

## Low Pressure *iprotect*<sup>®</sup> Series

In-Tank and Tank Top Return Line Hydraulic Oil Filters

Max. 1700 l/min - 10 bar



# Low Pressure iprotect® Series

In-Tank and Tank Top Return Line Hydraulic Oil Filters.



GLF 2 with indicator and Air Breather

## Value proposition

### Design:

- Change of the element is easier through clever filter design.
- OEM Key Option.

### Technical:

- In-to-out filtration.
- Extended by-pass range (1.7 and 3.5bar).
- 5<sup>th</sup> generation Quantumfibre™ filter media provides 10% increase of the dirt holding capacity.
- Magnetic pre-filtration.

### User:

- Optimized product design architecture for performance and cost reduction.
- Patented element to protect aftermarket.
- Reduction of old filter series, easier to find the right product for the application.

### Designed with the iprotect® patented filtration technology.

The Parker low pressure tank top and in-tank return line hydraulic oil filters are designed for high flow and long life between element change-outs. Maximum allowable flow 1700 l/min (374 GPM). Maximum allowable operating pressure 10 bar (150 psi) static. High efficiency Quantumfibre™ glass media increases particle capture and dirt holding capacity.

The GLF and GLI deliver efficient contamination control for hydraulic circuits required to operate in highly demanding environments. The filter is suited for all low pressure applications including heavy equipment and machinery used in mining, construction, marine, forestry, material handling and agricultural operations.

The iprotect® Serie features an innovative design that provides maximum filtration capacity and extended element life, while maintaining low pressure drop, even in cold start conditions. Optional magnetic pre-filtration is available for added protection in environments where ferrous contaminants are present while the bypass is opened. Magnetic pre-filtration also extends life by preventing ferrous materials from settling on the filter media.

The In-tank and Tanktop Return Line Filter's unique inside-to-outside flow path minimizes contaminant exposure to the reservoir during element change-out. Other notable features include pressure gauge and switch ports for visual or electrical switch monitoring, which makes it easy for operators to determine when the element needs to be serviced. Additionally, the filter features a versatile two-port design for enhanced installation flexibility.

# Low Pressure iprotect® Series

In-Tank and Tank Top Return Line Hydraulic Oil Filters.

## Typical Applications

- Excavators
- Harvesters
- Forwarders
- Waste balers
- Reach stackers
- Wheeled loaders
- Hydraulic presses
- Drilling equipment
- Waste management
- Hydraulic power units
- Deck and mobile cranes
- Dump and fork lift trucks
- Municipal service equipment



Magnetic pre-filtration and in-to-out filtration

## Technical Specifications

### Assembly:

Tanktop or in-tank mounted.

### Operating pressure:

Max. up to 10 bar (150 psi) static.

### Flow rate:

Up to 1700 l/min (374 GPM).

### Connections:

Threaded BSP and flanged SAE single/dual ports.

### Filter housing:

Aluminium head.

Aluminium / reinforced polyamide cover.

### Seal material:

Nitrile (or Fluoroelastomer on request).

(suitable for use with mineral and vegetable oils, and some synthetic oils)

### Operating temperature range:

-40 to 110°C Nitrile

-20 to +120°C Fluoroelastomer

### Bypass setting

Opening pressure 1.7 (or 3.5 bar).

### Filter element:

Degree of filtration determined by multipass test according to (ISO 16889).

### Flow fatigue characteristics:

Filter media is supported so that the optimum fatigue life is achieved. (ISO 3724).

### Element burst rating:

10 bar (ISO 2941).

### Element configuration:

5<sup>th</sup> generation Quantumfibre™ filter media.

Metal support core.

Reinforced polyamide end caps.

Reinforced polyamide bypass cartridge (size 1-4).

### Pressure indicator:

Please order separately (see ordering information).

Visual pressure gauge with setting 1.2 (or 2.5 bar).

Electrical pressure switches with setting 1.2 (or 2.5 bar).

### Options:

Funnel for control of the oil flow.

Magnet column for ferrous particle prefiltration.

### Other options available on request:

Filling Port in cover GLF 3, 4 and 5.

Air breather GLF 1 & 2.

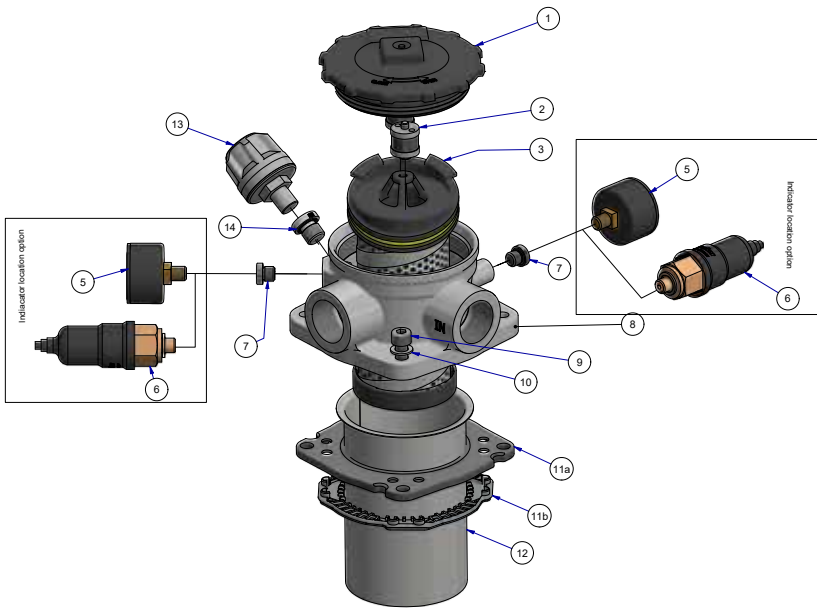
(Order separately, see ordering information)

Customer branded element.

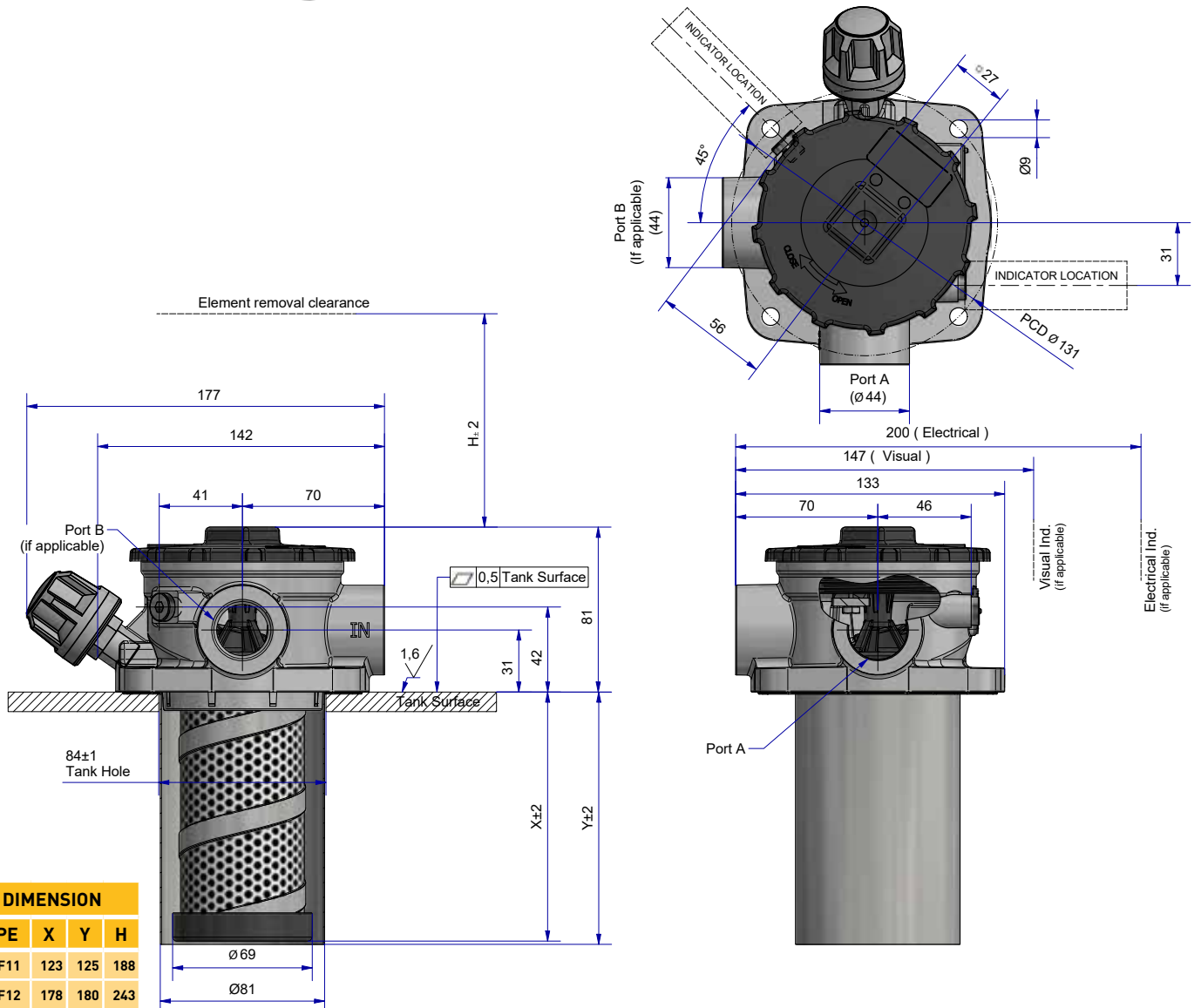
# Low Pressure iprotect® Series

GLF - Tanktop Return Line Hydraulic Oil Filter

## GLF - Size 1 Technical information



PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	COVER
2	1	MAGNET COLUMN (Optional)
3	1	ELEMENT
4	1	O-RING
5	1	PRESSURE GAUGE (Optional)
6	1	PRESSURE SWITCH (Optional)
7	2	COLLARPLUG G1/8 INCL SEAL (Standard)
8	1	FILTER HEAD
9	4	HEX SOCKET M8 (Not supplied)
10	4	WASHER M8 (Not supplied)
11a	1	GASKET
11b	1	SEAL SUPPORT RING
12	1	FUNNEL (Optional)
13	1	AIR BREATHER (Optional)
14	1	PLUG G1/4 INCL SEAL (Standard)



