

Hydraulic Accessories Level Gauges



Quality and Service
worldwide

Walter Stauffenberg GmbH & Co. KG

P.O.Box 1745 · D-58777 Werdohl
Im Ehrenfeld 4 · D-58791 Werdohl
Tel. : + 49 (0) 2392 916-0
Fax: + 49 (0) 2392 2505
e-mail: sales@stauff.com
Internet: http://www.stauff.com

Oil Solutions

PO Box 653 Castlemaine 3450
Phone 0421 336 009
Fax 03 9012 4332
sales@oilsolutions.com.au
www.oilsolutions.com.au

Australia:

Stauff Corporation (Pty.) Ltd.
P.O. Box 227
24-26 Doyle Avenue, Unanderra
Wollongong, N.S.W.
AUS-2526 Unanderra
Tel. : + 61 2 42 71 18 77
Fax: + 61 2 42 71 84 32

Brazil:

Stauff Brasil Ltda.
Avenida Gupe 10.767
Galpa" o 2, Bloco A
WT – Empresarial Parque Castello Branco
BRA-Barueri – SP
CEP: 06422-120
Tel: +55 1147899020
Fax: +55 1147899021

China:

Stauff International Trading (Shanghai) Co., Ltd.
Shangdian Mansion, Pudong
331, Binzhou Road
CHN-200126 Shanghai
Tel. : + 86 21 58 45 65 60
Fax: + 86 21 58 45 66 80

France:

Stauff s.a.
230, Avenue du Grain d'Or
Z.I. de Vineuil-Blois Sud
F-41354 Vineuil-cedex
Tel. : + 33 2 54 50 55 50
Fax: + 33 2 54 42 29 19

India:

Stauff India Pvt. Ltd.
Gat. No. 2340
Pune-Nagar Road, Wagholi
IND-Pune - 412207
Tel. : + 91 20 705 19 90
Fax: + 91 20 705 19 89

Italy:

Stauff Italia s.r.l.
Via Pola 21/23
I-20034 Birone di Giussano
Tel. : + 39 0362 31 21 13
Fax: + 39 0362 33 55 36

Japan:

Ohtsuka Tec. Co. Ltd.
1-7-19 Minami Shinagawa
Shinagawa-Ku
JPN-Tokyo 140
Tel. : + 81 3 34 72 12 01
Fax: + 81 3 34 72 12 09

Canada:

Stauff Canada Ltd.
866 Milner Avenue
CAN-Scarborough, Ontario M1B 5N7
Tel. : + 1 416 282 46 08
Fax: + 1 416 282 30 39

USA:

Stauff Corporation
7 Wm. Demarest Place
USA-Waldwick, N.J. - 07463
Tel. : + 1 201 444 78 00
Fax: + 1 201 444 78 52

United Kingdom:

Stauff UK
332, Coleford Road
Darnall
GBR-Sheffield, S 9 5 P H
Tel. : + 44 1142 518 518
Fax: + 44 1142 518 519

Stauff Hydraulic Accessories

- ◆ **Breathers**
- ◆ **Diffusers**
- ◆ **Flow Indicators**
- ◆ **Level Gauges**
- ◆ **Pressure Gauges**
- ◆ **Spin On Filters**
- ◆ **Suction Strainers**
- ◆ **Valves**

The STAUFF hydraulic accessories program has been carefully designed to offer a range of components suited to the demands of building hydraulic systems in most industrial and mobile applications.

Whether you require simple filler breathers or precise electrical level switches, flow control valves or complete filter units; the STAUFF accessories range should provide you with the choice you need.

At Stauff we are aware of the ongoing development and innovation within the hydraulic industry. We strive to keep up with and further develop the latest technology and to bring the benefit of any such improvements directly to the customer.

Additionally we are always prepared to consider custom built products, if you have a special need.

We ensure that your most urgent requirements are met by keeping a large and comprehensive stock in Australia

These products are subject at all times to our DIN ISO 9001 Quality Management Systems.



Area of Application:

Visual fluid level indication in hydraulic reservoirs

Characteristics:

- suitable for hydraulic oil HL, HLP, gasoline up to 80°C max, and diesel fuels up to 60°C max
- option available with dial thermometer with probe or thermo switch (Page 6)
- UV-resistant

Please consult our office before you use SNA with other fluids such as biological oils. Special requirements on request.

