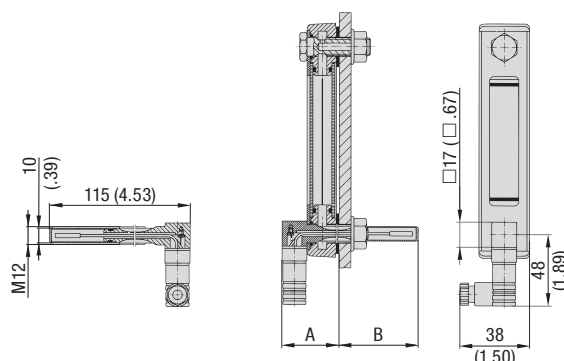
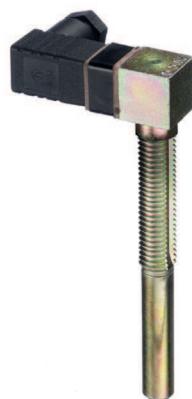
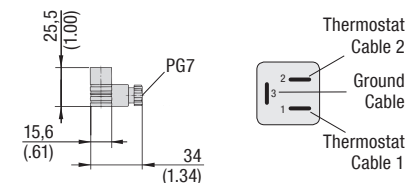


## Thermo Switch Type TS

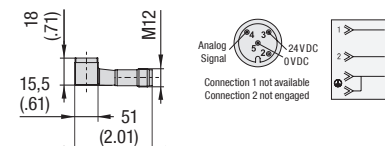


### Connection Details and Electrical Functions

Types C and O: Industrial standard connector (contact gap: 9,4 mm / .37 in), similar to DIN EN 175301-803-C / ISO 6952



Types CD and OD: Five-pin circular connector M12, A-coded, according to IEC 61076-2-101



### Characteristics

Fluid temperature measurement in conjunction with STAUFF Level Gauges SNA, SNK and SNKK

#### Installation

- Replaces the lower banjo bolt of the Level Gauge
- Available for bolt size M12 only
- Clearance hole: Ø13 mm / Ø.51 in

#### Materials

- Metal parts made of Steel (1.0718)
- Plastic parts made of glass-fibre reinforced Polyamide (PA)

#### Electrical Specifications (General)

- Thermo switch is activated when the fluid temperature reaches the respective switching temperature
- Available with switching temperatures of +60 °C / +140 °F, +70 °C / +158 °F, +80 °C / +176 °F or +90 °C / +194 °F (with a switching tolerance of ±5 °C / ±9 °F and a hysteresis of 35 °C / 63 °F)
- Available as a break contact (normally closed) or make contact (normally open)
- Either equipped with industrial standard connector (types C / O) or five-pin circular connector M12 (types CD / OD)
- Thermo switch can be rotated by 360° to its final direction

### Dimensions

	Dimensions (mm/in)	
	A	B
In conjunction with Level Gauge SNA	39 1.54	76 2.99
In conjunction with Level Gauge SNK	47 1.85	68 2.68
In conjunction with Level Gauge SNKK	47 1.85	68 2.68

#### Electrical Specifications (Alternating Current)

- Maximum voltage: 250 V, 2,5 (1,6) A, 50 Hz
- Maximum current at 2000 operations: 4,0 A at  $\cos \varphi = 0,45$  / 250 V, 135 °C
- Maximum current at 10000 operations: 2,5 A at  $\cos \varphi = 1,00$  / 250 V, 150 °C
- Minimum current: 20 mA

#### Electrical Specifications (Direct Current)

- Maximum voltage: 42 V

#### Accessories / Options

- Deutsch Adaptor Cable
- Please see page 20 for details.

### Order Codes

**TS-SNA/SNK - O - 60**

①      ②      ③

#### ① Type

Thermo Switch TS for use with Level Gauges SNA, SNK and SNKK

**TS-SNA/SNK**

#### ② Electrical Function

Break contact, opens at switching temperature (normally closed); Equipped with standard connector

**O**

Break contact, opens at switching temperature (normally closed); Equipped with connector M12

**OD**

Make contact, closes at switching temperature (normally open); Equipped with standard connector

**C**

Make contact, closes at switching temperature (normally open); Equipped with connector M12

**CD**

#### ③ Switching Temperature

Contact switches at +60 °C / +140 °F

**60**

Contact switches at +70 °C / +158 °F

**70**

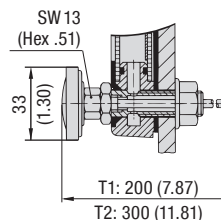
Contact switches at +80 °C / +176 °F

**80**

Contact switches at +90 °C / +194 °F

**90**

## Dial Thermometer with Probe Types T1/T2



### Characteristics

Visual fluid temperature measurement in conjunction with STAUFF Level Gauges SNA, SNK and SNKK

#### Nominal Sizes and Designs

- Probe lengths of 200 mm / 7.87 in or 300 mm / 11.81 in
- Scale diameter of 33 mm / 1.30 in

Please contact STAUFF for special versions.

