



THE **X** CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean.
Quality and efficiency are fundamental for MP Filtri:
this exclusive new filter element possesses polygon shape geometry and specific seal
that ensures only original spare parts can be used - ensuring correct operation and
higher system reliability.

SFEX series

with **MYCLEAN** FEX Filter Element



- **Protects the machine from improper use of non-original products.**
- **Safety of constant quality protection & reliability**

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.



The products identified as SFEX are protected by:

- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1

SFEX series

Flow rate up to 100 l/min



Description

Technical data

Suction filters

Flow rate up to 100 l/min

SFEX are range of suction filters for protection of the downstream pump against the coarse contamination.

They are placed below the minimum oil level, directly connected to the suction line of the pump in-line mounted.

Available features:

- Female threaded connections up to 1 1/4" and SAE connections up to 1 5/8", for a maximum flow rate of 100 l/min
- Bypass valve, to relieve excessive pressure drop across the filter media
- Visual, electrical, axial and radial vacuum gauges
- MYclean interface connection for the filter element, to protect the product against non-original spare parts
- External protective wrap, to optimize the flow through the element and to save the element efficiency against non-proper handling

Common application:

- Mobile machines
- Industrial equipment

Filter housing materials

- Head: Aluminium
- Bypass valve: Polyamide - Steel
- Bowl: Polyamide

Bypass valve

Opening pressure 30 kPa (0.3 bar) \pm 10%

Elements

Fluid flow through the filter element from OUT to IN

Seals

Standard NBR series A

Temperature

From -25 °C to +110 °C

Note

SFEX filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

| Filter series | Weights [kg] | | Volumes [dm ³] | | | |
|-----------------|--------------|------|----------------------------|--------|------|------|
| | Length | 1 | 2 | Length | 1 | 2 |
| SFEX 060 | | 1.00 | 1.15 | | 0.60 | 0.80 |
| SFEX 110 | | 1.90 | 2.10 | | 1.60 | 2.00 |

Flow rates [l/min]

| | | Filter element design - N Series | | | | |
|-----------------|-----------|----------------------------------|-------|-------|-------|-------|
| Filter series | Length | M0060 | M0090 | M0250 | P0010 | P0025 |
| SFEX 060 | 10 | 31 | 33 | 33 | 13 | 20 |
| | 20 | 34 | 35 | 35 | 24 | 30 |

| | | Filter element design - N Series | | | | |
|-----------------|-----------|----------------------------------|-------|-------|-------|-------|
| Filter series | Length | M0060 | M0090 | M0250 | P0010 | P0025 |
| SFEX 110 | 10 | 93 | 96 | 96 | 48 | 53 |
| | 20 | 98 | 99 | 99 | 60 | 65 |

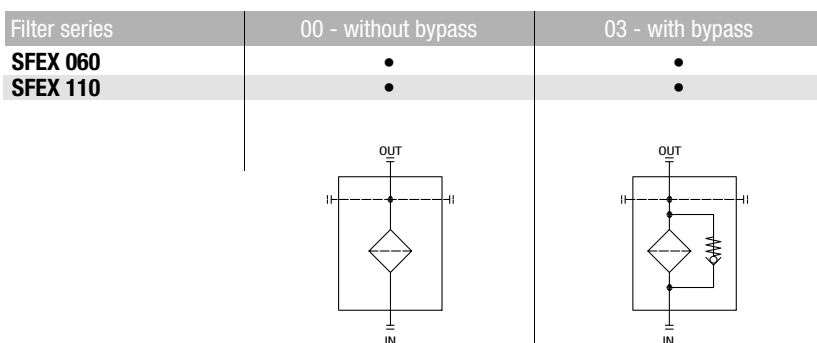
Maximum flow rate for a complete suction filter with a pressure drop $\Delta p = 0.08$ bar.

