

## HYDAC INTERNATIONAL



### OffLine Filter

#### OLF 5

#### Description

The OLF 5 and 10 series of filters are used for the offline, fine filtration of hydraulic oils.

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.

For every application therefore, HYDAC can provide the right unit.

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 characterized by:

- particularly high contamination retention capacity
- environmentally safe disposal (incinerable) and
- water absorption (optional).

#### Applications

- Machine tools
- Plastic injection moulding machines
- Mobile hydraulics
- Industrial hydraulics
- Wind power

#### Advantages

- Improved component and system filter lifetime
- Greater machine availability
- Longer oil change intervals
- Minimum space requirement due to compact design
- Very easy maintenance
- High contamination retention capacity of the elements
- Option: Continuous monitoring of solid particle contamination and water saturation in the oil during cleaning
- Environmentally safe disposal of elements (incinerable)

#### Technical details

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

### Technical details

	OLF-5...	OLF-5/4...	OLF-5/15...	OLF-10/15...	OLF-5/Z...	OLF-10/Z...
<b>Flow rate</b>	5 l/min*	5 l/min*	15 l/min*	15 l/min*	15 l/min*	30 l/min*
<b>Max. operating pressure</b>	3.5 bar	4.5 bar	4.5 bar	4.5 bar	6.0 bar	6.0 bar
<b>Viscosity range</b>	15 ... 150 mm <sup>2</sup> /s	15 ... 7000 mm <sup>2</sup> /s*	15 ... 1000 mm <sup>2</sup> /s	15 ... 1000 mm <sup>2</sup> /s	15 ... 1000 mm <sup>2</sup> /s	15 ... 1000 mm <sup>2</sup> /s
<b>Permitted pressure at INLET port</b>						
OLF-x-S	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar	-	-	-
OLF-x-E	10 ... 50 bar	-	-	-	-	-
OLF-x-F	-0.4 ... 6 bar	-	-	-	-	-
OLF-x-T	-	-	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar	6 bar	6 bar
OLF-FCM-x-T	-	-	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar	-	-
<b>Hydraulic connections according to ISO 228</b>						
OLF-x-S	IN = 1/2" OUT = 3/8"	IN = 1" OUT = 1"	IN = 1" OUT = 1"	-	-	-
OLF-x-E	IN = " OUT = 1/2"	-	-	-	-	-
OLF-x-F	IN = 1/2" OUT = 1/2"	-	-	-	-	-
OLF-x-T	-	-	IN = 1" OUT = 1"	IN = 1" OUT = 1"	IN = 1/2" OUT = 1/2"	IN = 1" OUT = 1"
OLF-FCM-x-T	-	-	IN = 1" OUT = 1"	IN = 1" OUT = 1"	-	-
<b>Filtration rating</b>						
Dimicron	2, 5, 10 or 20 µm	2, 5, 10 or 20 µm	2, 5, 10 or 20 µm	2, 5, 10 or 20 µm	2, 5, 10 or 20 µm	2, 5, 10 or 20 µm
Aquamicron	2, or 20 µm	2, or 20 µm	2, or 20 µm	2 µm	2, or 20 µm	2 µm
<b>Contamination retention capacity 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 ≈ 0.25 l water	185 g and ≈ 0.25 l water	185 g and ≈ 0.25 l water	370 g and ≈ 0.50 l water	185 g and ≈ 0.25 l water	370 g and ≈ 0.50 l water
<b>Weight when empty</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
OLF-FCM-x-T	-	-	≈ 16 kg	≈ 16 kg	-	-
<b>Filter element type / size</b>						
	N5	N5 / Spin-on	N5	N10	N5	N10

\* = When the viscosity is high, the flow rate can be significantly lower.  
- = Model not available

**Model code**

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

**Basic model**

- OLF = OffLine Filter
- OLFCM = OffLine Filter mit FluidCondition Monitoring (only for size 5/15, 10/15 and Toploader version)

