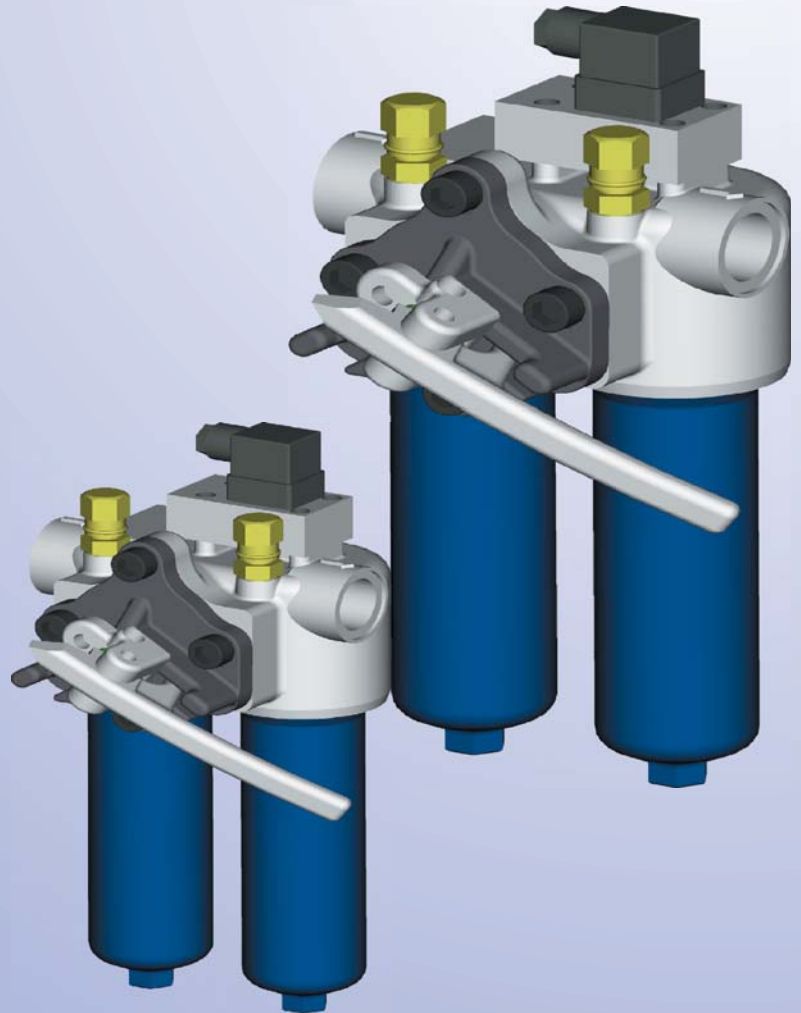




Filters . Accumulators

Duplex Filters

40/160 LD 0005 - 0045
40/160 LDN 0040-0400



*Filters for inline installation
for continuous operation*

*With integrated pressure
equalisation valve*

Compact modular design

Optimised flow characteristics

Low pressure drop

High efficient filter media

*Operating pressure: 40/160 bar
Connection up to SAE 1 ½"*



Duplex Filters

40/160 LD 0005- 0045
40/160 LDN 0040-0400

Operating Pressure 40/160 bar
Operating temperature - 10°C to + 100°C
Connection up to SAE 1 1/2"

Application

Filtration of hydraulic fluids and lubricants.

Filtration of liquids.

Direct installation in pipelines to provide wear protection of subsequent components and systems.

Design

Filter head with inlet & outlet ports and Spigots to locate filter elements.

Screwed Filter Bowl.

Materials: See spare parts list in this brochure.

Filter Element

Pleated design with optimal pleat density and various filter material.

The filter element is the most important part of the system "Filter" with respect to availability and corrosion protection for the installation.

The deciding factors for selection are the degree of purity of the operating medium, the initial differential pressure, and the dirt retaining capacity.

Further details can be found in our brochure "Filter Elements".