The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

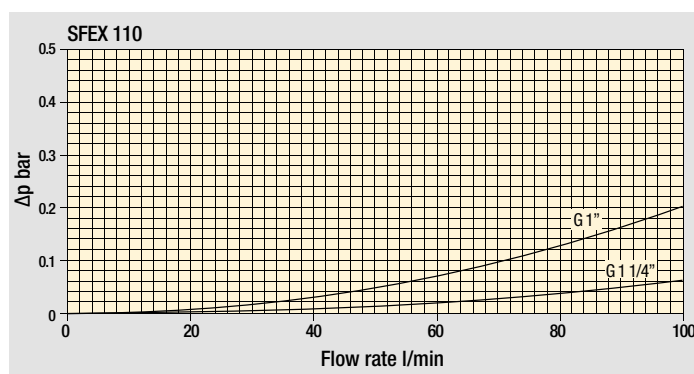
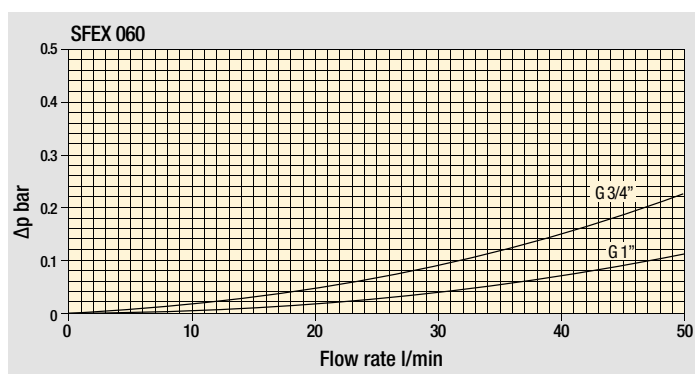
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

Please, contact our Sales Department for further additional information.

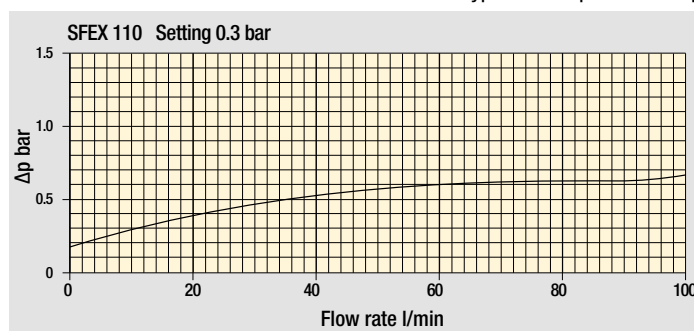
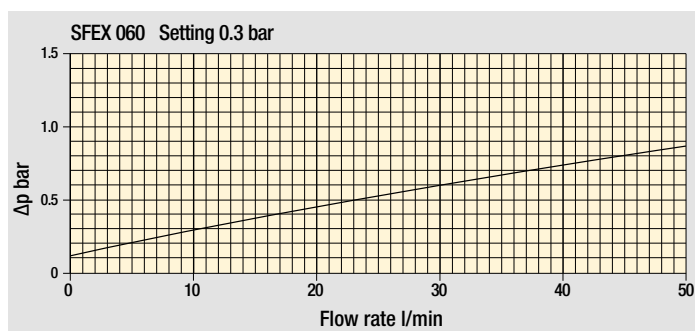
Hydraulic symbols



Pressure drop Filter housings Δp pressure drop



Bypass valve pressure drop



The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

Corrective factors "Y" for filter element Δp calculation

| Filter element | Length | Nominal filtration Collapse $\Delta P : A = 1$ bar | | | | | |
|----------------|--------|-------------------------------------------------------|-------|-------|-------|-------|-------|
| | | P0010 | P0025 | M0025 | M0060 | M0090 | M0250 |
| FEX 060 | 10 | 4.58 | 3.22 | 1.02 | 0.89 | 0.63 | 0.63 |
| | 20 | 1.97 | 1.38 | 0.62 | 0.45 | 0.29 | 0.29 |
| FEX 110 | 10 | 1.33 | 1.12 | 0.22 | 0.18 | 0.14 | 0.14 |
| | 20 | 0.90 | 0.76 | 0.15 | 0.10 | 0.09 | 0.09 |

See page 22 for the complete information regarding filter element Δp calculation.