#### Scale Options

- Celsius scale of 0 °C ... +100 °C
- Dual Celsius / Fahrenheit scale of up to +100 °C / +200 °F

#### Materials

- Probe made of Stainless Steel V4A (1.4571)

#### Technical Data

- IP 65 protection rating: Dust tight and protected against water jets

#### Installation

- Requires a special banjo bolt (with internal M8 port for the dial thermometer with probe) to replace the lower standard banjo bolt of the Level Gauge
- Use suitable wrench SW 13 (Hex .51) to fasten; turning on the body itself may damage the product

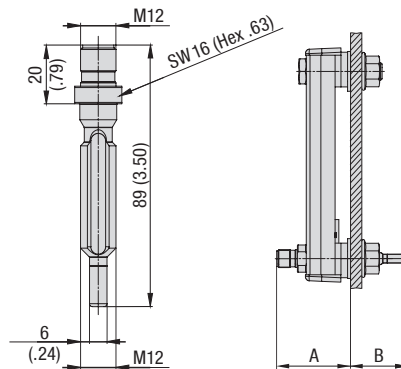
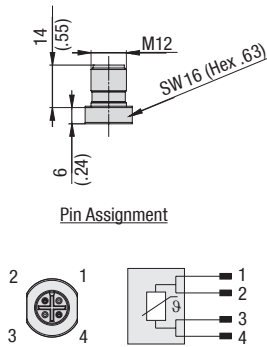
Please note that Dial Thermometers with Probe can only be ordered in conjunction with Level Gauges SNA, SNK and SNKK. Please see page 14 to 17 for details.

Dimensional drawings: All dimensions in mm (in).



## Connection Details and Electrical Functions

Four-pin circular connector M12,  
A-coded, according to IEC 61076-2-101



A

## Order Codes

**TS-SNA/SNK-PT100**

①

### ① Type

Temperature Sensor PT100 **TS-SNA/SNK-PT100**

## Dimensions

	Dimensions (mm/in)	
	A	B
In conjunction with Level Gauge <b>SNA</b>	43,5 1.71	45,5 1.79
In conjunction with Level Gauge <b>SNK</b>	51 2.01	38 1.50
In conjunction with Level Gauge <b>SNKK</b>	51 2.01	38 1.50

## Technical Data

- Operating temperature range (for the connector area):  
-25 °C ... +80 °C / -13 °F ... +176 °F
- IP 68 protection rating: Dust tight and protected against powerful water jets; even immersion (beyond 1 m / 3.28 ft) in water is possible under defined conditions of pressure and time

## Accessories / Options

- Deutsch Adaptor Cable
- Please see page 20 for details.

## Characteristics

Fluid temperature measurement in conjunction with STAUFF Level Gauges SNA, SNK and SNKK; Analysis of signals with required equipment, simply connect to your on board control unit or PLC.

## Installation

- Replaces the lower banjo bolt of the Level Gauge
- Available for bolt size M12 only
- Clearance hole: Ø13 mm / Ø.51 in

## Materials

- Metal parts (including all fluid-affected parts) made of Stainless Steel V2A (1.4305)

## Electrical Specifications

- Measuring temperature range:  
-40 °C ... +150 °C / -40 °F ... +302 °F
- Platinum measuring element PT100 according to DIN EN 60751, class A
- Accuracy:  $\pm(0,15 \text{ K} + 0,002 \times |t|)$
- Max. contact current: 2,0 mA
- Equipped with four-pin circular connector M12 with gold-plated contacts

## Order Codes

**TS-SNA/SNK-PT100-T-B**

①

②

③

### ① Type

Temperature Sensor PT100 **TS-SNA/SNK-PT100**

### ② Direct Adaptor

Direct installation set including M12 screw nut, gasket, front ring and O-ring

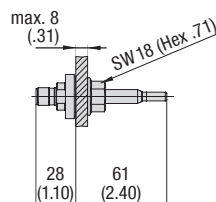
**T**

### ③ Sealing Material

NBR (Buna-N®) (standard option)  
FKM/FPM (Viton®)  
EPDM

**B**  
**V**  
**E**

The direct installation set can also be used in conjunction with Thermo Switches TS (see page 18). Please contact STAUFF for further information.



## Materials

- Fluid-affected parts made of Stainless Steel V2A (1.4305)
- M12 screw nut made of Steel, zinc-plated
- Front ring made of Stainless Steel V2A (1.4305)
- O-ring and gasket made of NBR (Buna-N®) (standard option), FKM/FPM (Viton®) or EPDM

Please see top of this page for Technical Details and Electrical Specifications for the Temperature Sensor.

