

Inline filter with filter element according to DIN 24550

RE 51447/10.11 1/16
Replaces: RE 51400

Type 50LEN0040 to 0400; 50LE0130, 0150

Size **according to DIN 24550**: 0040 to 0400
Additional sizes: 0130, 0150
Nominal pressure 50 bar [725 psi]
Port up to G 1 1/2; SAE 24
Operating temperature -10 °C to 100 °C [14 °F to 212 °F]



H7819_d

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Features

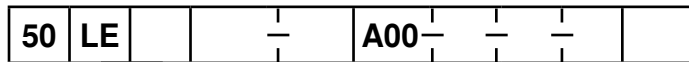
Inline filters are used in hydraulic systems for separating solid materials from the hydraulic fluids and lubricating oils. They are intended for attachment in pipelines.

They distinguish themselves by the following:

- Adsorption of very fine particles across a broad pressure differential range
- Good chemical resistance of the filter elements
- High collapse resistance of the filter elements (e.g. in case of cold start)
- Filter ratings of $3\text{ }\mu\text{m}$ to $100\text{ }\mu\text{m}$
- By default equipped with mechanical optical maintenance indicator with memory function
- Flow-optimized design due to 3D computer-supported design.

Ordering code

of the filter



Pressure
up to 50 bar
[725 psi] = 50

Inline filter
Single = LE

Filter element
not according to DIN 24550 = no code
according to DIN 24550 = N

Size
LEN... = 0040 0063 0100 0160 0250 0400
LE... = 0130 0150

Filter rating in µm
nominal
Stainless steel wire mesh, cleanable
G10, G25, G40, G100 = G...
absolute (ISO 16889)
Micro glass, not cleanable
H3XL, H6XL, H10XL, H20XL = H...XL

Pressure differential
max. admissible pressure differential of the filter element
30 bar [435 psi], with bypass valve = A00

Maintenance indicator
Maintenance indicator, mechanical optical
Switching pressure 5.0 bar [72.5 psi] = V5,0
Switching pressure 2.2 bar [31.9 psi] = V2,2
Switching pressure 1.5 bar [21.8 psi] = V1,5

Supplementary information
No code = without supplementary information
- NB = without bypass valve

| | | Port | | | |
|------|------------|-----------|-----------|-----------|------------------------------------|
| | Frame size | 0040-0100 | 0130-0150 | 0160-0400 | |
| | Port | | | | |
| R3 = | G 3/4 | • | | | Pipe thread according to ISO 228 |
| R4 = | G 1 | | • | | |
| R6 = | G 1 1/2 | | | • | |
| U4 = | SAE 12 | x | | | Pipe thread according to SAE J1926 |
| U9 = | SAE 16 | | x | | |
| U6 = | SAE 24 | | | x | |

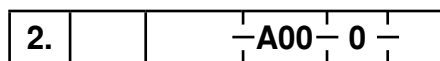
• = Standard port
x = Additional connection possibility

Seal
M = NBR seal
V = FKM seal

Order example:
50LEN0100-H3XLA00-V5,0-M-R4

Further versions (filter materials, connections,...) are available at request.

of the filter element



Filter element
Design = 2.

Size
LEN... = 0040 0063 0100 0160 0250 0400
LE... = 0130 0150

Filter rating in µm
nominal
Stainless steel wire mesh, cleanable
G10, G25, G40, G100 = G...
absolute (ISO 16889)
Micro glass, not cleanable
H3XL, H6XL, H10XL, H20XL = H...XL

Seal
M = NBR seal
V = FKM seal

Bypass valve
0 = with filter element always 0

Pressure differential
max. admissible pressure differential of the filter element
A00 = 30 bar [435 psi]

Order example:
2.0100 H3XL-A00-0-M

More information on Rexroth filter elements is available in the data sheet 51420

Preferred types

NBR seal, with bypass, flow specifications for 30 mm²/s [143 SUS]

Inline filter 50 LE(N), filter rating **3 µm**

| Type | Flow in l/min [gpm] with $\Delta p = 1 \text{ bar}$ [14.5 psi] | Material no. Filter | | | | Material no. Replacement element |
|-----------------------------|--|------------------------|------------|------|------------|--|
| | | | | | | |
| 50LEN0040-H3XLA00-V2,2-M-.. | 23 [6.08] | ..R3 | R928048449 | ..U4 | R928048452 | R928006645 |
| 50LEN0063-H3XLA00-V2,2-M-.. | 30 [7.93] | ..R3 | R928050995 | ..U4 | R928048453 | R928006699 |
| 50LEN0100-H3XLA00-V2,2-M-.. | 44 [11.62] | ..R3 | R928051075 | ..U4 | R928048454 | R928006753 |
| 50LE0130-H3XLA00-V2,2-M-.. | 74 [19.55] | ..R4 | R928050770 | ..U9 | R928048455 | R928022274 |
| 50LE0150-H3XLA00-V2,2-M-.. | 89 [23.51] | ..R4 | R928050850 | ..U9 | R928048456 | R928022283 |
| 50LEN0160-H3XLA00-V2,2-M-.. | 132 [34.87] | ..R6 | R928051152 | ..U6 | R928048457 | R928006807 |
| 50LEN0250-H3XLA00-V2,2-M-.. | 190 [50.19] | ..R6 | R928051232 | ..U6 | R928048458 | R928006861 |
| 50LEN0400-H3XLA00-V2,2-M-.. | 250 [66.04] | ..R6 | R928051312 | ..U6 | R928048459 | R928006915 |

Inline filter 50 LE(N), filter rating **10 µm**

| Type | Flow in l/min [gpm] with $\Delta p = 1 \text{ bar}$ [14.5 psi] | Material no. Filter | | | | Material no. Replacement element |
|------------------------------|--|------------------------|------------|------|------------|--|
| | | | | | | |
| 50LEN0040-H10XLA00-V2,2-M-.. | 36 [9.51] | ..R3 | R928047959 | ..U4 | R928048460 | R928006647 |
| 50LEN0063-H10XLA00-V2,2-M-.. | 69 [18.23] | ..R3 | R928050967 | ..U4 | R928048461 | R928006701 |
| 50LEN0100-H10XLA00-V2,2-M-.. | 75 [19.81] | ..R3 | R928051047 | ..U4 | R928048462 | R928006755 |
| 50LE0130-H10XLA00-V2,2-M-.. | 127 [33.55] | ..R4 | R928050743 | ..U9 | R928048463 | R928022276 |
| 50LE0150-H10XLA00-V2,2-M-.. | 150 [39.63] | ..R4 | R928050822 | ..U9 | R928048464 | R928022285 |
| 50LEN0160-H10XLA00-V2,2-M-.. | 210 [55.48] | ..R6 | R928051125 | ..U6 | R928048465 | R928006809 |
| 50LEN0250-H10XLA00-V2,2-M-.. | 260 [68.68] | ..R6 | R928051204 | ..U6 | R928048466 | R928006863 |
| 50LEN0400-H10XLA00-V2,2-M-.. | 300 [79.25] | ..R6 | R928051284 | ..U6 | R928048467 | R928006917 |