Maximum total pressure drop (Δp max) allowed by a new and clean filter

| Filter family | Δp max | |
|---------------|----------------|----------|
| Suction | 0.08 bar | 1.15 psi |

SFEX SFEX060 - SFEX110

Designation & Ordering code

COMPLETE FILTER

| | | | | | | | | | | | | | | | |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------|-------------------------|------------|------------|---------------------------------------|------------|------------|-------|-------|----|----|-----|-----|----|
| Series | Example 1: | SFEX | 060 | 10 | M0060 | C | A | 03 | FG034 | 0 | 6T | NN | P01 | NN | |
| SFEX | Filter featuring  | Example 2: | SFEX | 110 | 20 | M0060 | C | A | 00 | FS016 | 0 | 6T | NN | P01 | NN |
| Size | | | | | | | | | | | | | | | |
| 060 | | | | | | | | | | | | | | | |
| 110 | | | | | | | | | | | | | | | |
| Length | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | |
| Filtration rating (filter media) | | | | | | | | | | | | | | | |
| M0025 Wire mesh 25 µm | P0010 Resin-impregnated paper 10 µm | | | | | | | | | | | | | | |
| M0060 Wire mesh 60 µm | P0025 Resin-impregnated paper 25 µm | | | | | | | | | | | | | | |
| M0090 Wire mesh 90 µm | | | | | | | | | | | | | | | |
| M0250 Wire mesh 250 µm | | | | | | | | | | | | | | | |
| Element Δp | | | | | | | | | | | | | | | |
| C 8 bar | | | | | | | | | | | | | | | |
| Seals and treatments | | | | | | | | | | | | | | | |
| A NBR | | | | | | | | | | | | | | | |
| Bypass | | | | | | | | | | | | | | | |
| 00 Without bypass | | | | | | | | | | | | | | | |
| 03 With bypass 30 kPa (0.3 bar) | | | | | | | | | | | | | | | |
| Connections | | | | | | | | | | | | | | | |
| | 060 | 110 | | 060 | 110 | | 060 | 110 | | | | | | | |
| FG034 G 3/4" | • | - | FN034 3/4" NPT | • | - | FS012 SAE 12 - 1 1/16" - 12 UN | • | - | | | | | | | |
| FG100 G 1" | • | • | FN100 1" NPT | • | • | FS016 SAE 16 - 1 5/16" - 12 UN | • | • | | | | | | | |
| FG114 G 1 1/4" | - | • | FN114 1 1/4" NPT | - | • | FS020 SAE 20 - 1 5/8" - 12 UN | - | • | | | | | | | |
| Additional connections | | | | | | | | | | | | | | | |
| 0 Without additional connections | | | | | | | | | | | | | | | |
| Connections for clogging indicators | | | | | | | | | | | | | | | |
| 6T With both side indicator connections, with metal plugs | | | | | | | | | | | | | | | |
| Additional features | | | | | | | | | | | | | | | |
| NN Without additional features | | | | | | | | | | | | | | | |
| Version | | | | | | | | | | | | | | | |
| P01 Standard catalogue item | | | | | | | | | | | | | | | |
| Certificates | | | | | | | | | | | | | | | |
| NN None | | | | | | | | | | | | | | | |

