



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	Length	Weights [kg]		Volumes [dm ³]	
		1	2	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

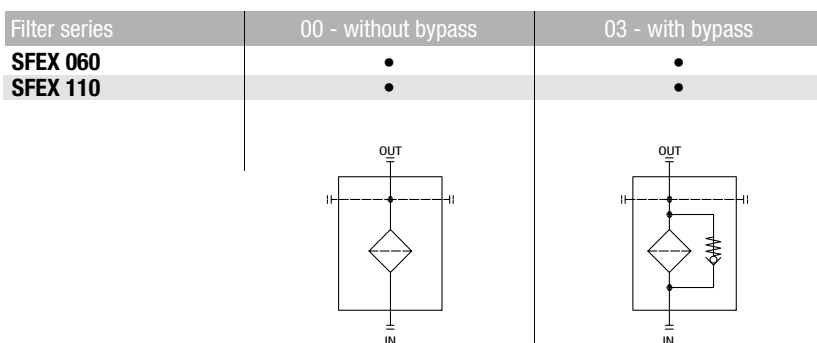
Maximum flow rate for a complete suction filter with a pressure drop $\Delta p = 0.08$ bar.

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

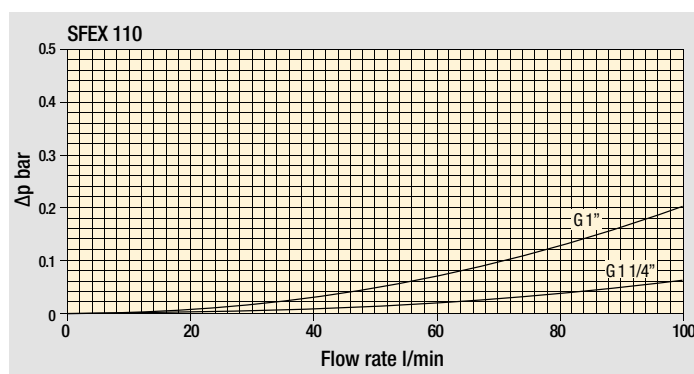
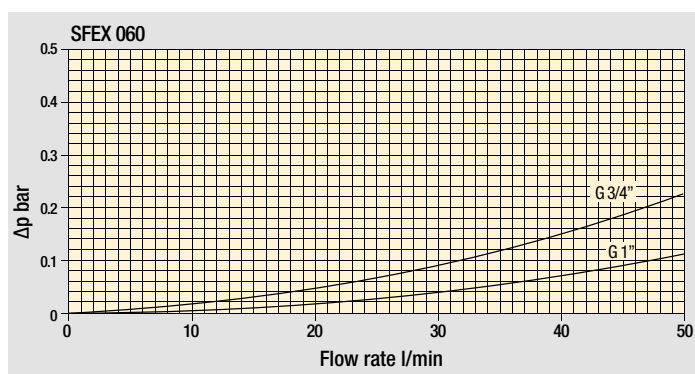
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

Please, contact our Sales Department for further additional information.

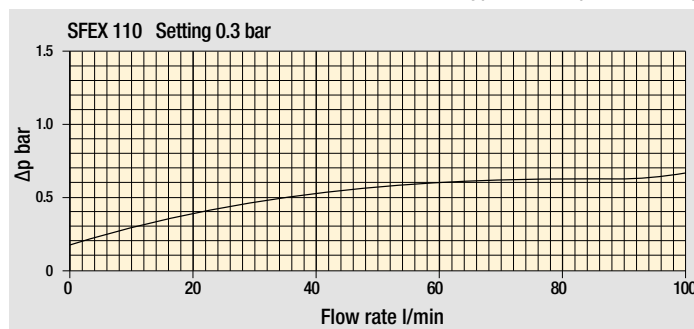
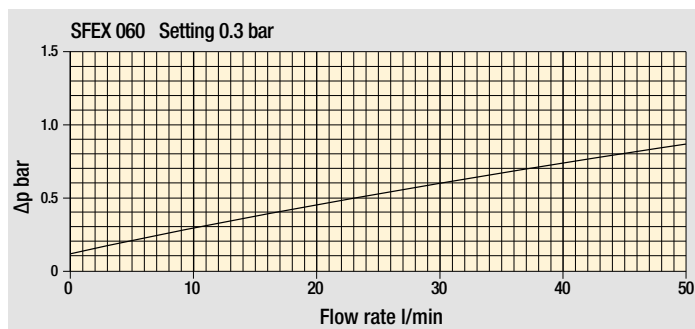
Hydraulic symbols