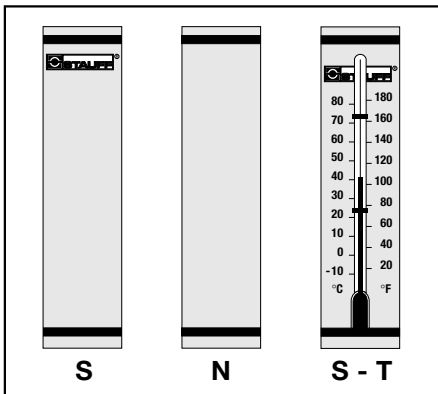
Technical Data:

Temperature range: -20°C ... +80°C
 Calibration of capillary tube thermometer:
 SNA 076 +20°C ... +80°C
 SNA 127/176/254 -10°C ... +80°C
 Calibration of dial thermometer with probe:
 0°C ... +100°C
 Tank pressure: 1 bar max
 Recommended tightening torque: 8 Nm

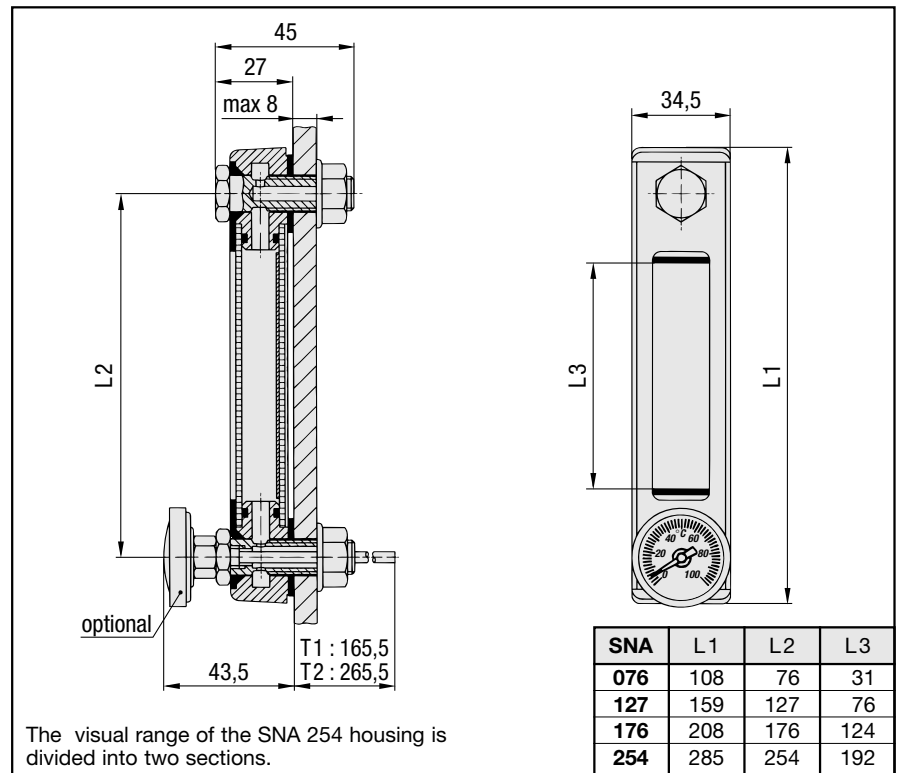
Materials:

Housing: St 12 (black epoxy)
 Plugs, Sight tube: PA
 Scale Plates: PVC

Design of scale plates



Dimensions



Ordering Code

SNA 127 B - S - T1 - 12 - O60

Type SNA		Thermo Switch for size M12 only	
Series		(none)	without thermo switch
076	SNA 076	O60	TS-SNA/SNK-O-60
127	SNA 127	O70	TS-SNA/SNK-O-70
176	SNA 176	O80	TS-SNA/SNK-O-80
254	SNA 254	Banjo bolts	
Seal material		12	M12 (standard)
B	NBR (standard)	10	M10
V	FPM	Thermometer	
Design of scale plate		O	without thermometer
S	with STAUFF-Logo	T	Capillary tube thermometer on scale plate
N	neutral	T1	Dial thermometer with 200 mm probe
X	Special executions	T2	Dial thermometer with 300 mm probe



Area of Application:

Visual / electrical fluid level indication in hydraulic reservoirs

Characteristics:

- suitable for hydraulic oil HL, HLP, gasoline up to 80°C max, and diesel fuels up to 60°C max
- option available with dial thermometer with probe or thermo switch (Page 6)
- UV-resistant
- available either as a break contact (Type O) or make contact (Type C)

Please consult our office before you use SNA with other fluids such as biological oils. Special requirement on request.