Accessories

Maintenance Indicator

These monitor the degree of clogging of the Filter elements and are available as visual or visual/electric displays with one or two shift points.

Bypass Valve

For the protection of the filter elements during cold start and when the differential pressure is exceeded due to clogging.

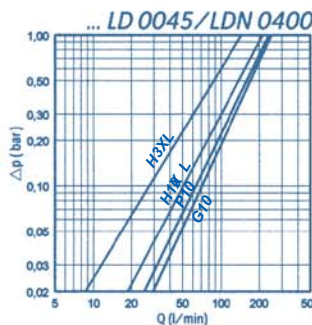
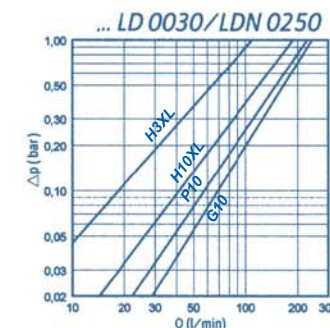
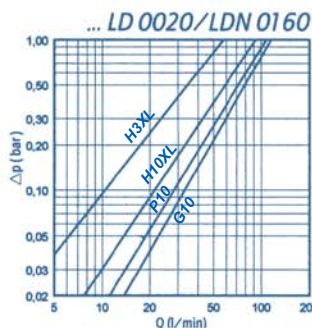
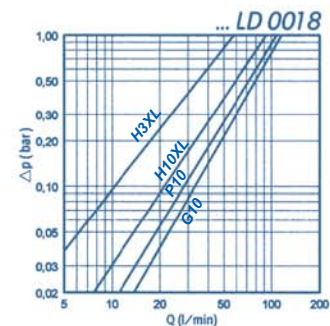
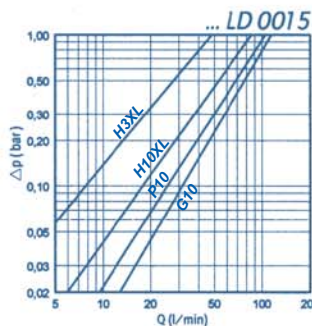
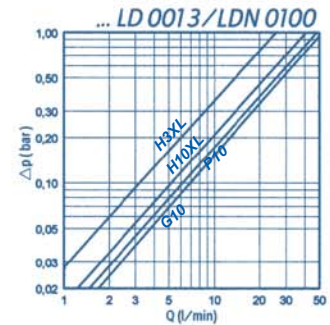
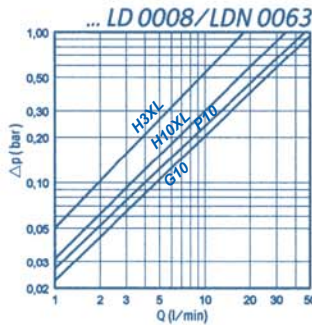
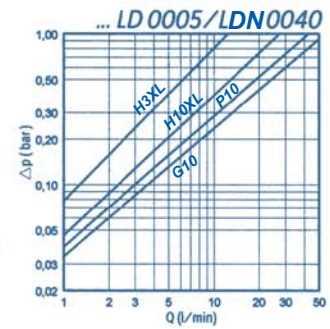
Vent Valve

For venting air from the filter during start up and for safe depressurisation.

Performance characteristics

ΔP -Q-characteristic line for complete filters recommended start- Δp for assembly = 0.8 bar

Oil viscosity: 30 mm²/S
Specific gravity < 0.9 kg/dm³



Ordering Information

Special design available on request.

| Filter Type | Magnet | Maintenance Indicator | Connection | Material |
|--|-------------|--|-------------------------------------|--------------|
| LD = Duplex Filter with EPE Standard filter element LDN= Duplex Filter with filter element according to DIN 24550 | 0 = without | 0 = without A.. = visual indicator B.. = combined visual/electrical Indicator with electric plug D.. = combined visual/electrical indicator with signal lights and two switching points Standard switch pressure: ..2.5 bar for 40 LD and LDN ..5.0 bar for 160 LD and LDN | 00 = pipe thread S0 = SAE flange | 0 = standard |