DIMENSION			
TYPE	X	Y	H
GLF11	123	125	188
GLF12	178	180	243

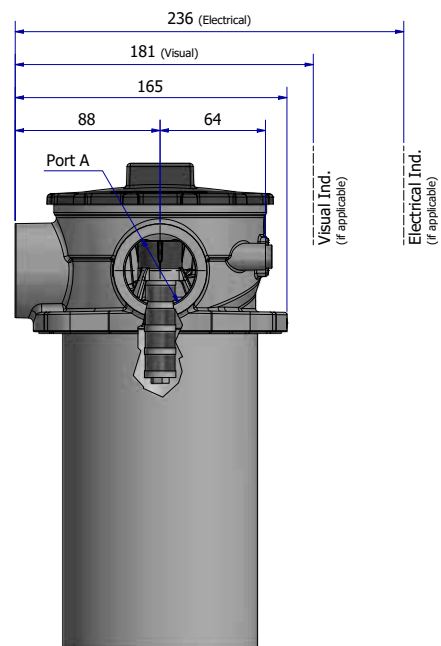
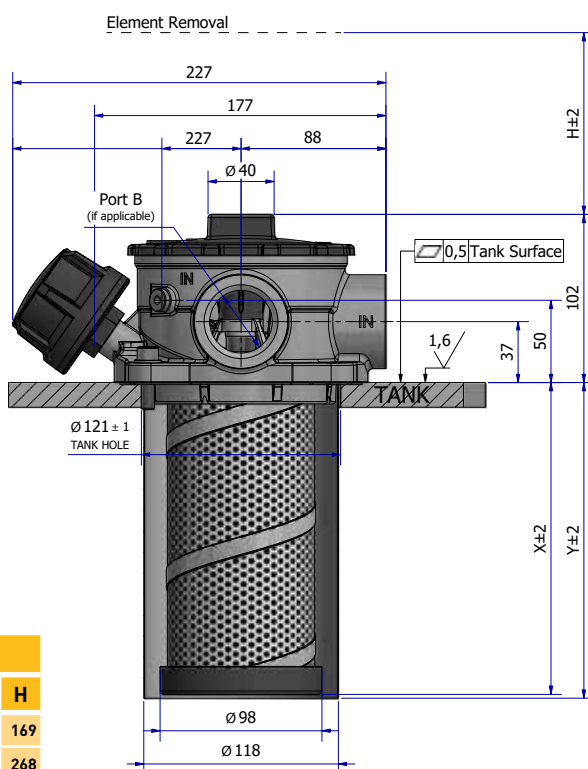
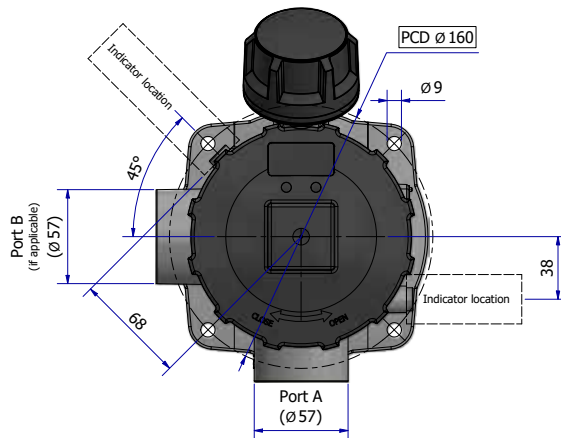
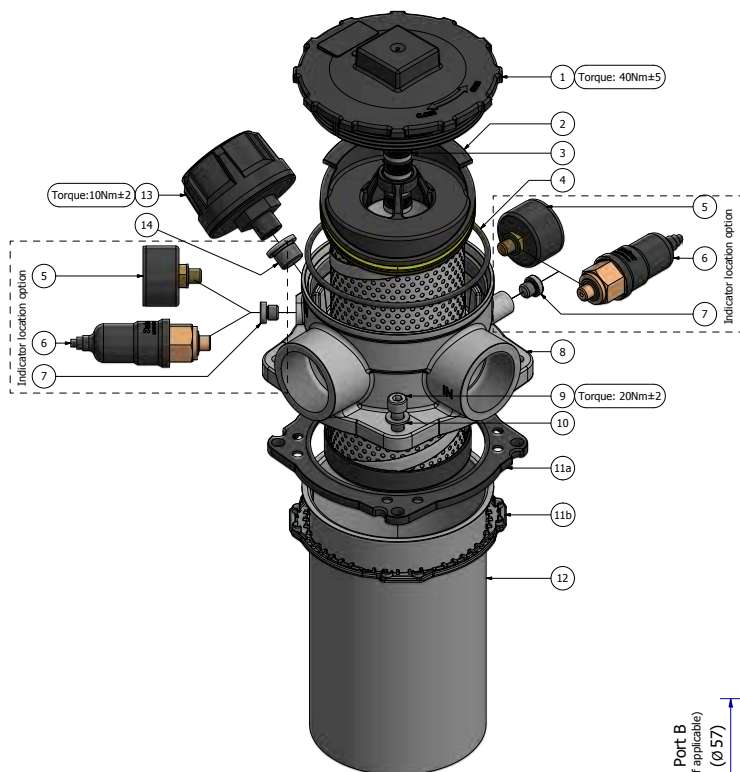


# Low Pressure iprotect® Series

## GLF - Tanktop Return Line Hydraulic Oil Filter

### GLF - Size 2 Technical information

PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	COVER
2	1	ELEMENT
3	1	MAGNET COLUMN (Optional)
4	1	O-RING
5	1	PRESSURE GAUGE (Optional)
6	1	PRESSURE SWITCH (Optional)
7	2	COLLARPLUG G1/8 INCL SEAL (Standard)
8	1	FILTER HEAD
9	4	HEX SOCKET M8 (Not supplied)
10	4	WASHER M8 (Not supplied)
11a	1	GASKET
11b	1	SEAL SUPPORT RING
12	1	FUNNEL
13	1	AIR BREATHER (Optional)
14	1	PLUG G3/8 INCL SEAL (Standard)



