Return filters

RFEX series

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

RFEX GENERAL INFORMATION

Description

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 can be mounted in line or directly fixed to the tank cover 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

Technical data

Filter housing materials
- Head: Aluminium
- Bypass valve: Nylon - Steel
- Bowl: Nylon

Bypass valve
Opening pressure 175 kPa (1.75 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

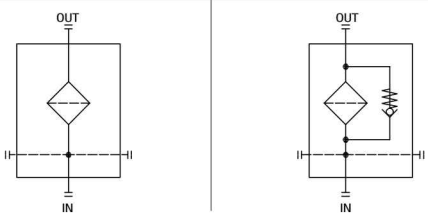
Note
RFEX filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]	Volumes [dm³]
RFEX 060	0.50	0.60
RFEX 080	0.95	0.80
RFEX 110	1.20	1.60
RFEX 160	1.70	2.00

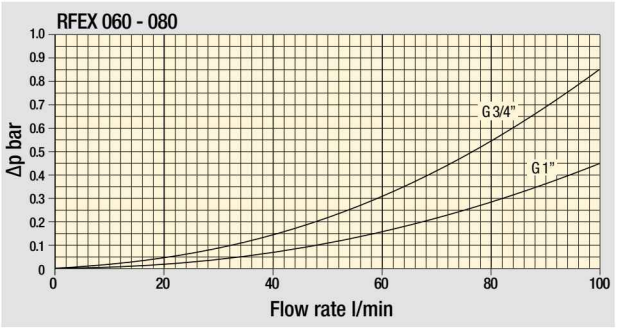
Hydraulic symbols

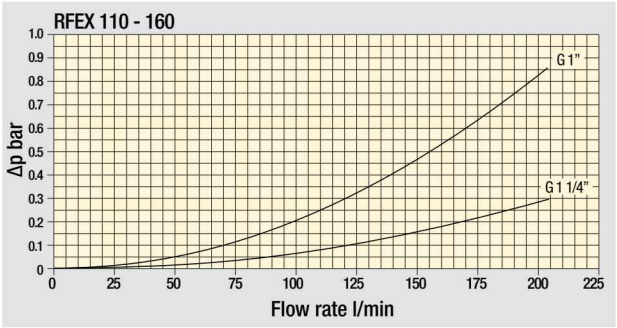
Filter series	Style S	Style B
RFEX 060	•	•
RFEX 080	•	•
RFEX 110	•	•
RFEX 160	•	•



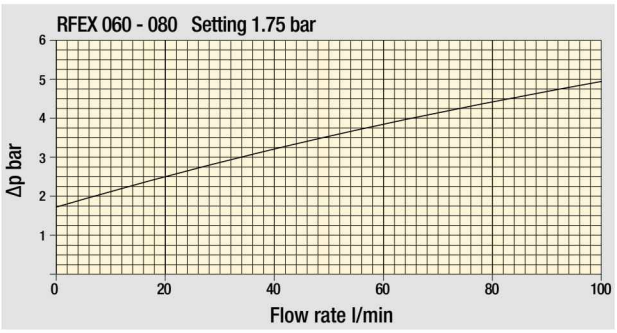
Pressure drop

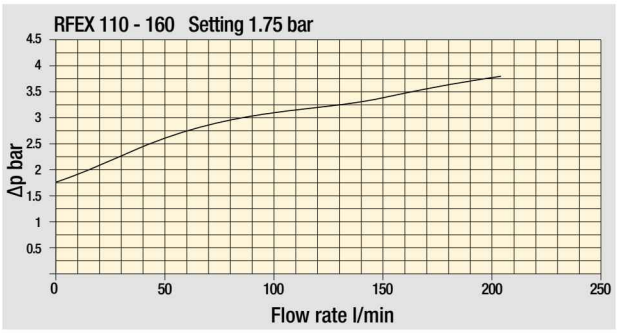
Filter housings
Δp pressure drop





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.

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 Δp = 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.mpfiltri.com.
Please, contact our Sales Department for further additional information.