**Size and nominal flow rate**

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

**Version**

- S = standard with motor (OLF-5, OLF-5/4, OLF-5/15)
  - E = flow control valve (10 .. 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 = filter only (OLF-5)
- Standard seal material is NBR (no need to specify).  
For version in FKM (FPM, Viton®) add "V" here, e.g.: 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 V DC	-	200 W, 24 V DC	200 W, 24 V DC
Z-Z	no motor	-	-	-

- 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
- M 160 B 03 = 0160 MA 03 BN, filtration rating 3 µm absolute
- M 160 B 05 = 0160 MA 05 BN, filtration rating 5 µm absolute
- M 160 B 10 = 0160 MA 10 BN, filtration rating 10 µm absolute
- M 160 B 20 = 0160 MA 20 BN, filtration rating 20 µm absolute
- M 180 B 03 = 0180 MA 03 BN, filtration rating 3 µm absolute
- M 180 B 05 = 0180 MA 05 BN, filtration rating 5 µm absolute
- M 180 B 10 = 0180 MA 10 BN, filtration rating 10 µm absolute
- M 180 B 20 = 0180 MA 20 BN, filtration rating 20 µm absolute
- Z = without filter element

**Clogging indicator**

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

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

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

For BM, C, D there is no 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

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**SR5E**

1 = Inlet  
3 = Clogging indicator  
4 = Outlet  
5 = Clamp

6 = Filter bowl  
7 = Drain  
8 = Filter element

Example: OLF-5-E...

\*\*\* Height for element removal

View A

min. 660\*\*\*  
min. 400\*\*\*

OL.F.-10/... ca. 646  
inlet outlet  
OL.F.-5/... ca. 646  
drain

min. 90  
for air inlet

min. 284\*  
117  
118  
90  
77\*  
4xØ7  
112

P: G1

S: G1

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

Example: OLF-5/15-T...  
OLF-10/15-T...

Option: differential pressure indicator (DPI)

336  
60 min.  
clogging indicator

G 1/2" ISO 228

37  
74  
252  
310

109  
160  
187  
81  
168

inlet  
clamp  
filter bowl  
filter element  
outlet  
drain

Example: OLF-5-F...