Ordering code: Electronic switching element for maintenance indicator

| | | |
|---|---------|---|
| | | |
| Maintenance indicator electronic switching element | = WE | |
| Type of signal | | Connector |
| 1 switching point | = 1SP | M12x1 = Round plug-in connection M12x1, 4-pin |
| 2 switching points, 3 LED | = 2SP | EN175301-803 = Rectangular plug-in connection, 2-pin design A according to EN-175301-803 |
| 2 switching points, 3 LED and signal suppression up to 30 °C [86 °F] | = 2SPSU | |

Material numbers of the electronic switching elements

| Material no. | Type | Signal | Switching points | Connector | LED |
|--------------|---------------------|---|------------------|---------------|----------|
| R928028409 | WE-1SP-M12x1 | Changeover | 1 | M12x1 | No |
| R928028410 | WE-2SP-M12x1 | Normally open (at 75 %) / normally closed contact (at 100 %) | 2 | | 3 pieces |
| R928028411 | WE-2SPSU-M12x1 | | | | |
| R928036318 | WE-1SP-EN175301-803 | Normally closed contact | 1 | EN 175301-803 | |

More information on maintenance indicators is available in the data sheet 51450

Order example: Inline filter with mechanical optical maintenance indicator for $p_{\text{Nominal}} = 50 \text{ bar}$ [725 psi] with bypass valve, size 0160, with filter element 10 μm and electronic switching element M12x1 with 1 switching point for hydraulic fluid mineral oil HLP according to DIN 51524.

Filter with mech.-opt.

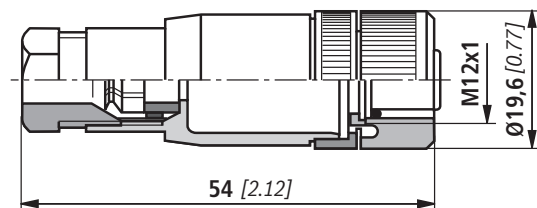
maintenance indicator: 50LEN0160-H10XLA00-V5,0-M-R6 **Material no. R928051126**
Electr. switching element: WE-1SP-M12x1 **Material no. R928028409**

Mating connectors according to IEC 60947-5-2 (dimensions in mm [inch])

For electronic switching element with round plug-in connection M12x1

Mating connector suitable for K24 4-pin, M12x1 with screw connection, cable gland Pg9.

Material no. R900031155



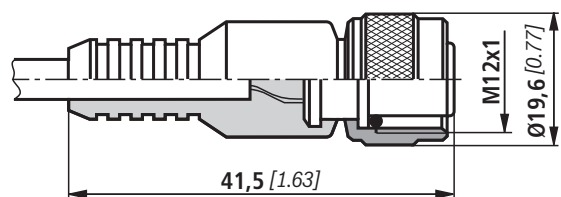
Mating connector suitable for K24-3m 4-pin, M12x1 with potted-in PVC cable, 3 m long.

Line cross-section: 4 x 0.34 mm²

Core marking:

| | |
|---|-------|
| 1 | Brown |
| 2 | White |
| 3 | Blue |
| 4 | Black |

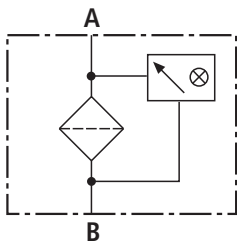
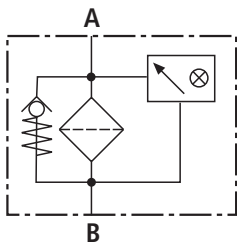
Material no. R900064381



For more round plug-in connections refer to data sheet 08006.

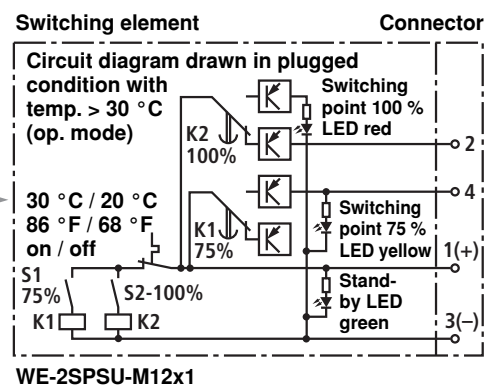
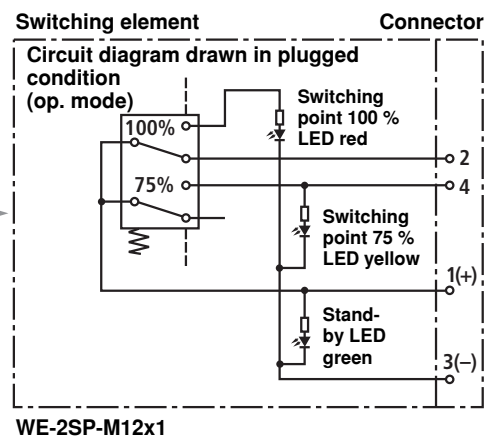
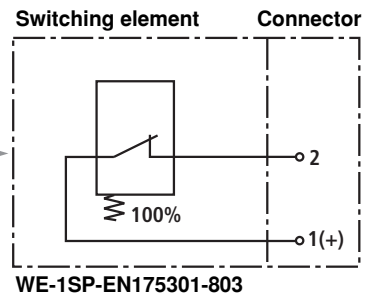
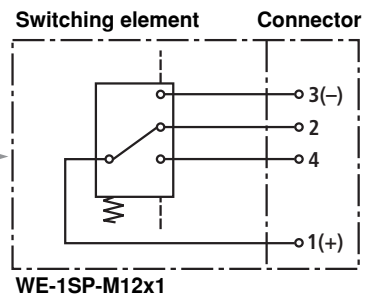
Symbols

Inline filter with bypass and mechanical indicator



Inline filter without bypass and mechanical indicator

Electronic switching element for maintenance indicator



Function, section

The 50LE(N) inline filters are suitable for direct installation into pressure lines. They are mostly installed upstream open-loop or closed-loop control units to be protected.

They basically consist of filter head (1), a screwable filter bowl (2), filter element (3) as well as mechanical optical maintenance indicator (4). In case of filters with low-pressure-differential-stable filter elements (= code letter pressure differential A), there is also an assembled bypass valve (5).