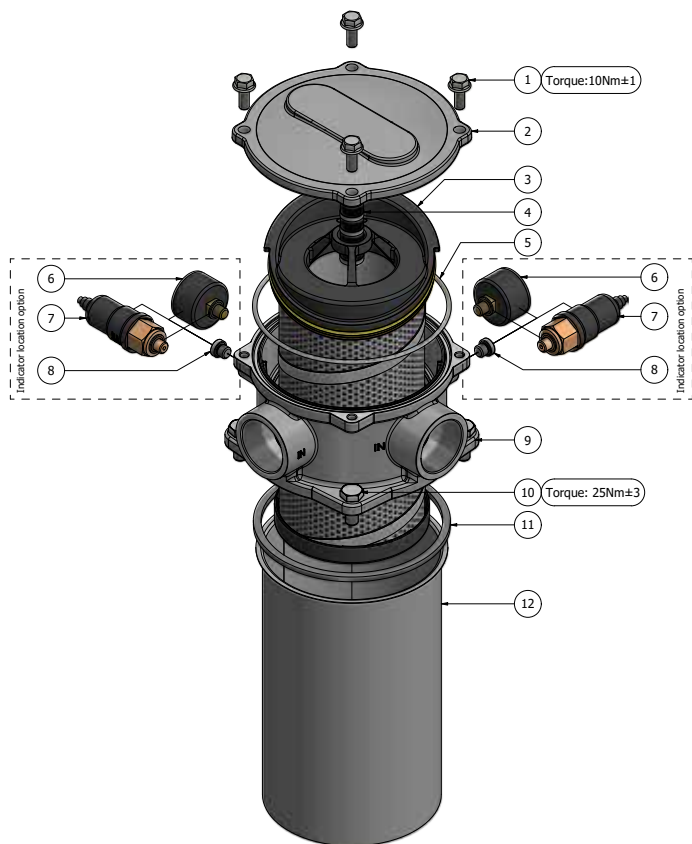
#### DIMENSION

TYPE	X	Y	H
GLF21	189	192	169
GLF22	288	291	268

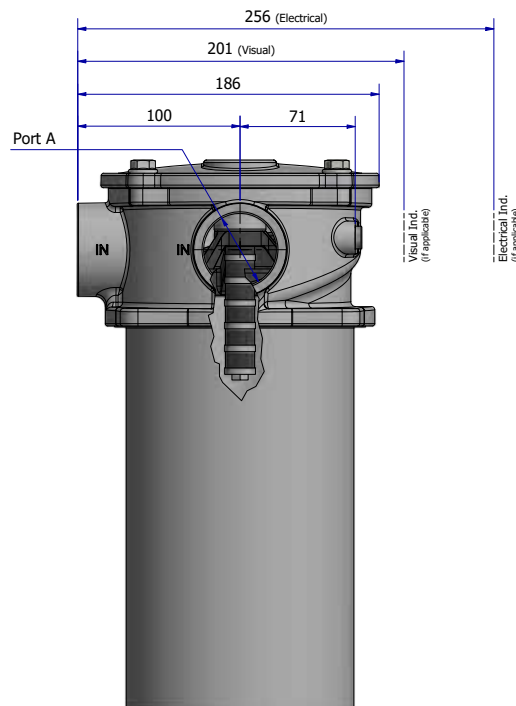
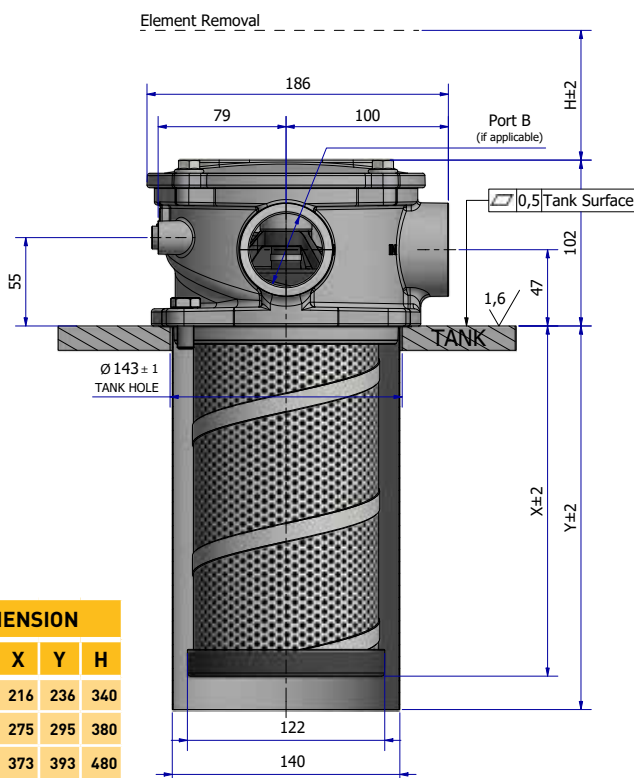
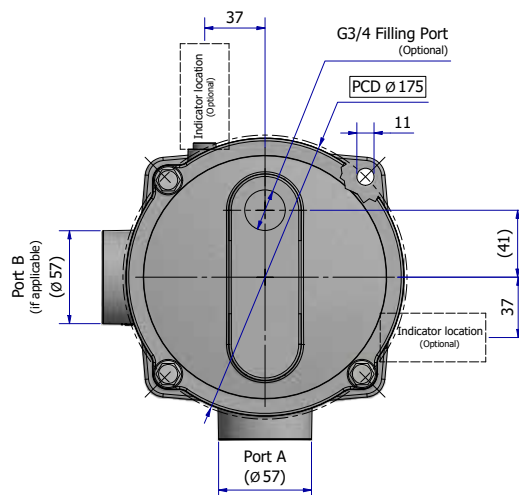
# Low Pressure iprotect® Series

GLF - Tanktop Return Line Hydraulic Oil Filter

## GLF - Size 3 Technical information



PARTS LIST		
ITEM	QTY	DESCRIPTION
1	4	BOLT HEX M8x20 ST8.8 Z FLANGED DIN6921
2	1	COVER
3	1	ELEMENT
4	1	MAGNET COLUMN (Optional)
5	1	O-RING
6	1	PRESSURE GAUGE (Optional)
7	1	PRESSURE SWITCH (Optional)
8	2	COLLARPLUG G1/8 INCL SEAL (Standard)
9	1	FILTER HEAD
10	4	BOLT M10 (Not supplied)
11	1	GASKET
12	1	FUNNEL



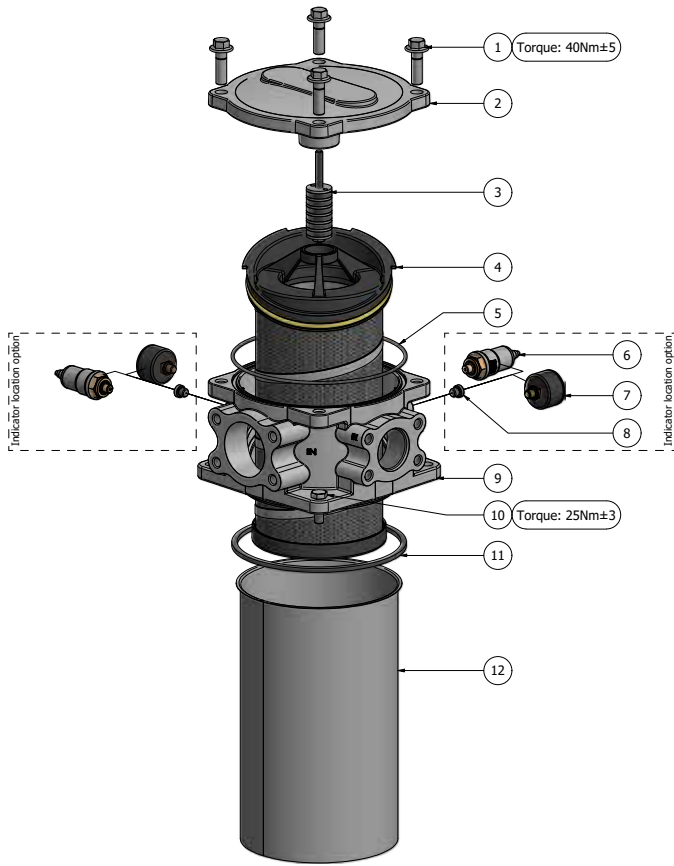
DIMENSION			
TYPE	X	Y	H
GLF31	216	236	340
GLF32	275	295	380
GLF33	373	393	480



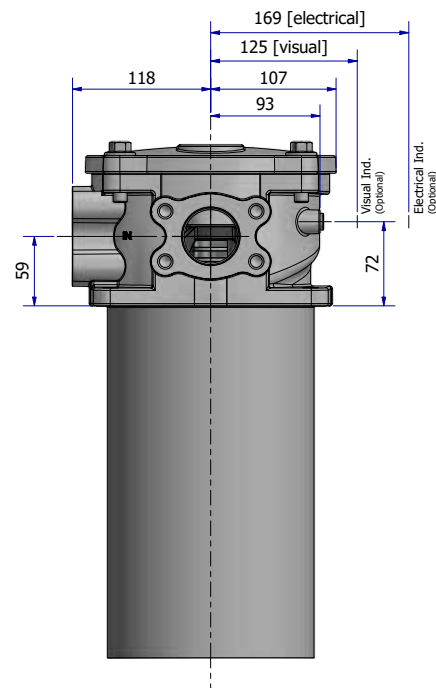
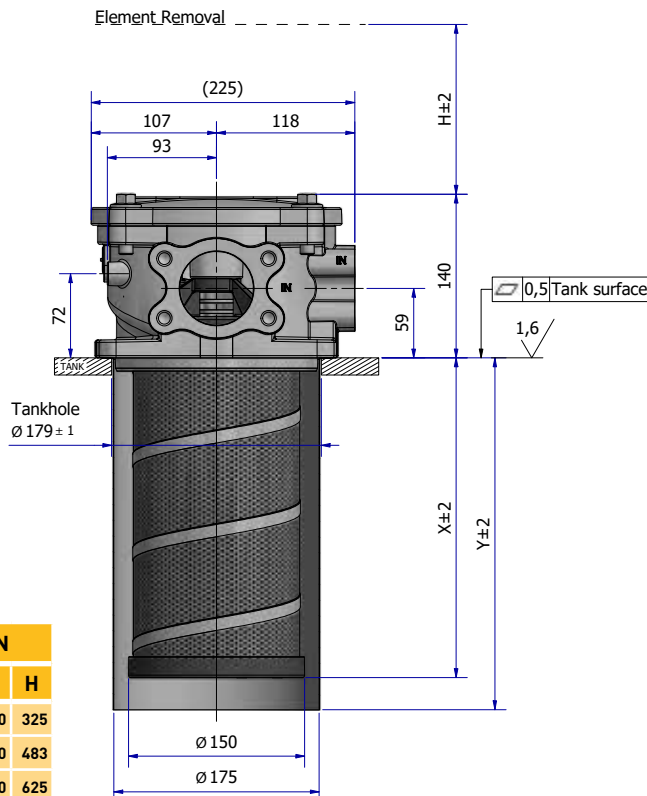
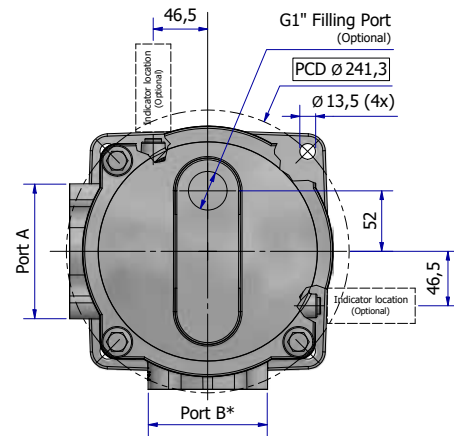
# Low Pressure iprotect® Series

