



Filtro MP  
Serie LFEX



 HYDRAULIC  
COMPONENTS  
& FLUID CONTAMINATION  
CONTROL



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.

LFEX series

with MY CLEAN 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 LFEX 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

# LFEX series

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



## INSTALLATION, SERVICE AND MAINTENANCE MANUAL AND SAFETY INSTRUCTIONS



Please scan or click the QR codes to get updated electronic version of the related document:



LFEX060



LFEX080



LFEX110



LFEX160

*For all the QR codes: Scan or click me!*

## Description

## Technical data

### 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

#### Filter housing materials

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

#### Pressure

- Test pressure: 2.4 MPa (24 bar)
- Min. Burst pressure: 4.8 MPa (48 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 1.6 MPa (16 bar)

#### Bypass valve

Opening pressure 0.35 MPa (3.5 bar) ±10%

#### Filter element features

Filter LFEX		Filter element FEX	
Δp Element type			
Element media	Construction	Δp Series	Δp
A - Microfiber	Standard	N	8 bar
M - Wire mesh	Standard	N	8 bar
P - Paper	Standard	N	8 bar
<i>Please see ordering code tables to check element Δp series availability based on filter features.</i>			
<b>Flow direction through the filter element:</b>			
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 [dm<sup>3</sup>]

Filter series	Weights [kg]	Volumes [dm <sup>3</sup> ]
<b>LFEX 060</b>	1.00	0.60
<b>LFEX 080</b>	1.15	0.80
<b>LFEX 110</b>	1.90	1.60
<b>LFEX 160</b>	2.10	2.00

Flow rates [l/min]

Filter element design - N Series										
Filter series	A03	A06	A10	A16	A25	M25	M60	M90	P10	P25
<b>LFEX 060</b>	49	51	75	77	80	104	105	107	74	95
<b>LFEX 080</b>	67	67	86	87	92	107	108	110	96	112

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

**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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

For different pressure drop or fluid viscosity we recommend to use our selection software available on [www.mpfiltri.com](http://www.mpfiltri.com).

Please, contact our Sales Department for further additional information.

### Hydraulic symbols

Filter series	Style S	Style B
<b>LFEX 060</b>	•	•
<b>LFEX 080</b>	•	•
<b>LFEX 110</b>	•	•
<b>LFEX 160</b>	•	•

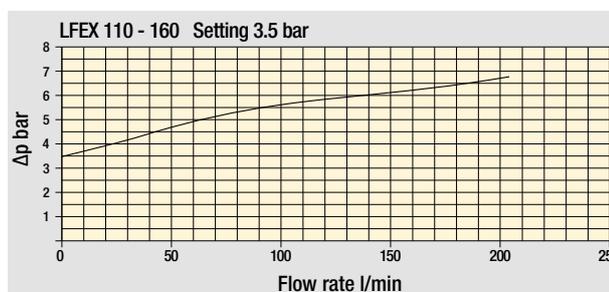
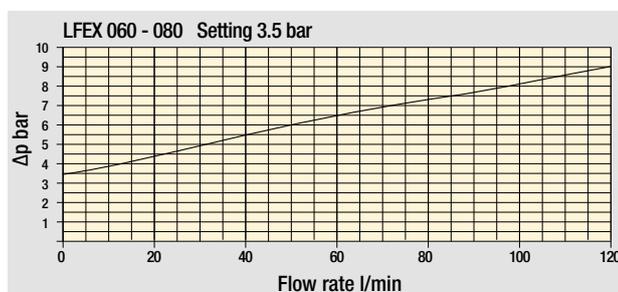
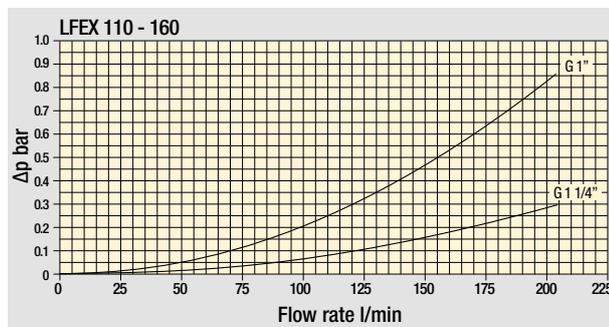
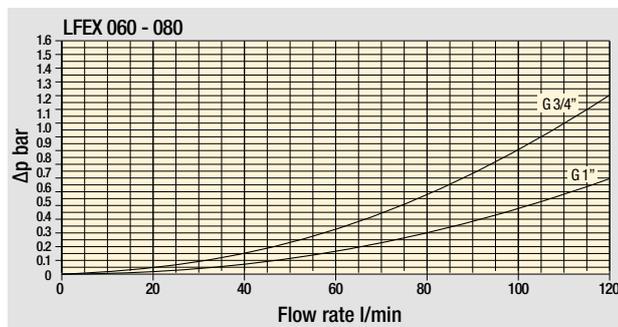
  