CLOGGING INDICATORS

See page 719

VEB Electrical vacuum indicator

VVB Axial pressure gauge

VLB Electrical / visual vacuum indicator

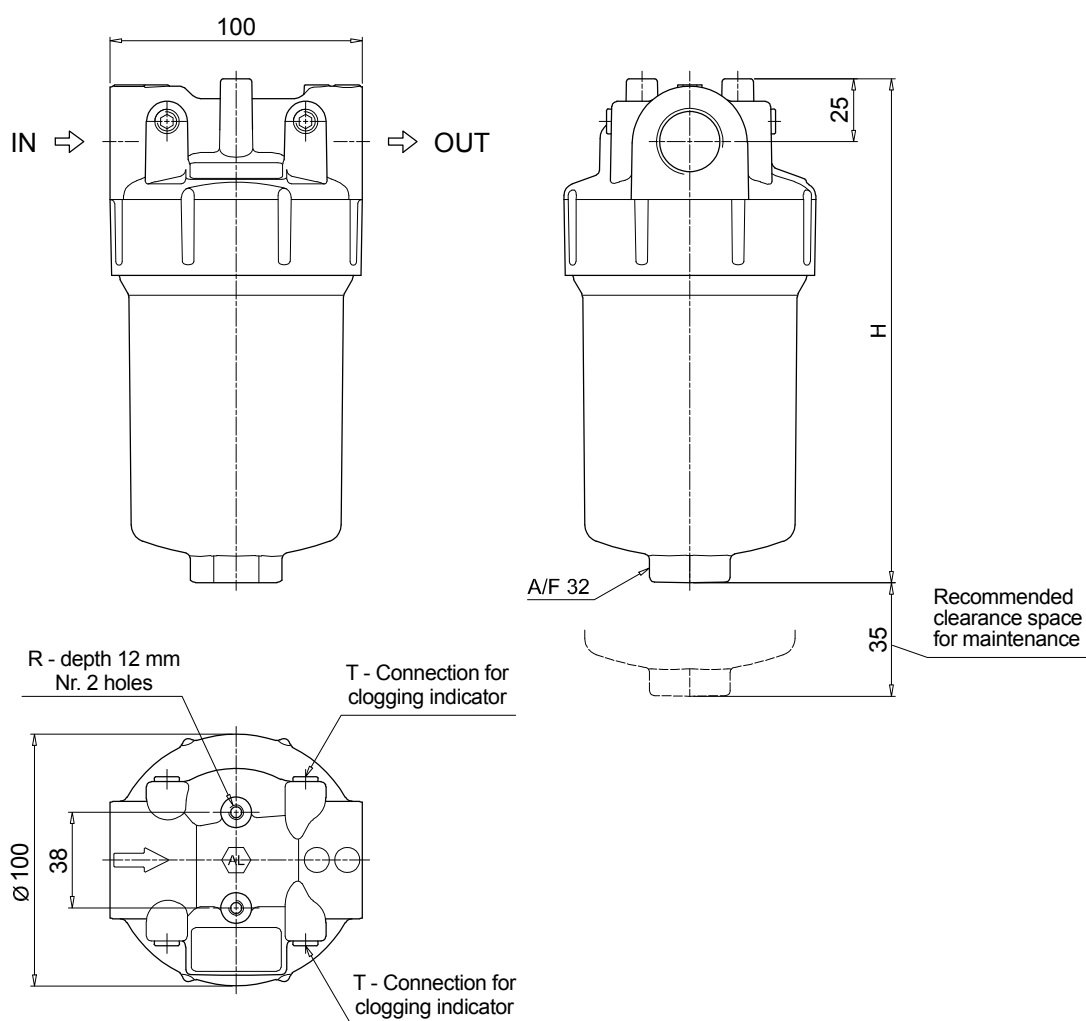
VVS Radial pressure gauge

| FILTER ELEMENT | | | | | | | | | | |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| Series | Example 1: FEX 060 10 M0060 C A 00 NN P01 NN | | | | | | | | | |
| FEX Filter element with MYCLEAN feature | Example 2: FEX 110 20 M0060 C A 00 NN P01 NN | | | | | | | | | |
| Size | | | | | | | | | | |
| 060 | | | | | | | | | | |
| 110 | | | | | | | | | | |
| Length | | | | | | | | | | |
| 10 | | | | | | | | | | |
| 20 | | | | | | | | | | |
| Filtration rating (filter media) | | | | | | | | | | |
| M0025 Wire mesh 25 µm | P0010 Resin-impregnated paper 10 µm | | | | | | | | | |
| M0060 Wire mesh 60 µm | P0025 Resin-impregnated paper 25 µm | | | | | | | | | |
| M0090 Wire mesh 90 µm | | | | | | | | | | |
| M0250 Wire mesh 250 µm | | | | | | | | | | |
| Element Δp | | | | | | | | | | |
| C 8 bar | | | | | | | | | | |
| Seals and treatments | | | | | | | | | | |
| A NBR | | | | | | | | | | |
| Bypass | | | | | | | | | | |
| 00 Without bypass | | | | | | | | | | |
| Additional features | | | | | | | | | | |
| NN Without | | | | | | | | | | |
| Version | | | | | | | | | | |
| P01 Standard catalogue item | | | | | | | | | | |
| Certificates | | | | | | | | | | |
| NN None | | | | | | | | | | |