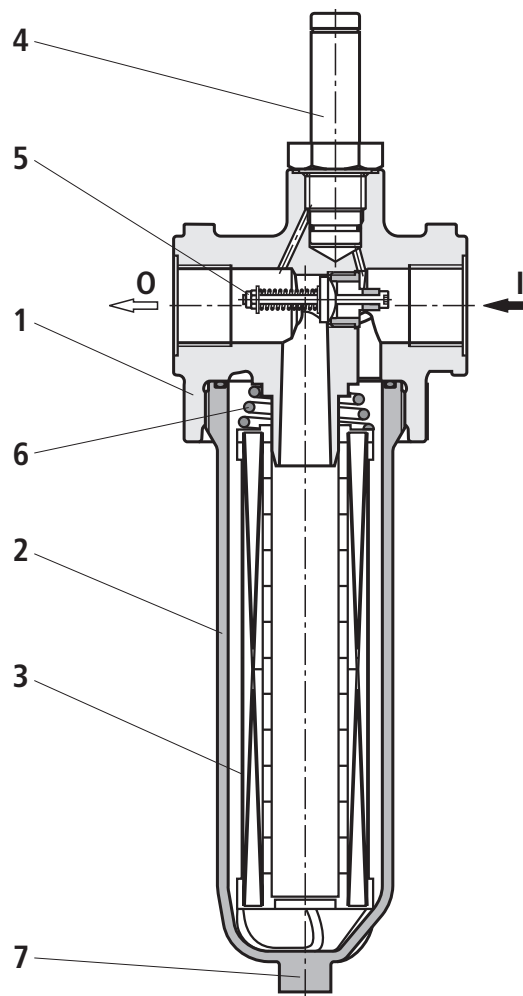
The installed spring (6) prevents possible vibrations of the filter element (3). During disassembly, the contact pressure of the spring (6) holds the filter element in the filter bowl (2).

Via port I, the hydraulic fluid reaches the filter element (3) where it is cleaned. The dirt particles filtered out settle in the filter bowl (2) and in the filter element (3). Via port O, the filtered hydraulic fluid enters the hydraulic circuit.

The filter housing and all connection elements are designed so that pressure peaks - as they may e.g. occur in case of abrupt opening of large control valves due to the accelerated fluid weight - can be securely absorbed. As of size 0160, the standard equipment comprises an oil drain plug (7).

Basically, the filter is equipped with mechanical optical maintenance indicator (4). The electronic maintenance indicator is connected via the electronic switching element with 1 or 2 switching points (see p. 4), which has to be ordered separately.

The electronic switching element is attached to the mechanical optical maintenance indicator and held by means of a locking ring.



Technical data (For applications outside these parameters, please consult us!)**general**

| | | | | | |
|---------------------------|-------------------------------|-----------------------------------|-------------|-------------|-------------|
| Installation position | | Vertical | | | |
| Ambient temperature range | | °C [°F] -30 to +100 [-22 to +212] | | | |
| Weight | Size | 0040 | 0063 | 0100 | 0130 |
| | kg [lbs] | 1.05 [2.3] | 1.1 [2.4] | 1.2 [2.6] | 1.91 [4.2] |
| | Size | 0150 | 0160 | 0250 | 0400 |
| | kg [lbs] | 2.06 [4.5] | 3.1 [6.8] | 3.3 [7.3] | 3.8 [8.4] |
| Volume | Size | 0040 | 0063 | 0100 | 0130 |
| | l [US gal] | 0.27 [0.07] | 0.39 [0.1] | 0.58 [0.15] | 0.89 [0.23] |
| | Size | 0150 | 0160 | 0250 | 0400 |
| | l [US gal] | 1.1 [0.29] | 1.31 [0.35] | 1.89 [0.50] | 2.84 [0.75] |
| Material | Filter head | Aluminum | | | |
| | Filter bowl | Aluminum | | | |
| | Optical maintenance indicator | V1.5; V2.2 | Aluminum | | |
| | | V5.0 | Brass | | |
| | Electronic switching element | Plastic PA6 | | | |

hydraulic

| | | | |
|--|-----------------------|--|---------------------------------------|
| Maximum operating pressure | bar [psi] | 50 [725] | |
| Hydraulic fluid temperature range | °C [°F] | -10 to +100 [+14 to +212] | |
| Minimum conductivity of the medium | pS/m | 300 | |
| Fatigue strength according to ISO 10771 | Load cycles | > 10 ⁶ with max. operating pressure | |
| Type of pressure measurement of the maintenance indicator | Pressure differential | | |
| Assignment: Response pressure of the maintenance indicator / cracking pressure of the bypass valve | bar [psi] | Response pressure of the maintenance indicator | Cracking pressure of the bypass valve |
| | | 1.5 ± 0.2 [21.8 ± 2.9] | 2.5 ± 0.25 [36.3 ± 3.6] |
| | | 2.2 ± 0.3 [31.9 ± 4.4] | 3.5 ± 0.35 [50.8 ± 5.1] |
| | | 5.0 ± 0.5 [72.5 ± 7.3] | 7.0 ± 0.5 [101.5 ± 7.3] |

Technical data (For applications outside these parameters, please consult us!)**electric** (electronic switching element)

| | | | | | |
|---|--|---------------------------------------|---|---|--------------------------------------|
| Electrical connection | | Round plug-in connection M12x1, 4-pin | | | Standard connection EN 175301-803 |
| Version | | 1SP-M12x1 | 2SP-M12x1 | 2SP-M12x1 | 1SP-EN175301-803 |
| Contact load, direct voltage | $A_{max.}$ | 1 | | | |
| Voltage range | $V_{max.}$ | 150 (AC/DC) | 10-30 (DC) | | 250 (AC) / 200 (DC) |
| Max. Switching power with resistive load | W | 20 | | | 70 |
| Switching type | 75 % signal | – | Normally open contact | | – |
| | 100 % signal | Changeover | Normally closed contact | | Normally closed contact |
| | 2SPSU | | | Signal inter-connection at 30 °C [86 °F], return switching at 20 °C [68 °F] | |
| Display via LEDs in the electronic switching element 2SP... | | | Stand-by (LED green); 75 % switching point (LED yellow) 100 % switching point (LED red) | | |
| Protection class according to EN 60529 | | IP 67 | | | IP 65 |
| Ambient temperature range | | °C [°F] –25 to +85 [–13 to +185] | | | |
| For direct voltage above 24 V, spark extinguishing is to be provided for protecting the switching contacts. | | | | | |
| Weight | Electronic switching element: – with round plug-in connection M12x1 | kg [lbs] | 0.1 [0.22] | | |

Filter element

| | | | | | |
|----------------------------------|-------|--|------------|--|--|
| Glass fiber paper H..XL | | Single-use element on the basis of inorganic fiber | | | |
| | | Filtration ratio according to ISO 16889 to $\Delta p = 5 \text{ bar [72.5 psi]}$ | | Achievable oil cleanliness according to ISO 4406 [SAE-AS 4059] | |
| | H20XL | $\beta_{20}(c) \geq 200$ | | 19/16/12 – 22/17/14 | |
| | H10XL | $\beta_{10}(c) \geq 200$ | | 17/14/10 – 21/16/13 | |
| | H6XL | $\beta_6(c) \geq 200$ | | 15/12/10 – 19/14/11 | |
| | H3XL | $\beta_5(c) \geq 200$ | | 13/10/8 – 17/13/10 | |
| Admissible pressure differential | A | bar [psi] | 30 [435] | | |
| | B | bar [psi] | 330 [4785] | | |