Style S

Style B

### Pressure drop

Filter housings  
 $\Delta p$  pressure drop



Bypass valve  
pressure drop

The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.

$\Delta p$  varies proportionally with density.

## Designation & Ordering code

### COMPLETE FILTER

Series and size Configuration example: **LFEX060** **B** **A** **A** **6** **A10** **N** **P01**

**LFEX060** | **LFEX080** Filter featuring **MYCLEAN** Filter Element

**Bypass valve**

**S** Without bypass

**B** With bypass 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**

<b>A03</b> Inorganic microfiber	3 µm	<b>M25</b> Wire mesh	25 µm
<b>A06</b> Inorganic microfiber	6 µm	<b>M60</b> Wire mesh	60 µm
<b>A10</b> Inorganic microfiber	10 µm	<b>M90</b> Wire mesh	90 µm
<b>A16</b> Inorganic microfiber	16 µm	<b>P10</b> Resin impregnated paper	10 µm
<b>A25</b> Inorganic microfiber	25 µm	<b>P25</b> 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** Filter Element with **MYCLEAN** feature

**Filtration rating**

<b>A03</b> Inorganic microfiber	3 µm	<b>M25</b> Wire mesh	25 µm
<b>A06</b> Inorganic microfiber	6 µm	<b>M60</b> Wire mesh	60 µm
<b>A10</b> Inorganic microfiber	10 µm	<b>M90</b> Wire mesh	90 µm
<b>A16</b> Inorganic microfiber	16 µm	<b>P10</b> Resin impregnated paper	10 µm
<b>A25</b> Inorganic microfiber	25 µm	<b>P25</b> Resin impregnated paper	25 µm

**WA025** Water absorber inorganic microfiber 25 µm

**Seals and treatments**

**A** NBR

**Element Δp**  
**N** 8 bar

**Execution**  
**P01** MP Filtri standard  
**Pxx** Customized

### CLOGGING INDICATORS

See page 720

- DES** Electrical differential pressure indicator
- DVS** Visual differential pressure indicator