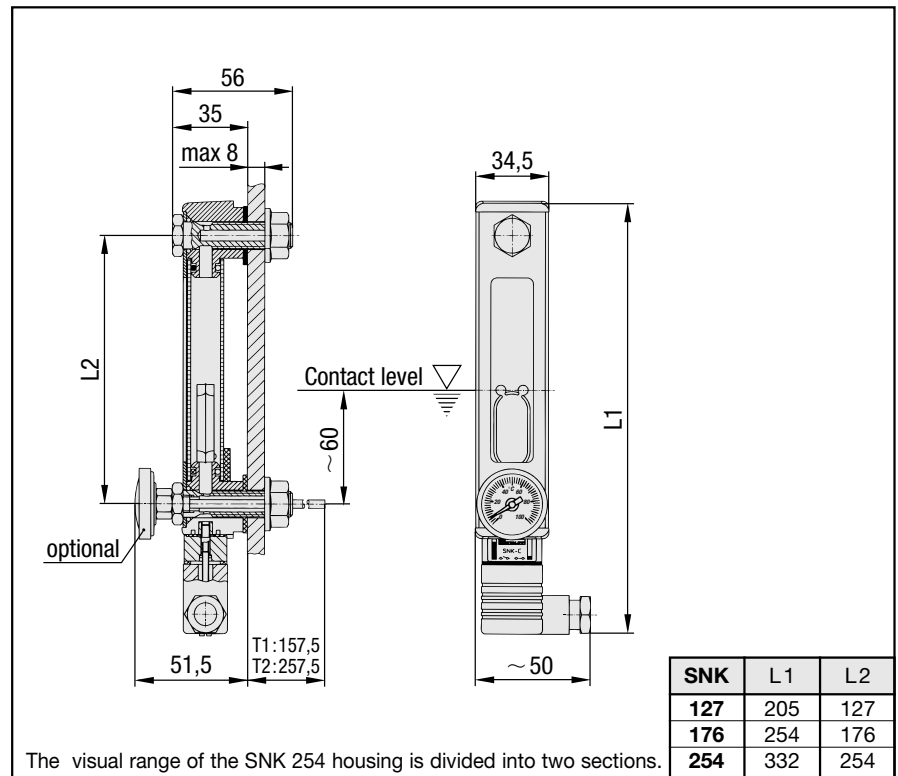
Technical Data:

Temperature range: -20°C ... +80°C
 Calibration of dial thermometer with probe:
 0°C ... +100°C
 Tank pressure: 1 bar max
 Recommended tightening torque: 8 Nm
 Please allow a minimum spacing of 10 mm between other components.

Materials:

Housing: AL (plastic coated)
 Plugs, Sight tube: PA
 Float: PA

Dimensions



Electrical Connections and Functions

Contact load:
 max 10 W (Type C)
 max 3 W (Type O)

Bias-reducing Potential:
 50 V AC/DC

Current on Contact:
 max 0,50 A (Type C)
 max 0,25 A (Type O)

Electrical switch PG9
 Protection IP 65
 Connection 3 is not engaged

Type C

Type O

Type C

Type O

Ordering Code

When assembling the electrical contacts the orientation of the electrical switch (right or left hand side) can be chosen according to the requirements.