Dimensions

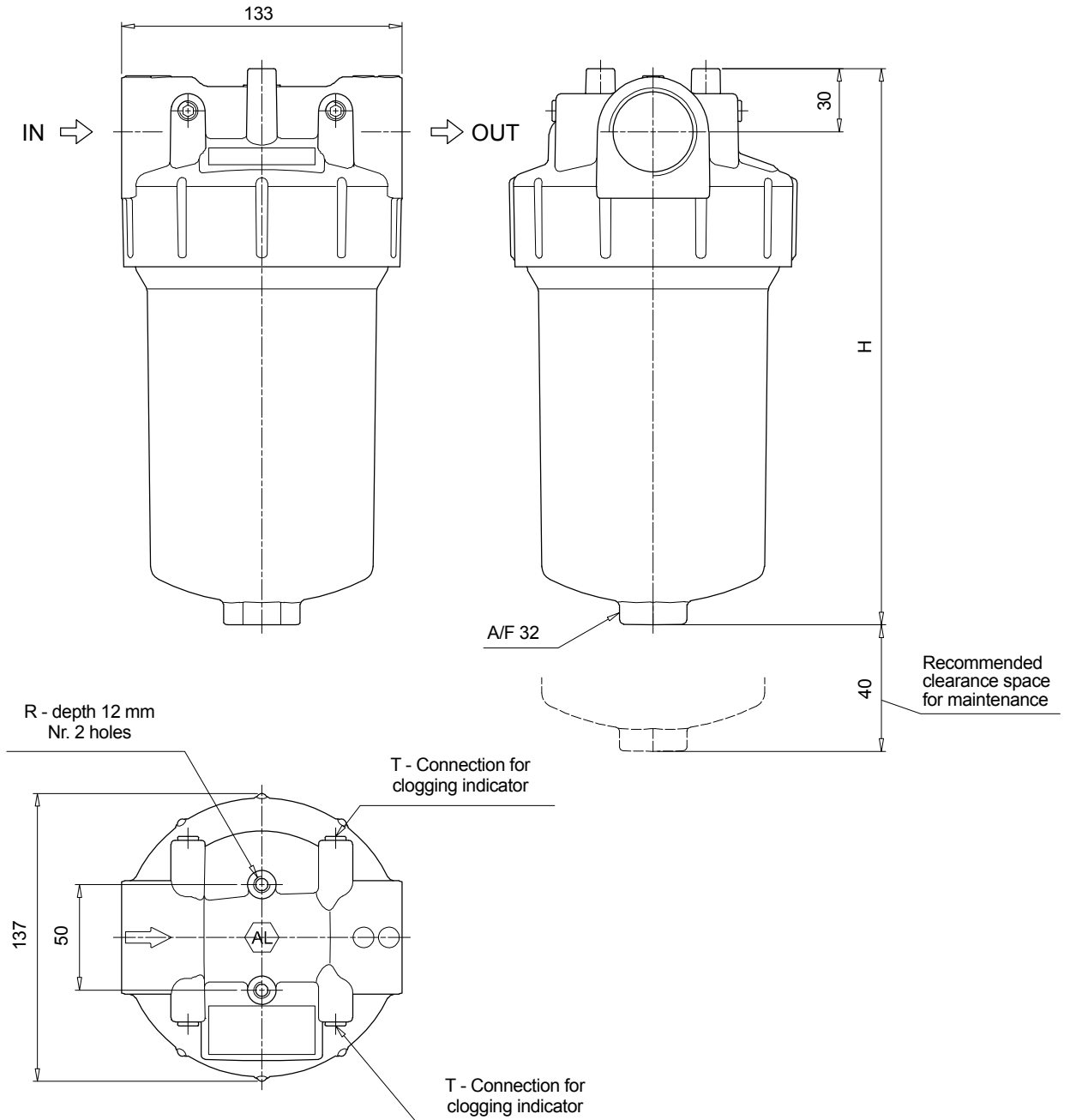
| Filter length | H [mm] |
|---------------|--------|
| 10 | 202 |
| 20 | 265 |

| Connections | T | R |
|--------------|----------|----------|
| FG034 | G 1/8" | M6 |
| FG100 | G 1/8" | M6 |
| FN034 | 1/8" NPT | 1/4" UNC |
| FN100 | 1/8" NPT | 1/4" UNC |
| FS012 | 1/8" NPT | 1/4" UNC |
| FS016 | 1/8" NPT | 1/4" UNC |



