

NEW

ELIXIR®

SFEX - RFEX - LFEX series



PASSION TO PERFORM

MP FILTRI®

ELIXIR®

Lighter, easier to use, and kinder to the environment - MP Filtri's new ELIXIR low pressure concept filters have been specially designed for in-line connections and to handle working pressures up to 1.6 MPa (16 bar).

The concept is now available in three new series:

- SFEX SERIES - Suction
- RFEX SERIES - Return
- LFEX SERIES - Delivery, which is equipped with differential indicator (electrical or visual)

Available in 4 sizes: 060, 080, 110, and 160, the new generation of filters is completely interchangeable with the previous MPS 050/070/100/150 series of the Spin-on range.

The new cast aluminium head and polyamide design reduces weight by 10% compared to the Spin-on range.

Less waste reduces both your carbon footprint and protects the environment.

Replacement is fast and easy, just disassemble the bowl with a 32 mm fixed wrench , take out the FEX filter element and replace.



Improved connection system
(between the head and the filter element and between the head and the bowl) reduces leakage so the dirt to the output circuit is reduced.



LFEX Series
New smaller differential indicator - electrical or visual.



High flow rate thanks to the head geometry: the oil enters in the filter element in a spiral flow and spreads more effectively inside the filter element for greater longevity.

FILTER SIZING Calculation & Corrective factor

THE CORRECT FILTER SIZING HAVE TO BE BASED ON THE TOTAL PRESSURE DROP DEPENDING BY THE APPLICATION.
THE MAXIMUM TOTAL PRESSURE DROP ALLOWED BY A NEW AND CLEAN RETURN FILTER HAVE TO BE IN THE RANGE 0.4 ÷ 0.6 bar.

The pressure drop calculation is performed by adding together the value of the housing with the value of the filter element. The pressure drop Δp_c of the housing is proportional to the fluid density (kg/dm^3); all the graphs in the catalogue are referred to mineral oil with density of 0.86 kg/dm^3 .
The filter element pressure drop Δp_e is proportional to its viscosity (mm^2/s); the corrective factor Y have to be used in case of an oil viscosity different than 30 mm^2/s (cSt).

Sizing data for single filter element

Δp_c = Filter housing pressure drop [bar]

Δp_e = Filter element pressure drop [bar]

Y = Corrective factor Y (see corresponding table), depending on the filter type, on the filter element size, on the filter element length and on the filter media

Q = flow rate (l/min)

$V1$ reference oil viscosity = 30 mm^2/s (cSt)

$V2$ = operating oil viscosity in mm^2/s (cSt)

Filter element pressure drop calculation with an oil viscosity different than 30 mm^2/s (cSt)

$$\Delta p_e = Y : 1000 \times Q \times (V2:V1)$$

$$\Delta p_{\text{Tot.}} = \Delta p_c + \Delta p_e$$

Verification formula

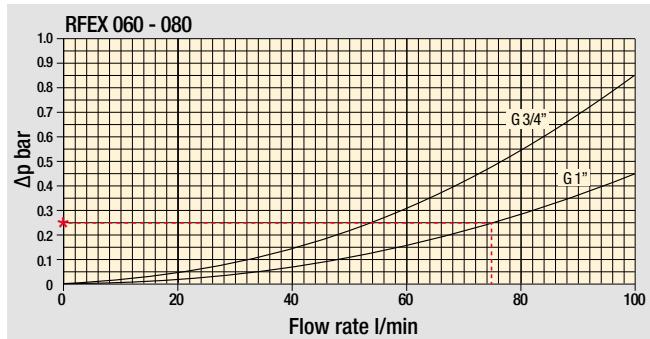
$$\Delta p_{\text{Tot.}} \leq \Delta p_{\text{max allowed}}$$

Maximum total pressure drop (Δp_{max}) allowed by a new and clean filter

Application	Range (bar)
Suction filters	0.08 ÷ 0.10
Return filters	0.4 ÷ 0.6
Low & Medium Pressure filters	0.4 ÷ 0.6 return lines 0.3 ÷ 0.5 lubrication lines 0.3 ÷ 0.4 off-line in power systems 0.1 ÷ 0.3 off-line in test benches 0.4 ÷ 0.6 over-boost
High Pressure filters	0.8 ÷ 1.5
Stainless Steel filters	0.8 ÷ 1.5

Calculation:

$\Delta p_c = 0.25 \text{ bar}$ (see graphic below)



Filter housings Δp pressure drop.

The curves are plotted using mineral oil with density of 0.86 kg/dm^3 in compliance with ISO 3968. Δp varies proportionally with density.

$$\Delta p_e = (2.56 : 1000) \times 75 \times (46 : 30) = 0.29 \text{ bar}$$

SFEX - RFEX - LFEX corrective factor

Corrective factor Y to be used for the filter element pressure drop calculation. The values depend to the filter size and length and to the filter media. Reference oil viscosity 30 mm^2/s

Filter element	Absolute filtration N Series						Nominal filtration N Series					
	Type	A03	A06	A10	A16	A25	P10	P25	M25	M60	M90	M250
FEX060		11.63	10.79	5.10	4.78	4.26	4.58	3.22	1.02	0.89	0.63	0.63
FEX080		6.83	6.69	3.35	3.19	2.56	1.97	1.38	0.62	0.45	0.29	0.29
FEX110		5.73	5.22	2.52	2.16	1.66	1.33	1.12	0.22	0.18	0.14	0.14
FEX160		3.72	3.59	1.79	1.76	1.22	0.90	0.76	0.15	0.10	0.09	0.09

Highlighted Y values related to RFEX return filters

$$\Delta p_{\text{Tot.}} = 0.25 + 0.29 = 0.54 \text{ bar}$$

The selection is correct because the total pressure drop value is inside the admissible range for return filters.

In case the allowed max total pressure drop is not verified, it is necessary to repeat the calculation changing the filter length/size.

Generic filter calculation example

Application data:

Return filter

Pressure $P_{\text{max}} = 10 \text{ bar}$

Flow rate $Q = 75 \text{ l/min}$

Viscosity $V_2 = 46 \text{ mm}^2/\text{s}$ (cSt)

Oil density = 0.86 kg/dm^3

Required filtration efficiency = 25 μm with absolute filtration

1" inlet connection





ELIXIR®

Suction filters

SFEX series

Flow rate up to 100 l/min



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SFEX 110 - 160		10
SFEX CLOGGING INDICATORS		12
SFEX SPARE PARTS		14

SFEX GENERAL INFORMATION

Description

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

Technical data

Filter housing materials

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

Bypass valve

Opening pressure 30 kPa (0.3 bar) ±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]

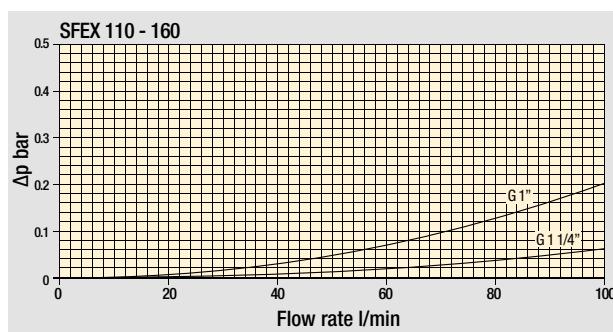
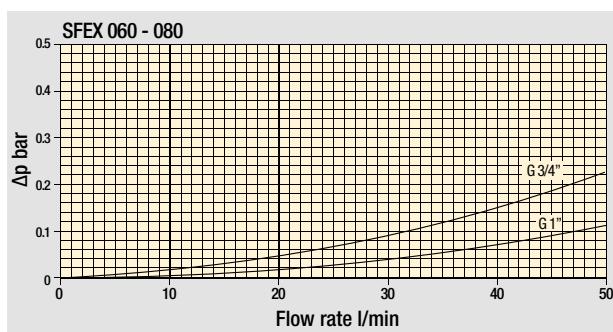
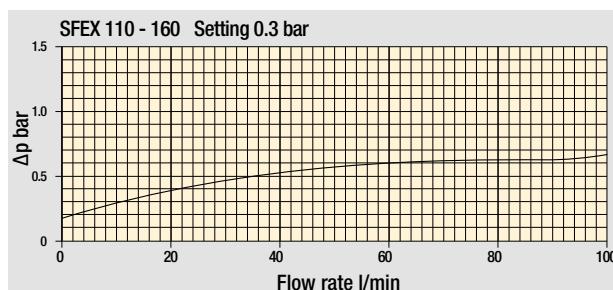
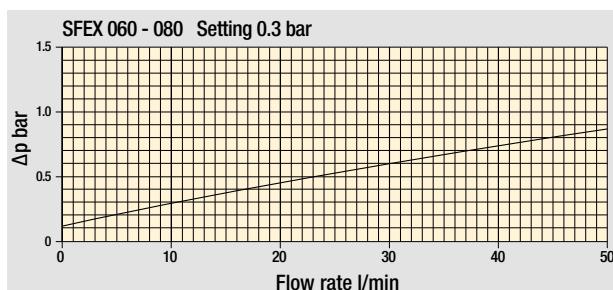
Filter series	Weights [kg]	Volumes [dm ³]
SFEX 060	0.50	0.60
SFEX 080	0.95	0.80
SFEX 110	1.20	1.60
SFEX 160	1.70	2.00

Hydraulic symbols

Filter series	Style S	Style B
SFEX 060	•	•
SFEX 080	•	•
SFEX 110	•	•
SFEX 160	•	•

Style S

Style B

Filter housings
 Δp pressure dropBypass 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.

Flow rates [l/min]

Filter element design - N Series

Filter series	M60	M90	M250	P10	P25
SFEX 060	26	27	27	14	17
SFEX 080	28	29	29	21	23

Connections of filter under test G 3/4"

Filter series	M60	M90	M250	P10	P25
SFEX 060	31	33	33	13	20
SFEX 080	34	35	35	24	30

Connections of filter under test G 1"

Filter series	M60	M90	M250	P10	P25
SFEX 110	93	96	96	48	53
SFEX 160	98	99	99	60	65

Connections of filter under test G 1 1/4"

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.mpfiltre.com.

Please, contact our Sales Department for further additional information.