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 ΔP : 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 715

VEB Electrical vacuum indicator

VVB Axial pressure gauge

VLB Electrical / visual vacuum indicator

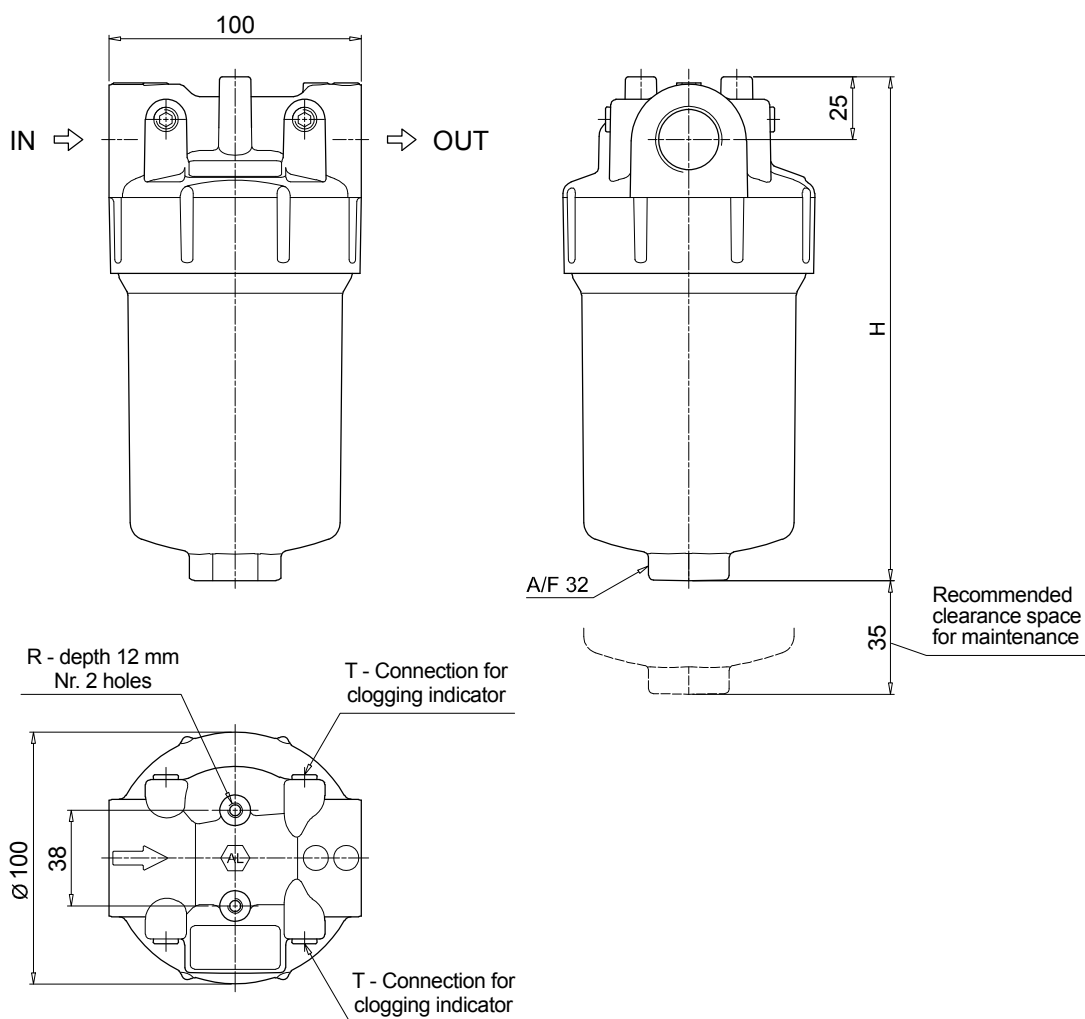
VVS Radial pressure gauge

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

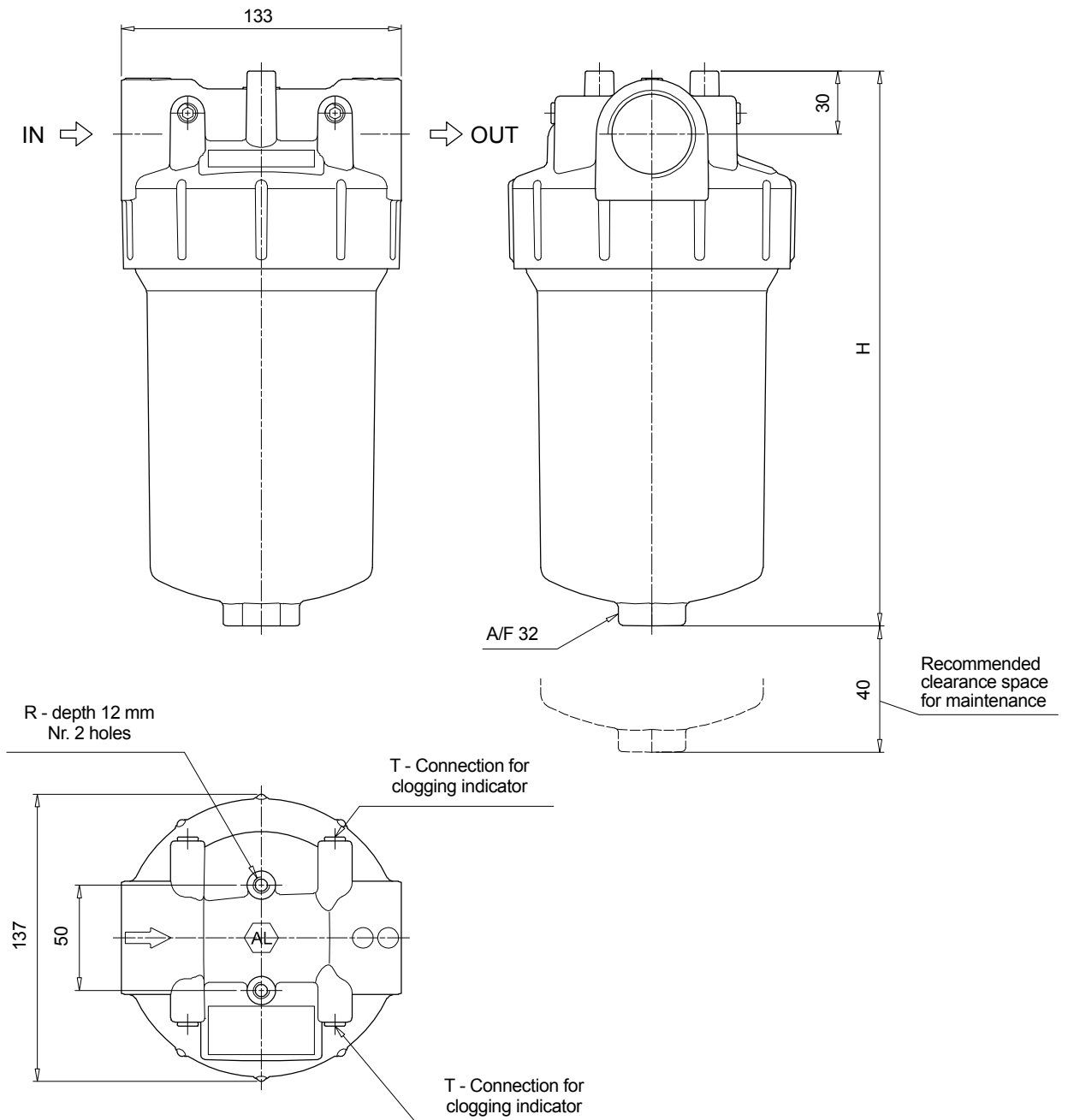
Filter length	H [mm]	
10	202	
20	265	

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



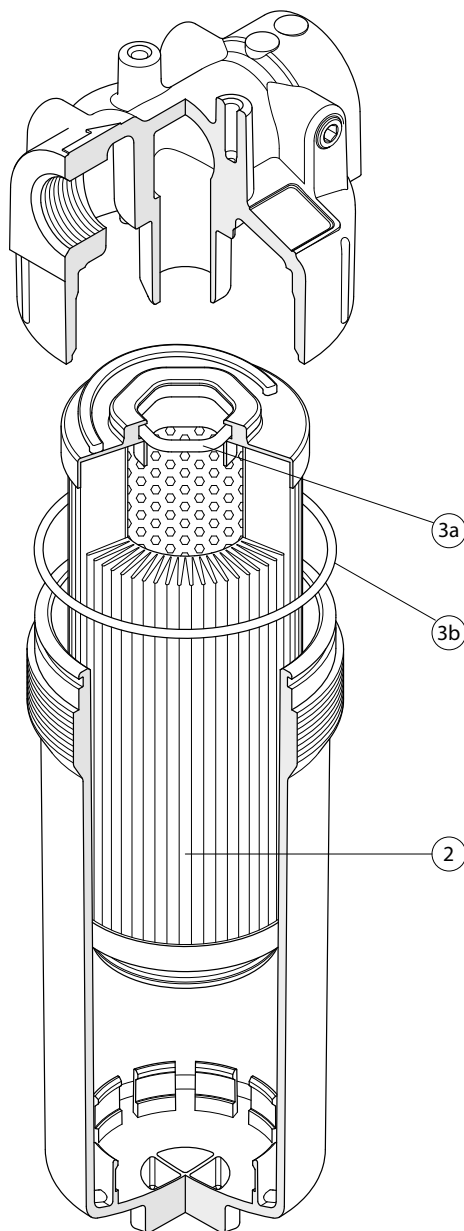
Filter length	H [mm]
10	266
20	315

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

Suitable indicator types

V ACUUM INDICATORS