Filter Assembly → **160** **LD** **0013** **H10XL** - **A** **00** - **0** **0** **B5.0** - **R0** **P** **0** **0**

Seal Kit → **D 160** **LD** **0013** - - **B** - **R0** **P** **0**

| Pressure | Nominal Size | Filter Media & Filtration Grade | Diff. Pressure | Element Model | Bypass Valve | Seal | Addl. Info |
|-------------------|---|---|---|---|---|---|--|
| 40 bar 160 bar | 40/160 LD... 0005 0008 0013 0015 0018 0020 0030 0045 | Nominal filtration grade in µm G= stainless steel wire mesh, cleanable G10 G25 G40 G60 G80 G100 VS=bonded fabric, not cleanable VS 25 VS 40 VS 60 P=paper, not cleanable P5 P10 P25 Absolute filtration grade (ISO16889)in µm H...XL=micro glass, not cleanable H1XL H3XL H6XL H10XL H20XL AS= micro glass-fibre, water absorbing, not cleanable AS1 AS3 AS6 AS10 AS20 | Max. allowed differential pressure of the filter element A = 30 Bar D = 60 Bar C = 160 Bar | 0.. = Standard adhesive T=100°C E.. = Special adhesive T=160°C ..0 = Standard material ..Z = Zinc free | Opening Pressure 0 = without 7 = 3.5 Bar for 40-LD/LDN 9 = 7.0 Bar for 160-LD/LDN For Filter Element always 0 | P = Buna-N / Nitrile V = Viton E = Ethylene-Propylene N = Neoprene | 0 = without 5 = Silicon free E = Vent Valve Z = Inspection certificate - = without 5 = Silicon free Z = Inspection certificate |

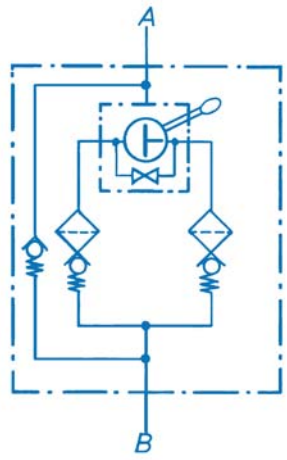
Filter Element → **2.** **0013** **H10XL** - **A** **00** - **0** **P** -

Maintenance Indicator

The maintenance indicator monitors the degree of clogging of the filter elements. They are available as visual/electrical displays. See "Maintenance Indicator" catalogue for technical data.

