# SFL-025 · SFL-035

In-line mounting · Connection G¾ / -12 SAE · Nominal flow rate up to 40 l/min / 10.6 gpm

In-line Suction Filter SFL-025

## Description

### Application

To be installed in the suction line of the pumps of hydraulic systems resp. upstream of the charge pumps of hydrostatic drives.

### Filter maintenance

By using a clogging indicator the correct moment for maintenance is stated and thus the optimum utilization of the filter life is guaranteed.

### Materials

| | |
|---|---|
| Filter head: | Aluminum alloy |
| Filter bowl: | Polyamide, GF reinforced |
| Seals: | NBR (FPM on request) |
| Filter media: | Paper - cellulose web, impregnated with resin |

### Accessories

Electrical and optical clogging indicators are available.
For technical data and dimensions see datasheet 60.20.

## Characteristics

### Nominal flow rate

Up to 40 l/min / 10.6 gpm.
The nominal flow rates indicated by ARGO-HYTOS Standard are based on the following features:

- Closed by-pass valve at $\nu \leq 150$ mm²/s / 695 SUS
- Element service life > 500 operating hours at an average fluid contamination of 0.07 g per l/min / 0.27 g per gpm flow volume
- Flow velocity in the connection lines ≤ 2 m/s / 6.5 ft/s

### Connection

Threaded ports according to ISO 228 or DIN 13 and SAE standard J514. Sizes see section ordering code,
(other port threads on request).
For installation recommendations, see info sheet 00.325.

### Filter fineness

50 µm(c)
ß-values according to ISO 16889 (see diagrams)

### Hydraulic fluids

Mineral oil and biodegradable fluids
(HEES and HETG, see info-sheet 00.20).

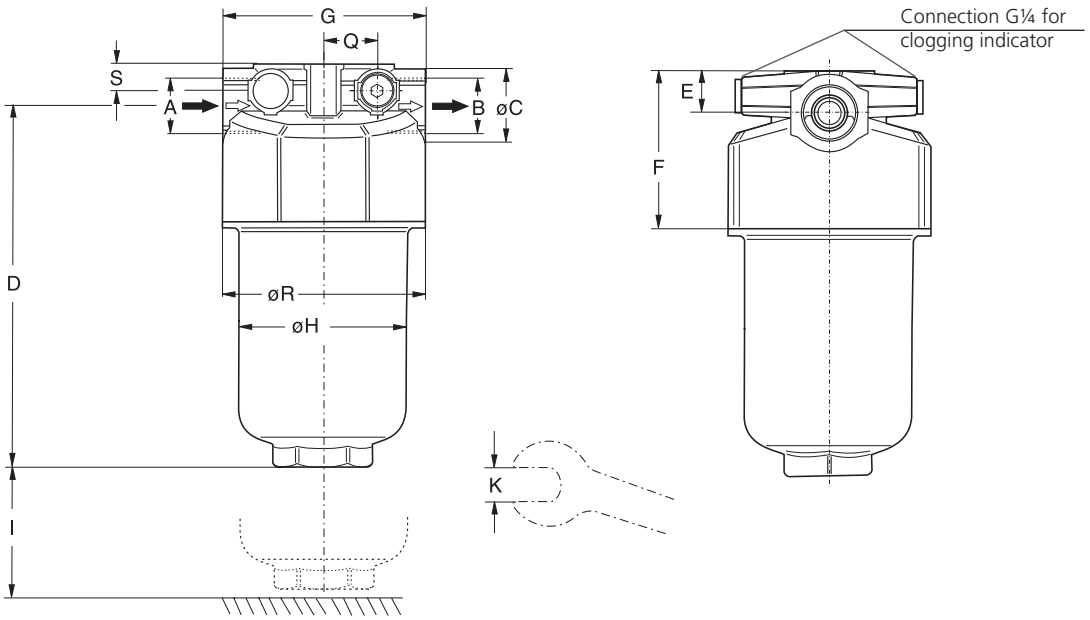
### Temperature range

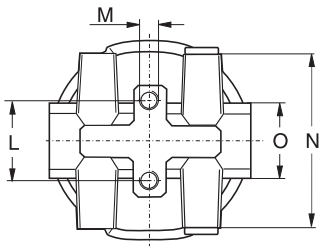
-30 °C ... +100 °C (temporary -40 °C ... +120 °C)
-22 °F ... +212 °F (temporary -40 °F ... +248 °F)

### Mounting position

Vertical mounting to be preferred, filter head on top.