SNK 127 V - C - T1 - 12 - O60

Type SNK		Thermo Switch for size M12 only										
Series		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>(none)</td> <td>without thermo switch</td> </tr> <tr> <td>O60</td> <td>TS-SNA/SNK-O-60</td> </tr> <tr> <td>O70</td> <td>TS-SNA/SNK-O-70</td> </tr> <tr> <td>O80</td> <td>TS-SNA/SNK-O-80</td> </tr> </table>	(none)	without thermo switch	O60	TS-SNA/SNK-O-60	O70	TS-SNA/SNK-O-70	O80	TS-SNA/SNK-O-80		
(none)	without thermo switch											
O60	TS-SNA/SNK-O-60											
O70	TS-SNA/SNK-O-70											
O80	TS-SNA/SNK-O-80											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>127</td> <td>SNK 127</td> </tr> <tr> <td>176</td> <td>SNK 176</td> </tr> <tr> <td>254</td> <td>SNK 254</td> </tr> </table>	127	SNK 127	176	SNK 176	254	SNK 254						
127	SNK 127											
176	SNK 176											
254	SNK 254											
Seal material		Banjo bolts										
V FPM (standard)		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>12</td> <td>M12 (standard)</td> </tr> <tr> <td>10</td> <td>M10</td> </tr> </table>	12	M12 (standard)	10	M10						
12	M12 (standard)											
10	M10											
Electrical function		Thermometer Dial thermometer with probe T1/T2 for size M12 only										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>C</td> <td>Make contact, closes at minimum level (n/o)</td> </tr> <tr> <td>O</td> <td>Break contact, opens at minimum level (n/c)</td> </tr> </table>	C	Make contact, closes at minimum level (n/o)	O	Break contact, opens at minimum level (n/c)		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>O</td> <td>without thermometer</td> </tr> <tr> <td>T1</td> <td>Dial thermometer with 200 mm probe</td> </tr> <tr> <td>T2</td> <td>Dial thermometer with 300 mm probe</td> </tr> </table>	O	without thermometer	T1	Dial thermometer with 200 mm probe	T2	Dial thermometer with 300 mm probe
C	Make contact, closes at minimum level (n/o)											
O	Break contact, opens at minimum level (n/c)											
O	without thermometer											
T1	Dial thermometer with 200 mm probe											
T2	Dial thermometer with 300 mm probe											



Area of Application:

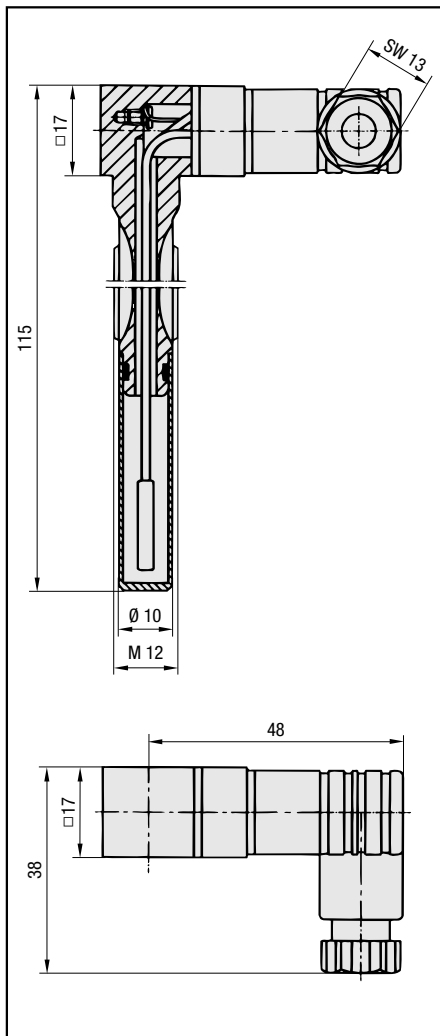
Oil temperature indication in conjunction with STAUFF level gauges SNA and SNK

Characteristics / Materials:

- available with 60°C, 70°C or 80°C switching temperature
- Activation takes place when the respective switching temperature is exceeded.
- Electrical function: break contact
- Steel parts made out of 1.0718
- Plastic parts made out of glass fibre reinforced polyamide

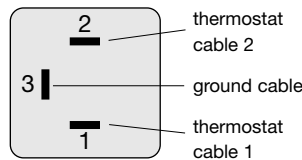
Thermo switches are available for the standard mounting size M12 only.

Dimensions



Technical Data (Break contact):

Switching temperature: see ordering code
 Hysteresis: 20° C
 Switching temperature tolerance: ± 5°C.