Designation & Ordering code

COMPLETE FILTER

Configuration example : RFEX060 | B | A | A | 6 | A10 | N | P01

Series and size
- **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 (filter media)

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
- **N** 8 bar

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

FILTER ELEMENT

Configuration example: FEX060 | A10 | A | N | P01

Element series and size
- **FEX060**
- **FEX080**

Filtration rating (filter media)

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			

Seals and treatments
- **A** NBR

Element Δp
- **N** 8 bar

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

ACCESSORIES

Clogging indicators

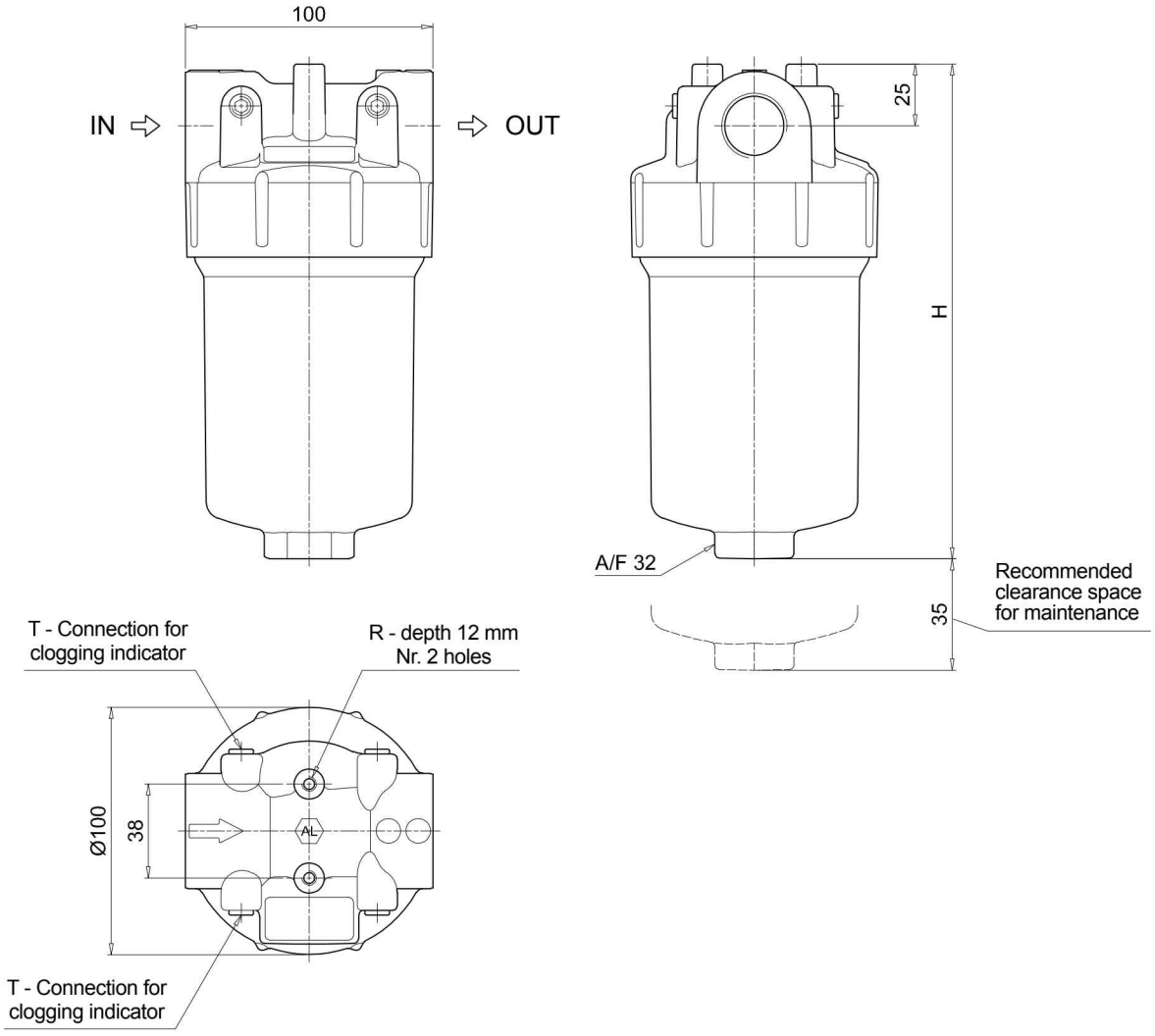
		page
BEA	Electrical pressure indicator	24
BEM	Electrical pressure indicator	24
BLA	Electrical / visual pressure indicator	24-25

		page
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

Dimensions

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



Designation & Ordering code

COMPLETE FILTER

Configuration example : RFEX110 | B | A | A | 6 | A10 | N | P01

Series and size
- **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 (filter media)

