Return Line Filters ▪ Type RTF10/25

Product Description

STAUFF RTF10/25 Return Line Filters are designed as tank top filters with a maximum operating pressure of 3,4 bar / 49 PSI.

Technical Data

Construction
- Tank Top flange mounting

Materials
- Filter head: Aluminum
- Filter bowl: Polyamide
- Sealings: NBR (Buna-N®)
  FPM (Viton®)
  Other sealing materials on request

Port Connection
- BSP
- NPT
- SAE O-ring thread

Flow Rating
- Up to 95 l/min / 25 US GPM

Operating Pressure
- Max. 3,4 bar / 49 PSI

Burst Pressure
- Min. 10 bar / 145 PSI

Temperature Range
- -25°C ... +95°C / -13°F ... +203°F

Filter Elements
- Specifications see page C102

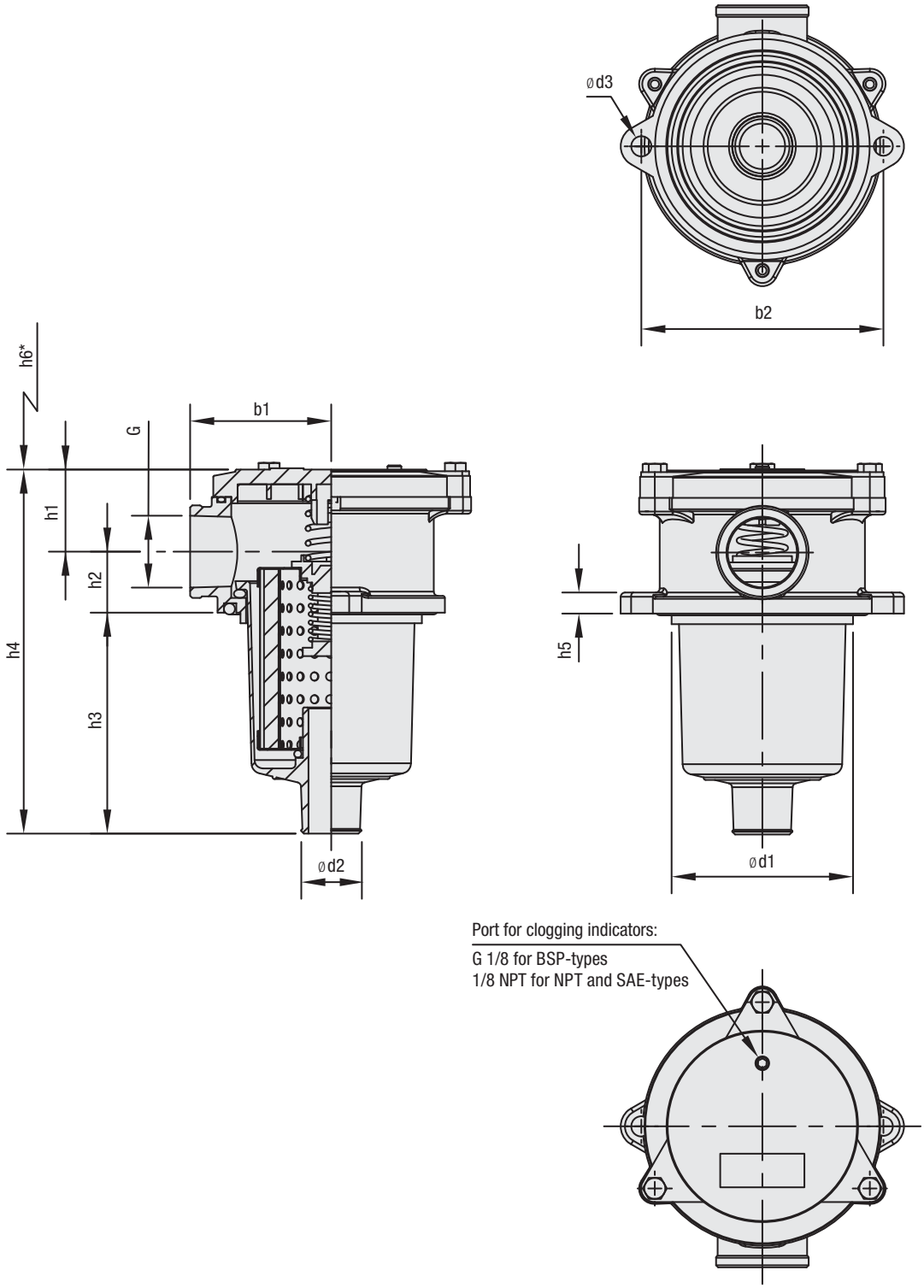
Media Compatibility
- Mineral oils, other fluids on request

Options and Accessories

Valve
- Bypass valve: Opening pressure 1,7 bar / 25 PSI
  (integrated in the filter element) Other settings available on request

Clogging Indicators
- Visual clogging indicator, coloured segments
- Electrical clogging switch, adjustable
  Other clogging indicators available on request

Return Line Filters ▪ Type RTF10/25



* recommended space for element change

Return Line Filters ▪ Type RTF10/25

Thread Connection G	Filter Size RTF		
	10S1	25S1	25S2
BSP	1/2	1	1
NPT	1/2	1	1
SAE O-ring	-	1-5/16–12	1-5/16–12

Dimensions (mm/in)	Filter Size RTF		
	10S1	25S1	25S2
h1	26	34	34
	1.02	1.34	1.34
h2	21	29	29
	.83	1.14	1.14
h3	88	103	151
	3.46	4.05	5.95
h4	136	166	212
	5.35	6.53	8.35
h5	8	10	10
	.32	.39	.39
h6	110	130	175
	4.33	5.12	6.89
b1	50	67	67
	1.97	2.64	2.64
b2	90	115	115
	3.54	4.52	4.52
d1	66	86	86
	2.60	3.39	3.39
d2	24	28	28
	.94	1.10	1.10
d3	7	9	9
	.28	.35	.35
Weight (kg/lbs)	0,45	0,9	1
	1	2	2.2

Return Line Filter Housings / Complete Filters ▪ Type RTF10/25

RTF	25	...	...	B	/	N	/	S2	/	V	/	X
1	2	3	4	5		6		7		8		9

1 Type

Return Line Filter	**RTF**

2 Group

Flow	Size
38 l/min /10 US GPM	**10**
90 l/min /25 US GPM	**25**

Note: Exact flow will depend on filter element selected. Consult technical data on pages C119.

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Without filter element	-	-	**...**
Inorg. glass fibre	3 bar / 43.5 PSI	10, 25	**G**
Filter paper	3 bar / 43.5 PSI	10, 25	**D**

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

10 µm	**10**
25 µm	**25**

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	**B**
FPM (Viton®)	**V**

Note: Other sealing materials on request

6 Connection Style

Connection Style	Group		Code
	10	25	
BSP	1/2	1	**B**
NPT	1/2	1	**N**
SAE O-ring Thread	-	1-5/16–12	**S**

7 Length

Bowl Length 1	**S1**
Bowl Length 2	**S2**

Note: RTF 10 size available in bowl length 1 only.

8 Clogging Indicator

Without clogging indicator	**none**
Visual clogging indicator	**V**
Electrical clogging indicator	**E**

Note: See pages C100 and C121 for more details on indicator ports and types.

9 Design Code

Only for information	**X**

Filter Elements ▪ Type RTE

RTE	-	25	D	10	B	/	S2	/	X
1		2	3	4	5		6		7

1 Type

Filter Element Series	**RTE**

2 Group

According to filter housing

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Inorg. glass fibre	3 bar / 43.5 PSI	10, 25	**G**
Filter paper	3 bar / 43.5 PSI	10, 25	**D**

* Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

10 µm	**10**
25 µm	**25**

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	**B**
FPM (Viton®)	**V**

Note: Other sealing materials on request

6 Length

Bowl Length 1	**S1**
Bowl Length 2	**S2**

Note: RTF 10 size available in bowl length 1 only.

7 Design Code

Only for information	**X**

Return Line Filters ▪ Type RTF20

Product Description

STAUFF RTF20 Return Line Filters are designed as tank top filters with a maximum operating pressure of 10 bar / 145 PSI and flow rates up to 115 l/min / 30 US GPM. The filter bowl is designed to return the oil beneath the surface thus preventing entrainment of air. RTF20 series compact design and integral breather make them ideal for mobile hydraulic applications.