\* Height for element removal

100\*

386 ±1

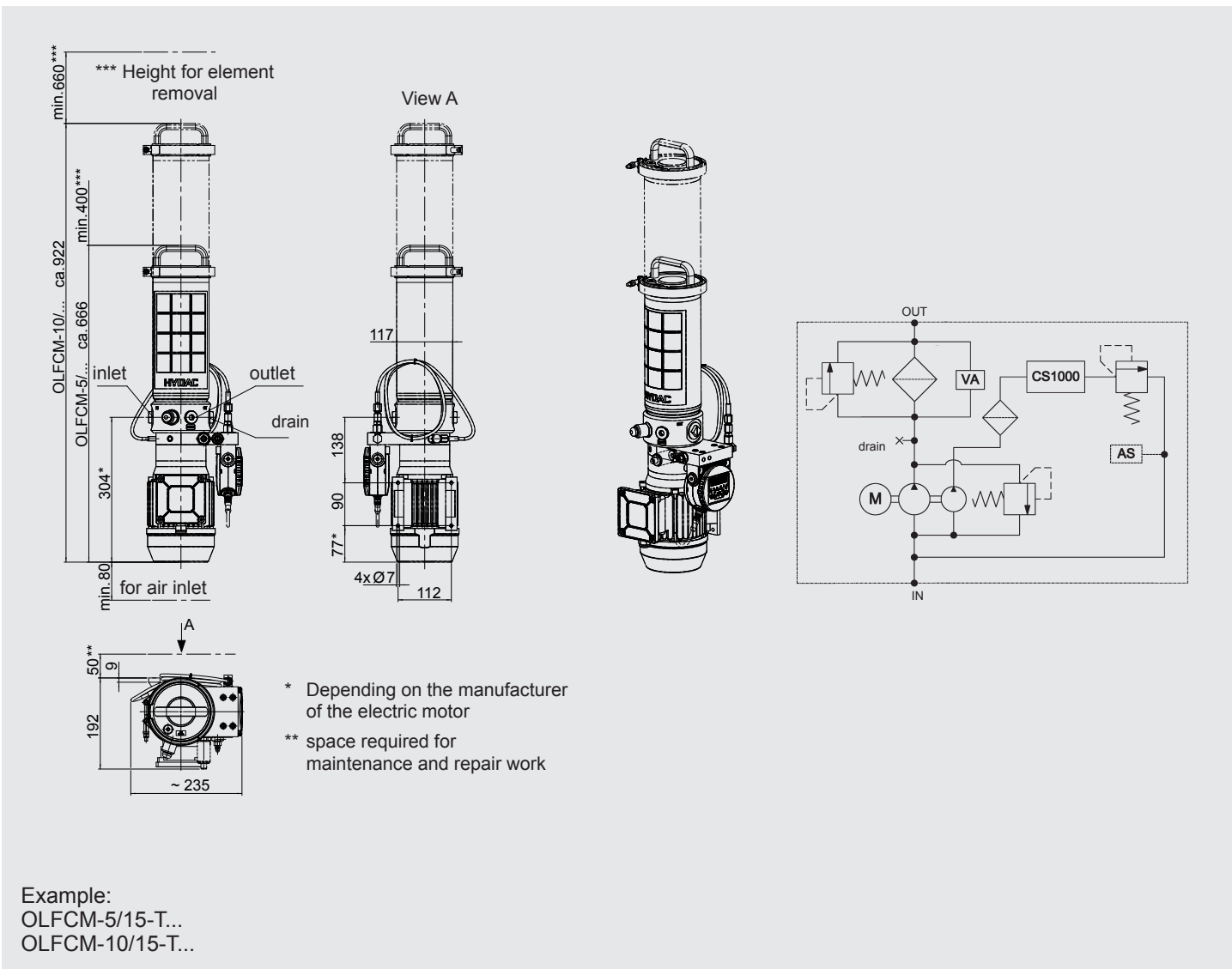