GLF - Tanktop Return Line Hydraulic Oil Filter

## GLF - Size 4 Technical information



PARTS LIST		
ITEM	QTY	DESCRIPTION
1	4	BOLT HEX M12x40 ST8.8 Z FLANGED DIN6921
2	1	COVER
3	1	MAGNET COLUMN (Optional)
4	1	ELEMENT
5	1	O-RING
6	1	PRESSURE GAUGE (Optional)
7	1	PRESSURE SWITCH (Optional)
8	2	COLLARPLUG G1/8 INCL SEAL (Standard)
9	1	FILTER HEAD
10	4	BOLT M12 (Not supplied)
11	1	GASKET
12	1	FUNNEL (Optional)

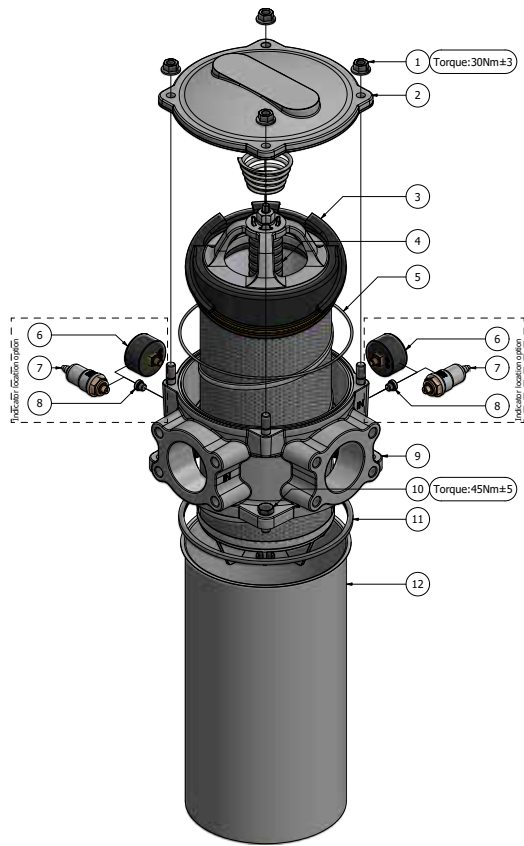


DIMENSION			
TYPE	X	Y	H
GLF41	273	300	325
GLF42	431	460	483
GLF43	571	600	625

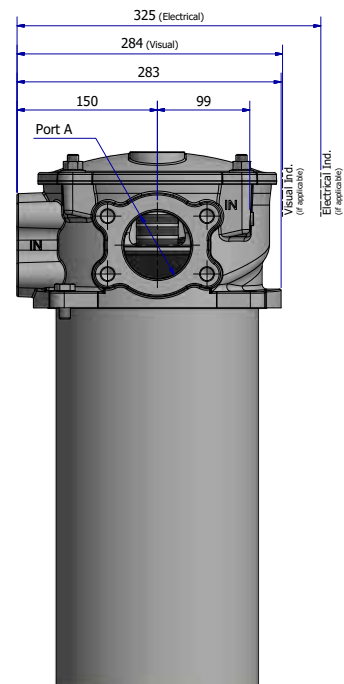
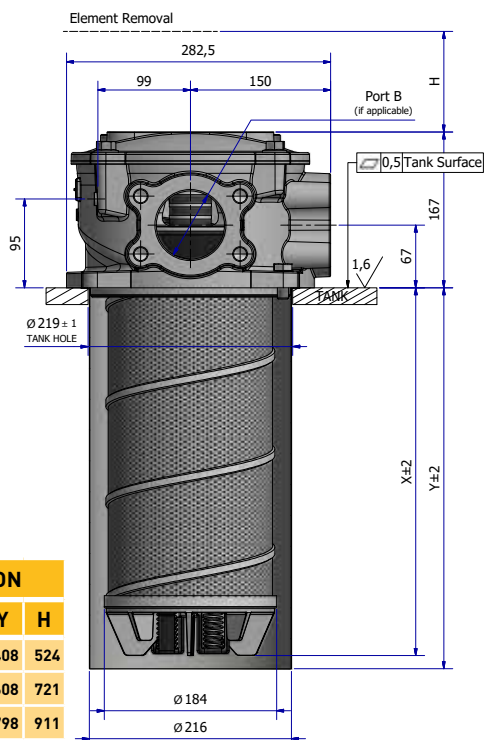
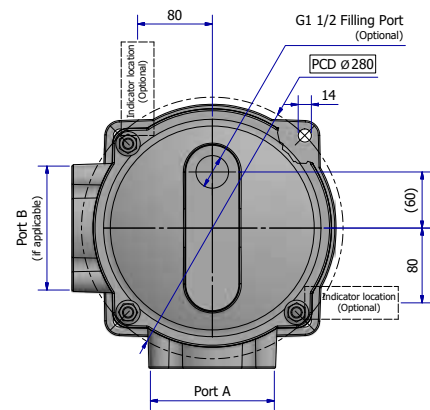
# Low Pressure iprotect® Series

GLF - Tanktop Return Line Hydraulic Oil Filter

## GLF - Size 5 Technical information



PARTS LIST		
ITEM	QTY	DESCRIPTION
1	4	FLANGED NUT CL.8 M12 Z FLANGED DIN6923
2	1	COVER
3	1	MAGNET COLUMN (Optional)
4	1	ELEMENT
5	1	O-RING
6	1	PRESSURE GAUGE (Optional)
7	1	PRESSURE SWITCH (Optional)
8	2	COLLARPLUG G1/8 INCL SEAL (Standard)
9	1	FILTER HEAD
10	4	BOLT M12 (Not supplied)
11	1	GASKET
12	1	FUNNEL (Optional)



DIMENSION			
TYPE	X	Y	H
GLF51	394	408	524
GLF52	591	608	721
GLF53	781	798	911

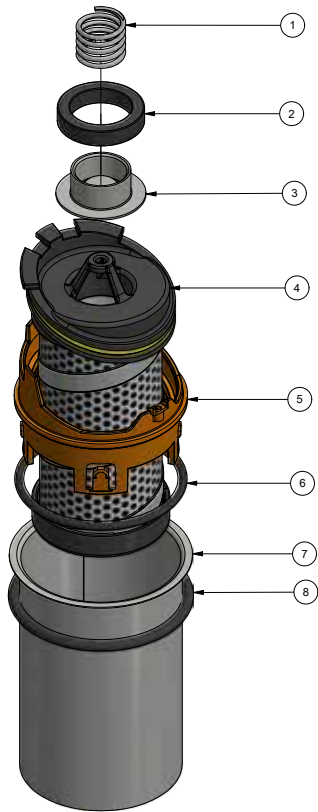




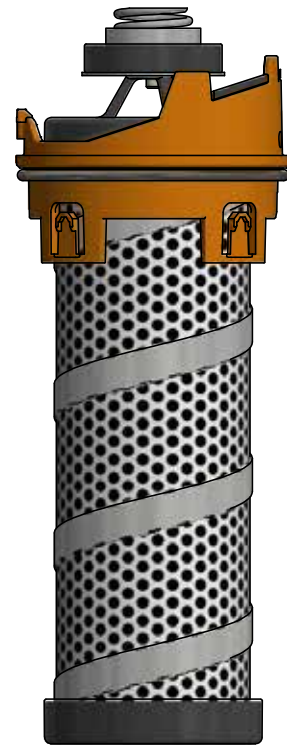
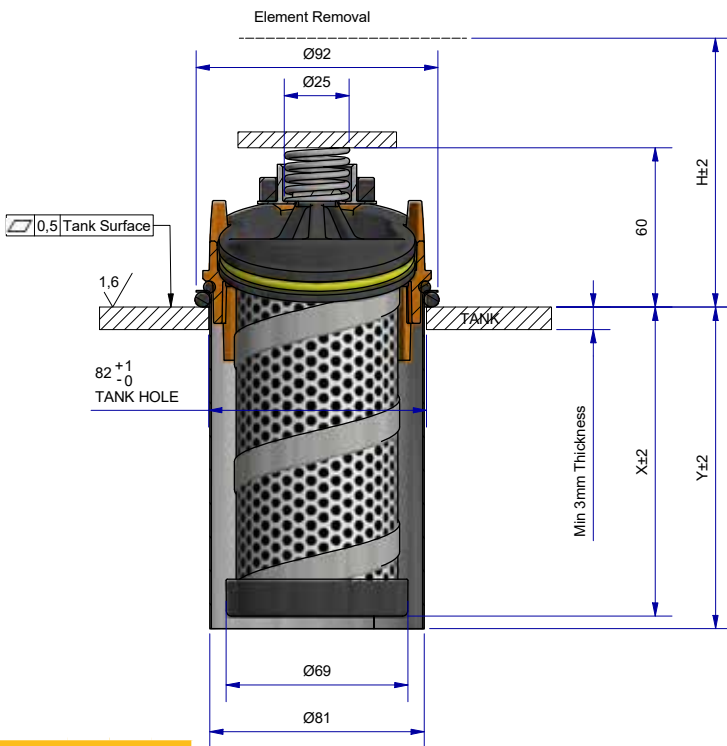
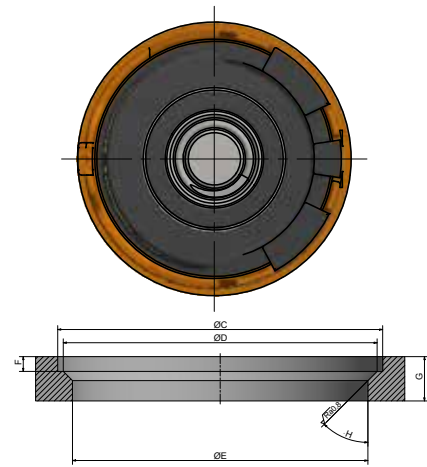
# Low Pressure iprotect® Series