Vacuum indicators are used on the Suction line to check the efficiency of the filter element.

They measure the pressure downstream of the filter element.

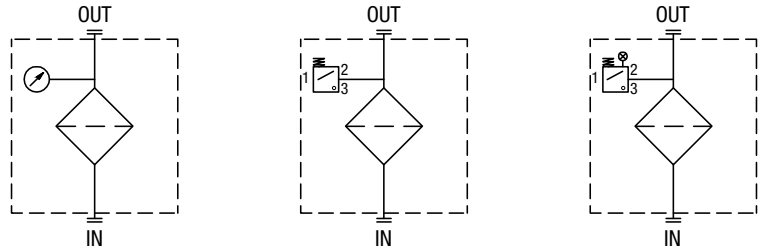
Standard items are produced with R 1/4" EN 10226 connection.

Available products with R 1/8" EN 10226 to be fitted on MPS series.

Vacuum indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "V".

Example:

V VVB20P01



B BAROMETRIC (PRESSURE) INDICATORS

Pressure indicators are used on the Return line to check the efficiency of the filter element.

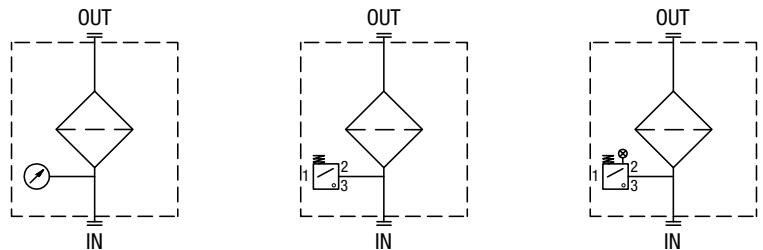
They measure the pressure upstream of the filter element.

Standard items are produced with R 1/8" EN 10226 connection.

Barometric (pressure) indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "B".

Example:

B BVA14P01



D DIFFERENTIAL PRESSURE INDICATORS

Differential pressure indicators are used on the Pressure line to check the efficiency of the filter element.

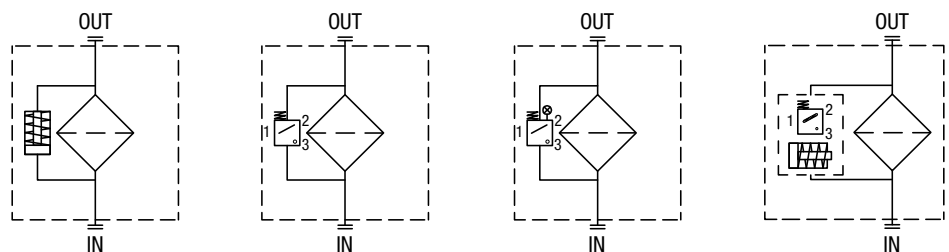
They measure the pressure upstream and downstream of the filter element (differential pressure).

Standard items are produced with special connection G 1/2" size.

Also available in Stainless Steel models. Differential pressure indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "D".

Example:

D DVA20xP01



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	SF2	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	•	-	-	-	-