Seal material for hydraulic fluids

| | | | |
|--|-------|-------------------------|---------------|
| Mineral oil | | | Ordering code |
| Mineral oil | HLP | according to DIN 51524 | M |
| Flame-resistant hydraulic fluids | | | Ordering code |
| Emulsions | HFA-E | according to DIN 24320 | M |
| Synthetic water solutions | HFA-S | according to DIN 24320 | M |
| Water solutions | HFC | according to VDMA 24317 | M |
| Phosphoric acid esters | HFD-R | according to VDMA 24317 | V |
| Organic esters | HFD-U | according to VDMA 24317 | V |
| Fast biodegradable hydraulic fluids | | | Ordering code |
| Triglycerides (rape seed oil) | HETG | according to VDMA 24568 | M |
| Synthetic esters | HEES | according to VDMA 24568 | V |
| Polyglycols | HEPG | according to VDMA 24568 | V |

Characteristic curves

H3XL

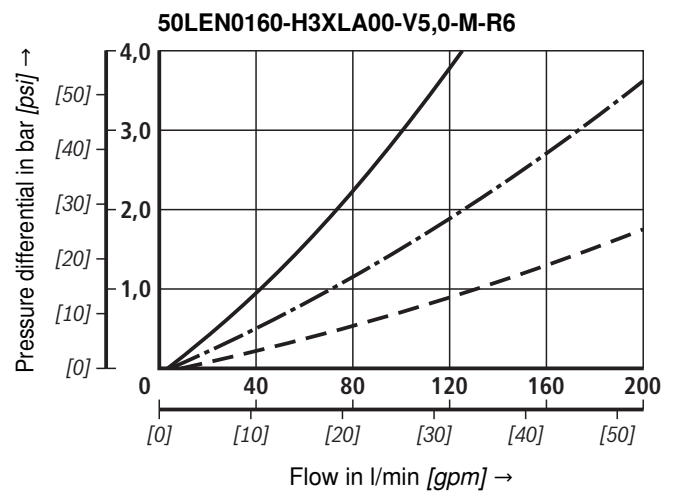
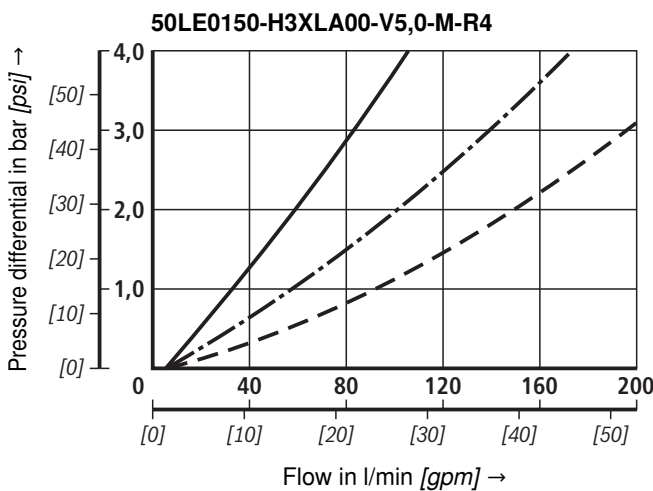
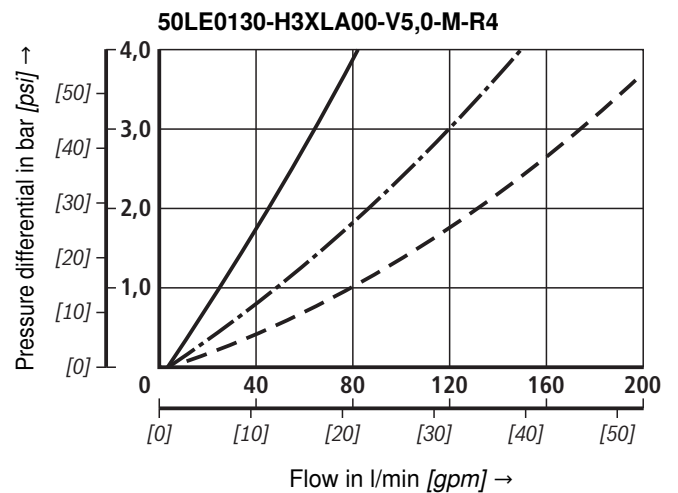
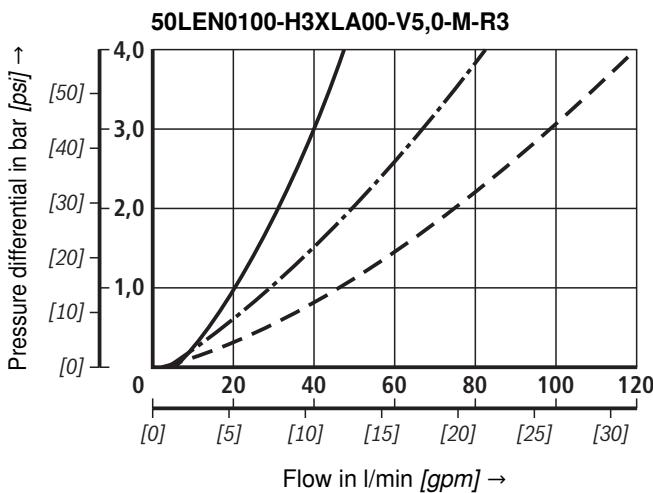
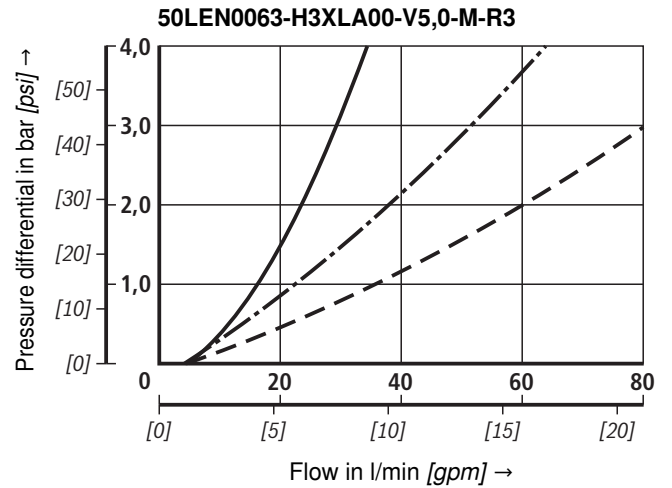
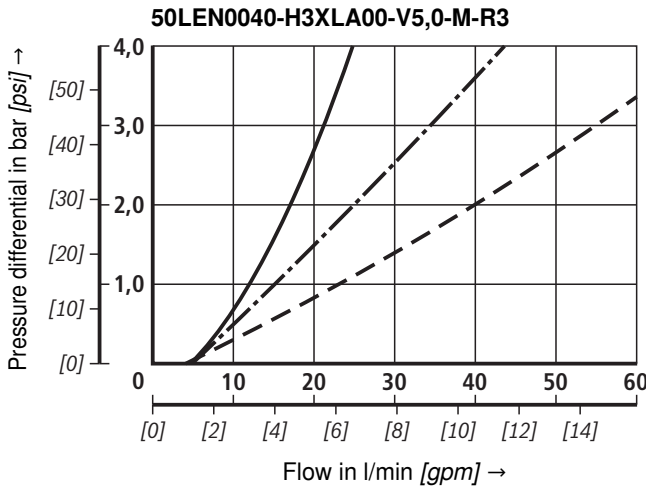
Spec. weight: < 0.9 kg/dm³

Δp -Q characteristic curves for complete filter

recommended initial Δp for design = 1 bar [14.5 psi]

A proper filter design is enabled by our computer program "BRFilterSelect".