## GLI - In-Tank Mounted Return Line Hydraulic Oil Filter

### GLI - Size 1 Technical information



PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	TOP SPRING GLI1 ASSEMBLY
2	1	MAGNET COLUMN (Optional)
3	1	TOP SPRING/MAGNET HOLDER
4	1	ELEMENT
5	1	ADAPTER RING GLI1
6	1	O-RING
7	1	FUNNEL GLF 1 (Optional)
8	1	O-RING



DIMENSION			
TYPE	X	Y	H
GLI11	117	122	180
GLI12	172	177	235

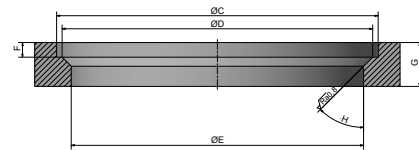
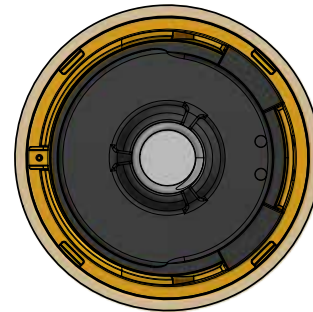
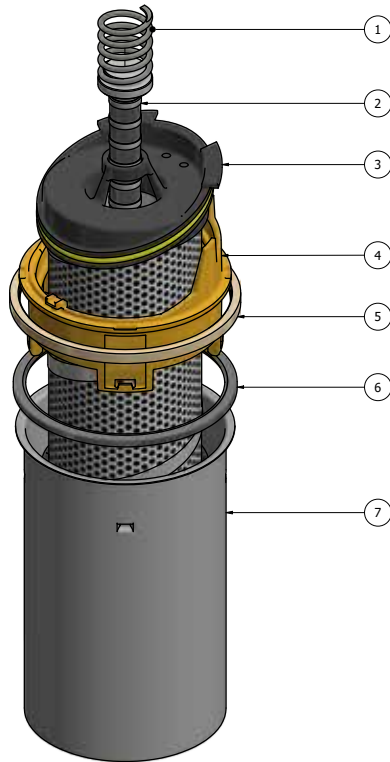
MOUNTING ARRANGEMENT WITHOUT FUNNEL						
TYPE	C	D	E	F	G	H
GLI1	88	85	80	4	12	45

# Low Pressure iprotect® Series

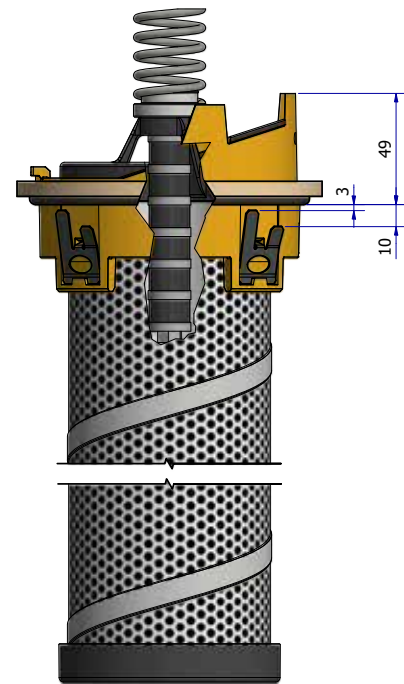
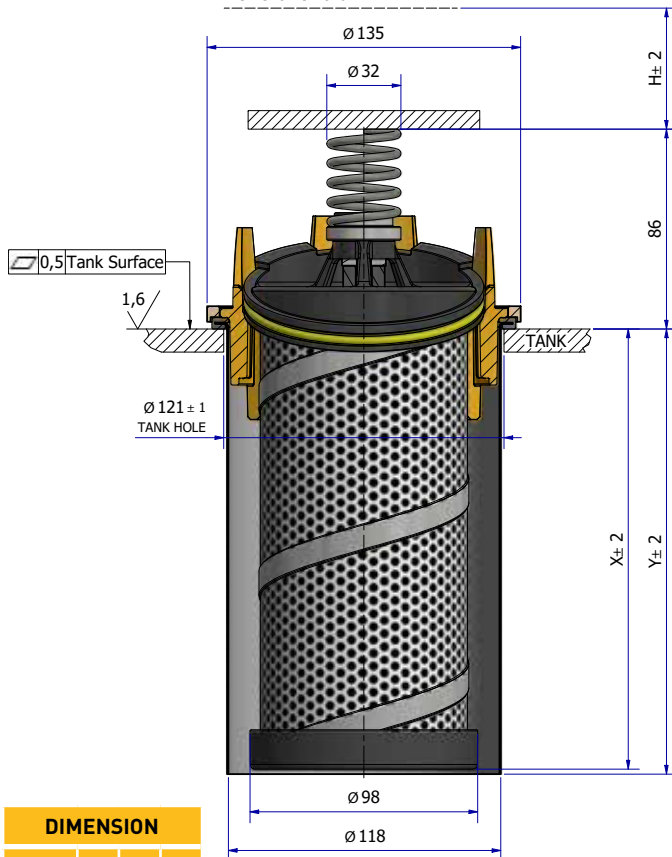
## GLI - In-Tank Mounted Return Line Hydraulic Oil Filter

### GLI - Size 2 Technical information

PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	TOP SPRING ASSEMBLY
2	1	MAGNET COLUMN (Optional)
3	1	ELEMENT
4	1	ADAPTER RING GLF 2
5	1	SEAL SUPPORT RING GLI2
6	2	GASKET
7	1	FUNNEL (Optional)



Element Removal



DIMENSION			
TYPE	X	Y	H
GLI21	190	192	223
GLI22	289	291	322

MOUNTING ARRANGEMENT WITHOUT FUNNEL						
TYPE	C	D	E	F	G	H
GLI2	126	122	117	5	15	45

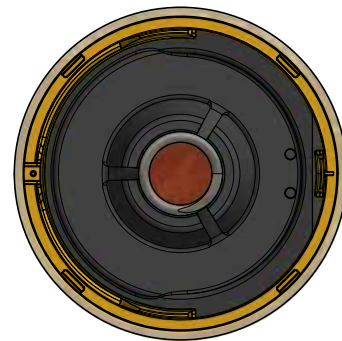
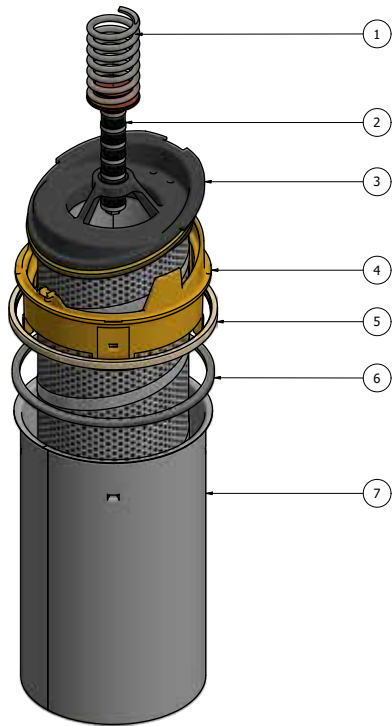


# Low Pressure iprotect® Series

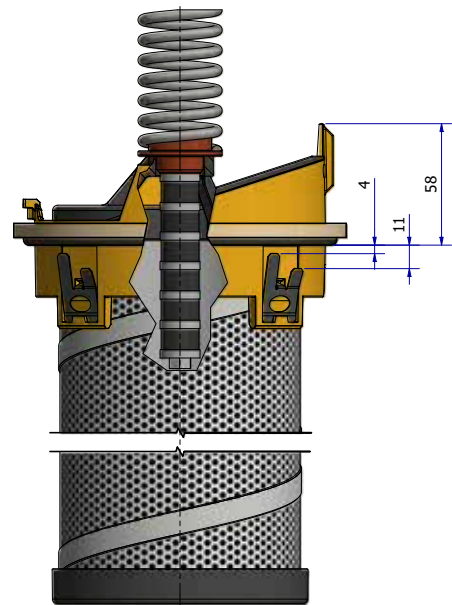
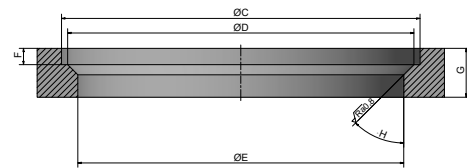
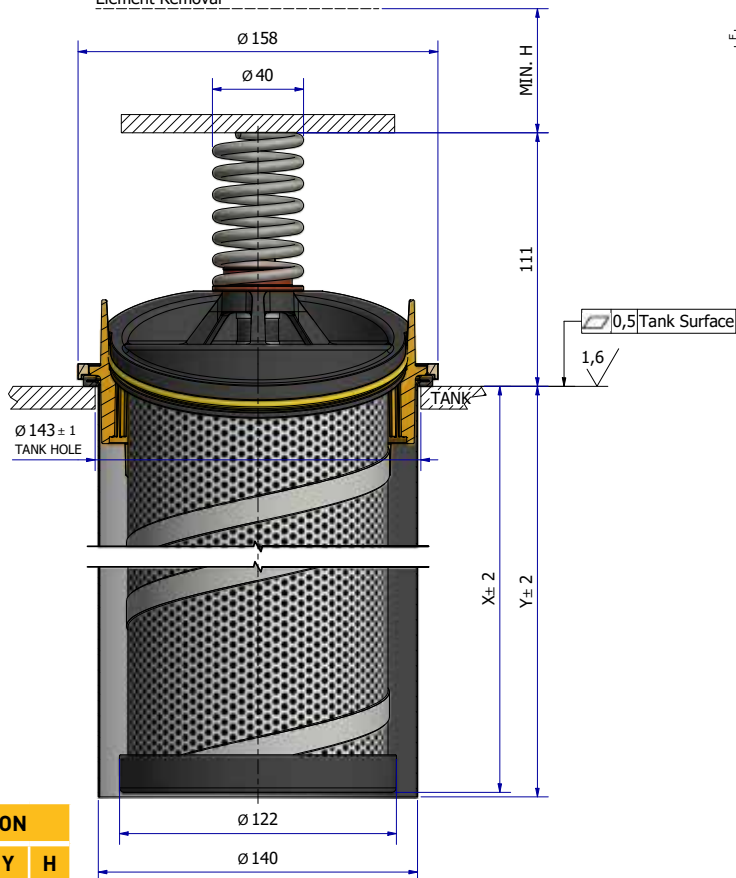
GLI - In-Tank Mounted Return Line Hydraulic Oil Filter