SFEX SFEX060 - SFEX080

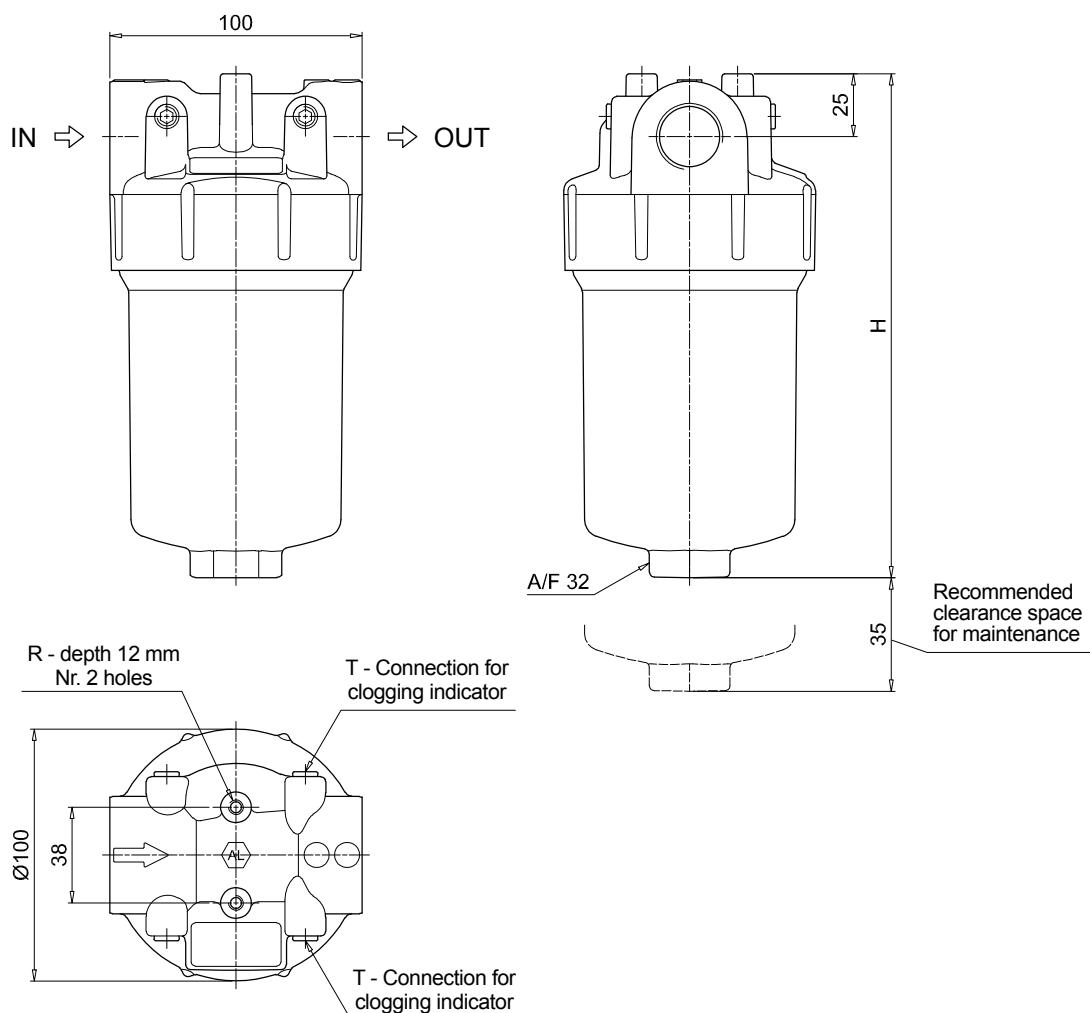
Designation & Ordering code

COMPLETE FILTER							
Series and size	Configuration example : SFEX060 B A A 6 M60 N P01						
SFEX060							
SFEX080							
Bypass valve							
S Without bypass							
B 0.3 bar							
Seals and treatments							
A NBR							
Connections							
A G 3/4"							
B G 1"							
C 3/4" NPT							
D 1" NPT							
E SAE 12 - 1 1/16" - 12 UN							
F SAE 16 - 1 5/16" - 12 UN							
Connection for clogging indicator							
6 With plugged connections							
Filtration rating							
M60 Wire mesh 60 µm	P10 Resin impregnated paper 10 µm						
M90 Wire mesh 90 µm	P25 Resin impregnated paper 25 µm						
M250 Wire mesh 250 µm							
All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC.							
Element Δp							
N 8 bar							
Execution							
P01 MP Filtri standard							
Pxx Customized							

FILTER ELEMENT							
Element series and size	Configuration example: FEX060 M60 A N P01						
FEX060							
FEX080							
Filtration rating							
M60 Wire mesh 60 µm	P10 Resin impregnated paper 10 µm						
M90 Wire mesh 90 µm	P25 Resin impregnated paper 25 µm						
M250 Wire mesh 250 µm							
All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC.							
Seals and treatments							
A NBR							
Element Δp							
N 8 bar							
Execution							
P01 MP Filtri standard							
Pxx Customized							

ACCESSORIES							
Clogging indicators							
VEB Electrical vacuum indicator	page 12						
VLB Electrical/visual vacuum indicator	12						
VVB Axial pressure gauge							page 13
VVS Radial pressure gauge							13

Filter size	H [mm]	
060	202	
080	265	
Connections	T	R
A	G 1/8"	M6
B	G 1/8"	M6
C	1/8" NPT	1/4" UNC
D	1/8" NPT	1/4" UNC
E	1/8" NPT	1/4" UNC
F	1/8" NPT	1/4" UNC



SFEX SFEX110 - SFEX160

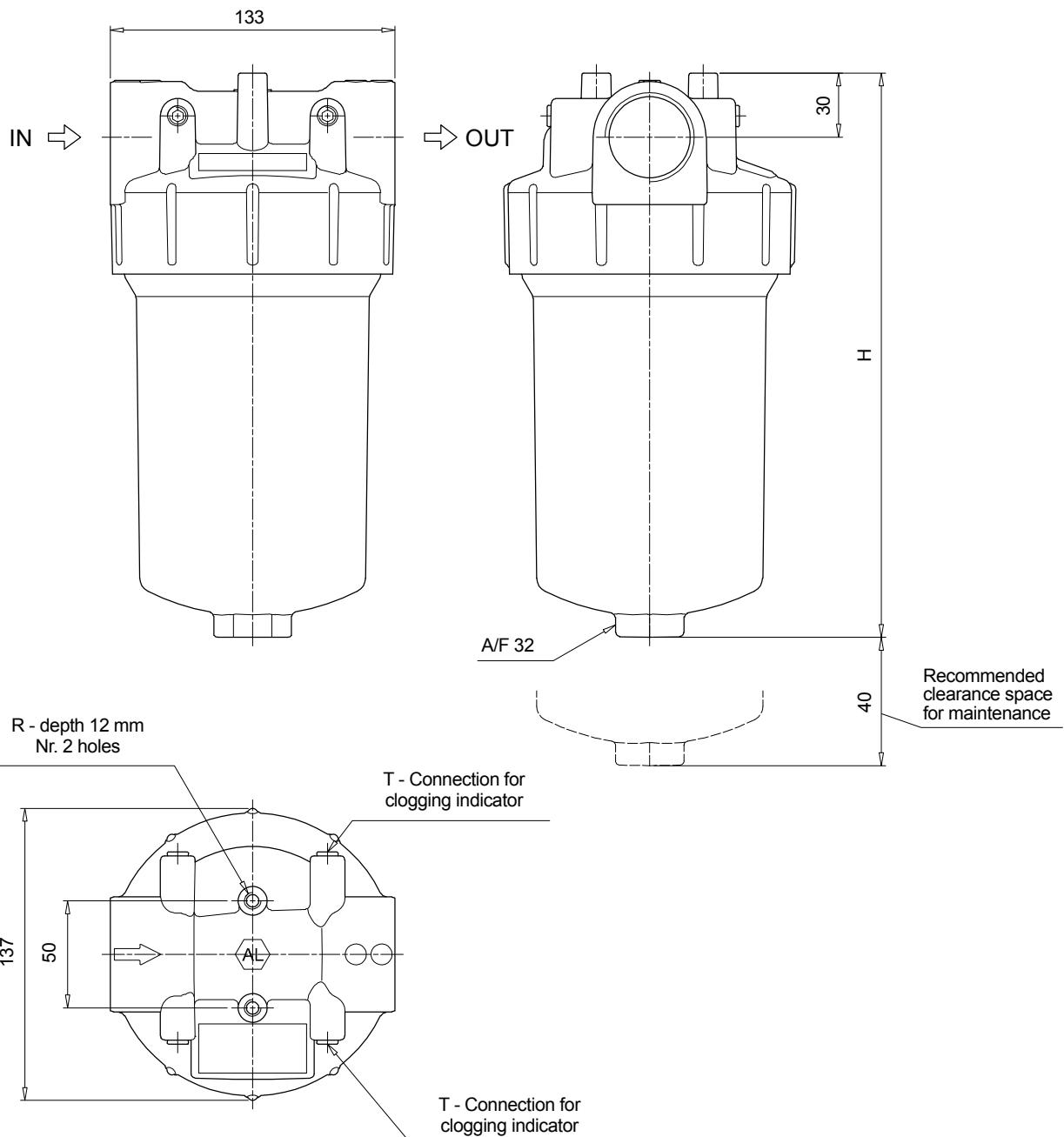
Designation & Ordering code

COMPLETE FILTER							
Series and size	Configuration example : SFEX110 B A A 6 M60 N P01						
SFEX110		B	A	A	6	M60	N
SFEX160							P01
Bypass valve							
S Without bypass							
B 0.3 bar							
Seals and treatments							
A NBR							
Connections							
A G 1"							
B G 1 1/4"							
C 1" NPT							
D 1 1/4" NPT							
E SAE 16 - 1 5/16" - 12 UN							
F SAE 20 - 1 5/8" - 12 UN							
Connection for clogging indicator							
6 With plugged connections							
Filtration rating							
M60 Wire mesh 60 µm	P10 Resin impregnated paper 10 µm						
M90 Wire mesh 90 µm	P25 Resin impregnated paper 25 µm						
M250 Wire mesh 250 µm							
All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC.							
Element Δp							
N 8 bar							
Execution							
P01 MP Filtri standard							
Pxx Customized							

FILTER ELEMENT							
Element series and size	Configuration example: FEX110 M60 A N P01						
FEX110		M60	A	N	P01		
FEX160							
Filtration rating							
M60 Wire mesh 60 µm	P10 Resin impregnated paper 10 µm						
M90 Wire mesh 90 µm	P25 Resin impregnated paper 25 µm						
M250 Wire mesh 250 µm							
All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC.							
Seals and treatments							
A NBR							
Element Δp							
N 8 bar							
Execution							
P01 MP Filtri standard							
Pxx Customized							

ACCESSORIES							
Clogging indicators	page						
VEB Electrical vacuum indicator	12	VVB Axial pressure gauge	page				
VLB Electrical/visual vacuum indicator	12	VVS Radial pressure gauge	13				

Filter size	H [mm]	
110	266	
160	315	
Connections	T	R
A	G 1/8"	M8
B	G 1/8"	M8
C	1/8" NPT	5/16" UNC
D	1/8" NPT	5/16" UNC
E	1/8" NPT	5/16" UNC
F	1/8" NPT	5/16" UNC