Oil viscosity:
 — 140 mm²/s [649 SUS]
 - · - 68 mm²/s [315 SUS]
 - - - 30 mm²/s [143 SUS]



Characteristic curves

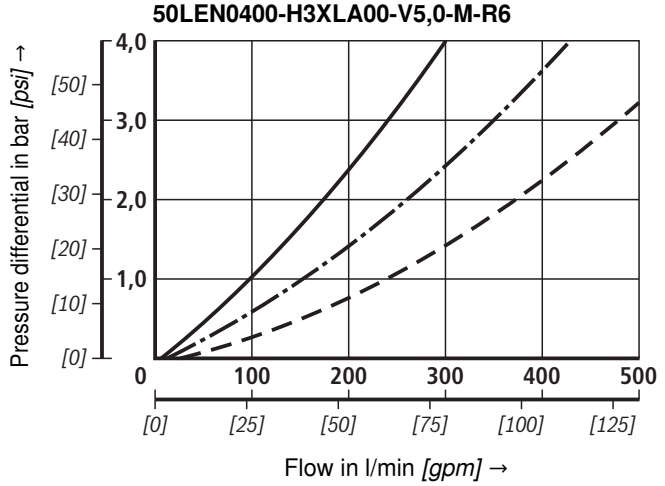
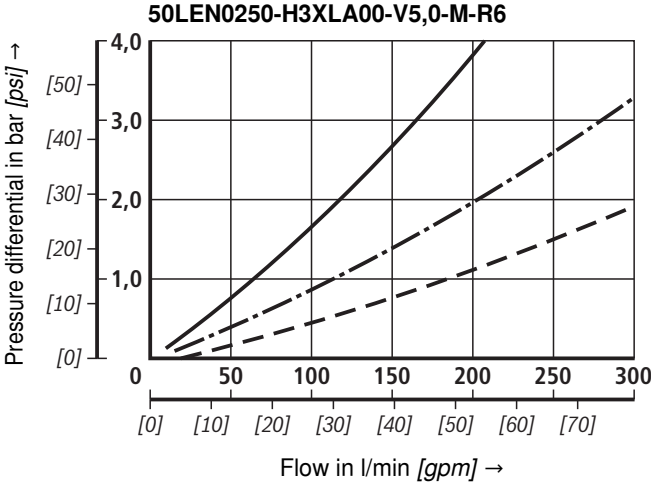
H3XL, H10XL

Spec. weight: < 0.9 kg/dm³
 Δp -Q characteristic curves for complete filter
 recommended initial Δp for design = 1 bar [14.5 psi]

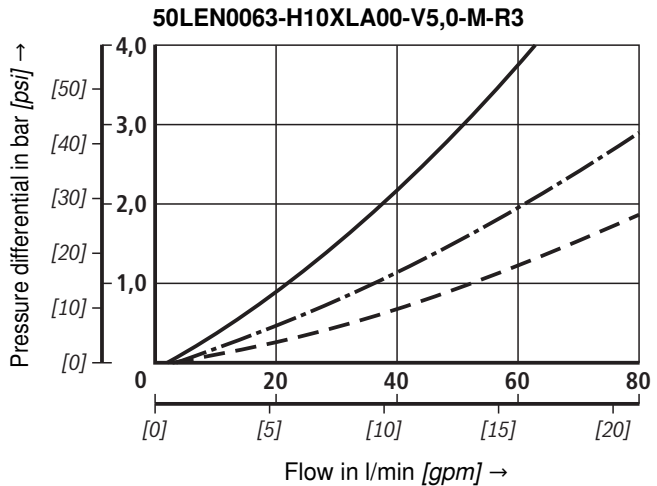
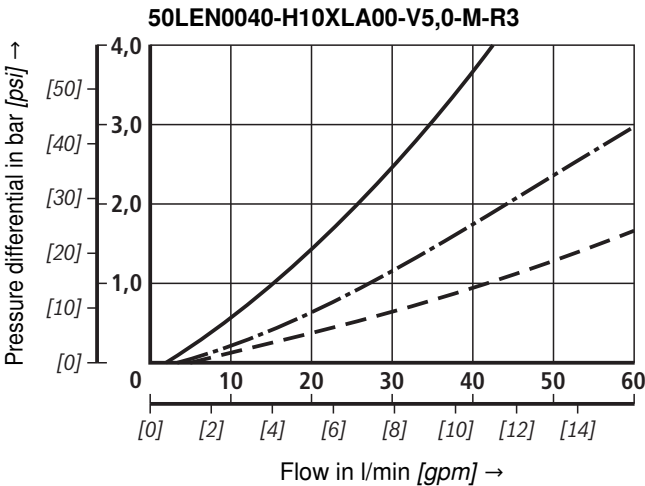
A proper filter design is enabled by our computer program
 "BRFilterSelect".

Oil viscosity:
 — 140 mm²/s [649 SUS]
 - · - 68 mm²/s [315 SUS]
 - - - 30 mm²/s [143 SUS]