## GLI - Size 3 Technical information

PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	TOP SPRING ASSEMBLY
2	1	MAGNET COLUMN (Optional)
3	1	ELEMENT
4	1	ADAPTER RING GLF 2
5	1	SEAL SUPPORT RING GLI2
6	1	GASKET
7	1	FUNNEL (Optional)



Element Removal



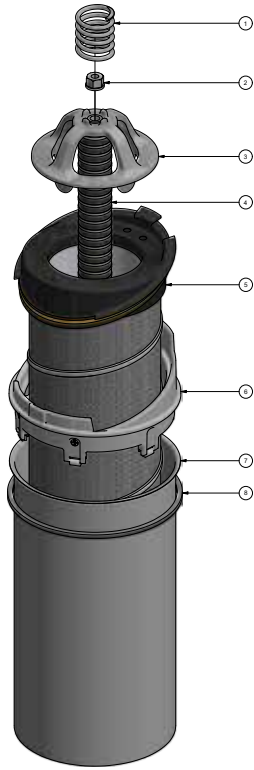
DIMENSION				
TYPE	X	Y	H	
GLI31	233	234	265	
GLI32	292	293	324	
GLI33	390	391	422	

MOUNTING ARRANGEMENT WITHOUT FUNNEL						
TYPE	C	D	E	F	G	H
GLI3	151	149	139	5	18	45

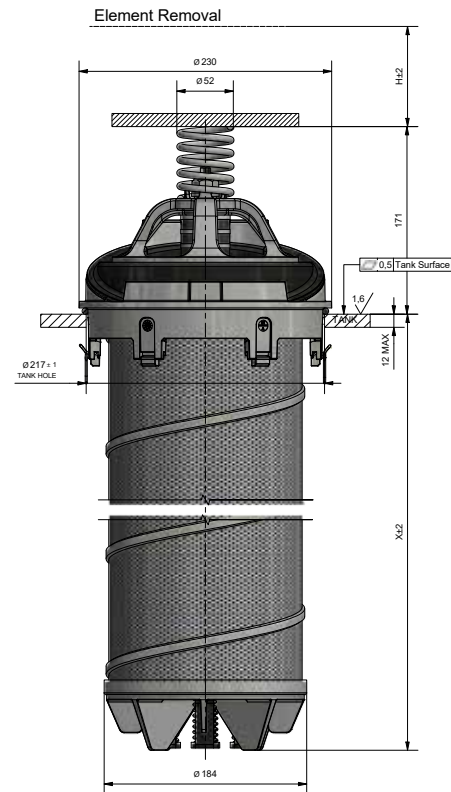
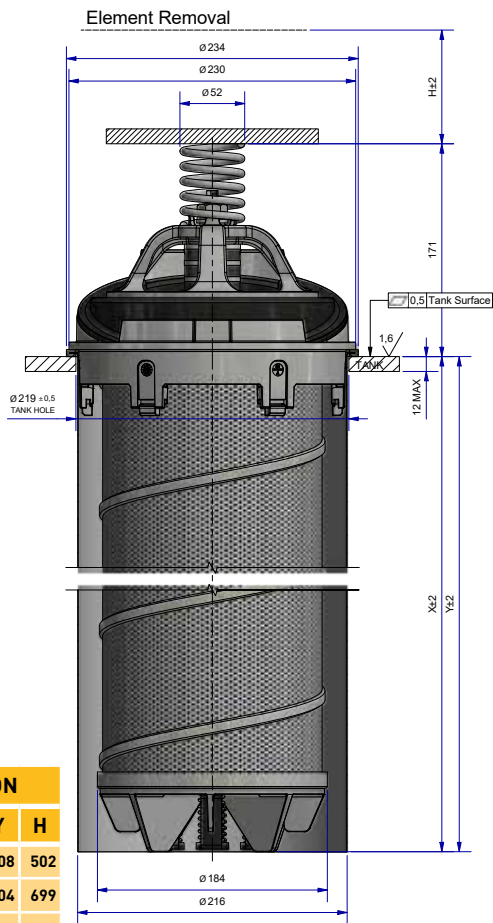
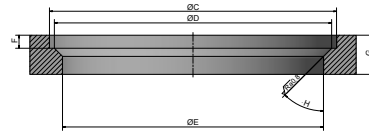
# Low Pressure iprotect® Series

## GLI - In-Tank Mounted Return Line Hydraulic Oil Filter

### GLI - Size 5 Technical information



PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	TOP SPRING AGB4 CONICAL
2	1	MAGNET COLUMN (Optional)
3	1	ADAPTER RING
4	1	O-RING
5	6	SPRING CLIP
6	1	ELEMENT
7	1	BOTTOM PLATE