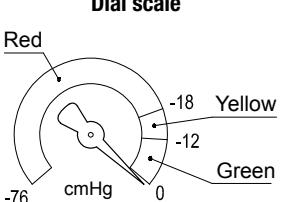
SFEX VACUUM INDICATORS

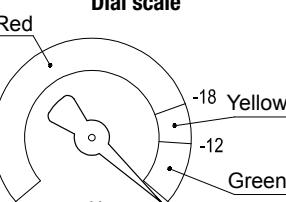
Dimensions

<p>VE*50</p> <p>Electrical Vacuum Indicator</p> <table border="1"> <tr> <th>R</th><th>Ordering code</th></tr> <tr> <td>EN 10226 - R1/8"</td><td>VE B 21 A A 50 P01</td></tr> </table>	R	Ordering code	EN 10226 - R1/8"	VE B 21 A A 50 P01	<p>Hydraulic symbol</p> <p>Electrical symbol</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: NBR <p>Technical data</p> <ul style="list-style-type: none"> - Vacuum setting: -0.21 bar ±10% - Max working pressure: 10 bar - Proof pressure: 15 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: EN 175301-803 - Resistive load: <ul style="list-style-type: none"> 5 A / 14 Vdc 4 A / 30 Vdc 5 A / 125 Vac 4 A / 250 Vac - Available Atex product: II 1GD Ex ia IIC Tx Ex ia IIIC Tx°C X - CE certification
R	Ordering code					
EN 10226 - R1/8"	VE B 21 A A 50 P01					

<p>VL*51 - VL*52 - VL*53</p> <p>Electrical/Visual Vacuum Indicator</p> <table border="1"> <tr> <th>R</th><th>Ordering code</th></tr> <tr> <td>EN 10226 - R1/8"</td><td>VL B 21 A A xx P01</td></tr> </table>	R	Ordering code	EN 10226 - R1/8"	VL B 21 A A xx P01	<p>Hydraulic symbol</p> <p>Electrical symbol</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Transparent polyamide - Contacts: Brass - Polyamide - Seal: NBR <p>Technical data</p> <ul style="list-style-type: none"> - Vacuum setting: -0.21 bar ±10% - Max working pressure: 10 bar - Proof pressure: 15 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: EN 175301-803 - Type VL51 VL52 VL53 - Lamps 24 Vdc 110 Vdc 230 Vac - Resistive load: 1 A / 24 Vdc 1 A / 110 Vdc 1 A / 230 Vac
R	Ordering code					
EN 10226 - R1/8"	VL B 21 A A xx P01					

<p>VL*71</p> <p>Electrical/Visual Vacuum Indicator</p> <table border="1"> <tr> <th>Connections</th><th>Ordering code</th></tr> <tr> <td>EN 10226 - R1/8"</td><td>VL B 21 A A 71 P01</td></tr> </table>	Connections	Ordering code	EN 10226 - R1/8"	VL B 21 A A 71 P01	<p>Hydraulic symbol</p> <p>Electrical symbol</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: NBR <p>Technical data</p> <ul style="list-style-type: none"> - Vacuum setting: -0.21 bar ±10% - Max working pressure: 10 bar - Proof pressure: 15 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: IEC 61076-2-101 D (M12) - Lamps 24 Vdc - Resistive load: 0.4 A / 24 Vdc
Connections	Ordering code					
EN 10226 - R1/8"	VL B 21 A A 71 P01					

VWB Axial Vacuum Gauge R EN 10226 - R1/8" Ordering code VV B 16 P01	  Conversion to SI units <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">[cmHg]</th> <th style="text-align: left;">[bar]</th> </tr> </thead> <tbody> <tr> <td>-12</td> <td>-0.16</td> </tr> <tr> <td>-18</td> <td>-0.24</td> </tr> <tr> <td>-76</td> <td>-1.01</td> </tr> </tbody> </table>	[cmHg]	[bar]	-12	-0.16	-18	-0.24	-76	-1.01	Materials <ul style="list-style-type: none"> - Case: Painted Steel - Window: Transparent plastic - Dial: Painted Steel - Pointer: Painted Aluminium - Pressure connection: Brass - Pressure element: Bourdon tube Cu-alloy soft soldered Technical data <ul style="list-style-type: none"> - Max working pressure: Static: 7 bar Fluctuating: 6 bar Short time: 10 bar - Working temperature: From -40 °C to +60 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Accuracy: Class 2.5 according to EN 13190 - Degree of protection: IP31 according to EN 60529
[cmHg]	[bar]									
-12	-0.16									
-18	-0.24									
-76	-1.01									

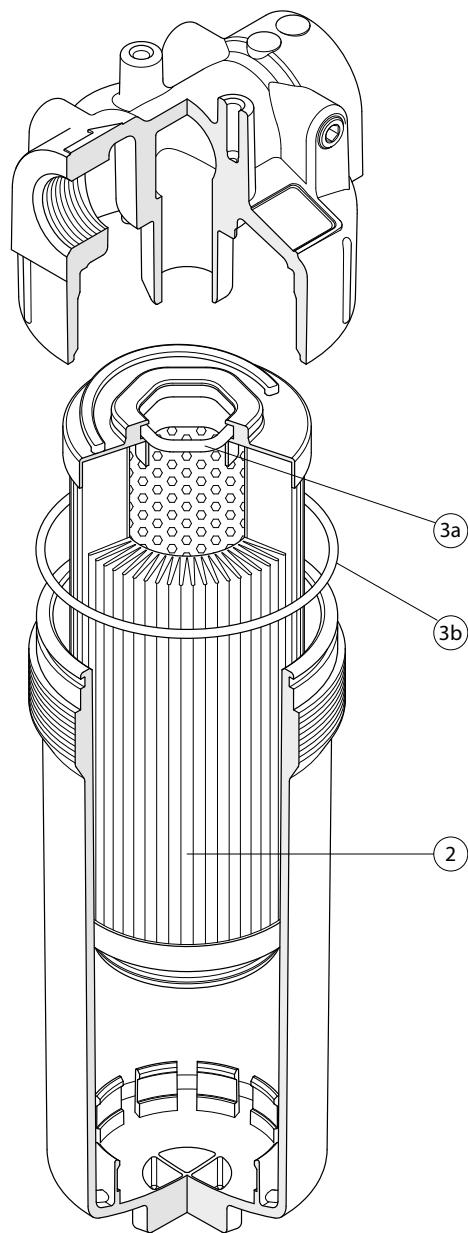
VWS Radial Vacuum Gauge R EN 10226 - R1/8" Ordering code VV S 16 P01	  Conversion to SI units <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">[cmHg]</th> <th style="text-align: left;">[bar]</th> </tr> </thead> <tbody> <tr> <td>-12</td> <td>-0.16</td> </tr> <tr> <td>-18</td> <td>-0.24</td> </tr> <tr> <td>-76</td> <td>-1.01</td> </tr> </tbody> </table>	[cmHg]	[bar]	-12	-0.16	-18	-0.24	-76	-1.01	Materials <ul style="list-style-type: none"> - Case: Painted Steel - Window: Transparent plastic - Dial: Painted Steel - Pointer: Painted Aluminium - Pressure connection: Brass - Pressure element: Bourdon tube Cu-alloy soft soldered Technical data <ul style="list-style-type: none"> - Max working pressure: Static: 7 bar Fluctuating: 6 bar Short time: 10 bar - Working temperature: From -40 °C to +60 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Accuracy: Class 2.5 according to EN 13190 - Degree of protection: IP31 according to EN 60529
[cmHg]	[bar]									
-12	-0.16									
-18	-0.24									
-76	-1.01									

Designation & Ordering code

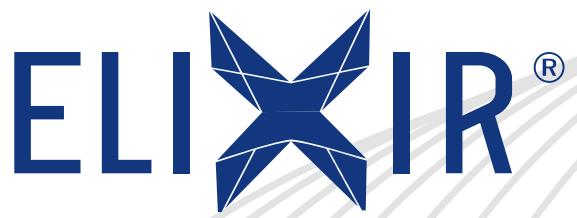
VACUUM INDICATORS									
Series					Configuration example 1: VE B 21 A A 50 P01				
VE Electrical vacuum indicator					Configuration example 2: VL B 21 A A 71 P01				
VL Electrical/Visual vacuum indicator					Configuration example 3: VV S 16 P01				
VW Vacuum gauge									
Type VE - VL		Type VV							
B Connection EN 10226 - R1/8"		B Axial connection EN 10226 - R1/8"							
		S Radial connection EN 10226 - R1/8"							
Vacuum setting									
16 0.16 bar		VE	VL	VV					
21 0.21 bar		•	•						
Seals									
A NBR		•	•						
Thermostat									
A Without		•	•						
Electrical connections									
50 Connection EN 175301-803		VE	VL	VV					
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 Vdc					•				
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc					•				
Option									
P01 MP Filtri standard									
Pxx Customized									

SFEX SPARE PARTS

Order number for spare parts



Item:	Q.ty: 1 pc. ②	Q.ty: 1 pc. ③ (3a ÷ 3b)
Filter series	Filter element	Seal Kit code number NBR
SFEX 060-080	See order table	02050771
SFEX 110-160		02050772



ELIXIR®

The ELIXIR logo features the word "ELIXIR" in a bold, blue, sans-serif font. The letter "X" is stylized with a geometric, crystalline pattern of blue lines forming a star-like shape. A small registered trademark symbol (®) is positioned to the right of "IR".

Return filters

RFEX series

Maximum working pressure up to 1.6 MPa (16 bar) - Flow rate up to 260 l/min



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RFEX SPARE PARTS	27

RFEX GENERAL INFORMATION

Description

Technical data

Return filter

Maximum working pressure up to 1.6 MPa (16 bar)
Flow rate up to 260 l/min

RFEX is a range of return filters for protection of the reservoir against the system contamination. They are mounted in line to limit aeration or foam generation into the reservoir.