H3XL



H10XL



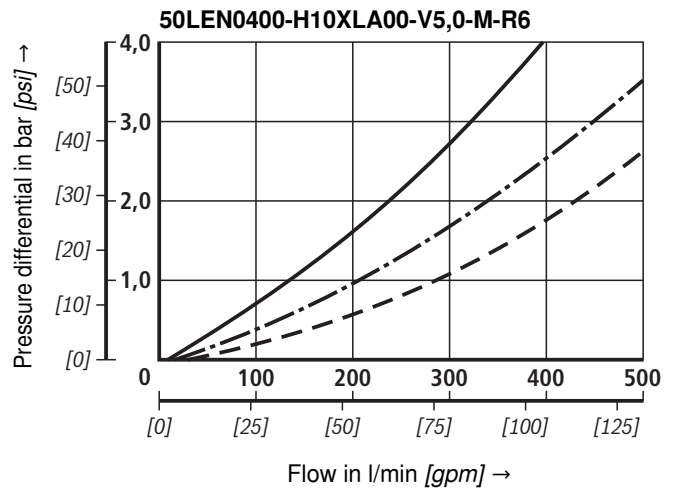
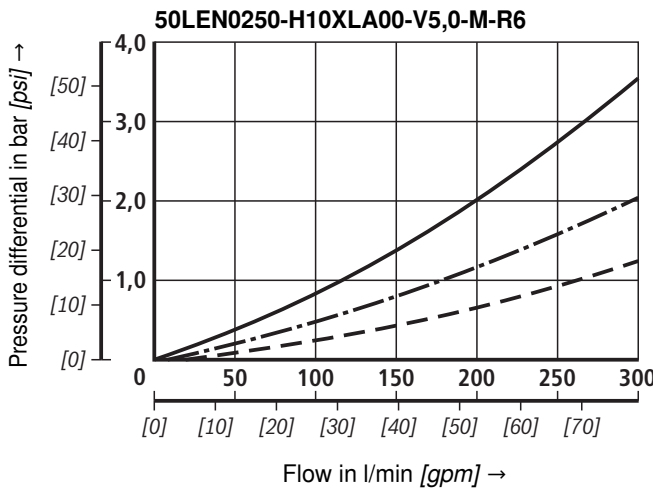
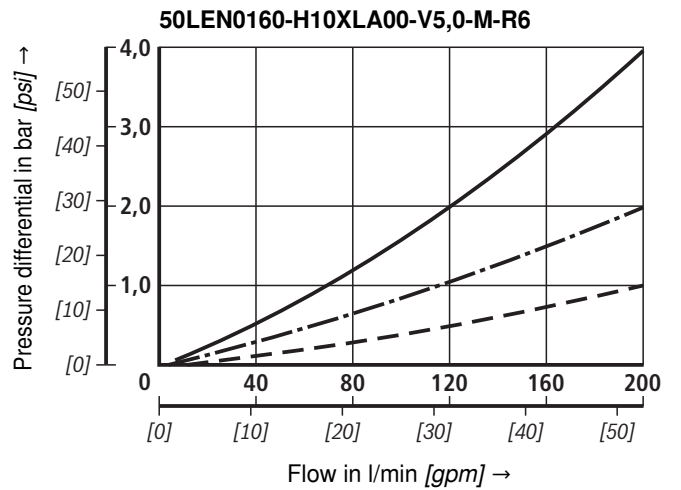
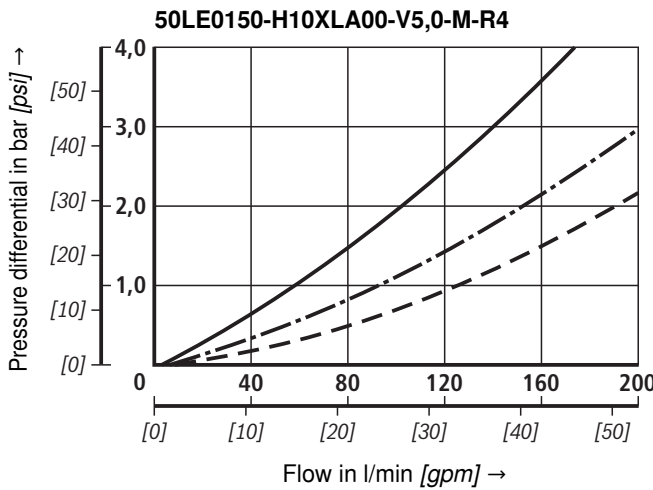
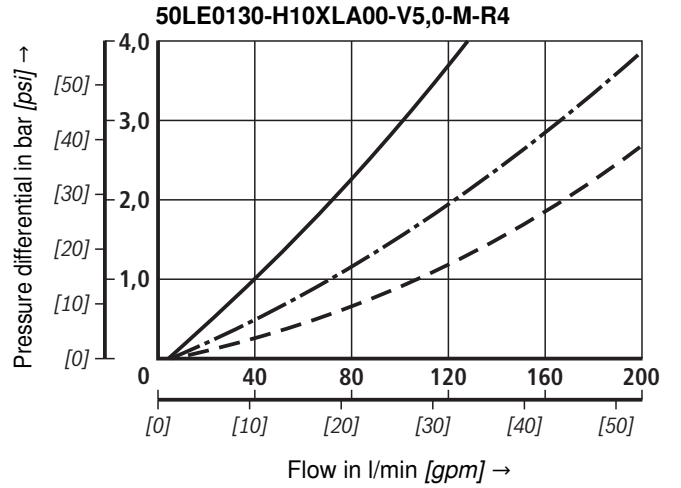
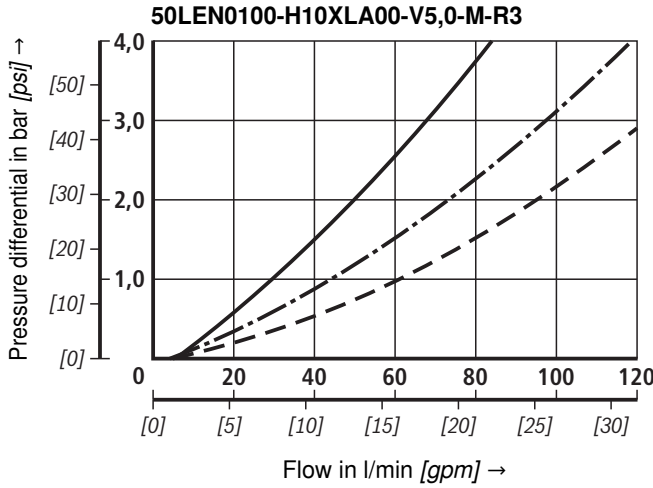
Characteristic curves

H10XL

Spec. weight: < 0.9 kg/dm³
 Δp-Q characteristic curves for complete filter
 recommended initial Δp for design = 1 bar [14.5 psi]

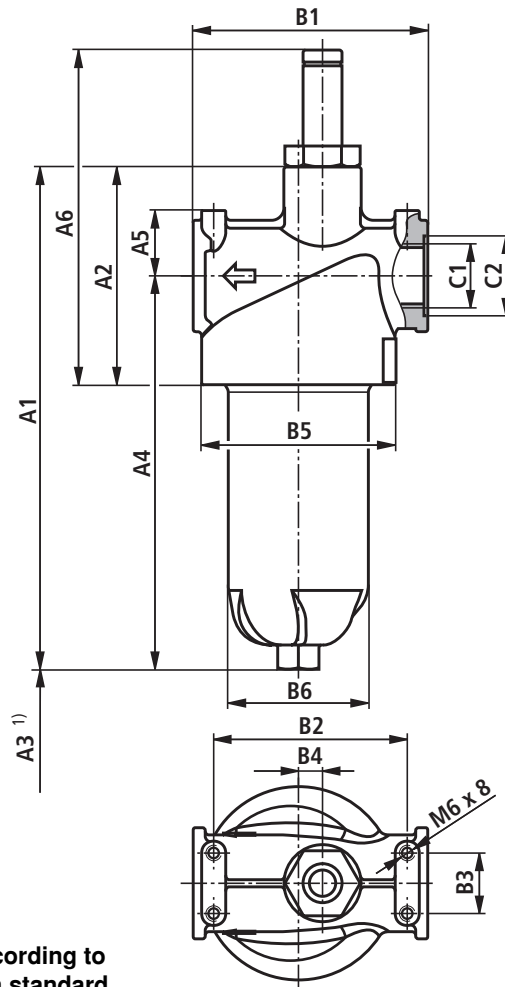
A proper filter design is enabled by our computer program
 "BRFilterSelect".