Technical Data

Construction
- Tank Top flange mounting

Materials
- Filter head: Aluminum
- Filter bowl & cap: Polyamide
- Sealings: NBR (Buna-N®)
  FPM (Viton®)
  Other sealing materials on request

Port Connection
- BSP
- NPT
- SAE O-ring thread

Flow Rating
- Up to 115 l/min / 30 US GPM

Operating Pressure
- Max. 10 bar / 145 PSI

Burst Pressure
- Min. 30 bar / 435 PSI

Temperature Range
- -25°C ...+95°C / -13°F ... +203°F

Integrated Breather
- Filter paper 10 µm
- Filter paper 40 µm

Filter Elements
- Specifications see page C106

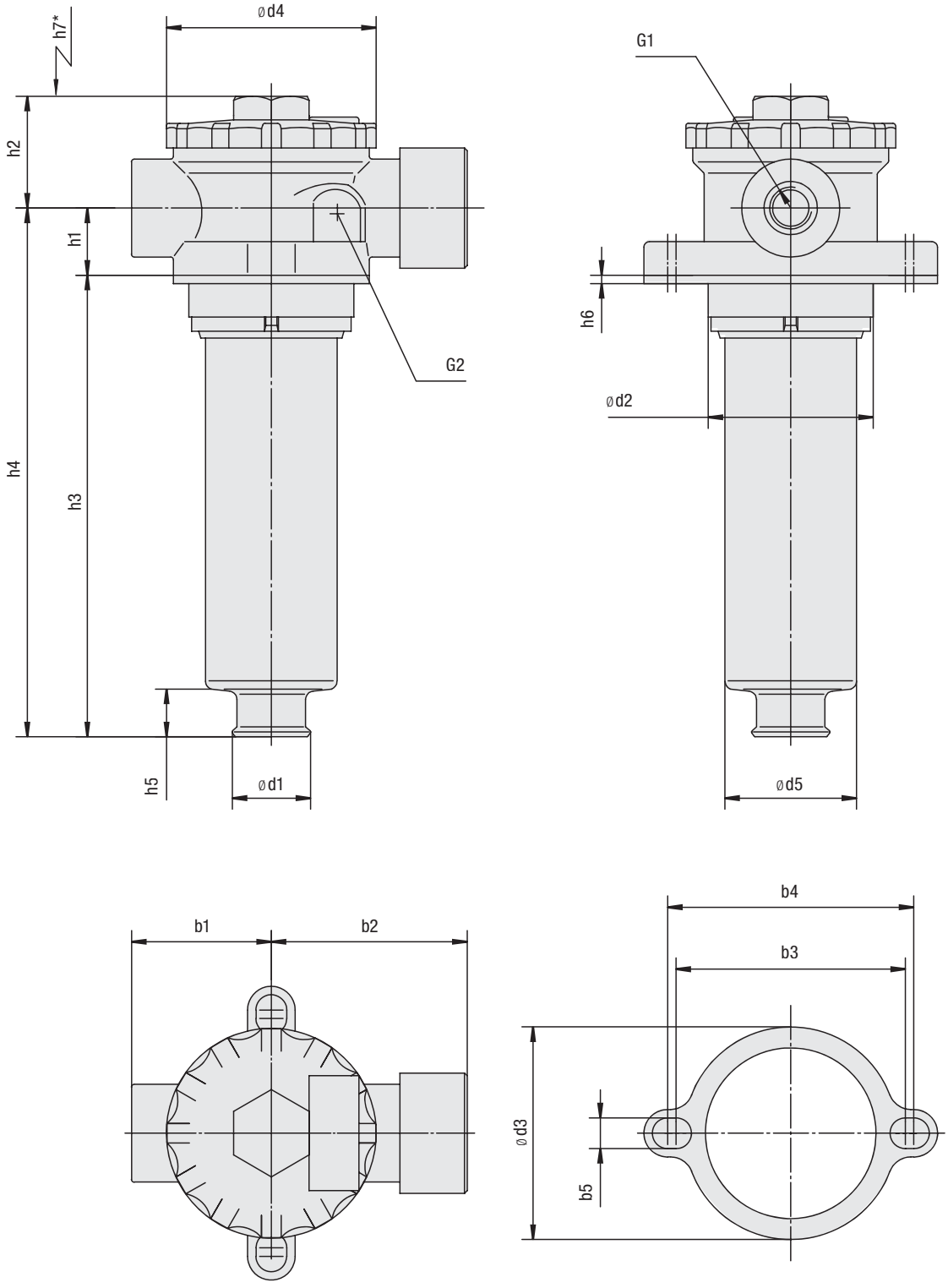
Media Compatibility
- Mineral oils, other fluids on request

Options and Accessories

Valve
- Bypass valve: Opening pressure 1,7 bar / 25 PSI
  (integrated in the filter element) Other settings available on request

Clogging Indicators
- Visual clogging indicator, coloured segments
- Electrical clogging switch, adjustable
  Other clogging indicators available on request

Return Line Filters ▪ Type RTF20



* recommended space for element change

Return Line Filters ▪ Type RTF20

Thread Connection G1	Filter Size RTF	
	020	
BSP	1/2	3/4
NPT	1/2	3/4
SAE Thread	3/4–16	1–1/16

Dimensions (mm/in)	Filter Size RTF
	020
b1	50
	1.97
b2	70
	2.76
b3	82
	3.23
b4	88
	3.46
b5	11
	.43
d1	28
	1.10
d2*	Min. 60 / Max. 63
	Min. 2.36 / Max. 2.48
d3	77
	3.03
d4	75
	2.95
d5	48
	1.89
h1	24
	.94
h2	37,5
	1.48
h3	178
	7.01
h4	202
	7.95
h5	16
	.63
h6	2
	.07
h7	210
	8.27
G2	G1/8 or 1/8 NPT

* recommended diameter for mounting hole

Return Line Filter Housings / Complete Filters ▪ Type RTF20

RTF	20	D	10	B	/	N1	/	V	/	L10	/	D	/	X
1	2	3	4	5		6		7		8		9		10

1 Type

Return Line Filter	**RTF20**

2 Group

Flow	Size
115 l/min / 30 US GPM	**20**

Note: Exact flow will depend on filter element selected. Consult technical data on pages C119 / C120.

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Without filter element	-	-	**...**
Inorg. glass fibre	25 bar / 363 PSI	6, 10, 20	**G**
Filter paper	10 bar / 145 PSI	10	**D**

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

6 µm	**06**
10 µm	**10**
20 µm	**20**

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	**B**
FPM (Viton®)	**V**

Note: Other sealing materials on request

6 Connection Style

Connection Style	Thread	Code
BSP	1/2	**B1**
BSP	3/4	**B2**
NPT	1/2	**N1**
NPT	3/4	**N2**
SAE O-ring Thread	3/4–16	**S1**
SAE O-ring Thread	1-1/16–12	**S2**

7 Clogging Indicator

No clogging indicator	**N**
Visual clogging indicator	**V**
Electrical clogging indicator	**E**

Note: See pages C104 and C121 for more details on indicator ports and types.

8 Breather

10 µm Filter Paper	**L10**
40 µm Filter Paper	**L40**

9 Dipstick

Without dipstick	**none**
With dipstick	**D**

10 Design Code

Only for information	**X**

Filter Elements ▪ Type RTE

RTE	-	20	D	10	B	/	X
1		2	3	4	5		6

1 Type

Filter Element Series	**RTE**

2 Group

According to filter housing

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Inorg. glass fibre	25 bar / 363 PSI	6, 10, 20	**G**
Filter paper	10 bar / 145 PSI	10	**D**

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

6 µm	**06**
10 µm	**10**
20 µm	**20**

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	**B**
FPM (Viton®)	**V**

Note: Other sealing materials on request

6 Design Code

Only for information	**X**

Air Filter Elements ▪ Type RTEA

RTEA	-	020	L	10	B	/	X
1		2	3	4	5		6

1 Type

Air Filter Element Series	**RTEA**

2 Group

Air filter for RTF20

3 Filter Material

Filter Paper	**L**

Note: Other materials on request

4 MicronRating

10 µm	**10**

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	**B**

Note: Other sealing materials on request

6 Design Code

Only for information	**X**

Return Line Filters ▪ Type RTF40

Product Description

STAUFF RTF40 Return Line Filters are designed as tank top filters with a maximum operating pressure of 6,9 bar / 100 PSI. The filter bowl is designed to return the oil beneath the surface thus preventing entrainment of air.