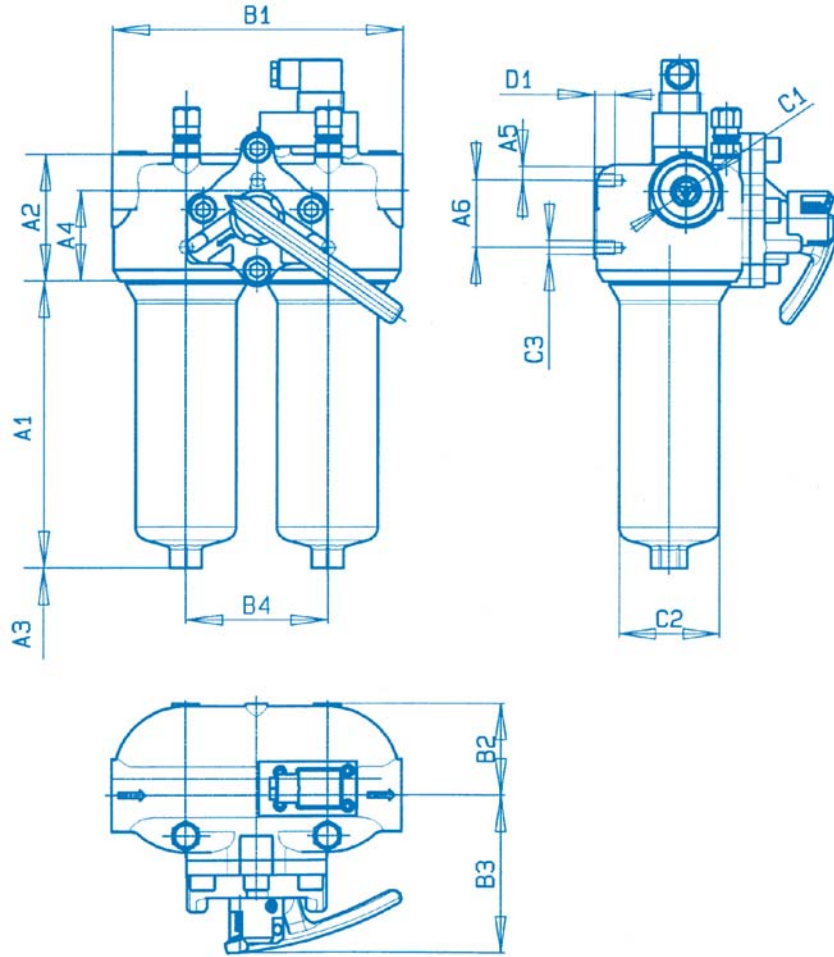
| | | |
|---|--|--|
| | | |
| A...Optical | B.... Optical/electrical | D... Optical/electrical with three 24 V diodes and two switch points |
| Ordering information A2,5 = F2,5 A0 00 00P* A5,0 = F5, 0 A0 00 00P* | Ordering information B2,5 = F2,5 GW 02 00P* B5,0 = F5,0 GW 02 00P* | Ordering information D2,5 = R2,5 GW 09 ZOP* D5,0 = R5,0 GW 09 ZOP* |
| | Switch Symbol | Switch Symbol |

Filter Switching Symbol



* Buna N / Nitrile, V = Viton, E = Ethylene propylene; N = Neoprene possible

Dimensions



Filter housing for filter Elements in accordance with EPE Standard

| Type | Capacity in l | Weight in Kg ¹⁾ | A1 | A2 | A3 ²⁾ | A4 | A5 | A6 | B1 | B2 | B3 | B4 | C1 Connection | C2 | C3 | D1 |
|----------------|---------------|----------------------------|-----|-----|------------------|----|----|----|-----|-----|-----|-----|---------------|----|-----|----|
| 40/160 LD 0005 | 2 x 0.23 | 7.0 | 117 | 105 | 100 | 77 | 8 | 50 | 168 | 54 | 115 | 80 | G1 | 55 | M10 | 15 |
| 40/160 LD 0008 | 2 x 0.36 | 7.5 | 182 | | | | | | | | | | | | | |
| 40/160 LD 0013 | 2 x 0.53 | 8.8 | 269 | | | | | | | | | | | | | |
| 40/160 LD 0015 | 2 x 0.80 | 13.2 | 218 | 109 | 120 | 73 | 10 | 50 | 220 | 68 | 120 | 105 | G 1 ¼ | 76 | M12 | 18 |
| 40/160 LD 0018 | 2 x 0.99 | 16.3 | 263 | | | | | | | | | | | | | |
| 40/160 LD 0020 | 2 x 1.19 | 19.0 | 182 | 127 | 120 | 81 | 17 | 55 | 278 | 102 | 115 | 134 | G 1 ½ | 98 | M16 | 24 |
| 40/160 LD 0030 | 2 x 1.76 | 20.0 | 276 | | | | | | | | | | | | | |
| 40/160 LD 0045 | 2 x 2.72 | 23.0 | 422 | | | | | | | | | | | | | |