Oil viscosity:
 ——— 140 mm²/s [649 SUS]
 - · - · 68 mm²/s [315 SUS]
 - - - 30 mm²/s [143 SUS]



Unit dimensions size 0040 - 0400 (dimensions in mm [inch])

50 LEN 0040-0400

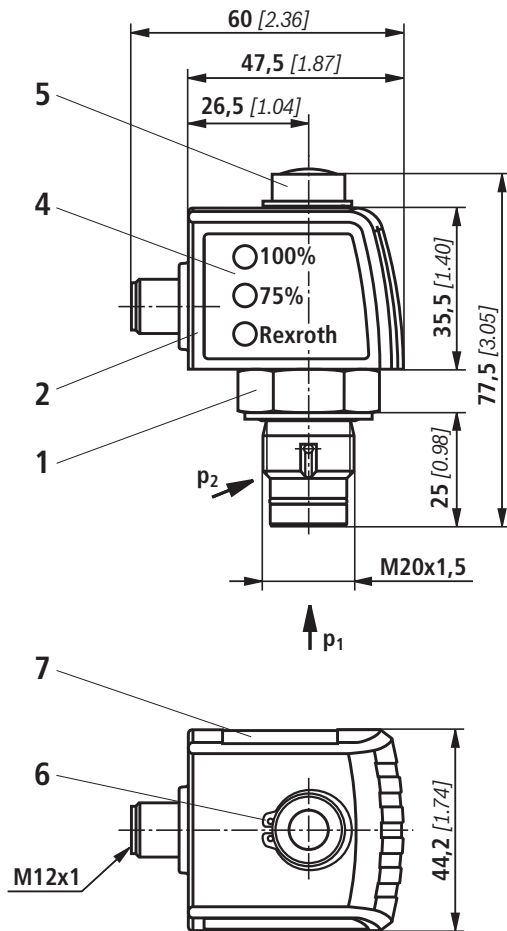
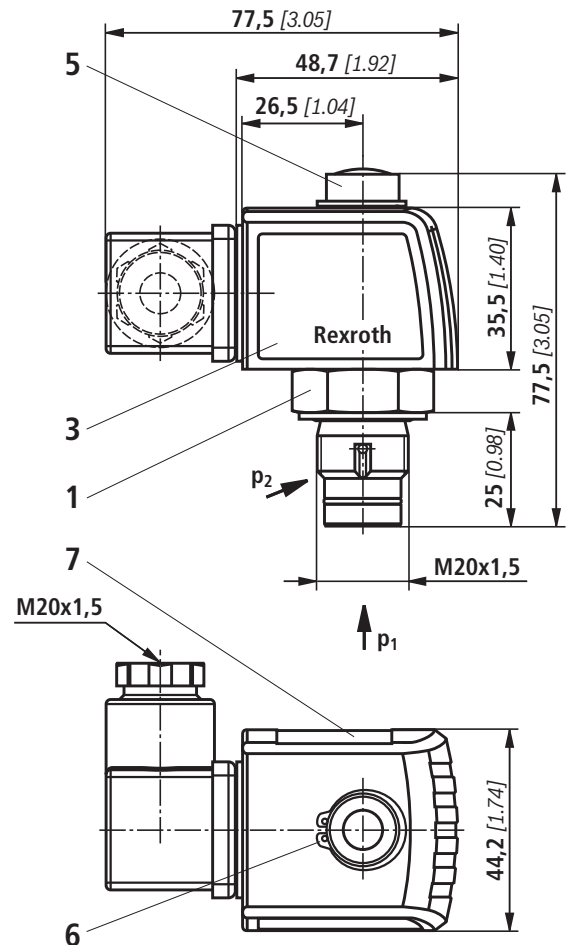


Filter housing for filter elements according to
DIN 24550 and according to Rexroth standard

| Type 50 LE(N) | A1 | A2 | A3 | A4 | A5 | A6 | B1 | B2 | B3 |
|---------------|-------------|------------|------------|-------------|-----------|------------|------------|------------|-----------|
| 0040 | 209 [8.23] | 87 [3.43] | 80 [3.15] | 164 [6.46] | 24 [0.94] | 139 [5.47] | 92 [3.62] | 65 [2.56] | 20 [0.79] |
| 0063 | 269 [10.59] | | | 224 [8.82] | | | | | |
| 0100 | 359 [14.13] | | | 314 [12.36] | | | | | |
| 0130 | 299 [11.77] | 98 [3.86] | 140 [5.51] | 251 [9.88] | 30 [1.18] | 150 [5.91] | 122 [4.80] | 90 [3.54] | 20 [0.79] |
| 0150 | 350 [13.78] | | | 302 [11.89] | | | | | |
| 0160 | 310 [12.20] | | | 255 [10.04] | | | | | |
| 0250 | 400 [15.75] | 122 [4.80] | 140 [5.51] | 345 [13.58] | 35 [1.38] | 174 [6.85] | 142 [5.59] | 110 [4.33] | 30 [1.18] |
| 0400 | 550 [21.65] | | | 495 [19.49] | | | | | |

| Type 50 LE(N) | B4 | Ø B5 | Ø B6 | C1 connection | | Ø C2 | |
|---------------|-----------|------------|------------|---------------|---------------------------|-----------|-----------------|
| | | | | Standard | U...(SAE J1926) | Standard | U...(SAE J1926) |
| 0040 | 10 [0.39] | 75 [2.95] | 58 [2.28] | G 3/4 | SAE 12 1 1/16-12 UN-2B | 33 [1.30] | 41 [1.61] |
| 0063 | | | | | | | |
| 0100 | | | | | | | |
| 0130 | 14 [0.55] | 105 [4.13] | 82 [3.23] | G 1 | SAE 16 1 5/16-12 UN-2B | 41 [1.61] | 49 [1.93] |
| 0150 | | | | | | | |
| 0160 | | | | | | | |
| 0250 | 20 [0.79] | 125 [4.92] | 102 [4.02] | G 1 1/2 | SAE 24 1 7/8-12 UN-2B | 56 [2.20] | 65 [2.56] |
| 0400 | | | | | | | |

¹⁾ Servicing height for filter element replacement

Maintenance indicator (dimensions in mm [*inch*])**Pressure differential indicator
with mounted switching element M12x1****Pressure differential indicator
with mounted switching element EN-175301-803**

- 1 Mechanical optical maintenance indicator;
max. tightening torque $M_{A \max} = 50 \text{ Nm}$ [36.88 lb-ft]
- 2 Switching element with locking ring for
electric maintenance indicator (rotatable by 360°);
round plug-in connection M12x1, 4-pin
- 3 Switching element with locking ring for
electric maintenance indicator (rotatable by 360°);
rectangular plug-in connection EN175301-803
- 4 Housing with three LEDs: 24 V =
Green: Stand-by
Yellow: Switching point 75 %
Red: Switching point 100 %
- 5 Optical indicator bistable
- 6 Locking ring DIN 471-16x1,
Material no. R900003923
- 7 Name plate

Notice:

Presentation contains mechanical optical maintenance indicator (1) and electronic switching element (2) (3).