Technical Data

Construction
- Tank Top flange mounting

Materials
- Filter head: Aluminum
- Filter bowl: Bowl length 1: Polyamide
  Bowl length 2: Steel
- Sealings: NBR (Buna-N®)
  Other sealing materials on request

Port Connection
- BSP
- NPT
- SAE O-ring thread
- SAE flange

Flow Rating
- Up to 378 l/min / 100 US GPM

Operating Pressure
- Max. 6,9 bar / 100 PSI

Temperature Range
- -25°C ...+95°C / -13°F ... +203°F

Filter Elements
- RTE-47 with integrated bypass valve, single stack length
- RTE-48 bypass valve integrated in the filter head,
  equivalent to the HF-4 elements, single and double stack lengths
- RTE-49 bypass valve integrated in the filter head,
  single and double stack lengths
- Specifications see page C110

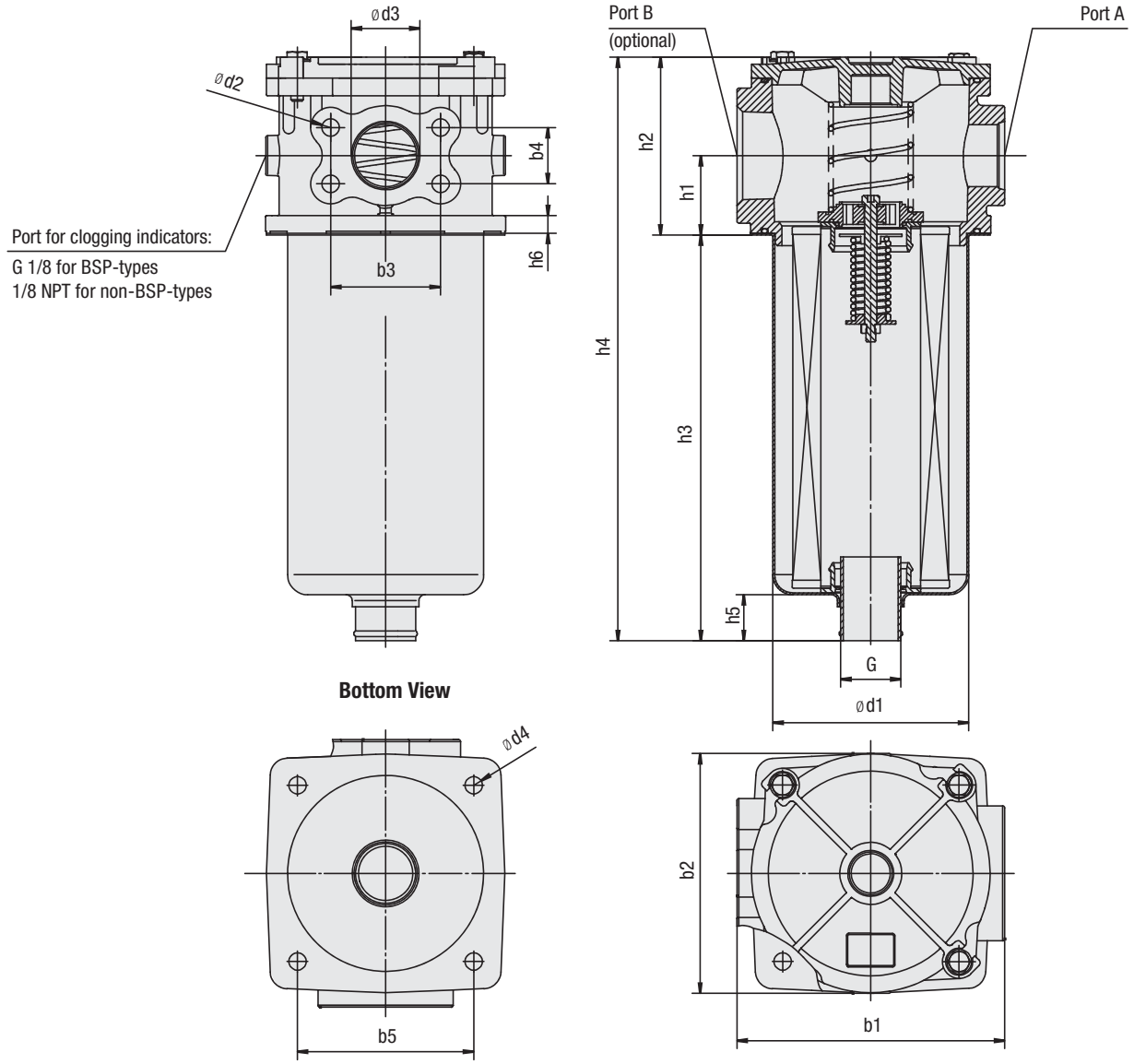
Media Compatibility
- Mineral oils, other fluids on request

Options and Accessories

Valve
- Bypass valve: Opening pressures 1 bar / 14.5 PSI ±10 % or
  1,7 bar / 25 PSI ±10 %
  RTF47: Bypass intergrated in the filter element
  RTF48/49: Bypass integrated in the filter head

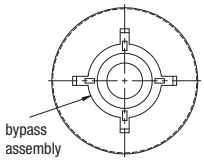
Clogging Indicators
- Visual clogging indicator, coloured segments
- Electrical clogging switch, adjustable
  Other clogging indicators available on request

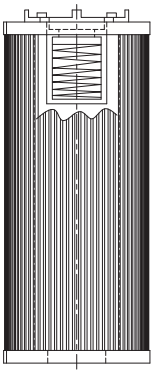
Return Line Filters ▪ Type RTF40



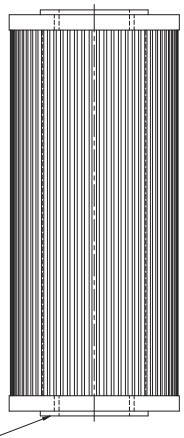
Filter Elements ▪ Types RTE47 / RTE48 / RTE49

RTE-47
- with integrated bypass valve, single stack length

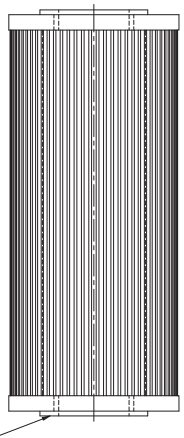




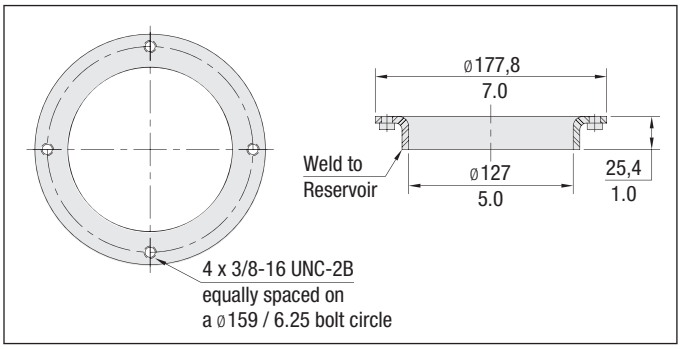
RTE-48
- bypass valve integrated in the filter head, equivalent to the HF-4 elements, single and double stack lengths



RTE-49
- bypass valve integrated in the filter head, single and double stack lengths



Return Line Filters ▪ Type RTF40



RTF40 Series Weld Ring WR-40

The WR-40 weld ring is welded directly to the hydraulic reservoir, eliminating the need for drilling and tapping mounting holes in the reservoir.