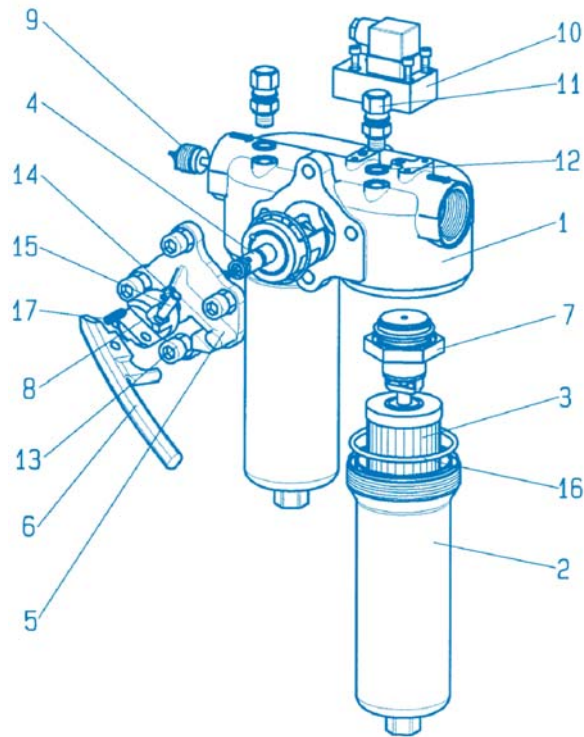
Filter housing for filter Elements in accordance with DIN 24550

| Type | Capacity in l | Weight in Kg ¹⁾ | A1 | A2 | A3 ²⁾ | A4 | A5 | A6 | B1 | B2 | B3 | B4 | C1 Connection | C2 | C3 | D1 |
|-----------------|---------------|----------------------------|-----|-----|------------------|----|----|----|-----|-----|-----|-----|-------------------|----|-----|----|
| 40/160 LDN 0040 | 2 x 0.23 | 7.0 | 117 | 105 | 100 | 77 | 8 | 50 | 168 | 54 | 115 | 80 | G1 | 55 | M10 | 15 |
| 40/160 LDN 0063 | 2 x 0.36 | 7.5 | 182 | | | | | | | | | | | | | |
| 40/160 LDN 0100 | 2 x 0.53 | 8.8 | 269 | | | | | | | | | | | | | |
| 40/160 LDN 0160 | 2 x 1.19 | 19.0 | 182 | 127 | 120 | 81 | 17 | 55 | 278 | 102 | 115 | 134 | G 1 ½ | 98 | M16 | 24 |
| 40/160 LDN 0250 | 2 x 1.76 | 20.0 | 276 | | | | | | | | | | | | | |
| 40/160 LDN 0400 | 2 x 2.72 | 23.0 | 422 | | | | | | | | | | SAE 1 ½" 3000 psi | | | |

1) = Weight including standard filter element and maintenance indicator
 2) = Servicing height for filter element replacement