## Accessories / Options

- Deutsch Adaptor Cable
- Please see page 20 for details.

## Temperature Sensor with Direct Installation Set Type TS-SNA/SNK-PT100-T



## Characteristics

Direct fluid temperature measurement without STAUFF Level Gauges SNA, SNK and SNKK; Analysis of signals with required equipment, simply connect to your on board control unit or PLC.

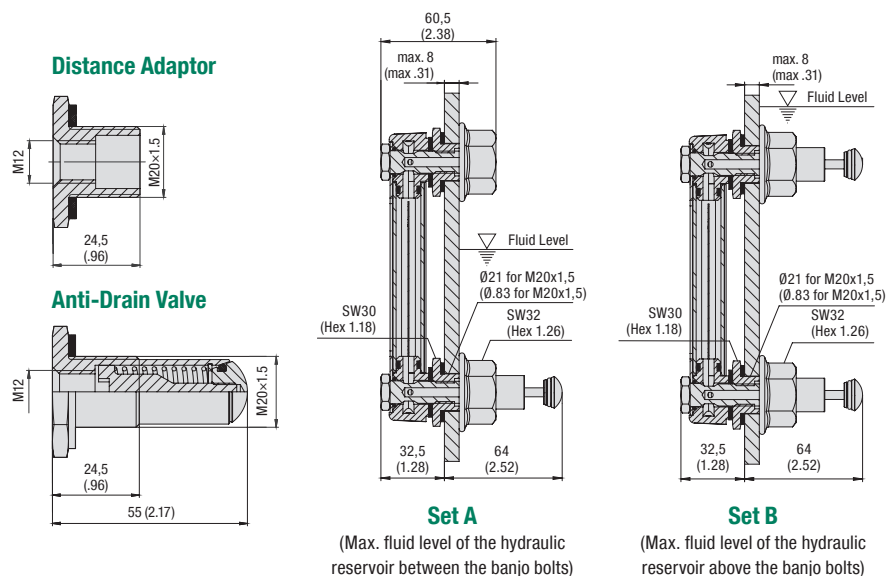
## Installation

- Direct installation to the outer wall of the hydraulic reservoir or gearbox
- Compact design and easy installation
- Clearance hole: Ø13 mm / Ø.51 in



## Anti-Drain Valve Type SDV-SNA/SNK

A



### Characteristics

Anti-drain valve to be used in conjunction with banjo bolts of level gauges, allowing these to be removed and replaced quickly and easily without spillage of fluid from the hydraulic reservoir

#### Features

- Used in conjunction with either the lower or both the lower and the upper banjo bolts of the Level Gauge
- Distance adaptor for the upper banjo bolt available when the check valve is used with the lower banjo bolt only
- Available for bolt size M12 only

#### Materials

- Housing made of Stainless Steel V2A (1.4301)
- Hexagon head nuts made of Steel, zinc/nickel-plated (Fe/Zn Ni 6)
- Sealings made of NBR (Buna-N®)

Contact STAUFF for alternative materials.

### Order Codes

<b>SDV-SNA/SNK</b>	<b>-</b>	<b>M12</b>	<b>-</b>	<b>B</b>	<b>-</b>	<b>W4</b>	<b>-</b>	<b>A</b>
①		②		③		④		⑤

#### ① Type

Anti-Drain Valve for use with Level Gauges SNA, SNK and SNKK **SDV-SNA/SNK**

#### ② Banjo Bolt Size

Metric ISO thread M12 **M12**

#### ③ Sealing Material

NBR (Buna-N®) **B**

#### ④ Housing Material

Stainless Steel V2A (1.4301) **W4**

#### ⑤ Set Type

Set A consisting of 1 anti-drain valve to be used with the lower banjo bolt and 1 distance adaptor to be used with the upper banjo bolt **A**  
Set B consisting of 2 anti-drain valves to be used with both banjo bolts **B**

## Deutsch Adaptor Cable Type DT04-4P



### Characteristics

Deutsch adaptor to use for adaption from M12 to Deutsch Plug DT04-4P.

#### Installation

- Adapts to cable box M12 of SNK
- Adapts to M12 connector of SNKK and TS-SNA/SNK ...
- Adapts to M12 connector of TS-SNA/SNK-PT100
- Adapts to any electrical M12 connector in other Stauff series

#### Technical Data

- IP 68 protection rating: Dust tight and protected against powerful water jets
- Length: 100mm (3.93 in)
- Operating temperature range: -30°C ... +80 °C / -22 °F ... +176 °F

### Order Codes

<b>EACC-CAB-M12A/5-DT04-4P-0.1</b>
①

#### ① Type

Deutsch Adaptor Cable **EACC-CAB-M12A/5-DT04-4P-0.1**

Dimensional drawings: All dimensions in mm (in).