Material: Carbon Steel

Thread Connection Combinations	Filter Size RTF			
	4...S1		4...S2	
	Port A	Port B	Port A	Port B
BSP (B)	1-1/4 and 1-1/2 SAE Flange	None	1-1/4 and 1-1/2 SAE Flange	None
BSP (BB)	1-1/4 and 1-1/2 SAE Flange	1-1/4	1-1/4 and 1-1/2 SAE Flange	1-1/4
NPT (N)	1-1/4 and 1-1/2 SAE Flange	None	1-1/4 and 1-1/2 SAE Flange	None
NPT (NN)	1-1/4 and 1-1/2 SAE Flange	1-1/4	1-1/4 and 1-1/2 SAE Flange	1-1/4
NPT (M)	1-1/2	None	1-1/2	None
NPT (MN)	1-1/2	1-1/4	1-1/2	1-1/4
NPT (MM)	1-1/2	1-1/2	1-1/2	1-1/2
SAE (S)	1-5/8–12	None	1-5/8–12	None
SAE (SS)	1-5/8–12	1-5/8–12	1-5/8–12	1-5/8–12
SAE (ST)	1-5/8–12	1-7/8–12	1-5/8–12	1-7/8–12
SAE (SU)	1-5/8–12	2-1/2–12	1-5/8–12	2-1/2–12
SAE (TT)	1-7/8–12	1-7/8–12	1-7/8–12	1-7/8–12
Combination SAE & NPT (SO)	1-5/8–12	2	1-5/8–12	2

Dimensions (mm/in)	Filter Size RTF	
	4...S1	4...S2
h1	50	50
	1.97	1.97
h2	112	112
	4.41	4.41
h3	263	475
	10.35	18.70
h4	385	587
	15.16	23.11
h5	21	38
	.83	1.50
h6	11	11
	.43	.43
b1	170	170
	6.70	6.70
b2	152	152
	5.98	5.98
b3	69.9	69.9
	2.75	2.75
b4	35,6	35,6
	1.40	1.40
b5	112	112
	4.41	4.41
d1	122	126
	4.80	4.96
d2	M12 or	M12 or
	1/2–13 UN	1/2–13 UN
d3	38,1	38,1
	1.50	1.50
d4	11	11
	.43	.43
G	G1-1/2 or 1-1/2 NPT	G1-1/2 or 1-1/2 NPT

Dimensions in mm / in

Return Line Filter Housings / Complete Filters ▪ Type RTF40

RTF	48	...	...	B	/	N	/	25	/	S2	/	V	/	X
1	2	3	4	5		6		7		8		9		10

1 Type

Return Line Filter	RTF

2 Group

Flow	Size
190 l/min / 50 US GPM	47
190 l/min / 50 US GPM	48
190 l/min / 50 US GPM	49

Note: Exact flow will depend on filter element selected. Consult technical data on pages C119 / C120. For element length 2 (only RTF48 / RTF49) please double relating flow values.

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Without filter element	-	-	...
Inorg. glass fibre	10 bar / 145 PSI	3, 5, 10, 25	G
Filter paper	10 bar / 145 PSI	3, 10, 20, 25	D

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

3 µm	03
5 µm	05
10 µm	10
20 µm	20
25 µm	25

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	B

Note: Other sealing materials on request

6 Connection Style

Connection Style	Group		Code
	Port A	Port B	
BSP	1-1/4 and 1-1/2 SAE Flange	None	B
BSP	1-1/4 and 1-1/2 SAE Flange	1-1/4	BB
NPT	1-1/4 and 1-1/2 SAE Flange	None	N
NPT	1-1/4 and 1-1/2 SAE Flange	1-1/4	NN
NPT	1-1/2	None	M
NPT	1-1/2	1-1/4	MN
NPT	1-1/2	1-1/2	MM
SAE	1-5/8-12	None	S
SAE	1-5/8-12	1-5/8-12	SS
SAE	1-5/8-12	1-7/8-12	ST
SAE	1-5/8-12	2-1/2-12	SU
SAE	1-7/8-12	1-7/8-12	TT
Combination NPT & SAE	1-5/8-12	2	SO

7 Valve

No bypass	00
1 bar / 15 PSI	15
1,7 bar / 24.6 PSI	25

8 Length

Bowl Length 1 (1 element)	S1
Bowl Length 2 (2 elements)	S2

Note: RTF 47 size available in S1 bowl length only.

9 Clogging Indicator

No clogging indicator	N
Visual clogging indicator	V
Electrical clogging indicator	E

Note: See pages C108 and C121 for more details on indicator ports and options.

10 Design Code

Only for information	X

Filter Elements ▪ Type RTE

RTE	-	48	D	10	B	/	X
1		2	3	4	5		6

1 Type

Filter Element Series	RTE

2 Group

According to filter housing

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Inorg. glass fibre	10 bar / 145 PSI	3, 5, 10, 25	G
Filter paper	10 bar / 145 PSI	3, 10, 20, 25	D

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

3 µm	03
5 µm	05
10 µm	10
20 µm	20
25 µm	25

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	B

Note: Other sealing materials on request

6 Design Code

Only for information	X

Return Line Filters ▪ Type RTF50

Product Description

STAUFF RTF50 Return Line Filters are designed for tank top applications with a maximum pressure of 6,9 bar / 100 PSI. The filter bowl is designed to return the oil beneath the surface thus preventing entrainment of air. The RTF58 elements interchange with the popular “K” series and RTF59 elements interchange with the“RE-409” series elements.

Technical Data

Construction
- Tank Top flange mounting

Materials
- Filter head: Aluminum
- Filter bowl: Bowl length 1: Polyamide
  Bowl length 2: Steel
- Sealings: NBR (Buna-N®)
  Other sealing materials on request

Port Connection
- BSP
- NPT
- SAE O-ring thread

Flow Rating
- Up to 379 l/min / 100 US GPM

Operating Pressure
- Max. 6,9 bar / 100 PSI

Temperature Range
- -25°C ...+95°C / -13°F ... +203°F

Filter Elements
- Specifications see page C114

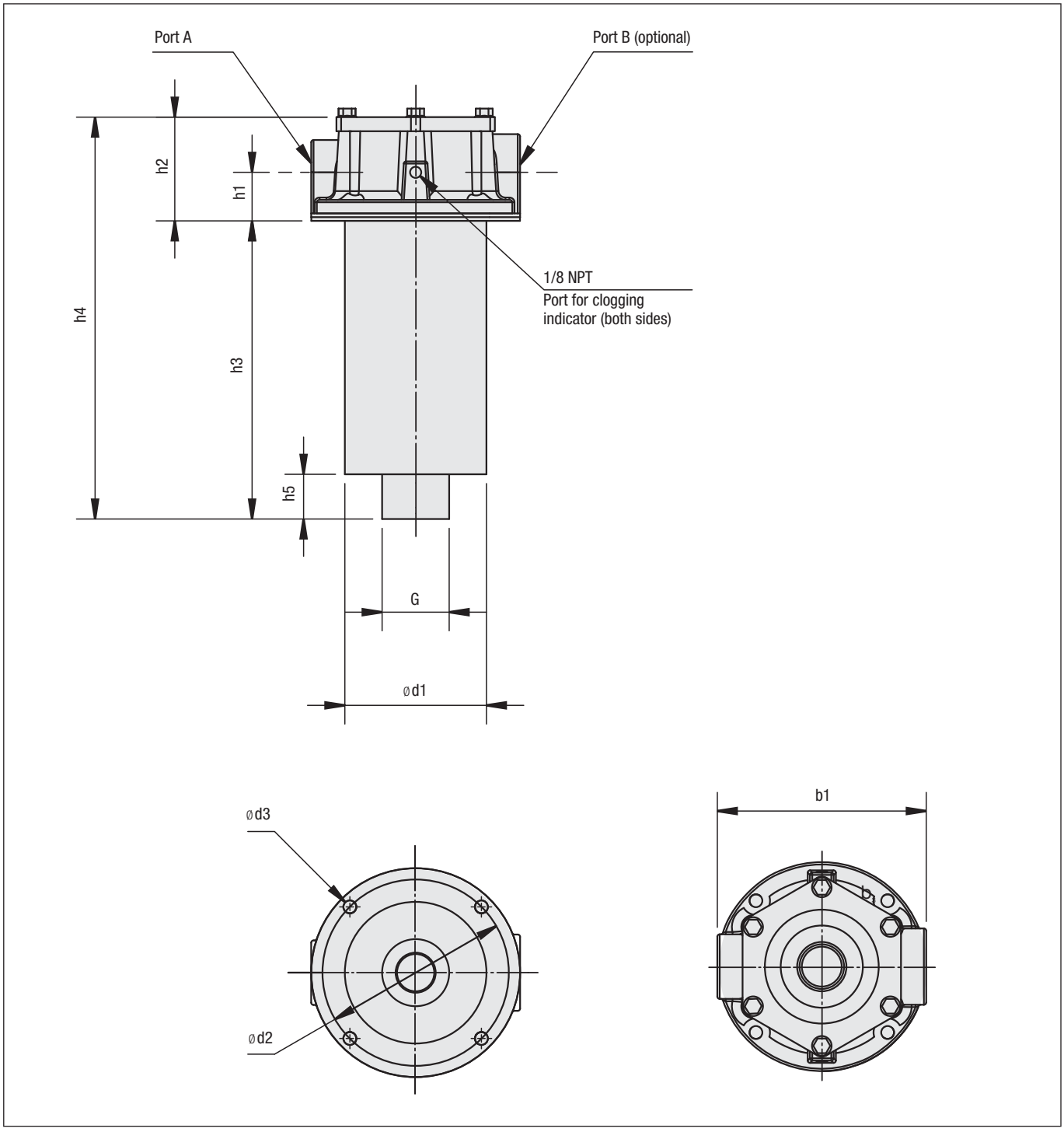
Media Compatibility
- Mineral oils, other fluids on request