All dimensions are in mm

Spare Parts List



Switch lever indicates the side of maintenance

| | | Size LD Size LDN | | 0005 0040 | 0008 0063 | 0013 0100 | 0015 | 0018 | 0020 0160 | 0030 0250 | 0045 0400 |
|------|----------|-----------------------|--------------|--|--------------|--------------|------|--------------|--------------|--------------|--------------|
| Part | Quantity | Title | Material | | | | | | | | |
| 1 | 1 | Filter head | GGG50 | Please indicate ordering information "Filter" | | | | | | | |
| 2 | 2 | Filter bowl | C-steel | Please indicate ordering information "Filter" | | | | | | | |
| 3 | 2 | Filter element | Various | Please indicate ordering information "Filter Element" | | | | | | | |
| 3.1 | 1 | O-ring | Buna N/Viton | Please indicate ordering information "Seal Kit" | | | | | | | |
| 4 | 1 | Change over valve | Various | Part No.3617 (with filter head only) | | | | | | | |
| 4.1 | 1 | O-ring | Buna N/Viton | Please indicate ordering information "seal Kit" | | | | | | | |
| 4.2 | 1 | Wiper | Buna N | Please indicate ordering information "seal Kit" | | | | | | | |
| 4.3 | 1 | O-ring | Buna N/Viton | Please indicate ordering information "seal Kit" | | | | | | | |
| 5 | 1 | Cover | GGG50 | Part No.3616 | | | | | | | |
| 6 | 1 | Switch lever | Al Si 9 Mg | Part No.3618 | | | | | | | |
| 7 | 2 | Return valve | Various | Part No.5195 | | Part No.5161 | | Part No.3619 | | | |
| 7.1 | 1 | O-ring | Buna N/Viton | Please indicate ordering information "Seal Kit" | | | | | | | |
| 7.2 | 1 | O-ring | Buna N/Viton | Please indicate ordering information "Seal Kit" | | | | | | | |
| 8 | 1 | Bolts | 9SMn28K | Part No.3630 | | | | | | | |
| 9 | 1 | Bypass valve* | Various | Part No.5358 | | | | Part No.5118 | | | |
| 10 | 1 | Maintenance indicator | Various | Please indicate ordering information "Maintenance Indicator" | | | | | | | |
| 11 | 2 | Vent valve | Bronze | Part No.848 | | | | | | | |
| 12 | 2 | Sealing ring | Soft iron | Please indicate ordering information "Seal Kit" | | | | | | | |
| 13 | 4 | Hexagon screw | 8.8 | Part No.4971 | | | | | | | |
| 14 | 2 | Hexagon screw | 8.8 | Part No.5119 | | | | | | | |
| 15 | 1 | Parallel pin | St | Part No.3631 | | | | | | | |
| 16 | 2 | O-ring | Buna N/Viton | Please indicate ordering information "Seal Kit" | | | | | | | |
| 17 | 1 | Spring | Spring steel | Part No.3201 | | | | | | | |

*Please specify operating pressure



Filters . Accumulators

Installation, Starting and Maintenance

Installation

Check that the pressure rating of the filter is suitable for the system in which it is being installed.

Screw the filter head (Part 1) onto the mounting device, Taking into account the direction of flow (directional arrow) and installation height of the filter element (Part 3).

Remove filter entry and exit plugs, screw filter into the pipe-line, taking care to avoid stress on the components.

Connection of electrical maintenance indicator

Connect using three pole cable. Paying attention to breaking capacity on the rating plate of the filter indicator (Part 10).

1. Closer 1 (black) + 3 (blue)
2. Opener 1 (black) + 2(brown)
3. Changer 1 (black) + 2(brown) + 3(blue)

Starting operation

Switch on service pump.

Ventilate filter by opening the vent valve (Part 11), close when operating liquid appears.

Maintenance

The filter element is clogged and must be changed or cleaned when at operating temperature the red pointer on the Maintenance indicator (Part 10) is hard against the plastic cap and/or the switching process on the electrical indicator is triggered.

Filter element service

Pull the switch-over lever and switch over to the second filter.

Open the vent valve (part 11) on the filter half taken out of operation and reduce the pressure.

Unscrew the filter bowl (Part 2) and remove the filter element (Part 3) with slight rotation, from the centering spigot on the filter head.

Check the filter head for cleanliness and clean if necessary.

Replace filter elements H...-XL, P...and VS.. Clean the filter element with material G..

The effectiveness of cleaning is dependent on the type of dirt and the level of the differential pressure at the time of changing the filter element.

If the differential pressure is more than 50% of the value obtained before the filter change, then the element G...is to be replaced.

Using a light rotation movement, place new or cleaned filter elements on the centering spigot.

Check O-ring (Part 16) in the filter housing and replace when damaged or worn.

Screw on the filter bowl and tighten the hexagon with appropriate tools.

Put back into operation as described above.

Important

When disassembling the filters make sure that the filter inlet and outlet are drained separately!

Technical specifications are subject to change!

EPE PROCESS FILTERS & ACCUMULATORS PVT LTD

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