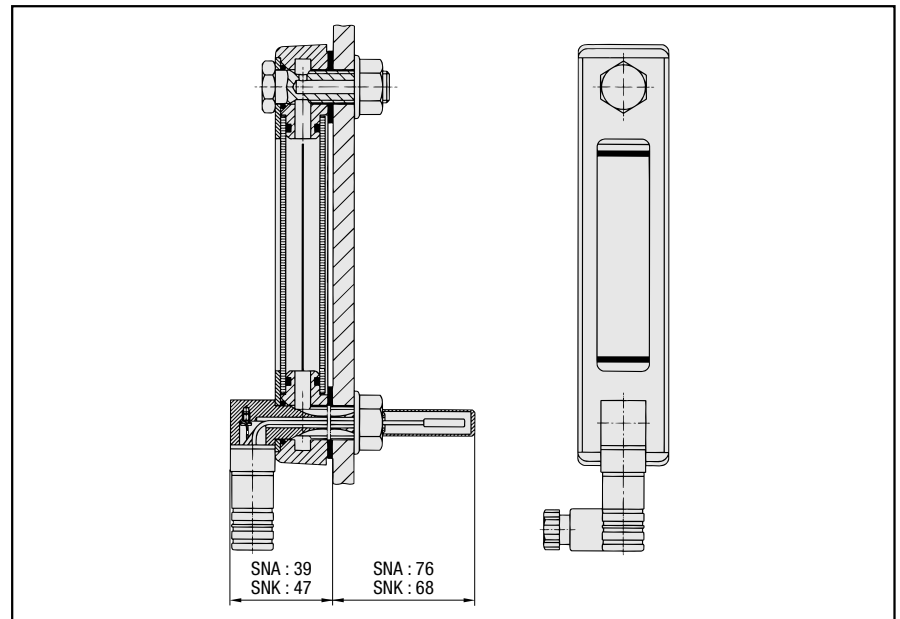
Alternating current

- max voltage 250 V
- max current at 10.000 circuits
 - 2,5 A at cos φ = 1,0
 - 1,6 A at cos φ = 0,6
- max current at 100.000 circuits
 - 0,5 A at cos φ = 1,0
 - ≈ 0,25 A at cos φ = 0,6
- min voltage 50 mA

Direct current

- max voltage 42 V
- max current at 10.000 circuits 1 A

Example of application



Ordering Code and Temperature Range

TS - SNA / SNK - O - 60	
Type	Switching temperature
TS Thermo Switch	60 60°C / 140°F
Series	70 70°C / 158°F
SNA / SNK	80 80°C / 176°F
Electrical function	
O Break Contact (n/c)	

Thermo switches can be ordered both as a single component and in combination with STAUFF level gauges SNA and SNK. See pages 4 and 5.



Area of Application:

Electrical level and temperature indication

Characteristics:

- suitable for mineral oil and HFC fluids
- either 1 or 2 level contacts available
- 1 integrated temperature sensor
- standard electrical function:
 Level contacts: normally closed, opens with falling level
 Temperature contact: normally closed, opens with rising temperature

STAUFF Level-Temperature switches SLTS are available with other electrical functions on request.

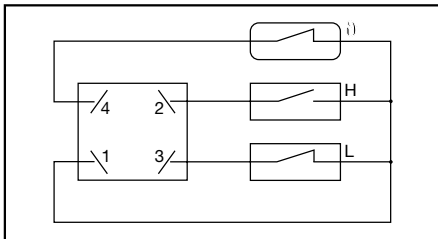
Technical Data

Stem:	Brass
Float:	NBR
max operating temperature:	80°C
max operating voltage:	48 V
max current (level contact):	0,5 A
max current (temperature contact):	2,0 A
contact load level contact:	10 VA
system of protection:	IP65
Hysteresis:	12°C

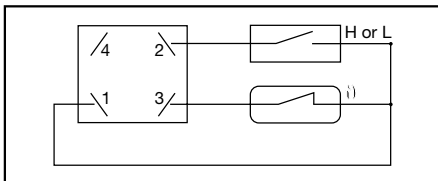
Level contact positions (L, H) are set as given in the chart. They can be adjusted individually lateron.

Please consider a minimum distance of 40 mm between the switching points.