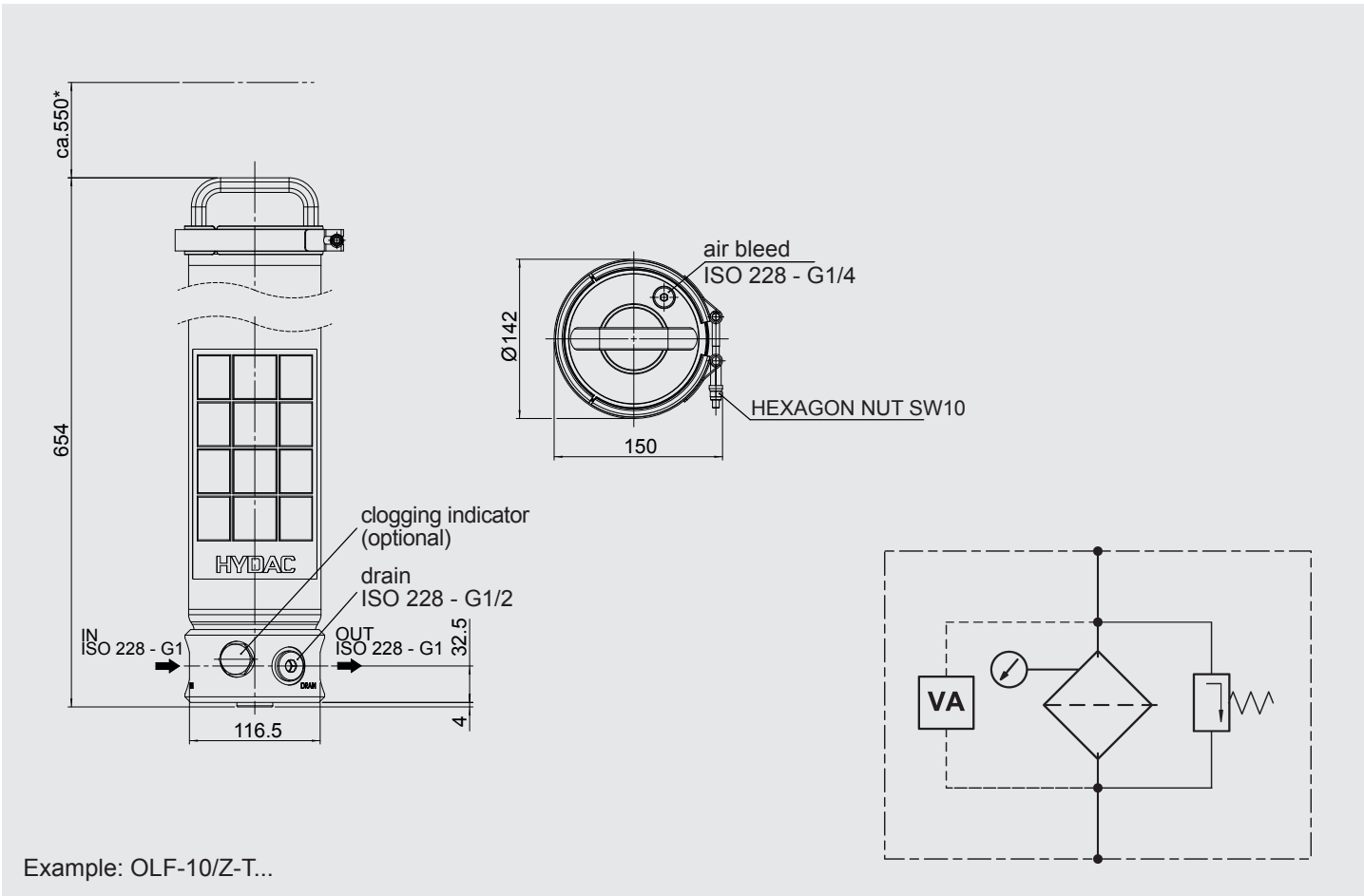
17  
37  
10  
9  
56.5  
3  
160  
81