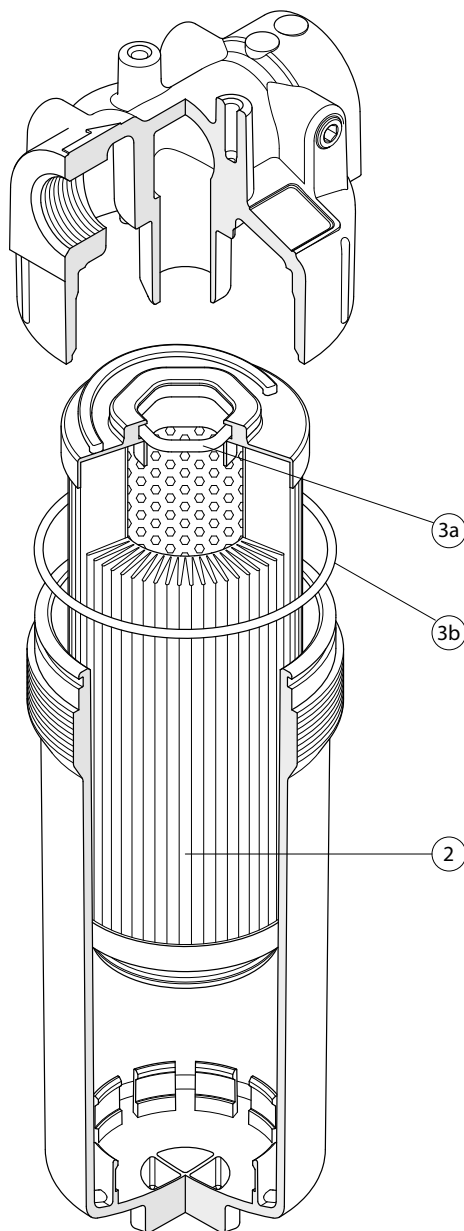
| Filter length | H [mm] |
|---------------|--------|
| 10 | 266 |
| 20 | 315 |

| Connections | T | R |
|--------------|----------|-----------|
| FG100 | G 1/8" | M8 |
| FG114 | G 1/8" | M8 |
| FN100 | 1/8" NPT | 5/16" UNC |
| FN114 | 1/8" NPT | 5/16" UNC |
| FS016 | 1/8" NPT | 5/16" UNC |
| FS020 | 1/8" NPT | 5/16" UNC |



SFEX SPARE PARTS

Order number for spare parts



| Item: | Q.ty: 1 pc. | Q.ty: 1 pc. |
|-----------------|-----------------|--------------------------|
| | 2 | 3 (3a ÷ 3b) |
| Filter series | Filter element | Seal Kit code number NBR |
| SFEX 060 | See order table | 02050771 |
| SFEX 110 | See order table | 02050772 |

Designation & Ordering code

VACUUM INDICATORS

| Series | Configuration example 1: | VE | A | 21 | V | A | 50 | P01 | EX |
|----------------------------------------------|--------------------------|----|---|----|---|---|----|-----|----|
| VE Electrical vacuum indicator | Configuration example 2: | VL | B | 21 | A | A | 71 | P01 | |
| VL Electrical/Visual vacuum indicator | Configuration example 3: | VV | R | 20 | | | | P01 | |
| VV Vacuum gauge | | | | | | | | | |

| Type VE - VL | Type VV | SFxC | SFEX |
|--------------------------------------|---------------------------------------------|------|------|
| A Connection EN 10226 - R1/4" | A Axial connection EN 10226 - R1/4" | • | - |
| B Connection EN 10226 - R1/8" | B Axial connection EN 10226 - R1/8" | - | • |
| | R Radial connection EN 10226 - R1/4" | • | - |
| | S Radial connection EN 10226 - R1/8" | - | • |

| Vacuum setting | VE | VL | VV |
|---------------------|----|----|----|
| 20 -0.16 bar | - | - | • |
| 21 -0.21 bar | • | • | - |

| Seals | VEA - VLA | VEB - VLB |
|--------------|-----------|-----------|
| A NBR | • | • |
| V FPM | • | - |

| Thermostat | VE | VL |
|------------------|----|----|
| A Without | • | • |

| Electrical connections | VE | VL |
|----------------------------------------------------------------------------|----|----|
| 50 Connection EN 175301-803 | • | - |
| 51 Connection EN 175301-803, transparent base with lamps 24 Vdc | - | • |
| 52 Connection EN 175301-803, transparent base with lamps 110 Vdc | - | • |
| 53 Connection EN 175301-803, transparent base with lamps 230 Vac | - | • |
| 71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc | - | • |

| Option | P01 | Pxx |
|-------------------------------|-----|-----|
| P01 MP Filtri standard | | |
| Pxx Customized | | |

| Certifications | VEA21A | VEA21V | VEB | VL | VV |
|------------------------------|--------|--------|-----|----|----|
| Without | • | • | • | • | • |
| EX ATEX certification | • | • | • | - | - |
| UL UL certification | • | - | - | - | - |