Switching elements with increased switching power at request.

Spare parts

Mechanical optical maintenance indicator

W | **O** - **D01** - - - - **160**

| | | |
|----------------------------------|-------|-------|
| Maintenance indicator | = W | |
| Mechanical optical indicator | = O | |
| Design | | |
| Pressure differential, design 01 | = D01 | |
| Switching pressure | | |
| 5.0 bar | | = 5,0 |
| 2.2 bar | | = 2,2 |
| 1.5 bar | | = 1,5 |

| | |
|--------------|--------------------------------|
| | Max. operating pressure |
| | D01-1.5; D01-2.2 |
| 160 = | 160 bar [2321 psi] |
| | D01-5.0 |
| 450 = | 450 bar [6527 psi] |
| | Seal |
| M = | NBR seal |
| V = | FKM seal |

| Mechanical optical maintenance indicator | Material no. |
|--|--------------|
| WO-D01-5,0-M-450 | R901025312 |
| WO-D01-2.2-M-160 | R901025312 |
| WO-D01-1.5-M-160 | R928038781 |

Seal kit

D | **50/110LE** | - - - -

| | | |
|-----------------------|------------|--------------|
| Seal kit | = D | |
| Series 50LE and 110LE | = 50/110LE | |
| Size | | |
| Size 0040-0100 | | = N0040-0100 |
| Size 0130-0150 | | = 0130-0150 |
| Size 0160-0400 | | = N0160-0400 |

| | |
|------------|-------------|
| | Seal |
| M = | NBR seal |
| V = | FKM seal |

| Seal kit | Material no. |
|-----------------------|--------------|
| D50/110LEN0040-0100-M | R928046935 |
| D50/110LE0130-0150-M | R928046936 |
| D50/110LEN0160-0400-M | R928046937 |

Installation, operating and maintenance notes

Installation of the filter

Verify operating overpressure with name plate information. Remove the blanking plugs in the filter inlet and outlet. Screw the filter head (1) to the fastening device, considering flow direction (direction arrows) and servicing height of the element. Make sure that the components are assembled without tension stress. The housing must be grounded.

The filter must preferably be installed with the filter bowl (2) downward. The maintenance indicator must be arranged in a well visible way.

Connection of the electronic maintenance indicator

Basically, the filter is equipped with mechanical optical maintenance indicator (4). The electronic maintenance indicator is connected via the switching element (6) with 1 or 2 switching points, which is attached to the mechanical optical maintenance indicator and held by means of the locking ring.

When must the filter element be exchanged or cleaned respectively?

- The filter element is to be exchanged after initial start-up of the system.
- Upon start-up in cold condition, the red pushbutton of the optical maintenance indicator (4) may jump out and an electrical signal is output via the switching element. Only push the red pushbutton in again after the operating temperature has been reached. If it jumps out again immediately or if the electrical signal has not gone out at operating temperature, the filter element must be exchanged or cleaned respectively after the end of the shift.
- The filter element should be replaced or cleaned after max. 6 months at the latest.

Element exchange

- Switch off the system and discharge the filter on the pressure side.
- Screw off the filter bowl (2) by anticlockwise rotation. Clean the filter housing in a suitable medium.
- Remove the filter element (3) from the spigot in the filter head by turning it slightly
- Check the seal ring in the filter bowl for position and damage. If necessary, these parts are to be renewed.
- Replace filter elements H...XL, clean filter elements G....
- The efficiency of the cleaning process depends on the type of dirt and the amount of the pressure differential before the filter element exchange. If the differential pressure after the filter element exchange exceeds 150 % of the value of a brand-new filter element, the G... element also needs to be replaced.
- Check whether the type designation or material number on the replacement element corresponds to the type designation/material number on the name plate of the filter.
- Install replaced or cleaned filter element on the spigot again by slightly turning it.
- Now screw in the filter bowl to stop (torque 50 Nm ^{+10 Nm}).

Quality and standardization

The inline filters for hydraulic applications according to 51447 are pressure holding equipment according to article 1, section 2.1.4 of the Pressure Equipment Directive 97/23/EC (PED). However, on the basis of the exception in article 1, section 3.6 of the PED, hydraulic filters are exempt from the PED if they are not classified higher than category I (guideline 1/19). They do not receive a CE mark.

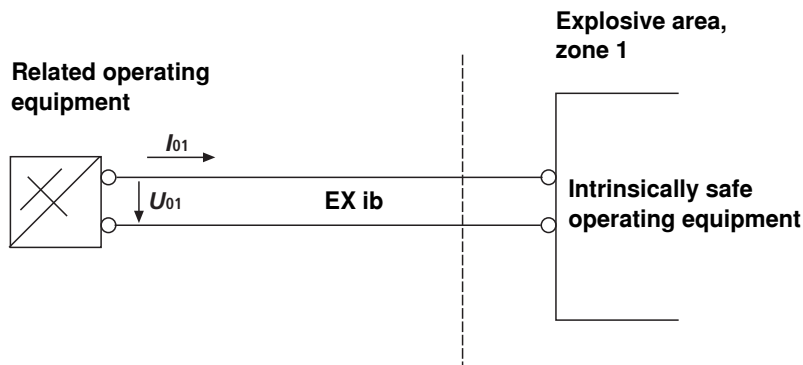
Use in explosive areas according to directive 94/9/EC (ATEX)

The inline filters according to 51447 are no equipment or components in the sense of directive 94/9/EC and are not provided with a CE mark.

When using the inline filters according to 51447 in explosive areas, potential equalization has to be ensured.

According to DIN EN 60079-11, the electronic maintenance indicators WE-1SP-M12x1 are simple, electronic operating equipment not having an own voltage source. This simple, electronic operating equipment may - according to DIN EN 60079-14 - in intrinsically safe electrical circuits (EEx ib) be used in systems for device group II, category 2G (zone 1) and category 3G (zone 2) without marking and certification. The operating equipment is assigned to explosion group II B and temperature class T5.

Possible circuit according to DIN EN 60079-14



The manufacturer's declaration according to DIN EN 13463 is available for this filter separately, with Material no. R928028899.