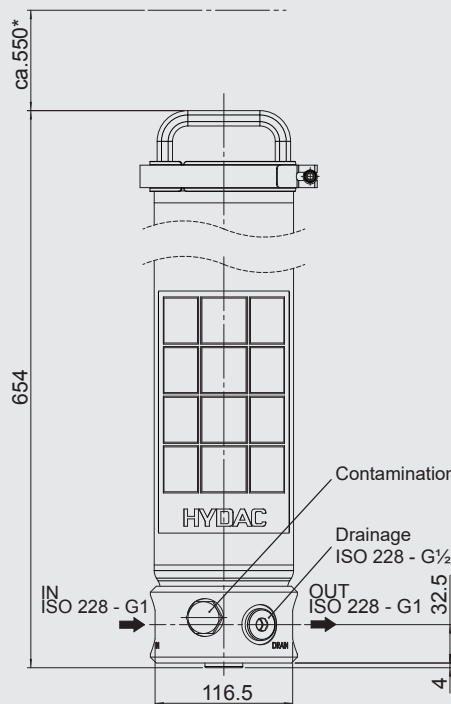
Example:  
OLF-5-S...



Example:  
OLF-5/15-S..., OLF-5/4-S...

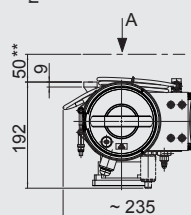
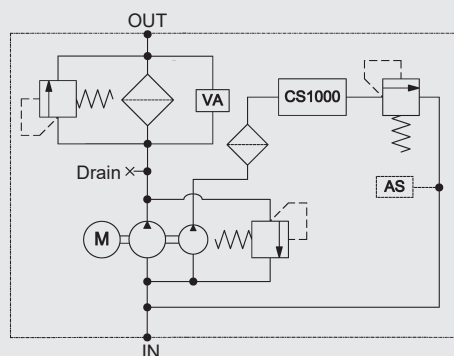
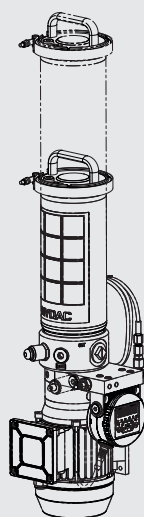
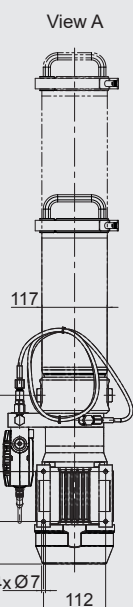
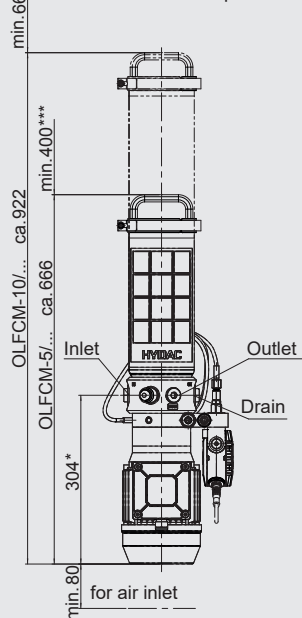
- |                        |                    |
|------------------------|--------------------|
| 1 = Inlet              | 6 = Filter bowl    |
| 3 = Clogging indicator | 7 = Drain          |
| 4 = Outlet             | 8 = Filter element |
| 5 = Clamping clip      | 9 = Electric motor |





Example: OLF-10/Z-T...

\*\*\* Element removal space



- \* Depending on the manufacturer of the electric motor
- \*\* Space required for maintenance and repair work

Example:  
OLF-10/15-T...  
OLF-10/15-T...

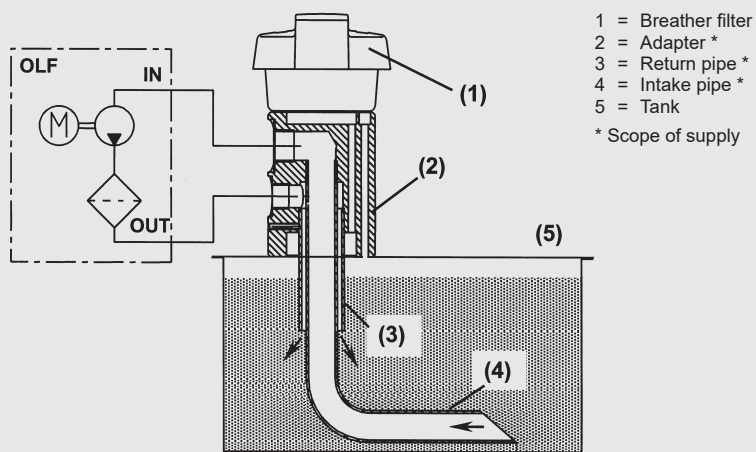
## Accessories

### ■ Tank connection kit OLF-5-TAK

Item no. 3039235

Kit for rapid retrofitting of an OLF to a hydraulic system.

Can be installed in systems outfitted with breather filters with connection specifications according to DIN 24557/T2.



OLF-5-TAK

## Spare elements

| Element type | Part number |
|--------------|-------------|
| N 5 DM 002   | 349494      |
| N 5 AM 002   | 349677      |
| N 5 DM 005   | 3068101     |
| N 5 DM 010   | 3102924     |
| N 5 DM 020   | 3023508     |
| N 5 AM 020   | 3040345     |
| N 10 DM 002  | 3539235     |
| N 10 DM 005  | 3539237     |
| N 10 DM 010  | 3539238     |
| N 10 DM 020  | 3539242     |
| N 10 AM 002  | 3582637     |

### Note

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

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

Subject to technical modifications.

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