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
- **N** 8 bar

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

FILTER ELEMENT

Configuration example: FEX110 | A10 | A | N | P01

Element series and size
- **FEX110**
- **FEX160**

Filtration rating (filter media)

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			

Seals and treatments
- **A** NBR

Element Δp
- **N** 8 bar

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

ACCESSORIES

Clogging indicators

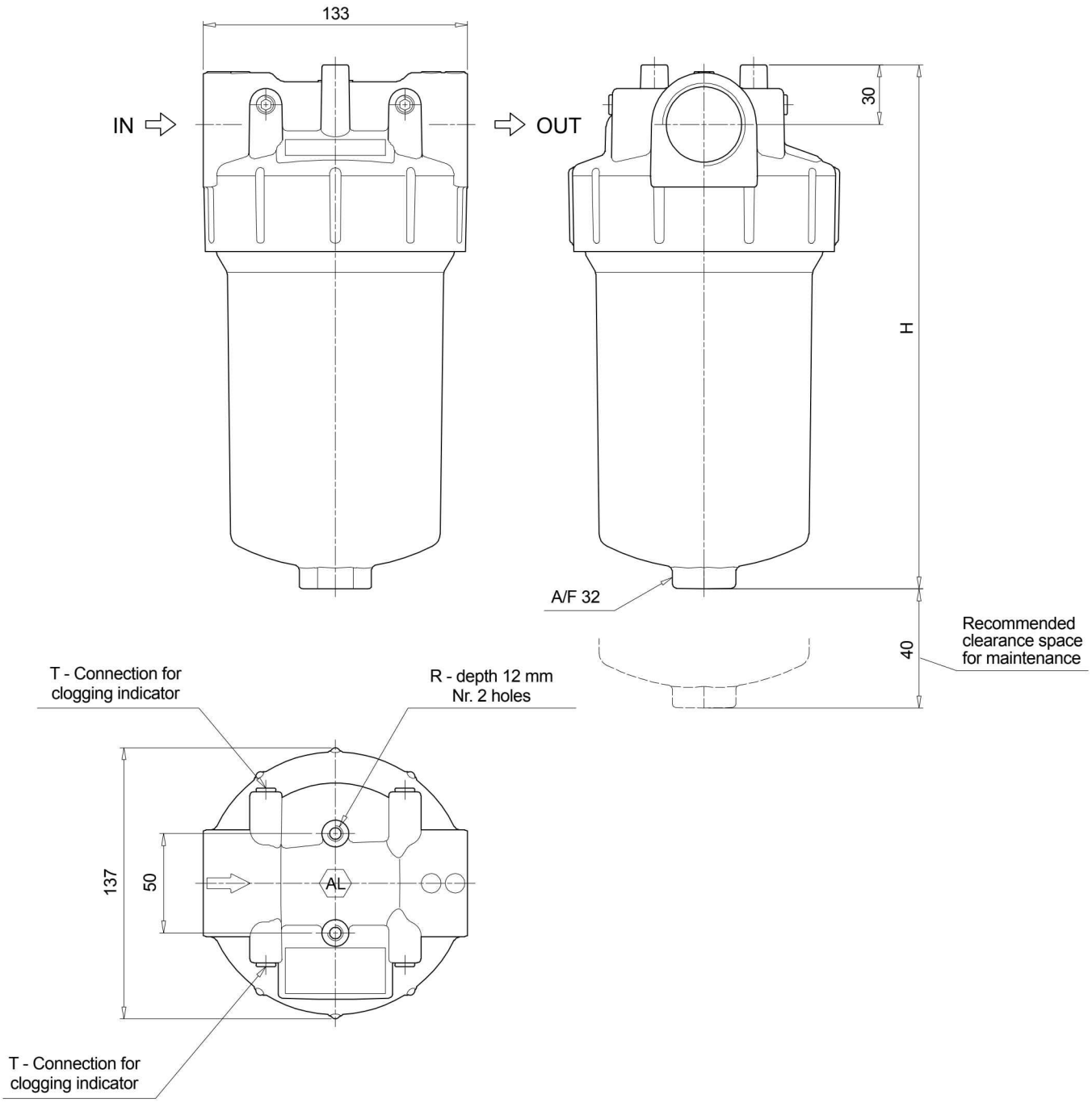
		page
BEA	Electrical pressure indicator	24
BEM	Electrical pressure indicator	24
BLA	Electrical / visual pressure indicator	24-25