Available features:

- Female threaded connections up to 1 1/4" and SAE connections up to 1 5/8", for a maximum flow rate of 260 l/min
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve, to relieve excessive pressure drop across the filter media
- Visual, electrical, axial and radial pressure 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 applications:

- Light Industrial equipment
- Mobile application

Filter housing materials

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

Bypass valve

Opening pressure 175 kPa (1.75 bar) $\pm 10\%$

Δp element type

- Microfibre filter elements - series N: 8 bar
- Fluid flow through the filter element from OUT to IN

Seals

Standard NBR series A



Temperature

From -25 °C to +110 °C

Note

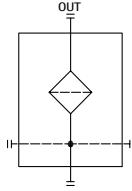
RFEX filters are provided for vertical mounting

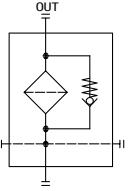
Weights [kg] and volumes [dm³]

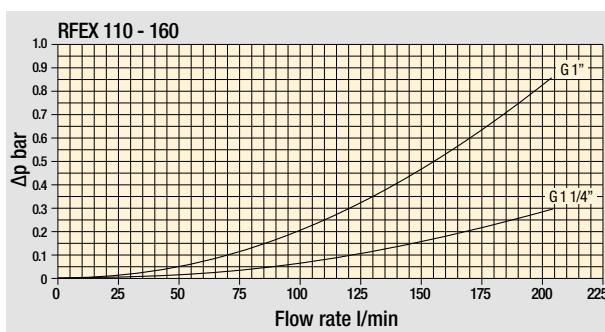
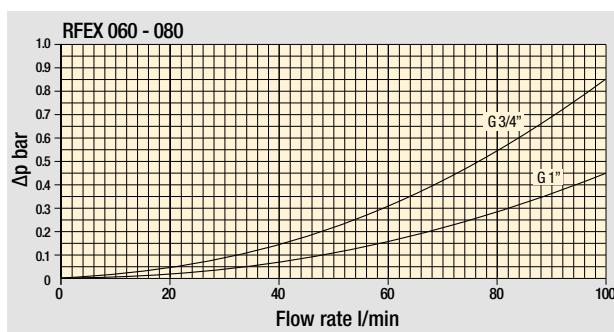
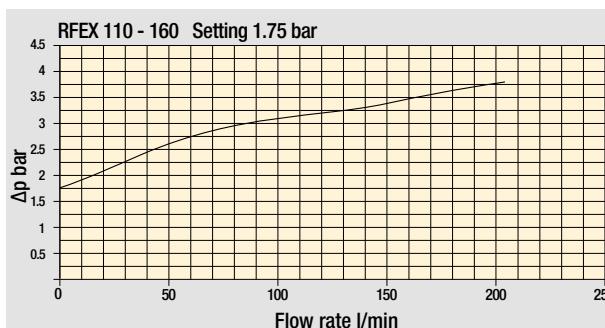
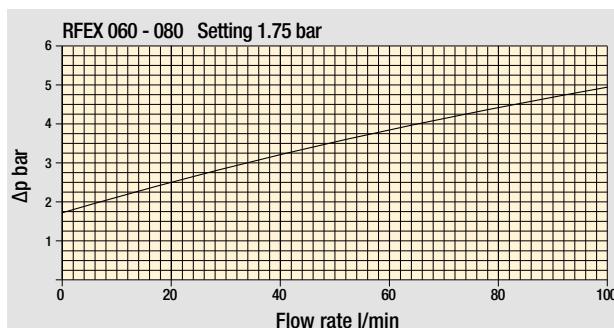
Filter series	Weights [kg]	Volumes [dm ³]
RFEX 060	0.50	0.60
RFEX 080	0.95	0.80
RFEX 110	1.20	1.60
RFEX 160	1.70	2.00

Hydraulic symbols

Filter series	Style S	Style B
RFEX 060	•	•
RFEX 080	•	•
RFEX 110	•	•
RFEX 160	•	•





Filter housings
 Δp pressure dropBypass 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.

Flow rates [l/min]

Filter element design - N Series

Filter series	A10	A16	A25	M60	M90	P10	P25
RFEX 060	52	53	55	71	72	54	59
RFEX 080	59	59	62	73	74	65	68

Connections of filter under test G 3/4"

Filter series	A10	A16	A25	M60	M90	P10	P25
RFEX 060	60	61	64	87	89	62	77
RFEX 080	69	70	75	91	92	79	93

Connections of filter under test G 1"

Filter series	A10	A16	A25	M60	M90	P10	P25
RFEX 110	141	153	172	250	252	186	196
RFEX 160	166	168	191	255	256	207	215

Connections of filter under test G 1 1/4"

Maximum flow rate for a complete return filter with a pressure drop $\Delta p = 0.5$ 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.mpfiltris.com.

Please, contact our Sales Department for further additional information.

RFEX RFEX060 - RFEX080

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example : RFEX060	B	A	A	6	A10	N	P01
RFEX060								
RFEX080								
Bypass valve								
S Without bypass								
B 1.75 bar								
Seals and treatments								
A NBR								
Connections								
A G 3/4"								
B G 1"								
C 3/4" NPT								
D 1" NPT								
E SAE 12 - 1 1/16" - 12 UN								
F SAE 16 - 1 5/16" - 12 UN								
Connection for clogging indicator								
6 With plugged connections								
Filtration rating								
A10 Inorganic microfiber 10 µm	P10 Resin impregnated paper 10 µm							
A16 Inorganic microfiber 16 µm	P25 Resin impregnated paper 25 µm							
A25 Inorganic microfiber 25 µm								
M60 Wire mesh 60 µm								
M90 Wire mesh 90 µm								
Element Δp				Execution				
N 8 bar				P01	MP Filtri standard			
				Pxx	Customized			

All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC.

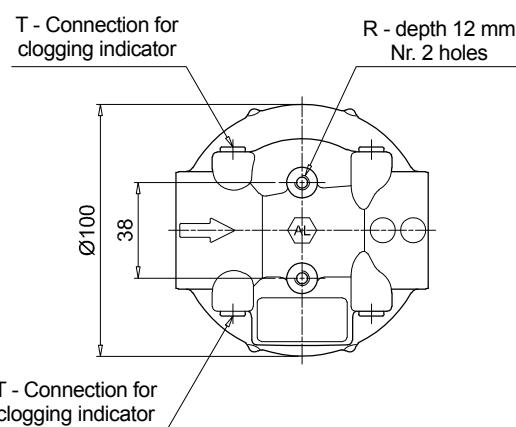
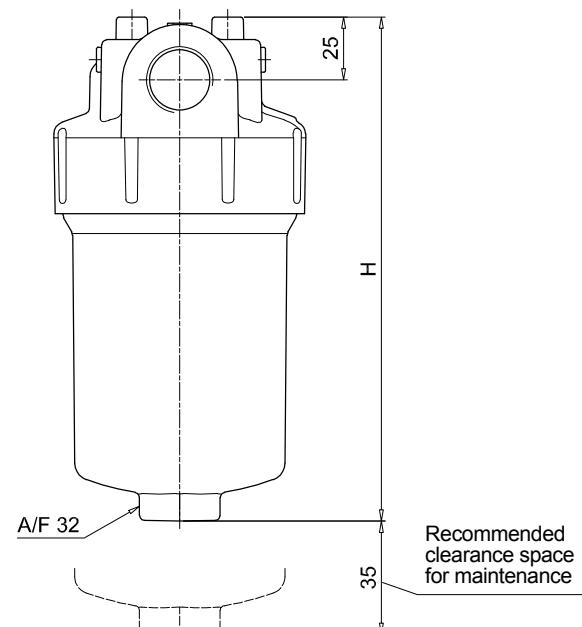
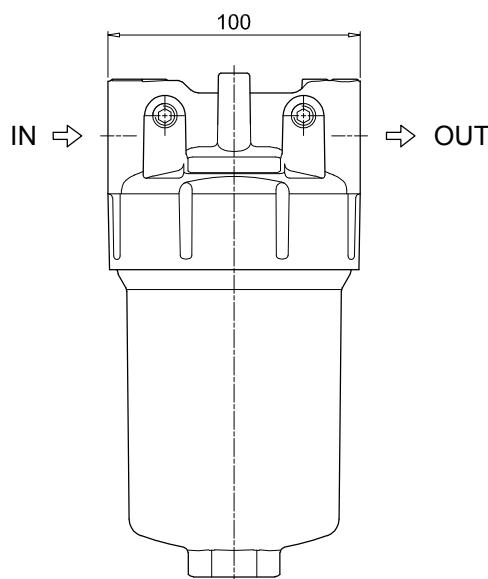
FILTER ELEMENT

Element series and size	Configuration example: FEX060	A10	A	N	P01
FEX060					
FEX080					
Filtration rating					
A10 Inorganic microfiber 10 µm	P10 Resin impregnated paper 10 µm				
A16 Inorganic microfiber 16 µm	P25 Resin impregnated paper 25 µm				
A25 Inorganic microfiber 25 µm					
M60 Wire mesh 60 µm					
M90 Wire mesh 90 µm					
Element Δp				Execution	
N 8 bar				P01	MP Filtri standard
				Pxx	Customized

ACCESSORIES

Clogging indicators	page	page	
BEA Electrical pressure indicator	24	BVA Axial pressure gauge	25
BEM Electrical pressure indicator	24	BVR Radial pressure gauge	25
BLA Electrical / visual pressure indicator	24-25	BVP Visual pressure indicator with automatic reset	26
		BVQ Visual pressure indicator with manual reset	26

Filter size	H [mm]	
060	202	
080	265	
Connections	T	R
A	G 1/8"	M6
B	G 1/8"	M6
C	1/8" NPT	1/4" UNC
D	1/8" NPT	1/4" UNC
E	1/8" NPT	1/4" UNC
F	1/8" NPT	1/4" UNC



RFEX RFEX110 - RFEX160

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example : RFEX110	B	A	A	6	A10	N	P01
RFEX110								
RFEX160								
Bypass valve								
S Without bypass								
B 1.75 bar								
Seals and treatments								
A NBR								
Connections								
A G 1"								
B G 1 1/4"								
C 1" NPT								
D 1 1/4" NPT								
E SAE 16 - 1 5/16" - 12 UN								
F SAE 20 - 1 5/8" - 12 UN								
Connection for clogging indicator								
6 With plugged connections								
Filtration rating								
A10 Inorganic microfiber 10 µm	P10 Resin impregnated paper 10 µm							
A16 Inorganic microfiber 16 µm	P25 Resin impregnated paper 25 µm							
A25 Inorganic microfiber 25 µm								
M60 Wire mesh 60 µm								
M90 Wire mesh 90 µm								
Element Δp				Execution				
N 8 bar				P01	MP Filtri standard			
				Pxx	Customized			