### PLUGS

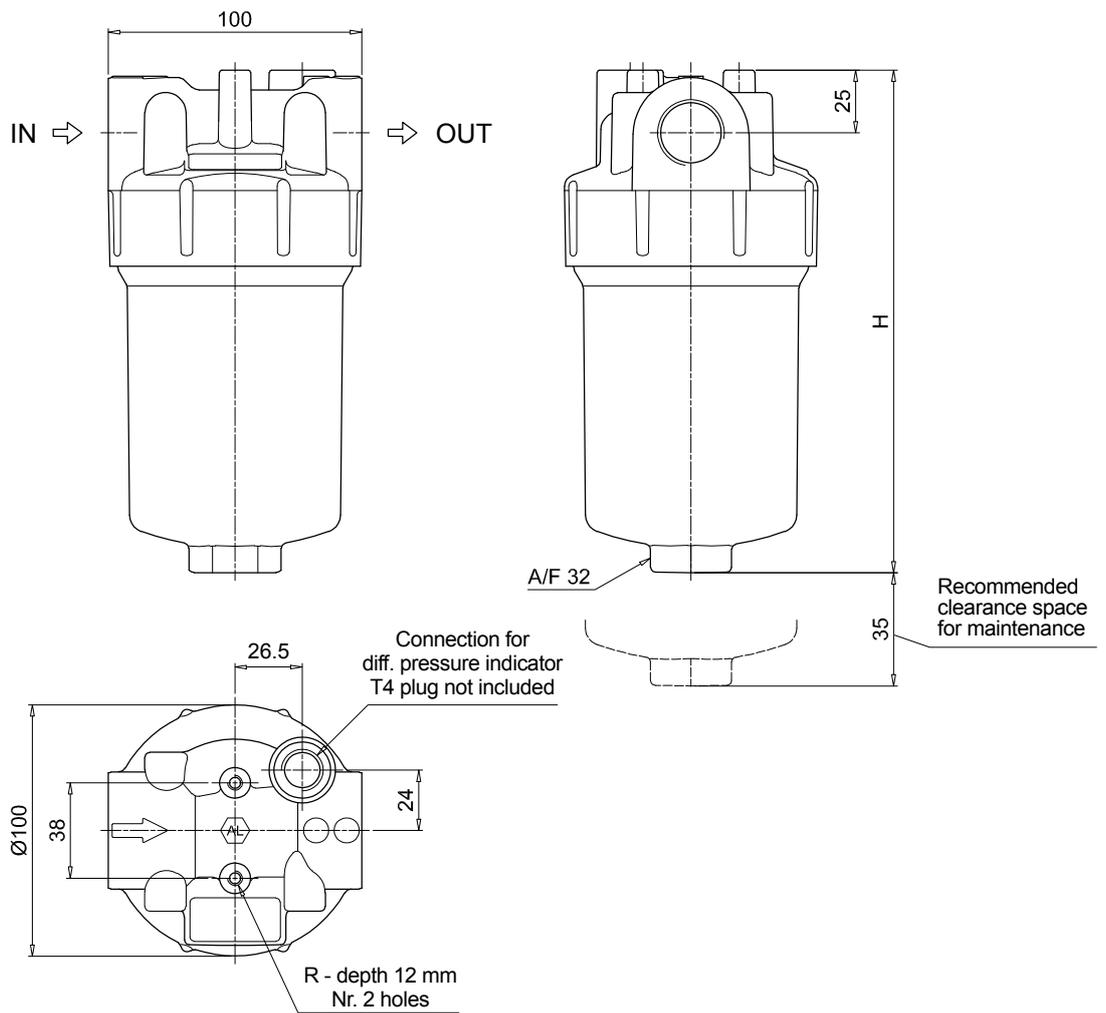
See page 741

- T4** Plug

Filter size	H [mm]
<b>060</b>	202
<b>080</b>	265

Connections	R
<b>A</b>	M6
<b>B</b>	M6
<b>C</b>	1/4" UNC
<b>D</b>	1/4" UNC
<b>E</b>	1/4" UNC
<b>F</b>	1/4" UNC



## Designation & Ordering code

### COMPLETE FILTER

Series and size Configuration example: **LFEX110** **B** **A** **A** **6** **A10** **N** **P01**

**LFEX110** | **LFEX160** Filter featuring **MYCLEAN** Filter Element

#### Bypass valve

- S** Without bypass
- B** With bypass 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

<b>A03</b> Inorganic microfiber	3 µm	<b>M25</b> Wire mesh	25 µm
<b>A06</b> Inorganic microfiber	6 µm	<b>M60</b> Wire mesh	60 µm
<b>A10</b> Inorganic microfiber	10 µm	<b>M90</b> Wire mesh	90 µm
<b>A16</b> Inorganic microfiber	16 µm	<b>P10</b> Resin impregnated paper	10 µm
<b>A25</b> Inorganic microfiber	25 µm	<b>P25</b> 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** Filter Element with **MYCLEAN** feature