## Dimensions




## Measurements in mm / inch

| Type [mm] | A | B | C | D | E | F | G | H | I | K | L | M Ø/depth | N | O | Q | R | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SFL-025 | G¾ | G¾ | 35 | 178 | 20 | 74 | 95 | 80 | 70 | AF 41 | 38.1 | M8 / 15 | 82 | AF 36 | 25 | 95 | 12 |
| SFL-035 | G¾ | G¾ | 35 | 212 | 20 | 74 | 95 | 80 | 70 | AF 41 | 38.1 | M8 / 15 | 82 | AF 36 | 25 | 95 | 12 |

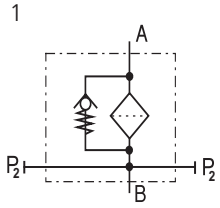
| Type [inch] | A | B | C | D | E | F | G | H | I | K mm | L | M Ø/depth | N | O mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SFL-025 | -12 SAE* | -12 SAE* | 1.38 | 7.01 | 0.79 | 2.91 | 3.74 | 3.15 | 1.57 | AF 41 | 1.50 | M8 / 15 | 3.23 | AF 36 |
| SFL-035 | -12 SAE* | -12 SAE* | 1.38 | 8.35 | 0.79 | 2.91 | 3.74 | 3.15 | 1.57 | AF 41 | 1.50 | M8 / 15 | 3.23 | AF 36 |

| Type [inch] | Q | R | S |
|---|---|---|---|
| SFL-025 | 0.98 | 3.74 | 0.47 |
| SFL-035 | 0.98 | 3.74 | 0.47 |

*Corresponds to $1^{1}/_{16}$ - 12 UN-2B

## Symbol

1



## Ordering Code

### Filter assembly

**Order example:**
SFL - 025 - GC - P3 - DM - 100

SFL - ___ - ___ - P3 - DM - 100

| Type of filter | Code |
|---|---|
| Suction Filter, In-line | SFL |

| Flow rate, max. | Code |
|---|---|
| 30 l/min / 7.9 gpm | 025 |
| 40 l/min / 10.6 gpm | 035 |

| Connection thread | Code |
|---|---|
| G¾ | GC |
| -12 SAE | UC |

| Filter fineness | Code |
|---|---|
| 50 µm (50P) | P3 |

| Air breather | Code |
|---|---|
| not available | 100 |

| Bypass setting | Code |
|---|---|
| -0.3 bar / -4.4 psi | DM |

Filters delivered with 2 plugged connections G¼ for clogging indicators.