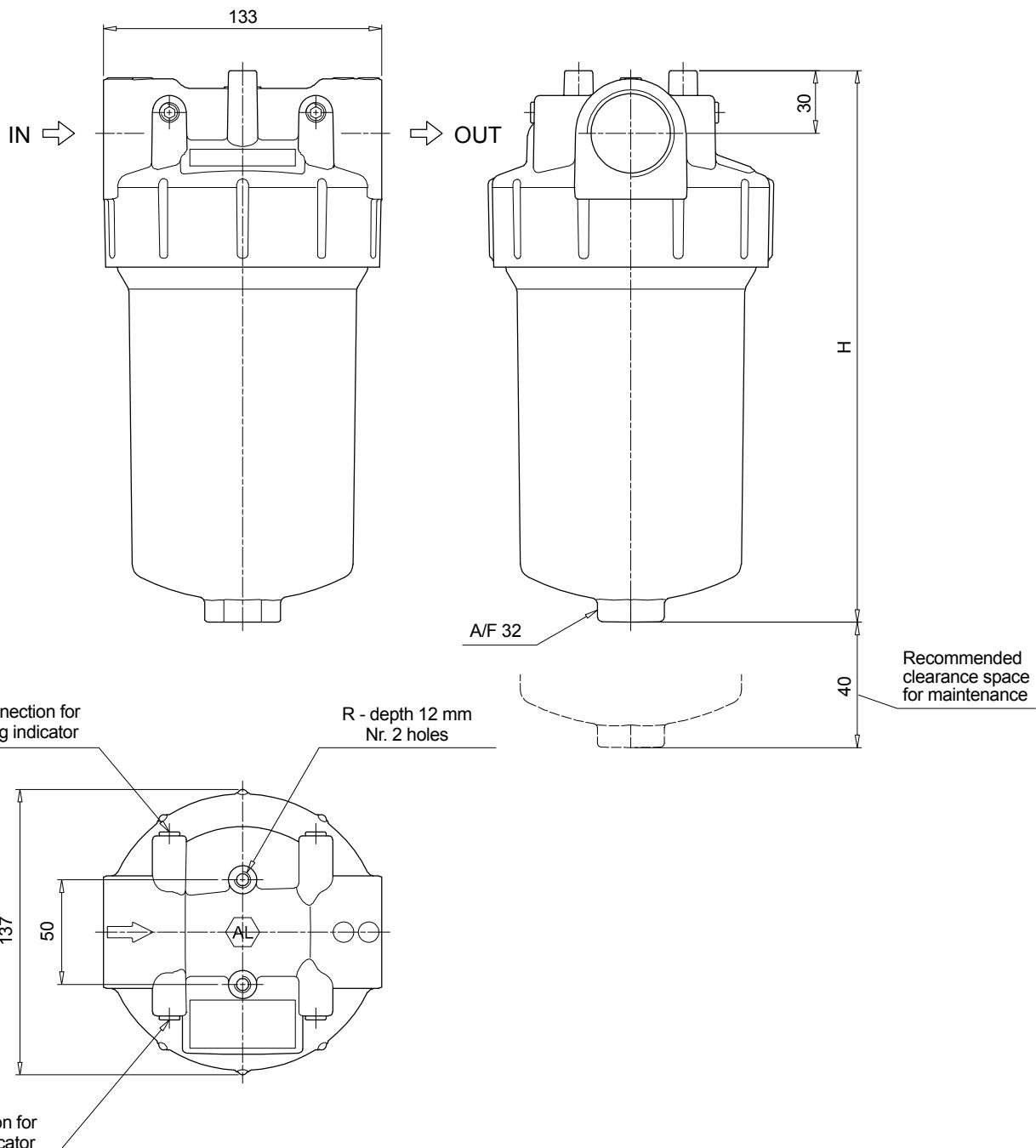
FILTER ELEMENT

Element series and size	Configuration example: FEX110	A10	A	N	P01
FEX110					
FEX160					
Filtration rating					
A10 Inorganic microfiber 10 µm	P10 Resin impregnated paper 10 µm				
A16 Inorganic microfiber 16 µm	P25 Resin impregnated paper 25 µm				
A25 Inorganic microfiber 25 µm					
M60 Wire mesh 60 µm					
M90 Wire mesh 90 µm					
Element Δp				Execution	
N 8 bar				P01	MP Filtri standard
				Pxx	Customized

ACCESSORIES

Clogging indicators	page	page
BEA Electrical pressure indicator	24	25
BEM Electrical pressure indicator	24	25
BLA Electrical / visual pressure indicator	24-25	26
BVA Axial pressure gauge		25
BVR Radial pressure gauge		25
BVP Visual pressure indicator with automatic reset		26
BVQ Visual pressure indicator with manual reset		26

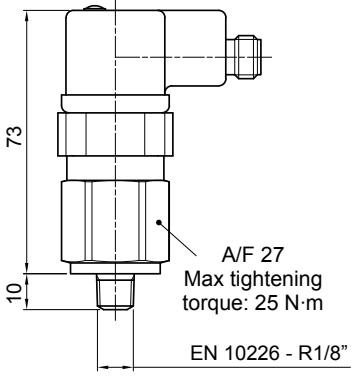
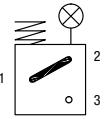
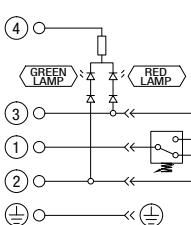
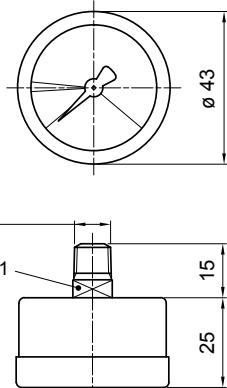
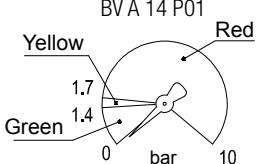
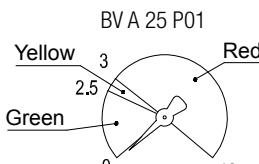
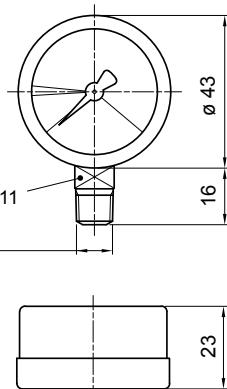
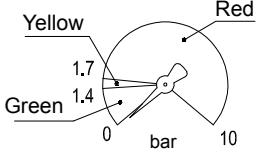
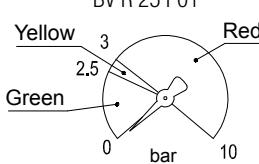
Filter size	H [mm]	
110	266	
160	315	
Connections	T	R
A	G 1/8"	M8
B	G 1/8"	M8
C	1/8" NPT	5/16" UNC
D	1/8" NPT	5/16" UNC
E	1/8" NPT	5/16" UNC
F	1/8" NPT	5/16" UNC



RFEX BAROMETRIC INDICATORS

Dimensions

<p>BEA*50</p> <p>Electrical Pressure Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.5 bar $\pm 10\%$</td><td>BE A 15 H A 50 P01</td></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>BE A 20 H A 50 P01</td></tr> </tbody> </table> <p>A/F 27 Max tightening torque: 25 N·m EN 10226 - R1/8"</p>	Settings	Ordering code	1.5 bar $\pm 10\%$	BE A 15 H A 50 P01	2.0 bar $\pm 10\%$	BE A 20 H A 50 P01	<p>Hydraulic symbol</p> <p>Electrical symbol</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 40 bar - Proof pressure: 60 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: EN 175301-803 - Resistive load: <ul style="list-style-type: none"> 5 A / 14 Vdc 4 A / 30 Vdc 5 A / 125 Vac 4 A / 250 Vac - Available Atex product: II 1GD Ex ia IIC Tx Ex ia IIIC Tx°C X - CE certification
Settings	Ordering code							
1.5 bar $\pm 10\%$	BE A 15 H A 50 P01							
2.0 bar $\pm 10\%$	BE A 20 H A 50 P01							
<p>BEM*41</p> <p>Electrical Pressure Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.5 bar $\pm 10\%$</td><td>BE M 15 H A 41 P01</td></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>BE M 20 H A 41 P01</td></tr> </tbody> </table> <p>A/F 27 Max tightening torque: 25 N·m EN 10226 - R1/8"</p>	Settings	Ordering code	1.5 bar $\pm 10\%$	BE M 15 H A 41 P01	2.0 bar $\pm 10\%$	BE M 20 H A 41 P01	<p>Hydraulic symbol</p> <p>Electrical symbol</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 40 bar - Proof pressure: 60 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP67 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: Four-core cable - Resistive load: <ul style="list-style-type: none"> 5 A / 14 Vdc 4 A / 30 Vdc 5 A / 125 Vac 4 A / 250 Vac - CE certification <p>On request this indicator can be provided with main connectors in use for wirings.</p>
Settings	Ordering code							
1.5 bar $\pm 10\%$	BE M 15 H A 41 P01							
2.0 bar $\pm 10\%$	BE M 20 H A 41 P01							
<p>BL*51 - BL*52 - BL*53</p> <p>Electrical/Visual Pressure Indicator</p> <table border="1"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.5 bar $\pm 10\%$</td><td>BL A 15 H A xx P01</td></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>BL A 20 H A xx P01</td></tr> </tbody> </table> <p>A/F 27 Max tightening torque: 25 N·m EN 10226 - R1/8"</p>	Settings	Ordering code	1.5 bar $\pm 10\%$	BL A 15 H A xx P01	2.0 bar $\pm 10\%$	BL A 20 H A xx P01	<p>Hydraulic symbol</p> <p>Electrical symbol</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Transparent polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 40 bar - Proof pressure: 60 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: EN 175301-803 - Type <ul style="list-style-type: none"> BL51 BL52 BL53 - Lamps <ul style="list-style-type: none"> 24 Vdc 110 Vdc 230 Vac - Resistive load: <ul style="list-style-type: none"> 1 A / 24 Vdc 1 A / 110 Vdc 1 A / 230 Vac
Settings	Ordering code							
1.5 bar $\pm 10\%$	BL A 15 H A xx P01							
2.0 bar $\pm 10\%$	BL A 20 H A xx P01							

<p>BL*71</p> <p>Electrical/Visual Pressure Indicator</p> <table border="1" data-bbox="165 316 520 406"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.5 bar $\pm 10\%$</td><td>BL A 15 HA 71 P01</td></tr> <tr> <td>2.0 bar $\pm 10\%$</td><td>BL A 20 HA 71 P01</td></tr> </tbody> </table> 	Settings	Ordering code	1.5 bar $\pm 10\%$	BL A 15 HA 71 P01	2.0 bar $\pm 10\%$	BL A 20 HA 71 P01	<p>Hydraulic symbol</p>  <p>Electrical symbol</p> 	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Base: Black polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 40 bar - Proof pressure: 60 bar - Working temperature: From -25 °C to +80 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree of protection: IP65 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: IEC 61076-2-101 D (M12) - Lamps: 24 Vdc - Resistive load: 0.4 A / 24 Vdc
Settings	Ordering code							
1.5 bar $\pm 10\%$	BL A 15 HA 71 P01							
2.0 bar $\pm 10\%$	BL A 20 HA 71 P01							
<p>BVA</p> <p>Axial Pressure Gauge</p> <table border="1" data-bbox="165 961 520 1051"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.4 bar $\pm 10\%$</td><td>BV A 14 P01</td></tr> <tr> <td>2.5 bar $\pm 10\%$</td><td>BV A 25 P01</td></tr> </tbody> </table> 	Settings	Ordering code	1.4 bar $\pm 10\%$	BV A 14 P01	2.5 bar $\pm 10\%$	BV A 25 P01	<p>Hydraulic symbol</p>  <p>Dial scale BV A 14 P01</p>  <p>Dial scale BV A 25 P01</p> 	<p>Materials</p> <ul style="list-style-type: none"> - Case: Painted Steel - Window: Transparent plastic - Dial: Painted Steel - Pointer: Painted Aluminium - Pressure connection: Brass - Pressure element: Bourdon tube Cu-alloy soft soldered <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: Static: 7 bar Fluctuating: 6 bar Short time: 10 bar - Working temperature: From -40 °C to +60 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Accuracy: Class 2.5 according to EN 13190 - Degree of protection: IP31 according to EN 60529
Settings	Ordering code							
1.4 bar $\pm 10\%$	BV A 14 P01							
2.5 bar $\pm 10\%$	BV A 25 P01							
<p>BVR</p> <p>Radial Pressure Gauge</p> <table border="1" data-bbox="165 1605 520 1695"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>1.4 bar $\pm 10\%$</td><td>BV R 14 P01</td></tr> <tr> <td>2.5 bar $\pm 10\%$</td><td>BV R 25 P01</td></tr> </tbody> </table> 	Settings	Ordering code	1.4 bar $\pm 10\%$	BV R 14 P01	2.5 bar $\pm 10\%$	BV R 25 P01	<p>Hydraulic symbol</p>  <p>Dial scale BV R 14 P01</p>  <p>Dial scale BV R 25 P01</p> 	<p>Materials</p> <ul style="list-style-type: none"> - Case: Painted Steel - Window: Transparent plastic - Dial: Painted Steel - Pointer: Painted Aluminium - Pressure connection: Brass - Pressure element: Bourdon tube Cu-alloy soft soldered <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: Static: 7 bar Fluctuating: 6 bar Short time: 10 bar - Working temperature: From -40 °C to +60 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Accuracy: Class 2.5 according to EN 13190 - Degree of protection: IP31 according to EN 60529
Settings	Ordering code							
1.4 bar $\pm 10\%$	BV R 14 P01							
2.5 bar $\pm 10\%$	BV R 25 P01							