Options and Accessories

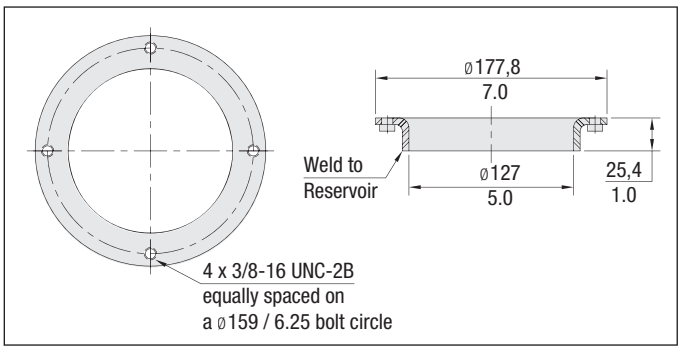
Valve
- Bypass valve: Opening pressures 1 bar / 14.5 PSI ±10 % or 1,7 bar / 25 PSI ±10 %
  Other settings available on request

Clogging Indicators
- Visual clogging indicator, coloured segments
- Electrical clogging switch, adjustable
  Other clogging indicators available on request

Return Line Filters ▪ Type RTF50



Return Line Filters ▪ Type RTF Accessories



RTF50 Series Weld Ring WR-40

The WR-40 weld ring is welded directly to the hydraulic reservoir, eliminating the need for drilling and tapping mounting holes in the reservoir.

Material: Carbon Steel

Dimensions in mm / in

Return Line Filters ▪ Type RTF50

Thread Connection Combinations	Filter Size RTF			
	5...S1		5...S2	
	Port A	Port B	Port A	Port B
NPT (N)	1-1/4	None	1-1/4	None
NPT (NM)	1-1/4	1-1/2	1-1/4	1-1/2
NPT (M)	None	1-1/2	None	1-1/2
Combination SAE & NPT (SM)	1-5/8–12	1-1/2	1-5/8–12	1-1/2
SAE (S)	1-5/8–12	None	1-5/8–12	None
SAE (T)	None	1-7/8–12	None	1-7/8–12
SAE (ST)	1-5/8–12	1-7/8–12	1-5/8–12	1-7/8–12
Combination NPT & SAE (NT)	1-1/4	1-7/8–12	1-1/4	1-7/8–12

Dimensions (mm/in)	Filter Size RTF	
	5...S1	5...S2
h1	49,3	42,3
	1.94	1.67
h2	95,5	88,5
	3.78	3.48
h3	241,3	485,9
	9.50	19.13
h4	336,8	574,9
	13.26	22.61
h5	29,5	38,1
	1.16	1.50
b1	177,8	177,8
	7.00	7.00
d1	124,8	126
	4.91	4.96
d2	158,7	158,7
	6.25	6.25
d3	11,2	11,2
	.44	.44
G	1-1/2 NPT	1-1/2 NPT

Return Line Filter Housings / Complete Filters ▪ Type RTF50

RTF	58	...	...	B	/	N	/	25	/	S2	/	V	/	X
1	2	3	4	5		6		7		8		9		10

1 Type

Return Line Filter	RTF

2 Group

Flow	Size
Group size 58	58
Group size 59	59

Note: Exact flow will depend on filter element selected. Consult technical data on page C120.

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Without filter element	-	-	...
Inorg. glass fibre	10 bar / 145 PSI	3, 5, 10, 25	G
Filter paper	5 bar / 72.5 PSI	3, 10, 20, 25	D

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

3 µm	03
5 µm	05
10 µm	10
20 µm	20
25 µm	25

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	B

Note: Other sealing materials on request

6 Connection Style

Connection Style	Group		Code
	Port A	Port B	
NPT	1-1/4	None	N
NPT	1-1/4	1-1/2	NM
NPT	None	1-1/2	M
Combination SAE & NPT	1-5/8-12	1-1/2	SM
SAE	1-5/8-12	None	S
SAE	None	1-7/8-12	T
SAE	1-5/8-12	1-7/8-12	ST
Combination NPT & SAE	1-1/4	1-7/8-12	NT

7 Valve

No bypass	00
1 bar / 15 PSI	15
1,7 bar / 24.6 PSI	25

8 Length

Bowl Length 1 (1 element)	S1
Bowl Length 2 (2 elements)	S2

9 Clogging Indicator

No clogging indicator	N
Visual clogging indicator	V
Electrical clogging indicator	E

Note: See pages C112 and C121 for more details on indicator ports and types.

10 Design Code

Only for information	X

Filter Elements ▪ Type RTE

RTE	-	58	D	10	B	/	X
1		2	3	4	5		6

1 Type

Filter Element Series	RTE

2 Group

According to filter housing

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Inorg. glass fibre	10 bar / 145 PSI	3, 5, 10, 25	G
Filter paper	5 bar / 72.5 PSI	3, 10, 20, 25	D

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

3 µm	03
5 µm	05
10 µm	10
20 µm	20
25 µm	25

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	B

Note: Other sealing materials on request

6 Design Code

Only for information	X

Return Line Filters ▪ Type RTF-N

Product Description

STAUFF RTF-N Return Line Insert Filters allow for a choice of installation configurations which permits custom reservoir design with an in tank filtering system. The filters are installed semi-immersed or totally immersed into a reservoir. The filtration flow is from inside to the outside of the element which ensures that all the contaminant is collected inside the element itself avoiding contact with the reservoir fluid during element change. The combination of magnetic pre-filtration and high filtration efficiency results in a cost effective and versatile filtration system.