		page
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

Dimensions

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

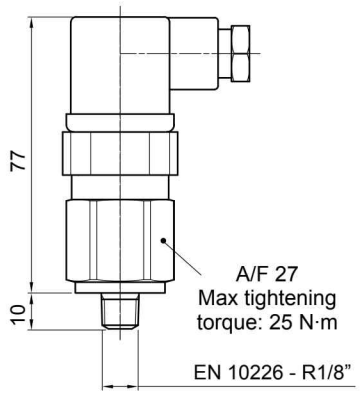


Dimensions

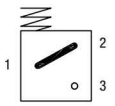
BEA*50

Electrical Pressure Indicator

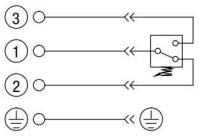
Settings	Ordering code
1.5 bar ±10%	BE A 15 H A 50 P01
2.0 bar ±10%	BE A 20 H A 50 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR

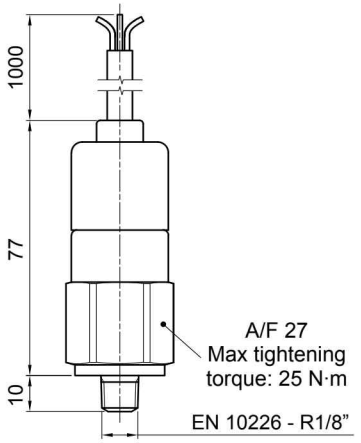
Technical data
- Max working pressure: 40 bar
- Proof pressure: 60 bar
- Working temperature: From -25 °C to +80 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP65 according to EN 60529

Electrical data
- Electrical connection: EN 175301-803
- Resistive load: 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

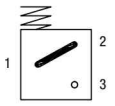
BEM*41

Electrical Pressure Indicator

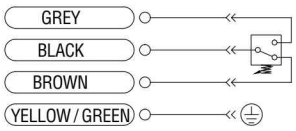
Settings	Ordering code
1.5 bar ±10%	BE M 15 H A 41 P01
2.0 bar ±10%	BE M 20 H A 41 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black Nylon
- Contacts: Silver
- Seal: HNBR

Technical data
- 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

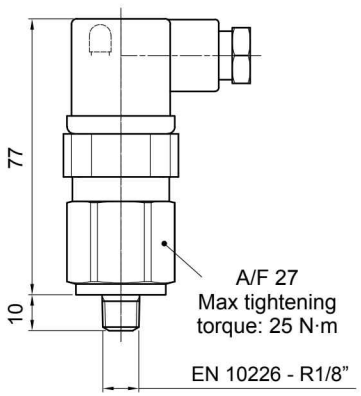
Electrical data
- Electrical connection: Four-core cable
- Resistive load: 5 A / 14 Vdc; 4 A / 30 Vdc; 5 A / 125 Vac; 4 A / 250 Vac
- CE certification

On request this indicator can be provided with main connectors in use for wirings.

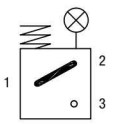
BL*51 - BL*52 - BL*53

Electrical/Visual Pressure Indicator

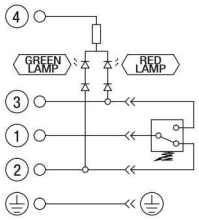
Settings	Ordering code
1.5 bar ±10%	BL A 15 H A xx P01
2.0 bar ±10%	BL A 20 H A xx P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Transparent Nylon
- Contacts: Silver
- Seal: HNBR

Technical data
- 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

Electrical data
- Electrical connection: EN 175301-803

Type	BL51	BL52	BL53
Lamps	24 Vdc	110 Vdc	230 Vac
Resistive load:	1 A / 24 Vdc	1 A / 110 Vdc	1 A / 230 Vac