187±1

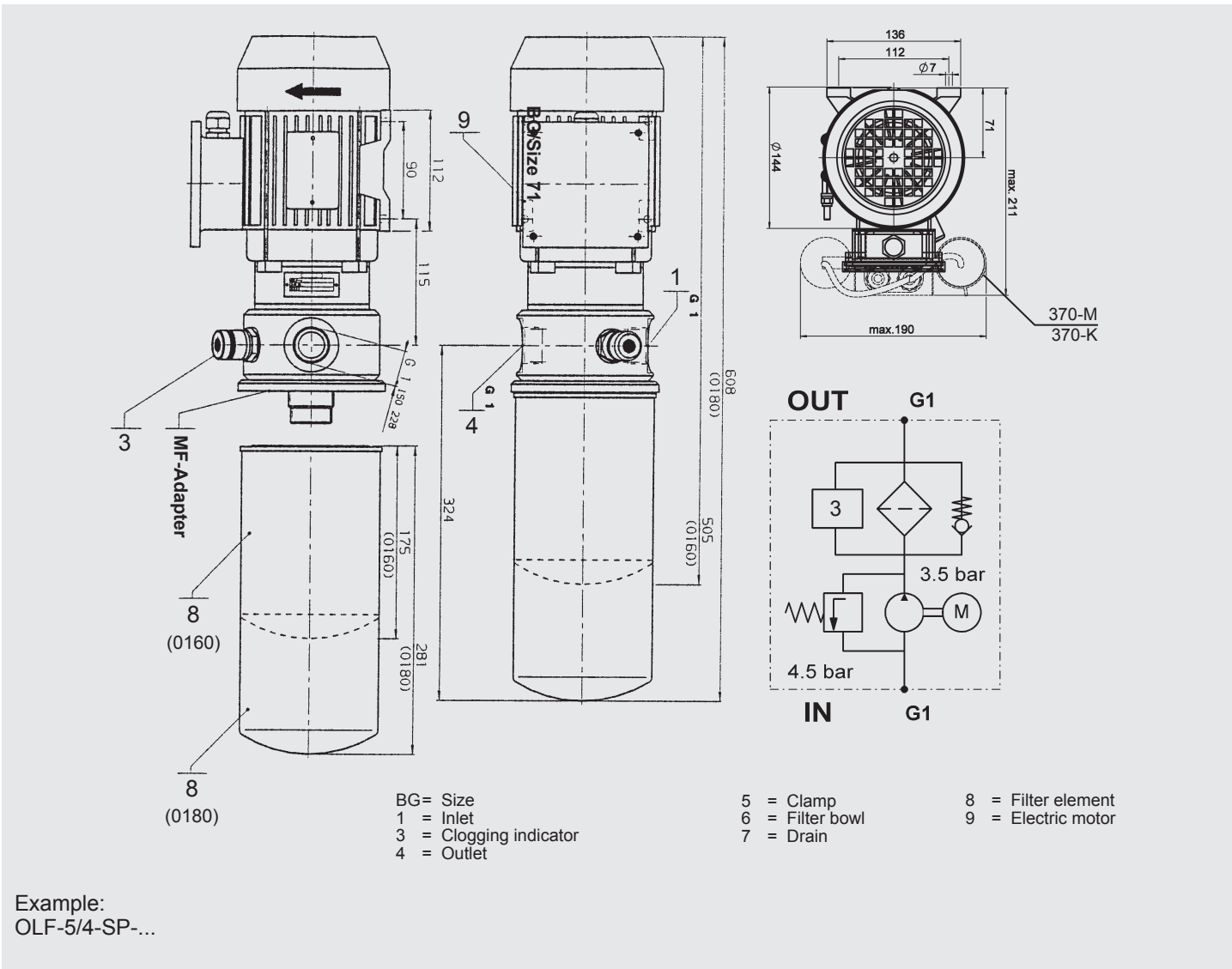
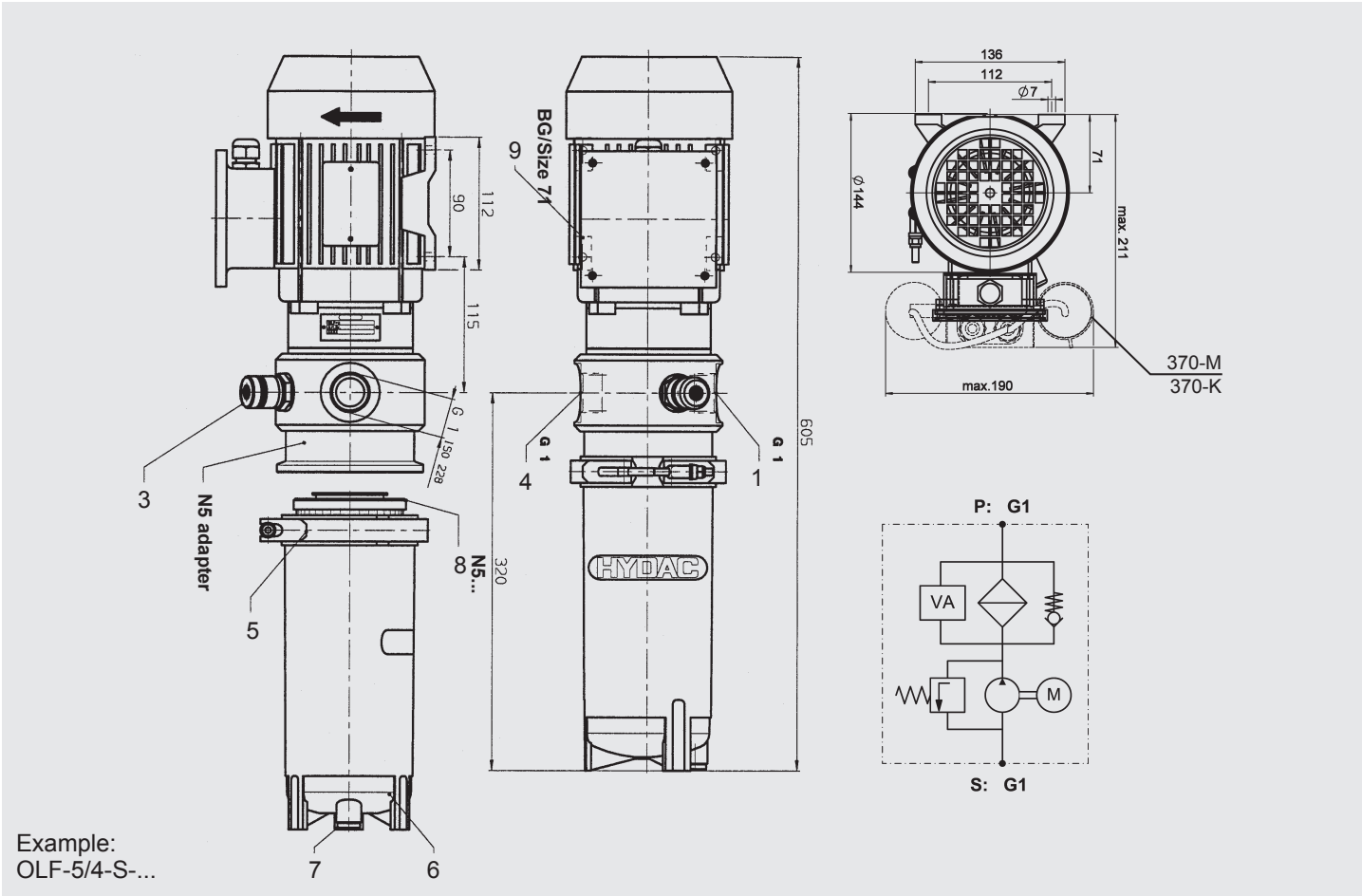
OUT ISO 228-1 G1/2  
IN ISO 228-1 G1/2