DIMENSION			
TYPE	X	Y	H
GLI51	407	408	502
GLI52	604	604	699
GLI53	794	794	889

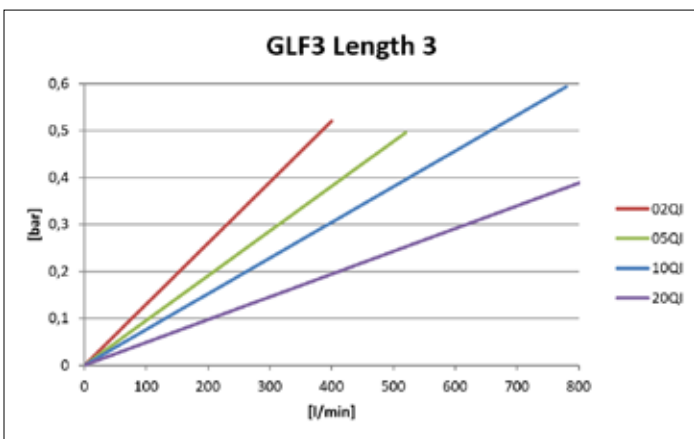
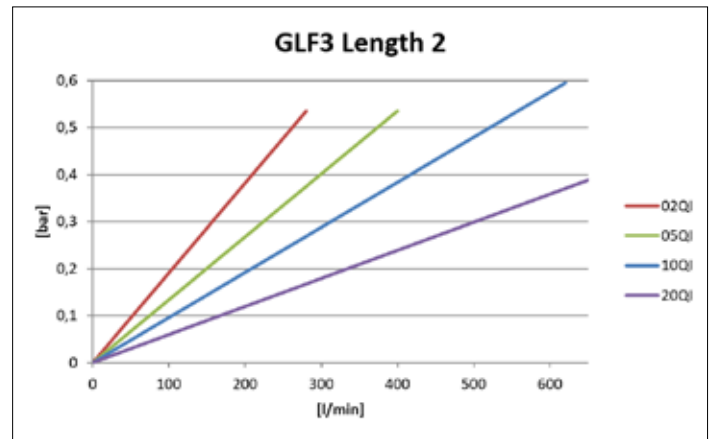
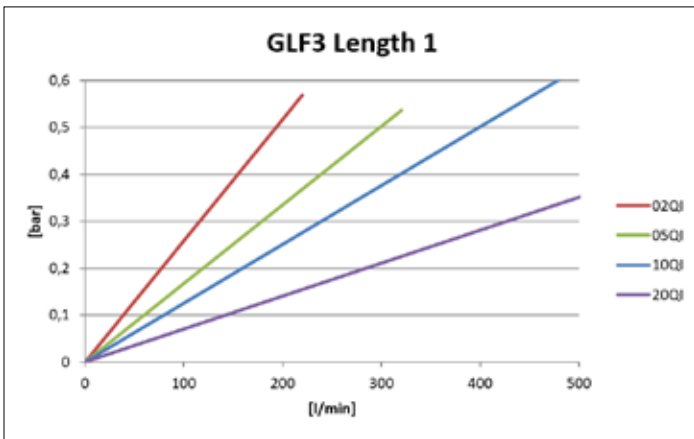
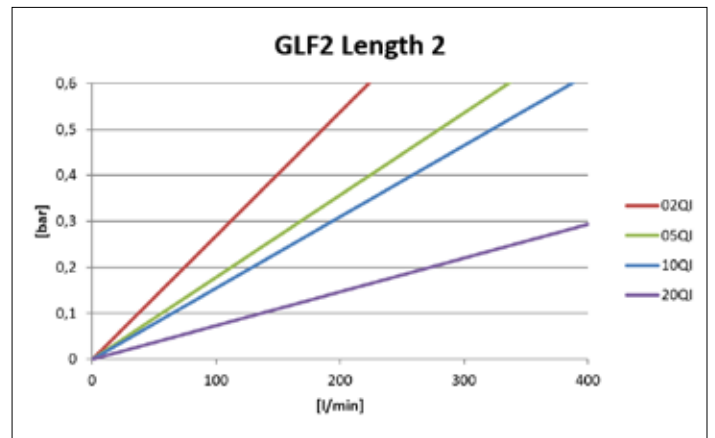
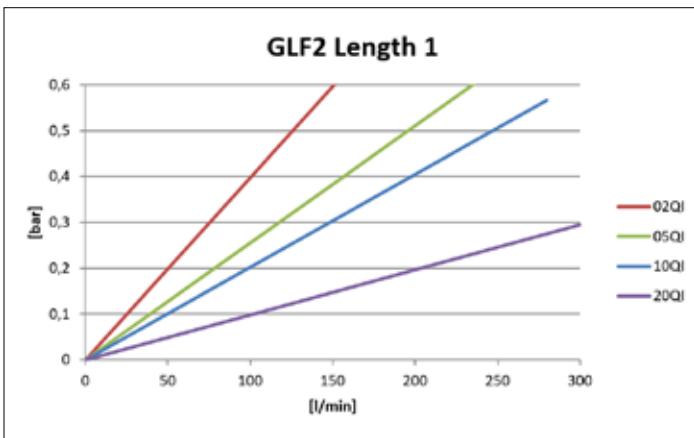
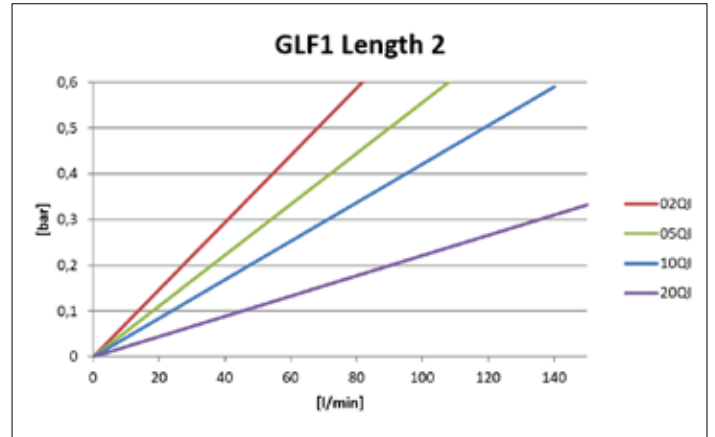
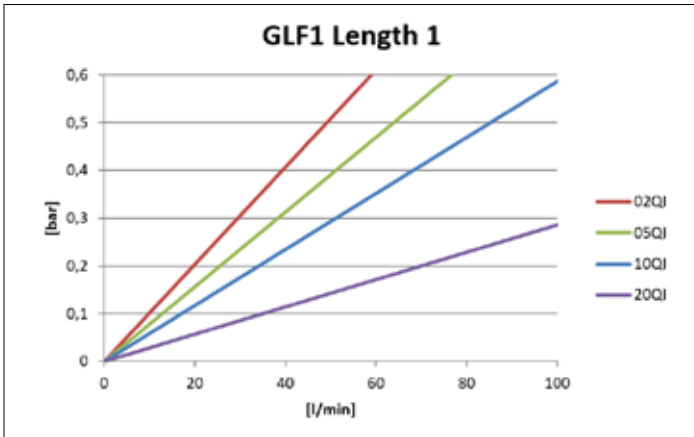
MOUNTING ARRANGEMENT WITHOUT FUNNEL						
TYPE	C	D	E	F	G	H
GLI5	231	227	217	6	18	45



# Low Pressure iprotect® Series

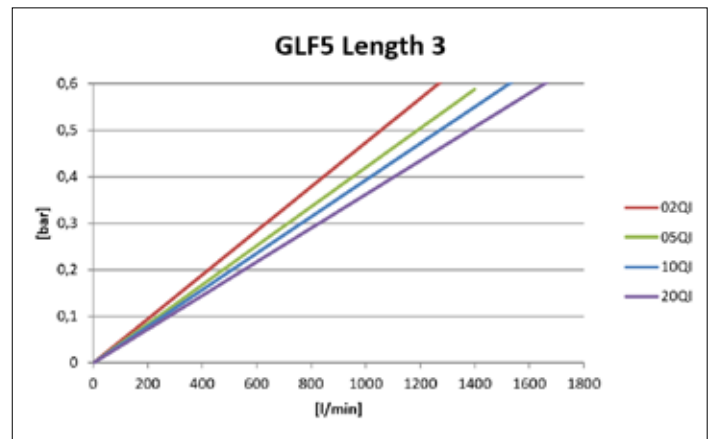
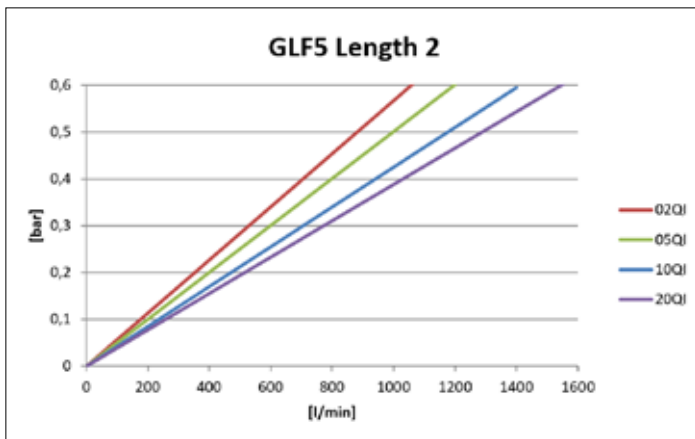
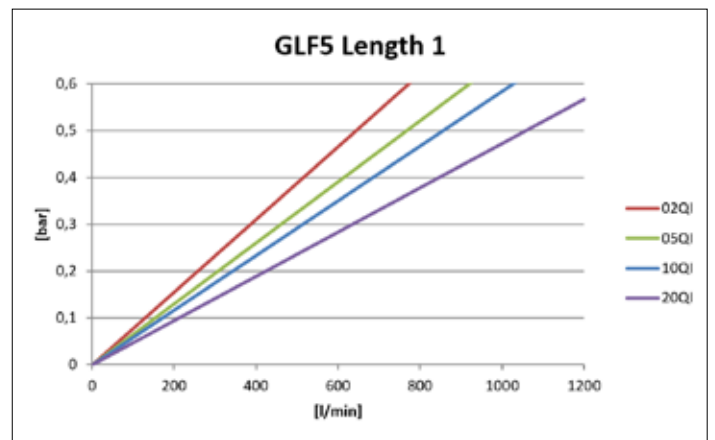
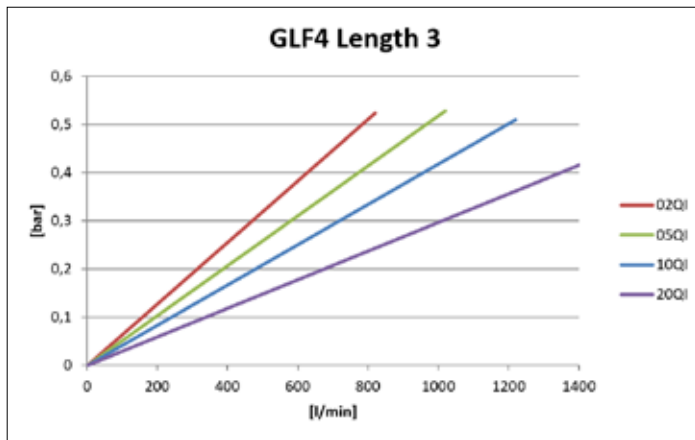
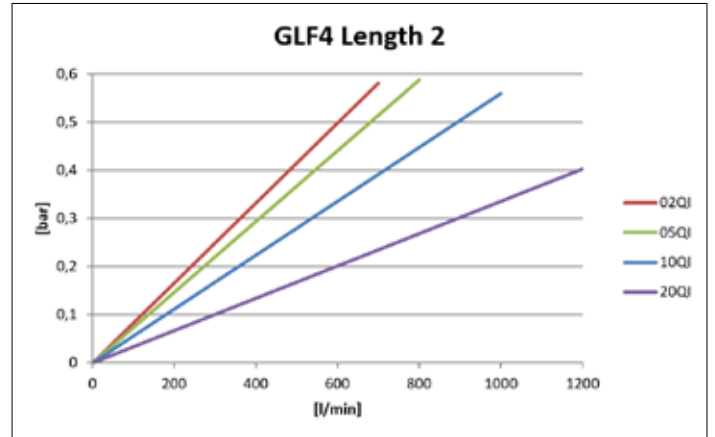
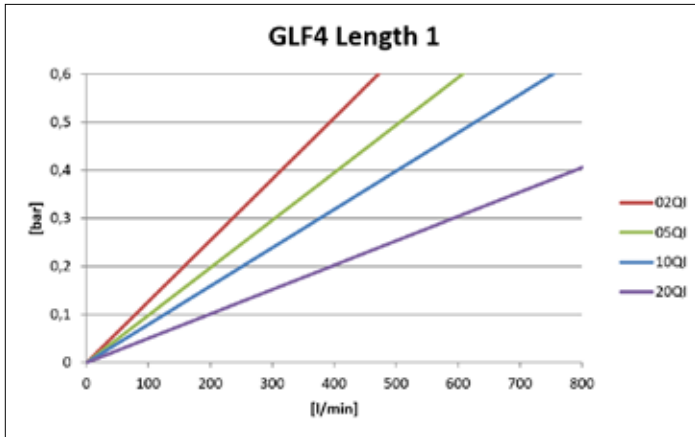
In-Tank and Tank Top Return Line Hydraulic Oil Filters.