Technical Data

Construction
- Insert filter

Materials
- Flange plate: Aluminum
- Magnet rod: Steel
- Bypass: Steel
- Diffuser: Steel
- Sealings: NBR (Buna-N®)
  FPM (Viton®)
  Other sealing materials on request

Flow Rating
- Up to 500 l/min / 132 GPM

Operating Pressure
- Max. 10 bar / 145 PSI

Temperature Range
- -29°C ...+107°C / -20°F ... +225°F

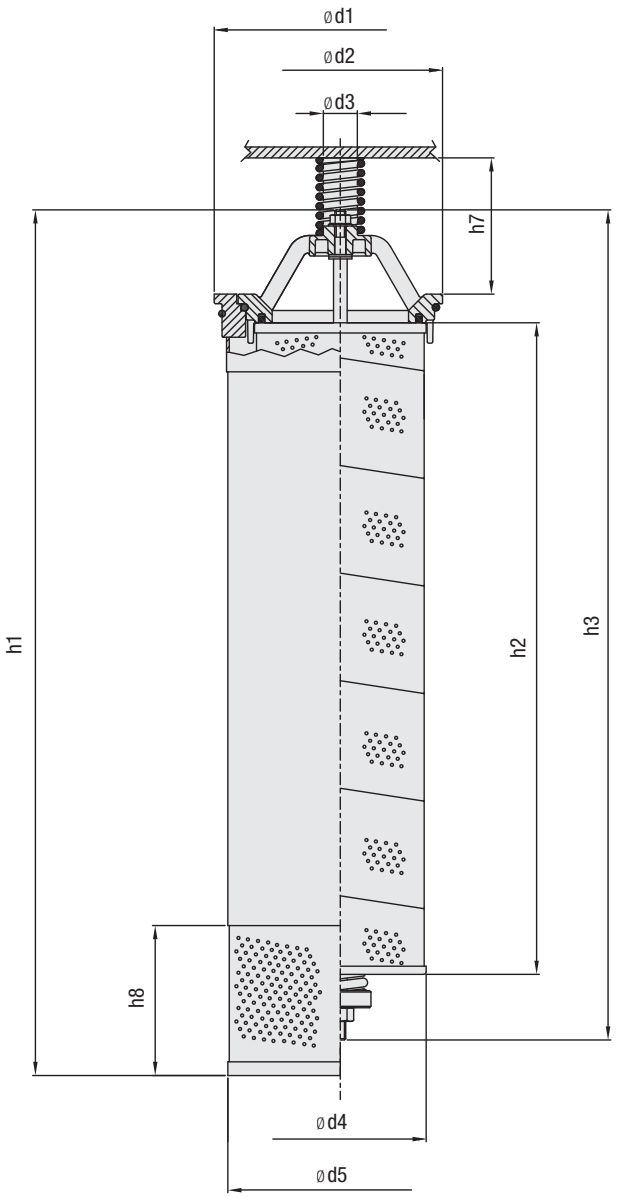
Filter Elements
- Specifications see page C118

Media Compatibility
- Mineral oils, other fluids on request

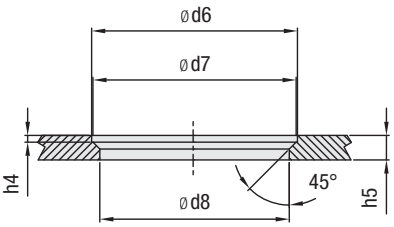
Options and Accessories

Valve
- Bypass valve: (integrated in the filter element) Opening pressure 1,5 bar / 22 PSI
  Other settings available on request

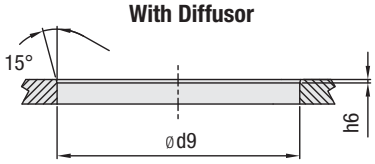
Return Line Filters ▪ Type RTF-N



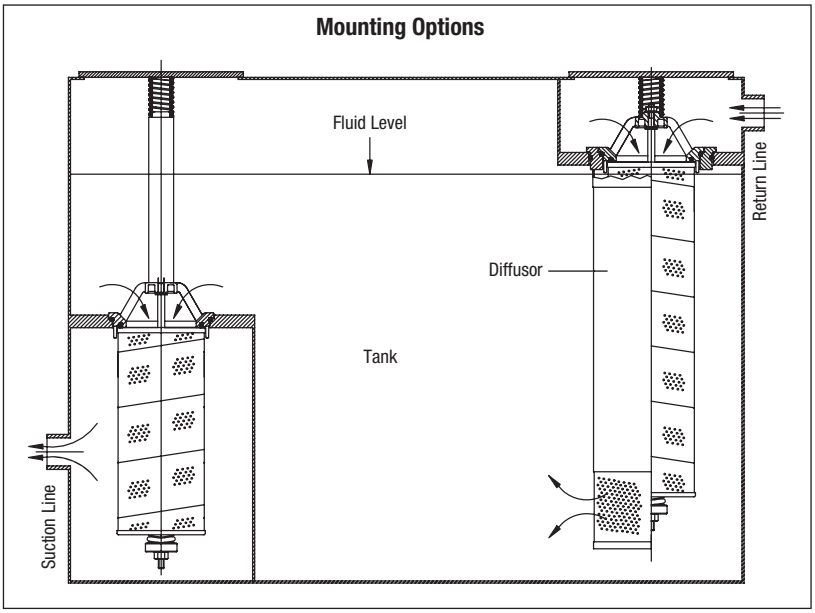
Tank hole for mounting Without Diffusor



Tank hole for mounting With Diffusor



Mounting Options



Return Line Filters ▪ Type RTF-N

Dimensions (mm/in)	Filter Size RTF-N	
	390	500
h1	445	635
	17.52	25.00
h2	290	478
	11.42	18.82
h3	421	609
	16.57	23.98
h4	5	5
	.20	.20
h5	18	18
	.71	.71
h6	2,5	2,5
	.10	.10
h7	100	100
	3.94	3.94
h8	110	110
	4.33	4.33
d1	185	185
	7.28	7.28
d2	150	150
	5.91	5.91
d3	25	25
	.98	.98
d4	126	126
	4.95	4.95
d5	165	165
	6.50	6.50
d6	151	151
	5.94	5.94
d7	149	149
	5.87	5.87
d8	139	139
	5.47	5.47
d9	178	178
	7.01	7.01

Return Line Filter Housings / Complete Filters ▪ Type RTF-N

RTF-N	500	...	...	/	B	/	22	/	D	/	X
1	2	3	4		5		6		7		8

1 Type

Return Line Insert Filter	**RTF-N**

2 Group

Flow	Size
390 l/min /103 US GPM	**390**
500 l/min /132 US GPM	**500**

Note: Exact flow will depend on filter element selected. Consult technical data on page C120.

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Without filter element	-	-	**...**
Inorg. glass fibre	10 bar / 145 PSI	3, 5, 10, 20	**E**
Filter paper	10 bar / 145 PSI	10	**L**

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

3 µm	**03**
5 µm	**05**
10 µm	**10**
20 µm	**20**

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	**B**
FPM (Viton®)	**V**

Note: Other sealing materials on request

6 Bypass Setting

1,5 bar / 22 PSI	**22**

7 Options

Without diffusor	**none**
With diffusor	**D**

8 Design Code

Only for information	**X**

Filter Elements ▪ Type RA

RA	-	500	E	10	/	B	/	X
1		2	3	4		5		6

1 Type

Element for Insert Filter	**RA**

2 Group

According to filter housing

3 Filter Material

Material	Max. Δp*collapse	Micron ratings available	Code
Ionrg. glass fibre	10 bar / 145 PSI	3, 5, 10, 20	**E**
Filter paper	10 bar / 145 PSI	10	**L**

*Note: Collapse/burst resistance as per ISO 2941
Other materials on request

4 Micron Rating

3 µm	**03**
5 µm	**05**
10 µm	**10**
20 µm	**20**

Note: Other micron ratings on request

5 Sealing Material

NBR (Buna®)	**B**
FPM (Viton®)	**V**

Note: Other sealing materials on request

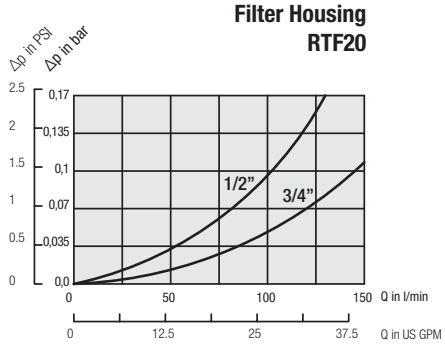
6 Design Code

Only for information	**X**

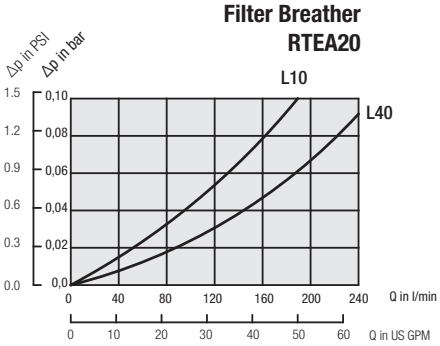
Return Line Filters ▪ Type RTF Flow Characteristics

The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s (30cSt). The characteristics have been determined in accordance to ISO 3968. Multipass filter ratings have been obtained in accordance to ISO 16889. The housing pressure drop is directly proportional to the oil density. Consult STAUFF for details.