169±2  
164±2

Example: OLF-5/Z-T...



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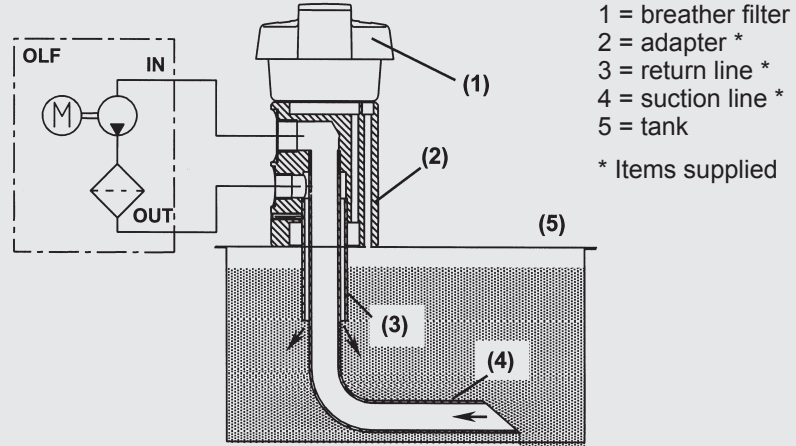
## Accessories

– Tank adapter kit OLF-5-TAK

Part No. 3039235

Quick retrofit kit to connect the OLF to hydraulic systems.

Can be installed on systems which have a breather filter with an interface to DIN 24557/Part 2.



1 = breather filter  
2 = adapter \*  
3 = return line \*  
4 = suction line \*  
5 = tank

\* Items supplied

OLF-5-TAK

## Replacement 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
M 160 B 03	314609
M 160 B 05	315621
M 160 B 10	314022
M 160 B 20	315485
M 180 B 03	310475
M 180 B 05	315622
M 180 B 10	315726
M 180 B 20	315623

## Note

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

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

Subject to technical modifications.

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