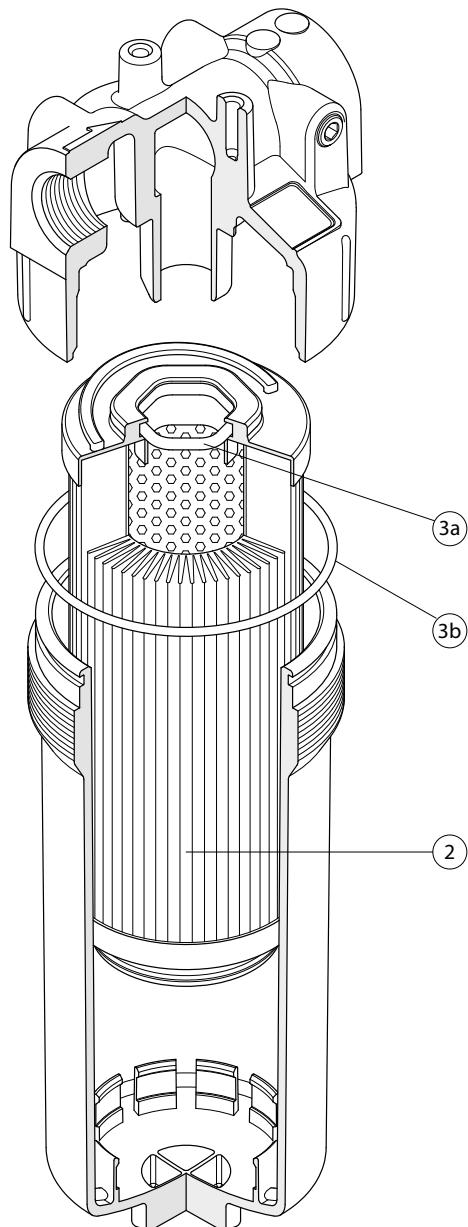
RFEX BAROMETRIC INDICATORS

Dimensions

BVP - BVQ		Hydraulic symbol	Materials
Setting	Ordering code		
1.5 bar $\pm 10\%$	BV P 15 H P01 BV Q 15 H P01		- Body: Brass - Cover / internal parts: Polyamide - Caps: VMQ - Seal: HNBR
2.0 bar $\pm 10\%$	BV P 20 H P01 BV Q 20 H P01		
			Technical data
			- Reset: BVP - Automatic reset BVQ - Manual reset
			- Max working pressure: 10 bar
			- Proof pressure: 15 bar
			- Working temperature: From -25 °C to +80 °C
			- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
			- Degree of protection: IP45 according to EN 60529
			Signals
			Absence of pressure (no indicator)
			Presence of pressure (green button rises gradually)
			Clogged filter element (red button risen)

Designation & Ordering code

BAROMETRIC INDICATORS									
Series									Configuration example 1: BE M 15 H A 41 P01
BE Electrical pressure indicator									Configuration example 2: BL A 20 H A 71 P01
BL Electrical/Visual pressure indicator									Configuration example 3: BV R 14 P01
BV Visual pressure indicator									Configuration example 4: BV P 20 H P01
Type	BE	BL	BV						
A Standard type	•	•	A Axial connection pressure gauge						
M With wired electrical connection	•		R Radial connection pressure gauge						
			P Visual indicator with automatic reset						
			Q Visual indicator with manual reset						
Pressure setting	BEA-BEM	BLA	BVA-BVR	BVP-BVQ					
14 1.4 bar				•					
15 1.5 bar	•	•							
20 2.0 bar	•	•		•					
25 2.5 bar			•						
Seals	BE	BLA	BVA-BVR	BVP-BVQ					
H HNBR	•	•		•					
Thermostat	BEA-BEM	BLA	BV						
A Without	•	•							
Electrical connections	BEA	BEM	BL	BV					
41 Connection via four-core cable			•						
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 Vdc			•						
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc			•						
Option									
P01 MP Filtri standard									
Pxx Customized									



Item:	Q.ty: 1 pc. ②	Q.ty: 1 pc. ③ (3a ÷ 3b)
Filter series	Filter element	Seal Kit code number NBR
RFEX 060-080	See order table	02050771
RFEX 110-160		02050772



ELIXIR®

Low & Medium Pressure filters

LFEX series

Maximum working pressure up to 1.6 MPa (16 bar) - Flow rate up to 300 l/min



LFEX GENERAL INFORMATION	page 30
LFEX 060 - 080	32
LFEX 110 - 160	34
LFEX CLOGGING INDICATORS	36
LFEX SPARE PARTS	38

LFEX GENERAL INFORMATION

Description

Low & Medium Pressure filters

Maximum working pressure up to 1.6 MPa (16 bar)
Flow rate up to 300 l/min

LFEX is a range of low pressure filter for protection of sensitive components in low pressure hydraulic systems. They are also suitable for the off-line filtration of small reservoirs. They are directly connected to the lines of the system through the hydraulic fittings.

Available features:

- Female threaded connections up to 1 1/4" and SAE connections up to 1 5/8", for a maximum flow rate of 300 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- Water removal elements, to remove the free water from the hydraulic fluid
- Bypass valve, to relieve excessive pressure drop across the filter media
- NEW Visual and electrical differential clogging indicators, capable to hold the overall dimension
- 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 applications:

Delivery lines, in any low pressure industrial equipment or mobile machines

Technical data

Filter housing materials

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

Bypass valve

Opening pressure 350 kPa (3.5 bar) ±10%

Δp element type

- Microfibre filter elements - series N: 8 bar
- Fluid flow through the filter element from OUT to IN

Seals

Standard NBR series A



Temperature

From -25 °C to +110 °C

Note

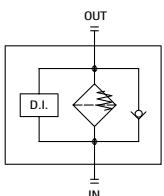
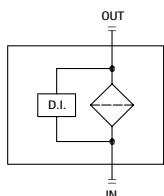
LFEX filters are provided for vertical mounting

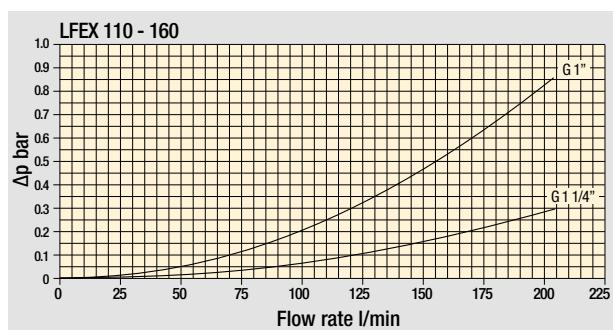
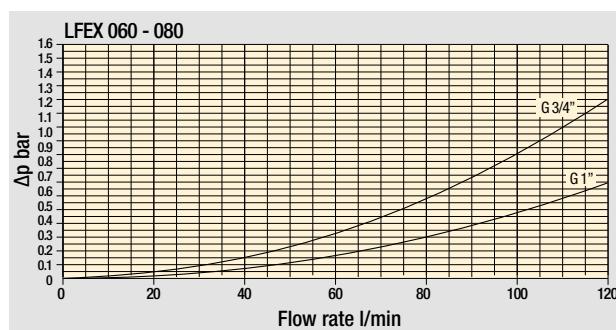
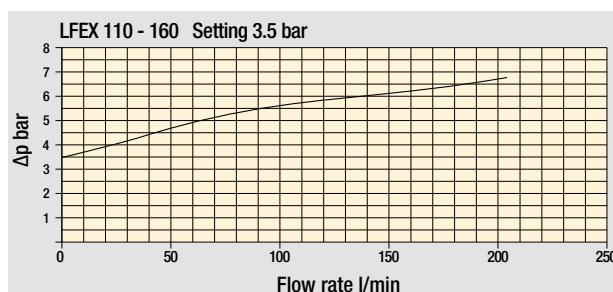
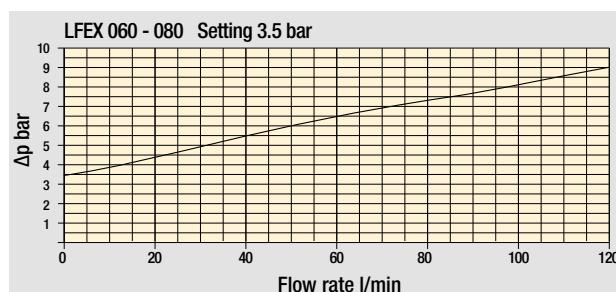
Weights [kg] and volumes [dm³]

Filter series	Weights [kg]	Volumes [dm ³]
LFEX 060	0.50	0.60
LFEX 080	0.95	0.80
LFEX 110	1.20	1.60
LFEX 160	1.70	2.00

Hydraulic symbols

Filter series	Style S	Style B
LFEX 060	•	•
LFEX 080	•	•
LFEX 110	•	•
LFEX 160	•	•



Filter housings
Δp pressure dropBypass 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.

Flow rates [l/min]

Filter element design - N Series

Filter series	A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
LFEX 060	45	47	65	66	68	84	84	86	67	73
LFEX 080	58	59	73	72	76	86	87	88	79	82

Connections of filter under test G 3/4"

Filter series	A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
LFEX 060	49	51	75	77	80	104	105	107	74	95
LFEX 080	67	67	86	87	92	107	108	110	96	112

Connections of filter under test G 1"

Filter series	A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
LFEX 110	107	115	182	195	216	295	298	300	232	242
LFEX 160	146	150	210	212	237	300	303	304	254	262

Connections of filter under test G 1 1/4"

Maximum flow rate for a complete delivery filter with a pressure drop $\Delta p = 0.7$ 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.mpfiltr.com.