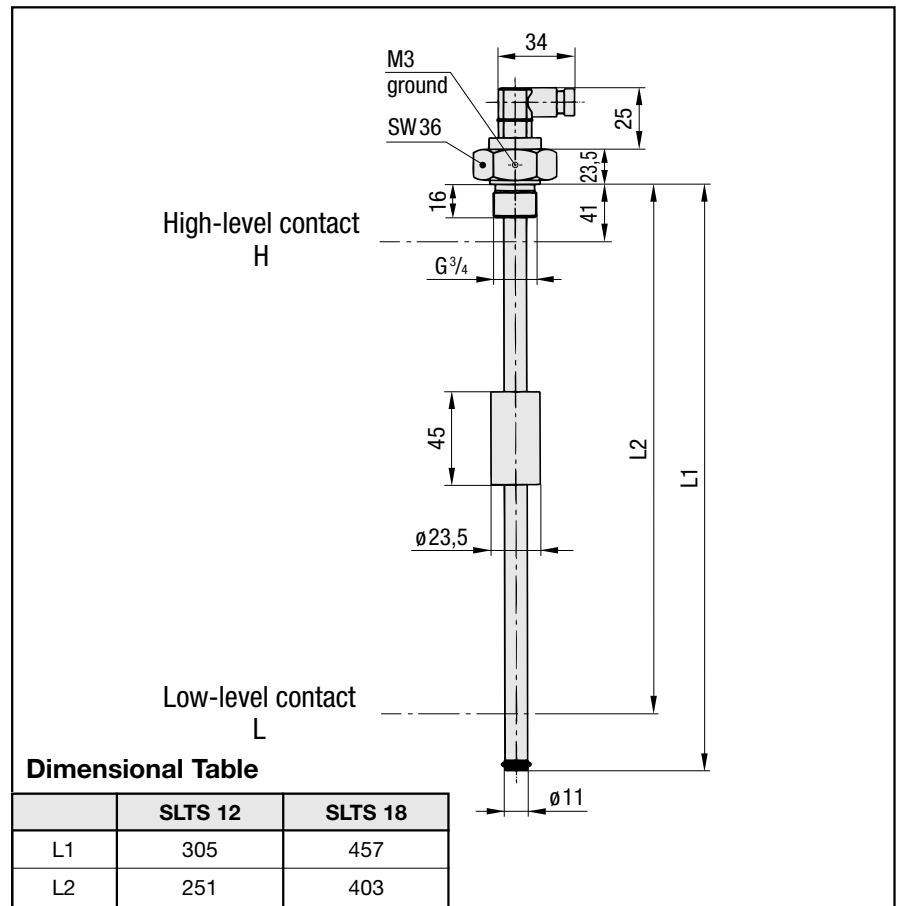
Wiring Scheme for type 2LH



Wiring Scheme for type 1L or 1H



Dimensions



Dimensional Table

	SLTS 12	SLTS 18
L1	305	457
L2	251	403

Ordering Code

SLTS 12 - 140 - 2LH - B12 - G048

Type SLTS Level-temperature switch		Voltage G048 48 Volt max (standard) G115 115 Volt max (for thread N16 only)
Stem Length 12 305 mm 18 457 mm		Thread B12 G ^{3/4} (standard) N16 1 NPT (only on request)
Switching temperature 140 60°C / 140°F 158 70°C / 158°F O without temperature switch		Number of level switches 1 1 level switch (L, H)* 2 2 level switch (LH)*

* please indicate level position(s): L = low, H = high

Product range



STAUFF CLAMPS:

Clamping systems for tubes, hoses, pipes, cables and components

Original STAUFF Clamps:

The tube fastening system in accordance with DIN 3015

Dimensional range from 6 to 800 mm

Different materials available

U-Bolt and DIN clamps

Angle Adjustment Clamps

Special clamps and supports:

Custom built solutions



STAUFF TEST:

Pressure test systems

Venting and sampling of liquid and gas pressure systems

nominal working pressure: 630 bar maximum

100% closeness control

components tested in accordance with DIN 40.080

Test couplings and accessories:

Adaption threads M16x2 - M16x1,5 -

S12,65x1,5- Plug-in system

Test hoses:

DN 2 and DN 4; hose length and fittings on request

MINITESTER PPC-04:

Digital measuring device for:

Working pressure

Differential pressure

Temperature

Flow

RPH

Data output via

PC or printer



STAUFF FILTERS:

Hydraulic filtration systems

High pressure filters for in-line mounting:

maximum working pressure: 630 bar

Return line tank top filters:

maximum working pressure: 16 bar

Replacement filter elements:

Compatible quality and dimensional interchange to suit most filter makes produced in own facilities

Filter materials: Glass fibre, Metal fibre, Polyester fibre, Wire mesh, Paper



STAUFF HYDRAULIC ACCESSORIES:

Components for the construction of tanks and power units and mobile hydraulics

Level gauges

Filler breathers

Check valves

Diffusers

Spin-On - Filters

Return line bushes

Gauge isolator valves

Level temperature switches

Throttle and shut-off valves

Desiccant air breathers

Suction strainers

Stainless steel pressure gauges

Flow indicators

Air filters



STAUFF BALL VALVES:

Ball valves for flow control in steel, stainless steel,

alloy and other materials.