## Pressure Drop Curves based on 30 cSt



# Low Pressure iprotect® Series

In-Tank and Tank Top Return Line Hydraulic Oil Filters.



Nominal flow (l/min) at viscosity 30cSt				
Filter model	02QI	05QI	10QI	20QI
GLF1 Length 1	55	70	80	100
GLF1 Length 2	70	80	120	150
GLF2 Length 1	125	175	250	300
GLF2 Length 2	175	265	350	400
GLF3 Length 1	200	285	450	500
GLF3 Length 2	250	375	600	650
GLF3 Length 3	375	500	750	800
GLF4 Length 1	400	500	600	800
GLF4 Length 2	600	700	900	1100
GLF4 Length 3	800	1000	1200	1400
GLF5 Length 1	700	800	900	1100
GLF5 Length 2	900	1000	1200	1400
GLF5 Length 3	1100	1200	1400	1700



# Low Pressure iprotect® Series

In-Tank and Tank Top Return Line Hydraulic Oil Filters.

Highlights Key	Code
Item is standard	<b>123</b>
Item is non-standard	123

## Ordering information

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
GLF1	2	10QI	B	P	G	G16	MF

### Box 1

Filter size	Tanktop Code	In-Tank Code
Size 1	<b>GLF1</b>	<b>GLI1</b>
Size 2	<b>GLF2</b>	<b>GLI2</b>
Size 3	<b>GLF3</b>	<b>GLI3</b>
Size 4	<b>GLF4</b>	
Size 5	<b>GLF5</b>	<b>GLI5</b>

### Box 2

Filter Length	Code
Length 1	<b>1</b>
Length 2	<b>2</b>
Length 3 (GLF3, 4 & 5 only)	<b>3</b>

### Box 3

Degree of Filtration						
2	10	75	100	200	1000	<b>Media</b>
N/A	N/A	N/A	N/A	4	4,5	02QI
N/A	N/A	4,5	5	6	7	<b>05QI</b>
N/A	5	7,5	8	9	11	<b>10QI</b>
5	9	15	16	18	21	<b>20QI</b>

• Average filtration ratio B (ISO 16889) / particle size µm(c)

### Box 4

Seal Material	Code
Nitrile	<b>B</b>

• Availability of other Seal types (like Fluoroelastomer) on request.

### Box 5

Indicator Type	Code
No indicator ports (only GLI)	<b>N1</b>
Both Indicator Ports plugged	<b>P2</b>

• Indicators are available separately; See the Spare Indicators table

### Box 6

Bypass and Indicator Setting	indicator	Code
1.7 bar	1.2 bar	<b>G</b>

• Availability of other settings (like a 3,5 bar Bypass / 2.5 bar Indicator) on request

### Box 7

Filter Connections						
Connections	GLI Code	GLF1 Code	GLF2 Code	GLF3 Code	GLF4 Code	GLF5 Code
No port	<b>XXX</b>					
Single Port ISO 228-G3/4" (BSP)		<b>G12</b>				
Dual Port ISO 228-G3/4" (BSP)		2G12				
Single Port ISO 228-G1" (BSP)		<b>G16</b>	<b>G16</b>			
Dual Port ISO 228-G1" (BSP)		2G16	2G16			
Single Port ISO 228-G1 1/4" (BSP)			<b>G20</b>	<b>G20</b>		
Dual Port ISO 228-G1 1/4" (BSP)			2G20	2G20		
Single Port ISO 228-G1 1/2" (BSP)			<b>G24</b>	<b>G24</b>		
Dual Port ISO 228-G1 1/2" (BSP)			2G24	2G24		
Single Port 1 1/2" SAE-3000M			<b>R24</b>	<b>R24</b>		
Dual Port 1 1/2" SAE-3000M			2R24	2R24		
Single Port 2" SAE-3000M				<b>R32</b>		
Dual Port 2" SAE-3000M				2R32		
Single Port 2 1/2" SAE-3000M					<b>R40</b>	
Dual Port 2" / 2 1/2" SAE-3000M					2R40	
Single Port 3" SAE-3000M					R48	<b>R48</b>
Dual Port 2" / 3" SAE-3000M					2R48	
Dual Port 3" / 3" SAE-3000M						2R48

### Box 8

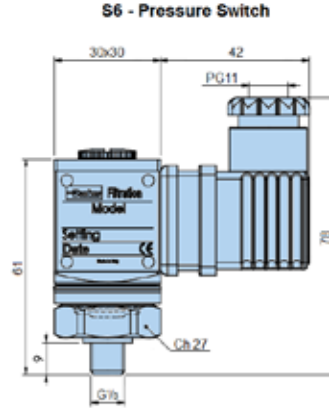
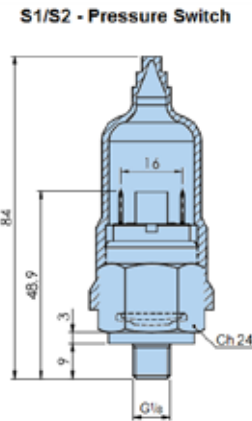
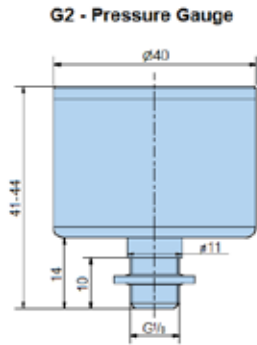
Options	Code
No options	N
Magnet Column	M
Funnel	F
Magnet column & Funnel	<b>MF</b>

• An air breather for the GLF1 and 2 are available separately; See the Spare Parts table on the next page

## Spare Parts

Spare Indicators	
Description	Part Number
G2 - Pressure Gauge	FMUG2EBPG02L
S1 - Pressure Switch <48V N.O.	LPSS1EBG02MRP1
S2 - Pressure Switch <48V N.C.	LPSS2EBG02MRP1
S6 - Pressure Switch 250V SPDT	LPSS6EBG02APCR1

Spare Air Breather	
Description	Part Number
Air Breather (GLF 1 only)	AB683101-1
Air Breather (GLF 2 only)	AB685101



Spare Elements (Nitrile) with Bypass setting 1.7 bar										
Media	GLF 1 Length 1	GLF 1 Length 2	GLF 2 Length 1	GLF 2 Length 2	GLF 3 Length 1	GLF 3 Length 2	GLF 3 Length 3	GLF 4 Length 1	GLF 4 Length 2	GLF 4 Length 3
02QI	944830Q	944831Q	944846Q	944847Q	944862Q	944863Q	944864Q	944886Q	944887Q	944888Q
05QI	944832Q	944833Q	944848Q	944849Q	944865Q	944866Q	944867Q	944889Q	944890Q	944891Q
10QI	944834Q	944835Q	944850Q	944851Q	944868Q	944869Q	944870Q	944892Q	944893Q	944894Q
20QI	944836Q	944837Q	944852Q	944853Q	944871Q	944872Q	944873Q	944895Q	944896Q	944897Q

Spare Elements (Nitrile) without Bypass			
Media	GLF 5 Length 1	GLF 5 Length 2	GLF 5 Length 3
02QI	944910Q	944911Q	944912Q
05QI	944913Q	944914Q	944915Q
10QI	944916Q	944917Q	944918Q
20QI	944919Q	944920Q	944921Q

Seal Kits GLF	
Description	Part Number
SEAL KIT GLF1 NBR	GLFSK100
SEAL KIT GLF1 FKM	GLFSK101
SEAL KIT GLF2 NBR	GLFSK200
SEAL KIT GLF2 FKM	GLFSK201
SEAL KIT GLF3 NBR	GLFSK300
SEAL KIT GLF3 FKM	GLFSK301
SEAL KIT GLF4 NBR	GLFSK400
SEAL KIT GLF4 FKM	GLFSK401
SEAL KIT GLF5 NBR	GLFSK500
SEAL KIT GLF5 FKM	GLFSK501

Seal Kits GLI	
Description	Part Number
SEALKIT GLI1 WITH FUNNEL NBR	GLISK100
SEALKIT GLI1 NBR	GLISK101
SEALKIT GLI1 WITH FUNNEL FKM	GLISK102
SEALKIT GLI1 FKM	GLISK103
SEALKIT GLI2 WITH FUNNEL NBR	GLISK200
SEALKIT GLI2 NBR	GLISK201
SEALKIT GLI2 WITH FUNNEL FKM	GLISK202
SEALKIT GLI2 FKM	GLISK203
SEALKIT GLI3 WITH FUNNEL NBR	GLISK300
SEALKIT GLI3 NBR	GLISK301
SEALKIT GLI3 WITH FUNNEL FKM	GLISK302
SEALKIT GLI3 FKM	GLISK303
SEALKIT GLI5 WITH FUNNEL NBR	GLISK500
SEALKIT GLI5 NBR	GLISK501
SEALKIT GLI5 WITH FUNNEL FKM	GLISK502
SEALKIT GLI5 FKM	GLISK503