Please, contact our Sales Department for further additional information.

LFEX LFEX060 - LFEX080

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example : LFEX060	B	A	A	6	A10	N	P01
LFEX060								
LFEX080								
Bypass valve								
S Without bypass								
B 3.5 bar								
Seals and treatments								
A NBR								
Connections								
A G 3/4"								
B G 1"								
C 3/4" NPT								
D 1" NPT								
E SAE 12 - 1 1/16" - 12 UN								
F SAE 16 - 1 5/16" - 12 UN								
Connection for clogging indicator								
1 Without								
6 With plugged connections								
Filtration rating								
A03 Inorganic microfiber 3 µm	M25 Wire mesh 25 µm							
A06 Inorganic microfiber 6 µm	M60 Wire mesh 60 µm							
A10 Inorganic microfiber 10 µm	M90 Wire mesh 90 µm							
A16 Inorganic microfiber 16 µm	P10 Resin impregnated paper 10 µm							
A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm							
WA025 Water absorber inorganic microfiber 25 µm								
Element Δp								
N 8 bar								
Execution								
P01 MP Filtri standard								
Pxx Customized								

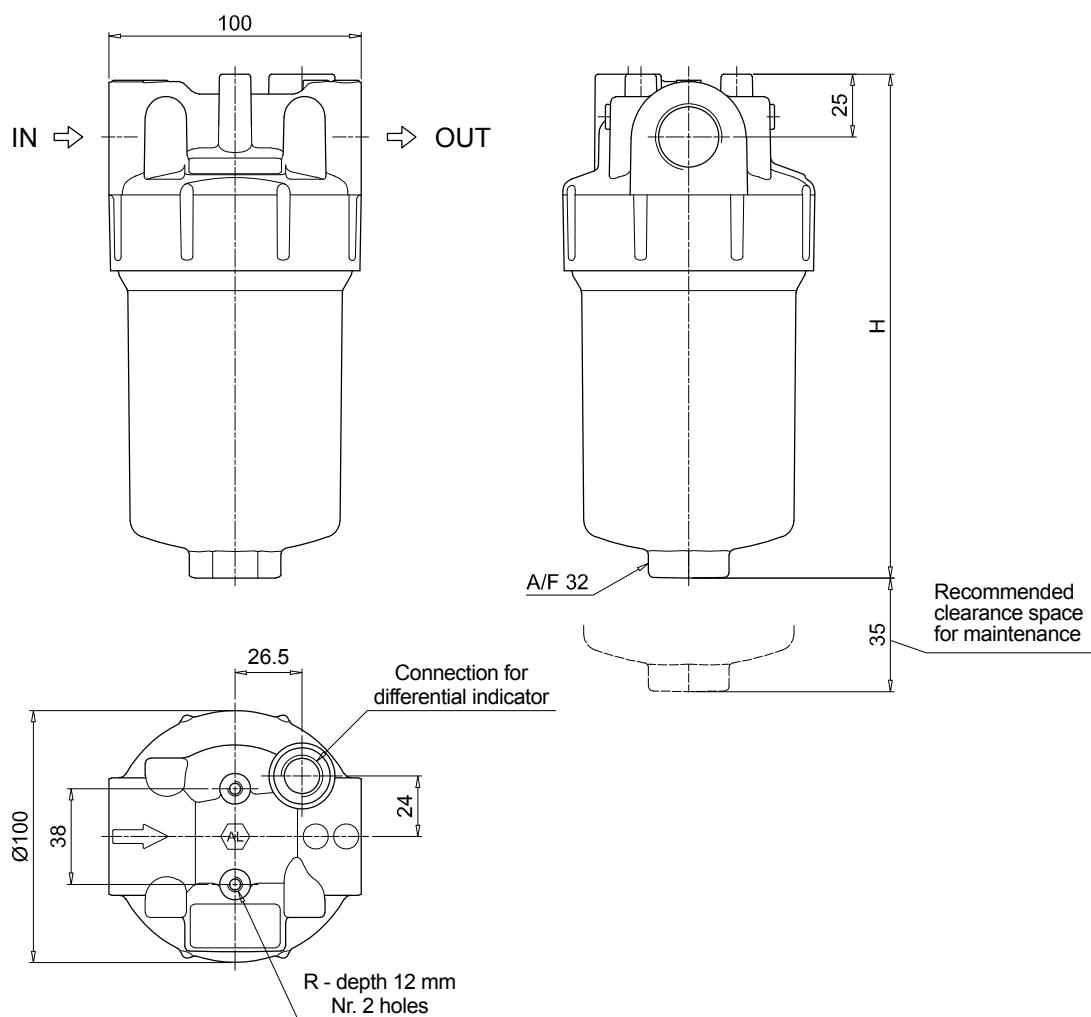
FILTER ELEMENT

Element series and size	Configuration example: FEX060	A10	A	N	P01
FEX060					
FEX080					
Filtration rating					
A03 Inorganic microfiber 3 µm	M25 Wire mesh 25 µm				
A06 Inorganic microfiber 6 µm	M60 Wire mesh 60 µm				
A10 Inorganic microfiber 10 µm	M90 Wire mesh 90 µm				
A16 Inorganic microfiber 16 µm	P10 Resin impregnated paper 10 µm				
A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm				
WA025 Water absorber inorganic microfiber 25 µm					
All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC.					
Seals and treatments					
A NBR					
Element Δp					
N 8 bar					
Execution					
P01 MP Filtri standard					
Pxx Customized					

ACCESSORIES

Differential indicators	page
DES Electrical differential indicator	36
DVS Visual differential indicator	37

Filter size	H [mm]	
060	202	
080	265	
Connections	T	R
A	G 1/8"	M6
B	G 1/8"	M6
C	1/8" NPT	1/4" UNC
D	1/8" NPT	1/4" UNC
E	1/8" NPT	1/4" UNC
F	1/8" NPT	1/4" UNC



LFEX LFEX110 - LFEX160

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example : LFEX110	B	A	A	6	A10	N	P01
LFEX110								
LFEX160								
Bypass valve								
S Without bypass								
B 3.5 bar								
Seals and treatments								
A NBR								
Connections								
A G 1"								
B G 1 1/4"								
C 1" NPT								
D 1 1/4" NPT								
E SAE 16 - 1 5/16" - 12 UN								
F SAE 20 - 1 5/8" - 12 UN								
Connection for clogging indicator								
1 Without								
6 With plugged connections								
Filtration rating								
A03 Inorganic microfiber 3 µm	M25 Wire mesh 25 µm							
A06 Inorganic microfiber 6 µm	M60 Wire mesh 60 µm							
A10 Inorganic microfiber 10 µm	M90 Wire mesh 90 µm							
A16 Inorganic microfiber 16 µm	P10 Resin impregnated paper 10 µm							
A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm							
WA025 Water absorber inorganic microfiber 25 µm								
Element Δp								
N 8 bar								
Execution								
P01 MP Filtri standard								
Pxx Customized								

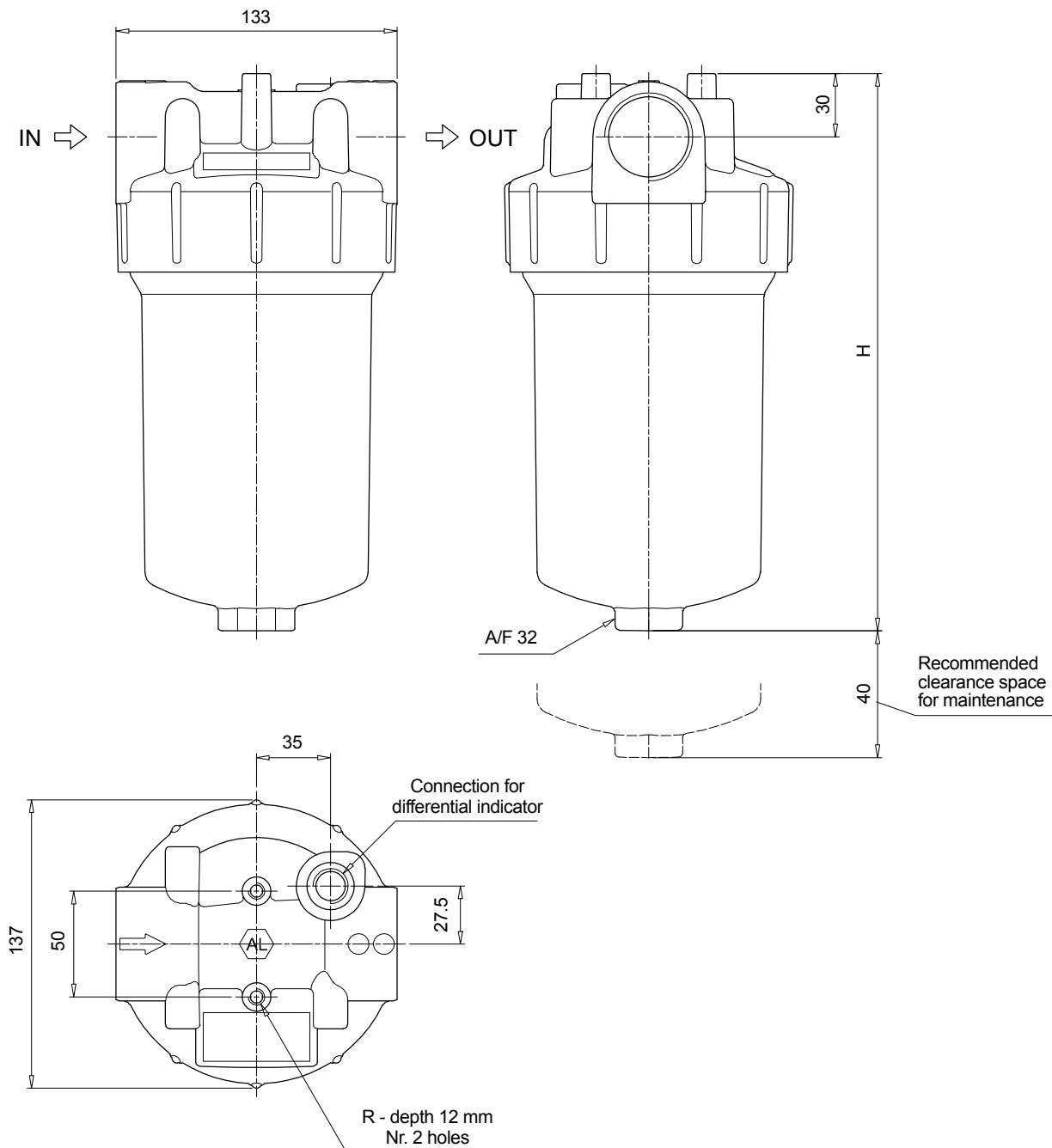
FILTER ELEMENT

Element series and size	Configuration example: FEX110	A10	A	N	P01
FEX110					
FEX160					
Filtration rating					
A03 Inorganic microfiber 3 µm	M25 Wire mesh 25 µm				
A06 Inorganic microfiber 6 µm	M60 Wire mesh 60 µm				
A10 Inorganic microfiber 10 µm	M90 Wire mesh 90 µm				
A16 Inorganic microfiber 16 µm	P10 Resin impregnated paper 10 µm				
A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm				
WA025 Water absorber inorganic microfiber 25 µm					
All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC.					
Seals and treatments					
A NBR					
Element Δp					
N 8 bar					
Execution					
P01 MP Filtri standard					
Pxx Customized					