### Spare filter element

**Order example:**
P3.0714-02

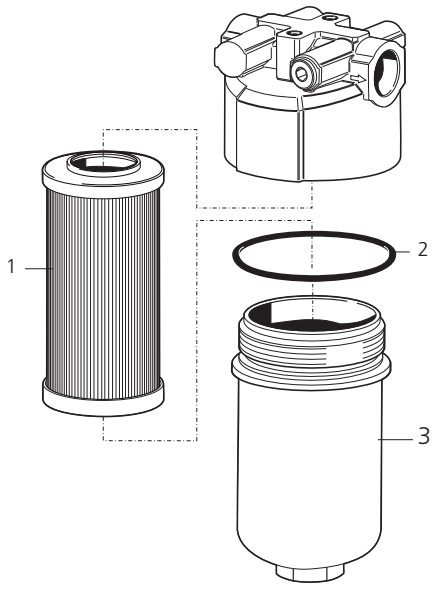
P3.07 ___ - 02

| Filter media | Code |
|---|---|
| Paper | P |

| Length | Code |
|---|---|
| for SFL-025 | 14 |
| for SFL-035 | 17 |

| Filter fineness | Code |
|---|---|
| 50P | 2 |

## Spare parts



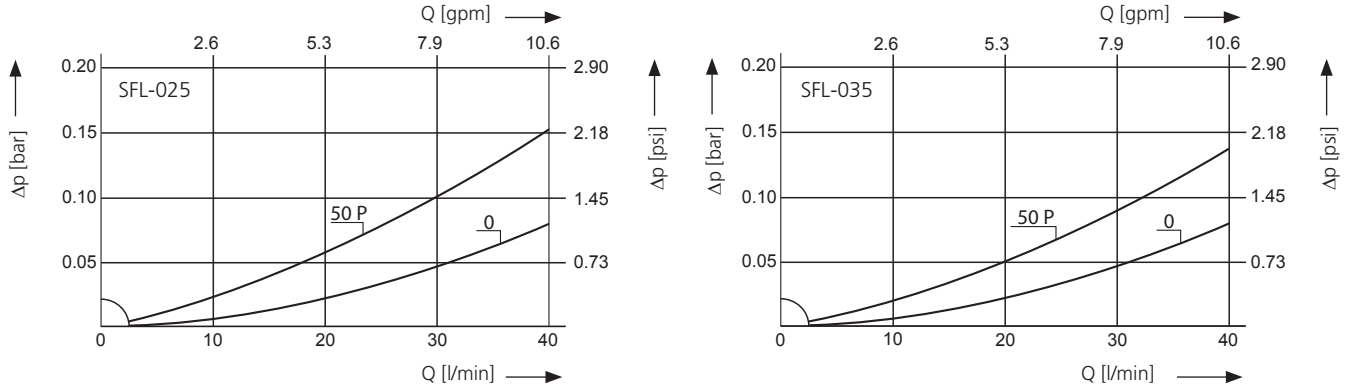

| Pos. | Designation | Part No. |
|---|---|---|
| 1 | Filter element | see above |
| 2 | O-ring<br>82.14 x 3.53 mm<br>3.23 x 0.14 inch | N007.0824 |
| 3 | Filter bowl SFL-025 | E 068.0101 |
| 3 | Filter bowl SFL-035 | E 068.0102 |

The functions of the complete filters as well as the outstanding features of the filter elements assured by ARGO-HYTOS can only be guaranteed if original ARGO-HYTOS spare parts are used.

## Diagrams

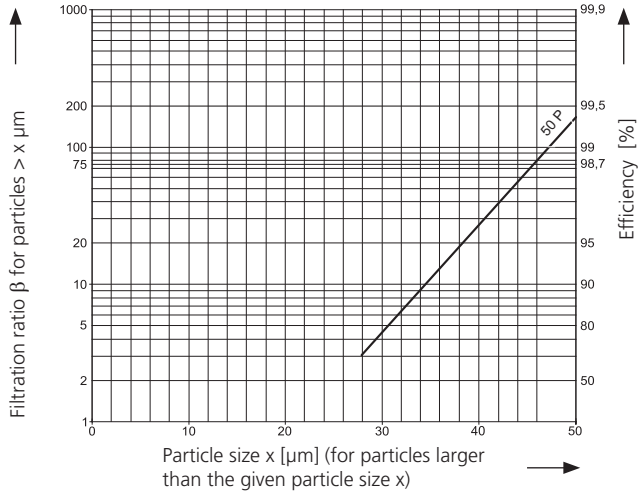
### Δp-curves for complete filters

**D1** Pressure drop as a function of the **flow volume** at ν = 35 mm²/s / 162 SUS (0 = housing empty)




### Filter fineness curves

**Dx** Filtration ratio β as a function of particle size x obtained by the Multi-Pass-Test according to ISO 16889




The abbreviations represent the following β-values resp. finenesses:

**For EXAPOR®Standard and Paper elements:**

50P = $\bar{\beta}_{50(c)}$ = 200 Paper

Based on the structure of the filter media of the 50P paper elements, deviations from the printed curves are quite probable.

**For screen elements:**

| | | | |
|---|---|---|---|
| 40S | = | screen material with mesh size | 40 µm |
| 60S | = | screen material with mesh size | 60 µm |
| 100S | = | screen material with mesh size | 100 µm |

Tolerances for mesh size according to DIN 4189.

For special applications, finenesses differing from these curves are also available by using special composed filter material.

## Quality Assurance

**Quality management according to DIN EN ISO 9001**

To ensure constant quality in production and operation, ARGO-HYTOS filter elements undergo strict controls and tests according to the following ISO standards:

| | |
|---|---|
| ISO 2941 | Verification of collapse / burst pressure rating |
| ISO 2942 | Verification of fabrication integrity (Bubble Point Test) |
| ISO 2943 | Verification of material compatibility with fluids |
| ISO 3968 | Evaluation of pressure drop versus flow characteristics |
| ISO 16889 | Multi-Pass-Test (evaluation of filter fineness and dirt-holding capacity) |
| ISO 23181 | Determination of resistance to flow fatigue using high viscosity fluid |

**Various quality controls during the production process guarantee the leakfree function and solidity of our filters.**