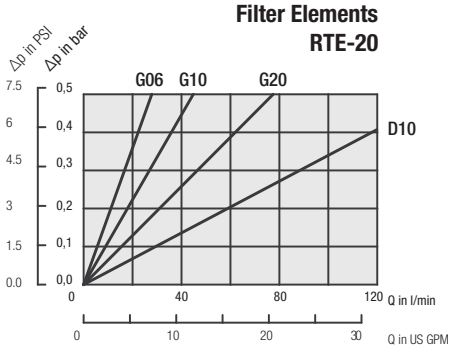
Filter Housing RTF20



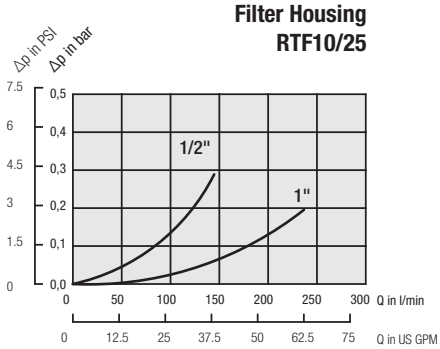
Filter Breather RTEA20



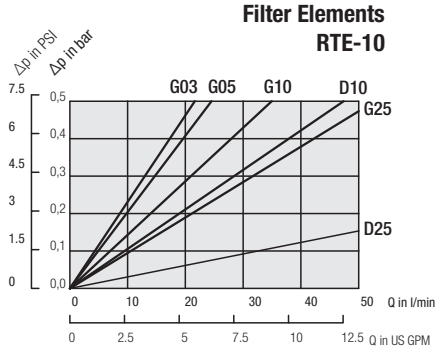
Filter Elements RTE-20



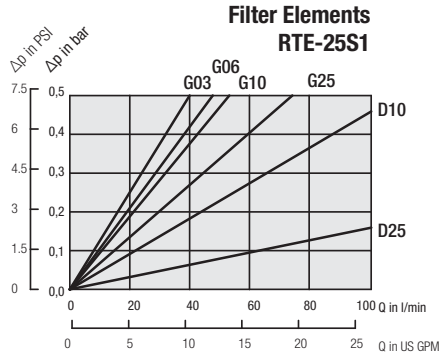
Filter Housing RTF10/25



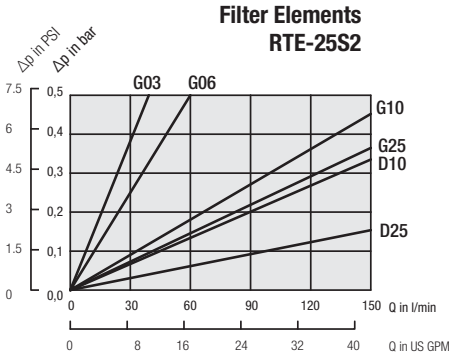
Filter Elements RTE-10



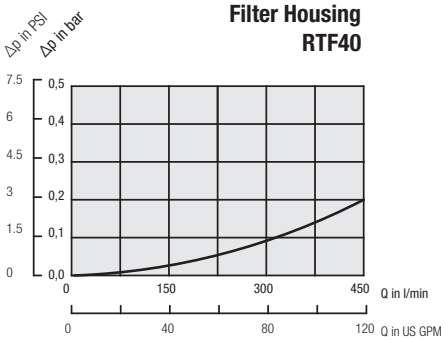
Filter Elements RTE-25S1



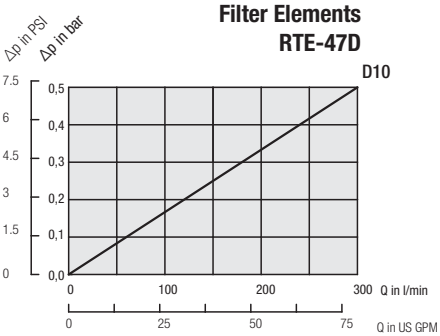
Filter Elements RTE-25S2



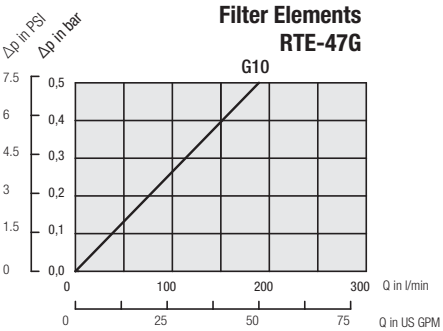
Filter Housing RTF40



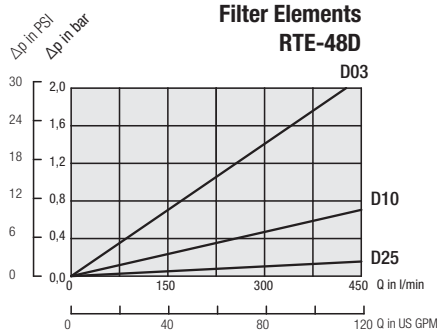
Filter Elements RTE-47D



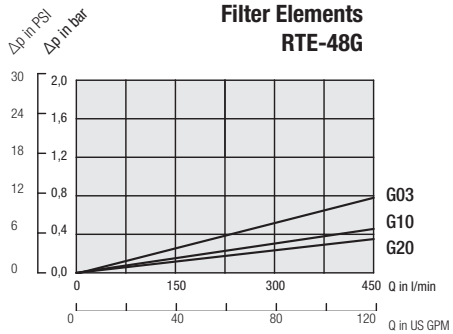
Filter Elements RTE-47G



Filter Elements RTE-48D



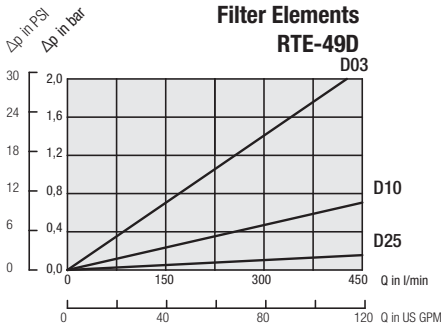
Filter Elements RTE-48G



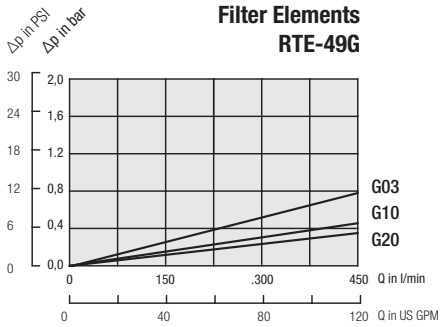
Return Line Filters ▪ Type RTF Flow Characteristics

The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s (30cSt). The characteristics have been determined in accordance to ISO 3968. Multipass filter ratings have been obtained in accordance to ISO 16889. The housing pressure drop is directly proportional to the oil density. Consult STAUFF for details.