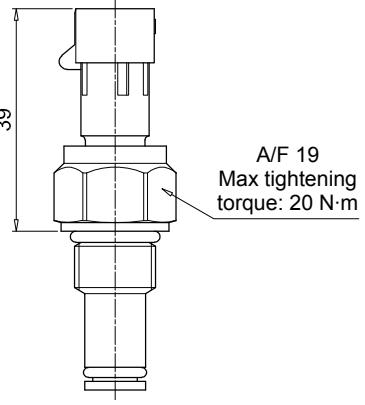
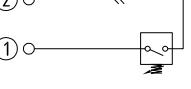
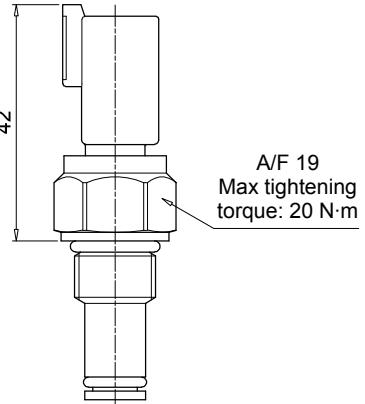
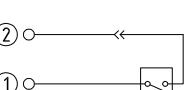
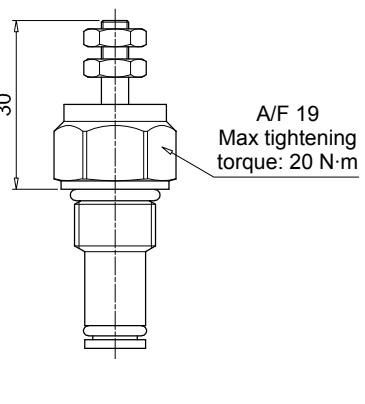
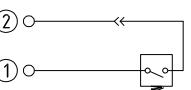
ACCESSORIES

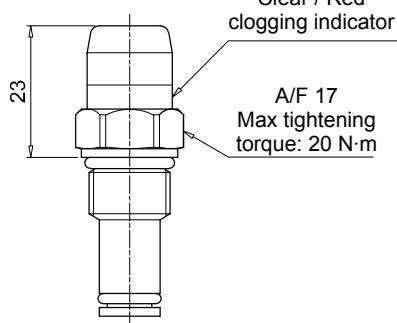
Differential indicators	page
DES Electrical differential indicator	36
DVS Visual differential indicator	37

Filter size	H [mm]	
110	266	
160	315	
Connections	T	R
A	G 1/8"	M8
B	G 1/8"	M8
C	1/8" NPT	5/16" UNC
D	1/8" NPT	5/16" UNC
E	1/8" NPT	5/16" UNC
F	1/8" NPT	5/16" UNC



Dimensions

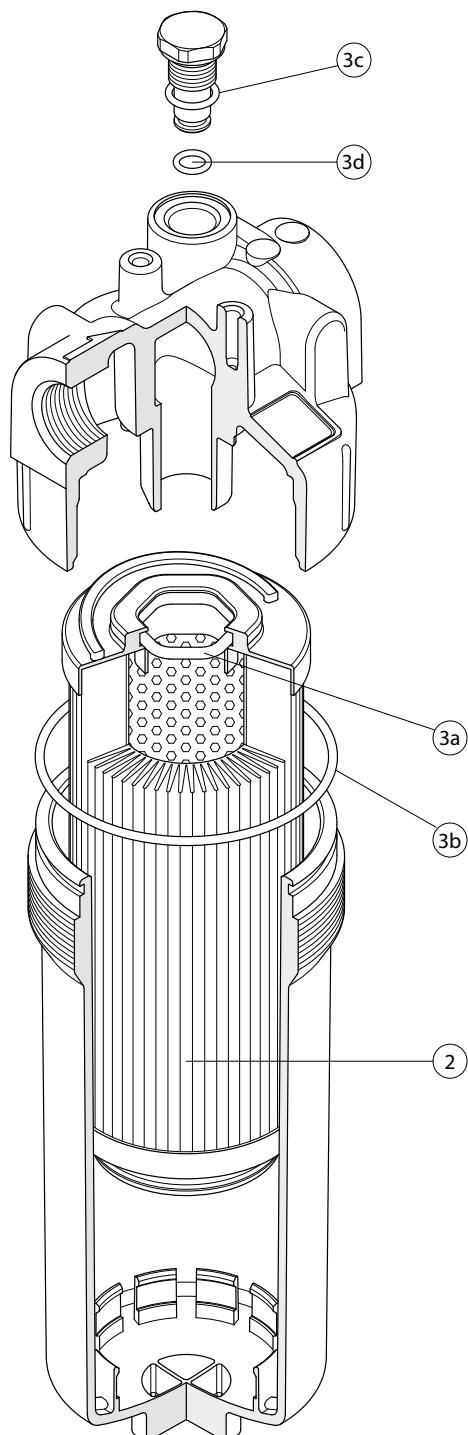
<p>DES*10</p> <p>Electrical Differential Indicator</p> <table border="1" data-bbox="134 325 484 415"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>2.5 bar $\pm 10\%$</td><td>DES 25 H A 10 P01</td></tr> <tr> <td>4.0 bar $\pm 10\%$</td><td>DES 40 H A 10 P01</td></tr> </tbody> </table>  <p>A/F 19 Max tightening torque: 20 N·m</p> <p>39</p>	Settings	Ordering code	2.5 bar $\pm 10\%$	DES 25 H A 10 P01	4.0 bar $\pm 10\%$	DES 40 H A 10 P01	<p>Hydraulic symbol</p>  <p>1 2</p> <p>Electrical symbol</p>  <p>② ○ ↔ ① ○ — [] —</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 16 bar - Proof pressure: 24 bar - Burst pressure: 48 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: AMP Superseal series 1.5 - Resistive load: 0.2 A / 24 Vdc - Switching type: Normally open contacts (NC on request)
Settings	Ordering code							
2.5 bar $\pm 10\%$	DES 25 H A 10 P01							
4.0 bar $\pm 10\%$	DES 40 H A 10 P01							
<p>DES*30</p> <p>Electrical Differential Indicator</p> <table border="1" data-bbox="134 965 484 1055"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>2.5 bar $\pm 10\%$</td><td>DES 25 H A 30 P01</td></tr> <tr> <td>4.0 bar $\pm 10\%$</td><td>DES 40 H A 30 P01</td></tr> </tbody> </table>  <p>A/F 19 Max tightening torque: 20 N·m</p> <p>42</p>	Settings	Ordering code	2.5 bar $\pm 10\%$	DES 25 H A 30 P01	4.0 bar $\pm 10\%$	DES 40 H A 30 P01	<p>Hydraulic symbol</p>  <p>1 2 3</p> <p>Electrical symbol</p>  <p>② ○ ↔ ① ○ — [] —</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 16 bar - Proof pressure: 24 bar - Burst pressure: 48 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: Deutsch DT-04-2-P - Resistive load: 0.2 A / 24 Vdc - Switching type: Normally open contacts (NC on request)
Settings	Ordering code							
2.5 bar $\pm 10\%$	DES 25 H A 30 P01							
4.0 bar $\pm 10\%$	DES 40 H A 30 P01							
<p>DES*80</p> <p>Electrical Differential Indicator</p> <table border="1" data-bbox="134 1605 484 1695"> <thead> <tr> <th>Settings</th><th>Ordering code</th></tr> </thead> <tbody> <tr> <td>2.5 bar $\pm 10\%$</td><td>DES 25 H A 80 P01</td></tr> <tr> <td>4.0 bar $\pm 10\%$</td><td>DES 40 H A 80 P01</td></tr> </tbody> </table>  <p>A/F 19 Max tightening torque: 20 N·m</p> <p>30</p>	Settings	Ordering code	2.5 bar $\pm 10\%$	DES 25 H A 80 P01	4.0 bar $\pm 10\%$	DES 40 H A 80 P01	<p>Hydraulic symbol</p>  <p>1 2 3</p> <p>Electrical symbol</p>  <p>② ○ ↔ ① ○ — [] —</p>	<p>Materials</p> <ul style="list-style-type: none"> - Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR <p>Technical data</p> <ul style="list-style-type: none"> - Max working pressure: 16 bar - Proof pressure: 24 bar - Burst pressure: 48 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529 <p>Electrical data</p> <ul style="list-style-type: none"> - Electrical connection: Stud #10-32 UNF - Resistive load: 0.2 A / 24 Vdc - Switching type: Normally open contacts (NC on request)
Settings	Ordering code							
2.5 bar $\pm 10\%$	DES 25 H A 80 P01							
4.0 bar $\pm 10\%$	DES 40 H A 80 P01							

DVS		Hydraulic symbol	Materials	
Visual Differential Indicator				
Settings	Ordering code	Technical data		
2.5 bar ±10%	DV S 25 H P01	- Body: Brass - Internal parts: Brass - Polyamide - Contacts: Silver - Seal: HNBR		
4.0 bar ±10%	DV S 40 H P01	- Reset: Automatic reset - Max working pressure: 16 bar - Proof pressure: 24 bar - Burst pressure: 48 bar - Working temperature: From -25 °C to +110 °C - Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943 - Degree protection: IP67 according to EN 60529		
				

Designation & Ordering code

DIFFERENTIAL INDICATORS																
Series						Configuration example 1: DE S 25 H A 10 P01										
DE Electrical differential indicator						Configuration example 2: DV S 40 H [] [] P01										
DV Visual differential indicator																
Type																
S Compact version																
Pressure setting																
25 2.5 bar																
40 4.0 bar																
Seals																
H HNBR																
Thermostat	DE	DV														
A Without	•															
Electrical connections	DE	DV														
10 Connection AMP Superseal series 1.5	•															
30 Connection Deutsch DT-04-2-P	•															
80 Connection Stud #10-32 UNF	•															
Execution																
P01 MP Filtri standard																
Pxx Customized																

Order number for spare parts



Item:	Q.ty: 1 pc. ②	Q.ty: 1 pc. ③ (3a ÷ 3d)	Q.ty: 1 pc. ④
Filter series	Filter element	Seal Kit code number NBR	Indicator connection plug NBR
LFEX 060-080	See order table	02050771	
LFEX 110-160		02050772	T3H



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