#### Filtration rating

<b>A03</b> Inorganic microfiber	3 µm	<b>M25</b> Wire mesh	25 µm
<b>A06</b> Inorganic microfiber	6 µm	<b>M60</b> Wire mesh	60 µm
<b>A10</b> Inorganic microfiber	10 µm	<b>M90</b> Wire mesh	90 µm
<b>A16</b> Inorganic microfiber	16 µm	<b>P10</b> Resin impregnated paper	10 µm
<b>A25</b> Inorganic microfiber	25 µm	<b>P25</b> Resin impregnated paper	25 µm

**WA025** Water absorber inorganic microfiber 25 µm

#### Seals and treatments

- A** NBR

Element Δp  
**N** 8 bar

Execution  
**P01** MP Filtri standard  
**Pxx** Customized

### CLOGGING INDICATORS

See page 720

**DES** Electrical differential pressure indicator

**DVS** Visual differential pressure indicator

### PLUGS

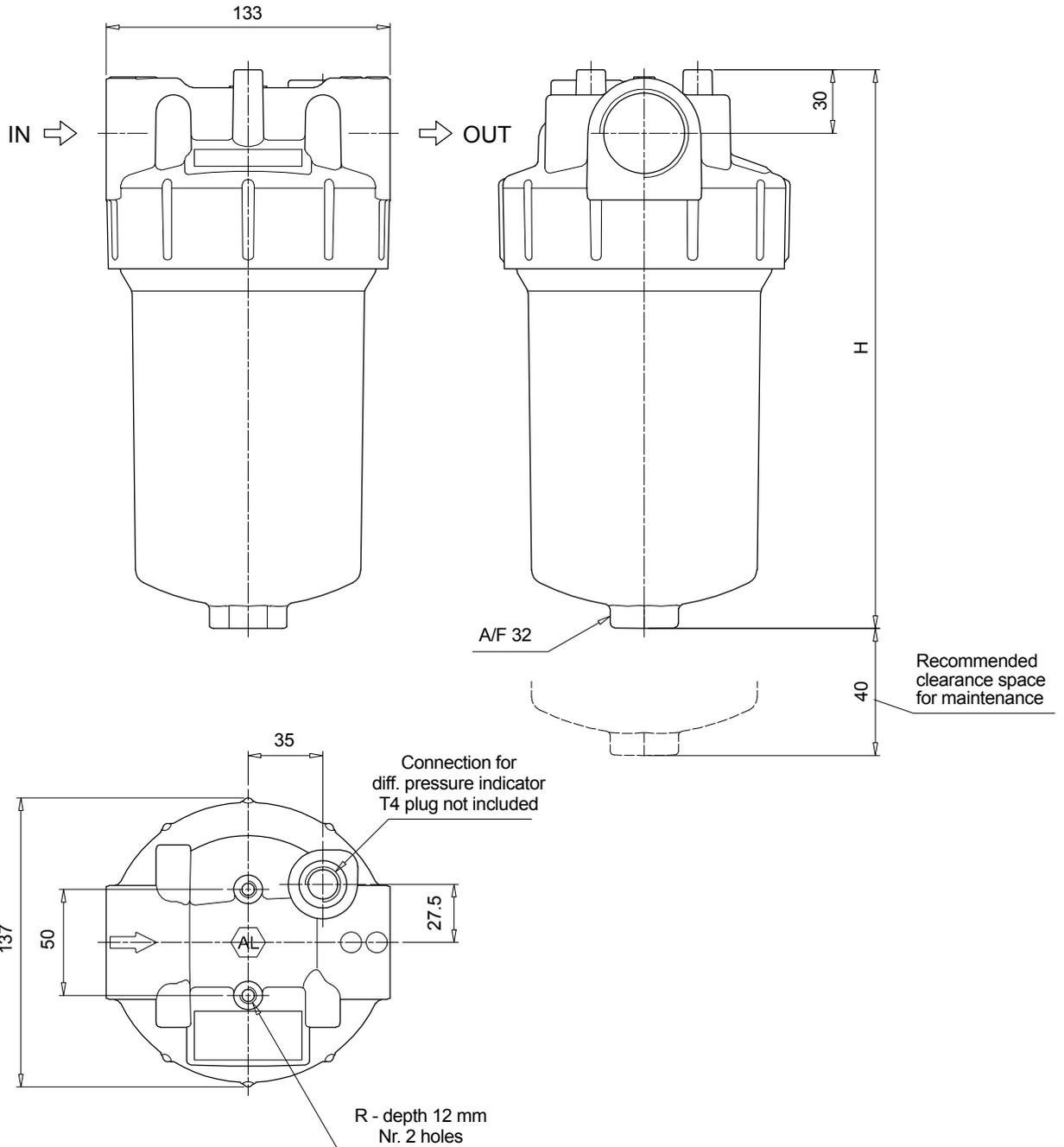