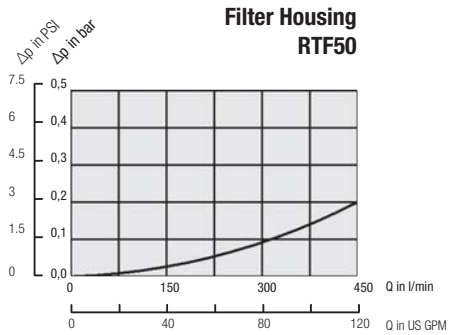
Filter Elements RTE-49D



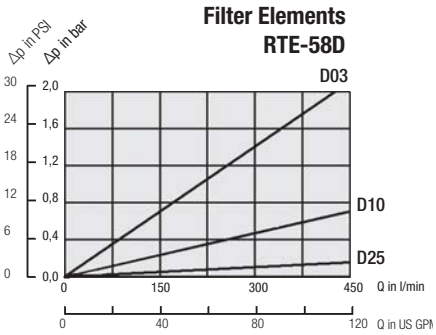
Filter Elements RTE-49G



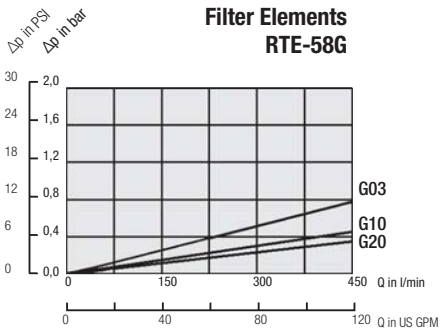
Filter Housing RTF50



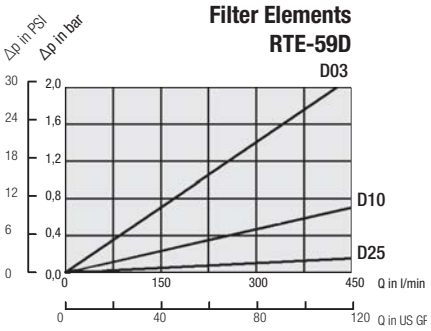
Filter Elements RTE-58D



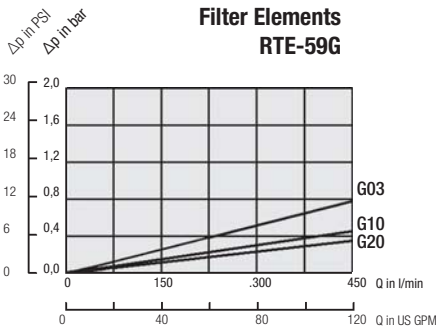
Filter Elements RTE-58G



Filter Elements RTE-59D

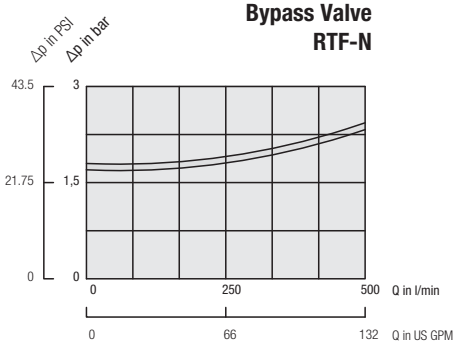


Filter Elements RTE-59G

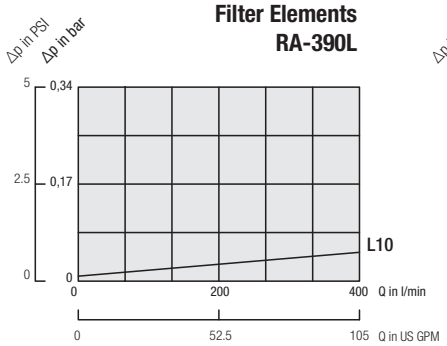


Note: Element pressure drop curves are for "S1" single elements. For "S2" double elements use 50% of the "S1" Value.

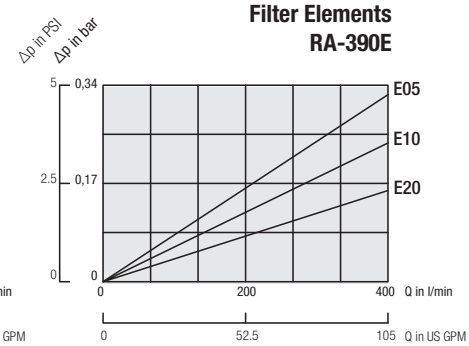
Bypass Valve RTF-N



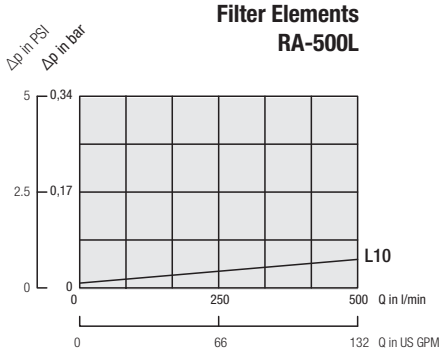
Filter Elements RA-390L



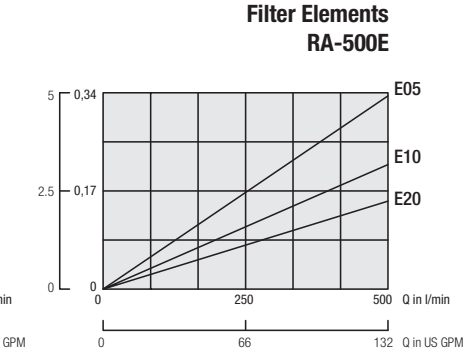
Filter Elements RA-390E



Filter Elements RA-500L



Filter Elements RA-500E



RTF Filter Indicators

Visual Indicators

SIM-04

CI-12

Visual Pressure Clogging Indicators							
	Type	Thread Connection G	Unit of scale	Range of scale	Coloured Segments		
					Green	Yellow	Red
BSP	SIM-02	1/8	bar	0 ... 2,5	0 ... 1,2	1,2 ... 1,5	1,5 ... 2,5
	SIM-04	1/8	bar	0 ... 4	0 ... 2,5	2,5 ... 3	3 ... 4
	SIM-12	1/8	bar	0 ... 12	without coloured segments		
NPT	CI-12	1/8	PSI	0 ... 100	0 ... 13	13 ... 15	15 ... 100
	CI-20	1/8	PSI	0 ... 100	0 ... 21	21 ... 25	25 ... 100

Electrical Indicators

SIE-NO/NC

EPS

Electrical Clogging Indicators					
	Type	Thread Connection G	Unit of scale	Adjustable range / Actuating pressure	Max. over pressure
BSP	SIE-NO	1/8	bar	1,3 (normally open)	80 bar / 1160 PSI
	SIE-NC	1/8	bar	1,3 (normally closed)	80 bar / 1160 PSI
	EPS-1B	1/8	bar	0,35 ... 2,5	25 bar / 362 PSI
NPT	EPS-1	1/8	PSI	5 ... 35	24 bar / 350 PSI

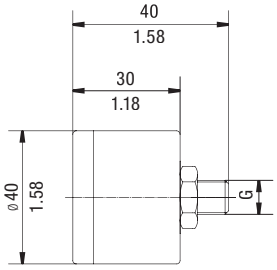
Technical Data SIE / EPS

	Type EPS-1 / 1B
Electrical data	6 Amp 125/250 V AC
Protection	DIN 43650 IP65
Temperature Range	-5°C ... +90°C / +23°F ... +194°F (ambient and media)
Diaphragm Material	NBR
Housing Material	Brass
Adjustable Range	0,35 bar ... 2,0 bar / 5 ... 30 PSI
Dead Band	20% F.S.
Weight	0,1 kg / .22 lbs
Repeatability	± 2 %
Hirschmann Connector With Strain Relief	

	Type SIE (electrical switch)
Electrical data	48V
Protection	DIN 43650 IP54
Temperature Range	-5°C ... +60°C / +23°F ... +140°F (ambient and media)
Diaphragm Material	NBR
Housing Material	Brass
Actuating Pressure	1,3 bar / 19 PSI
Max. current (res.)	0,5 A
Max. current (ind.)	0,2 A
Available as “normally open” (closes contact at actuating pressure) and as “normally closed” (opens contact at actuating pressure)	

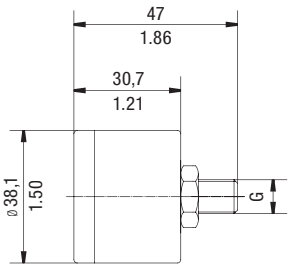
Dimensions

Type SIM



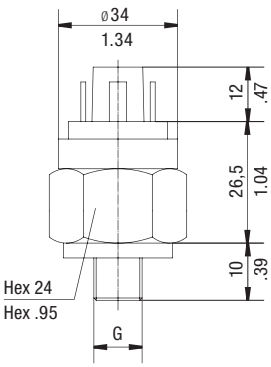
Material for movement and pressure element: Brass

Type CI

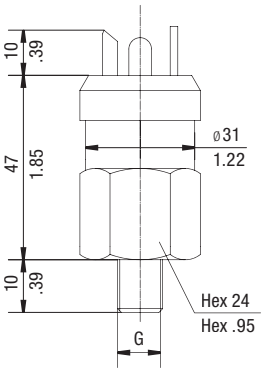


Material for movement and pressure element: Brass

Type SIE



Type EPS



Dimensions in mm/in