See page 741

**T4** Plug

Filter size	H [mm]
<b>110</b>	266
<b>160</b>	315

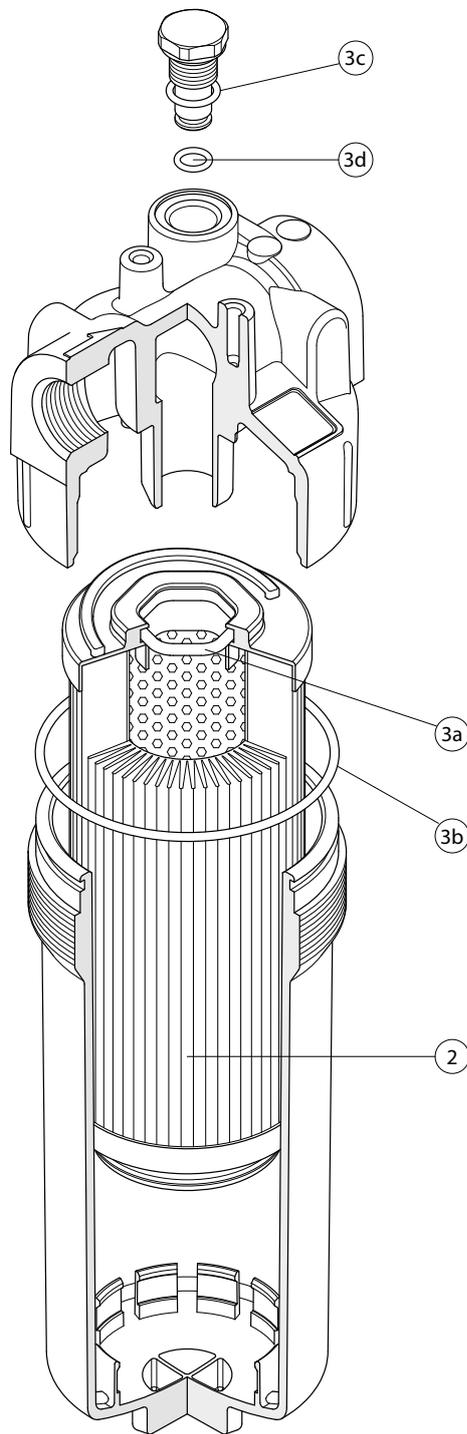
  

Connections	R
<b>A</b>	M8
<b>B</b>	M8
<b>C</b>	5/16" UNC
<b>D</b>	5/16" UNC
<b>E</b>	5/16" UNC
<b>F</b>	5/16" UNC



# LFEX SPARE PARTS

Order number for spare parts



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.
	<b>2</b>	<b>3</b> (3a ÷ 3d)	<b>4</b>
Filter series	Filter element	Seal Kit code number NBR	Indicator connection plug NBR
<b>LFEX 060-080</b>	See order table	02050771	T4A
<b>LFEX 110-160</b>		02050772	

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