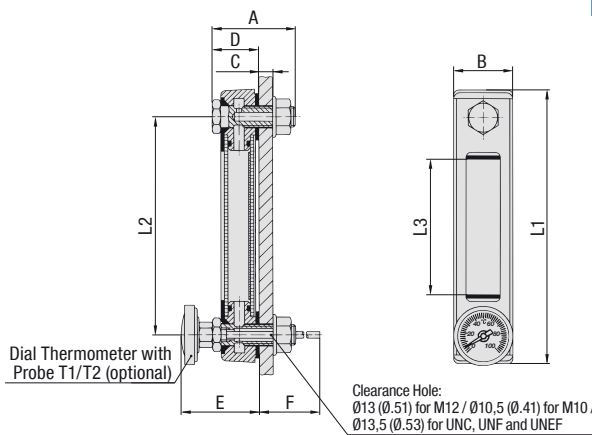


Level Gauge - Type SNA



Design of Scale Plates

Thermometer Options

Capillary Tube Thermometer with a dual Celsius / Fahrenheit scale up to +80 °C / +180 °F



Characteristics

Visual fluid level indication in hydraulic reservoirs with maximum tank pressures not exceeding 2 bar / 29 PSI

Nominal Sizes and Designs

- 6 nominal sizes from 76 mm / 2.99 in to 305 mm / 12.00 in
- Display either undivided (SNA 076 ... 176) or subdivided by strut(s) into 2 (SNA 254) or 3 sections (SNA 305)

Please see page E5 for alternative nominal sizes and designs.

Media Compatibility

- Suitable for use with Mineral and Petroleum based hydraulic fluids (HL and HLP)

Materials

- Housing made of Steel St 12, black epoxy-coated
- Sight tube and plugs made of Polyamide (PA)
- Sealings made of NBR (Buna-N®)
- Scale plate made of PVC

Special sight tube materials for improved UV or chemical resistance and use with special media (such as bio-degradable fluids, diesel oils, gasolines, etc.) as well as special sealing materials, e.g. FPM (Viton®), and scale plate materials, e.g. Aluminium, are available on request.

Please see page E5 for alternative housing materials.

Technical Data

- IP 65 protection rating: Dust tight and protected against water jets (IP 67 on request)
- Operating temperature range: -30 °C ... +80 °C / -22 °F ... +176 °F
- Recommended tightening torque: 8 N·m / 5.9 ft·lb

Accessories / Options

- Red / blue capillary tube thermometers with a dual Celsius / Fahrenheit scale and a temperature display range of up to +80 °C / +180 °F
- Dial thermometers with probe and a Celsius or a dual Celsius / Fahrenheit scale with a temperature display range of up to +100 °C / +212 °F
- Thermo Switches
- Temperature Sensors

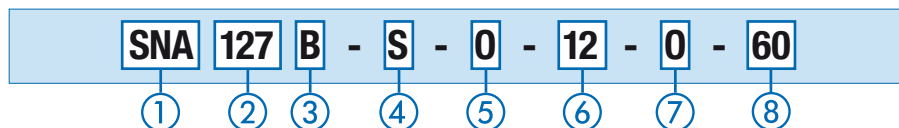
Please see pages E8 and E9 for details.

Dimensions

Maximum admissible tolerance for the bolt center spacing (dimension L2) according to DIN ISO 2768-f: ±0,20mm / .008in for all nominal sizes.

Nominal Size	Dimensions (mm/in)									
	A	B	C (Max.)	D	E	F (with T1)	F (with T2)	L1	L2	L3
SNA 076	45	34,5	8	27	43,5	165,5	265,5	108	76	31
	1.77	1.36	.32	1.06	1.71	6.52	10.45	4.25	2.99	1.22
SNA 127	45	34,5	8	27	43,5	165,5	265,5	159	127	76
	1.77	1.36	.32	1.06	1.71	6.52	10.45	6.26	5.00	2.99
SNA 150	45	34,5	8	27	43,5	165,5	265,5	182	150	99
	1.77	1.36	.32	1.06	1.71	6.52	10.45	7.17	5.91	3.90
SNA 176	45	34,5	8	27	43,5	165,5	265,5	208	176	124
	1.77	1.36	.32	1.06	1.71	6.52	10.45	8.19	6.93	4.88
SNA 254	45	34,5	8	27	43,5	165,5	265,5	285	254	192
	1.77	1.36	.32	1.06	1.71	6.52	10.45	11.22	10.00	7.56
SNA 305	45	34,5	8	27	43,5	165,5	265,5	336	305	244
	1.77	1.36	.32	1.06	1.71	6.52	10.45	13.23	12.00	9.61

Order Codes



① Type

Level Gauge with visual fluid level indication **SNA**

② Nominal Size

SNA 076 (nominal size of 76 mm / 2.99 in) **076**
 SNA 127 (nominal size of 127 mm / 5.00 in) **127**
 SNA 150 (nominal size of 150 mm / 5.91 in) **150**
 SNA 176 (nominal size of 176 mm / 6.93 in) **176**
 SNA 254 (nominal size of 254 mm / 10.00 in) **254**
 SNA 305 (nominal size of 305 mm / 12.00 in) **305**

Please see page E5 for alternative nominal sizes.

③ Sealing Material

NBR (Buna-N®) (standard option) **B**
 FPM (Viton®) **V**

④ Design of Scale Plate

With STAUFF logo (standard option) **S**
 Neutral design without any logo **N**
 Custom-designed scale plate (please specify) **X**

⑤ Thermometer Option

Supplied without thermometer **0**
 Red Capillary Tube thermometer on scale plate **T**
 Blue Capillary Tube thermometer on scale plate **TB**
 Dial thermometer with probe (200 mm / 7.87 in) and a Celsius scale up to 100 °C **T1C**
 Dial thermometer with probe (300 mm / 11.81 in) and a Celsius scale up to 100 °C **T2C**
 Dial thermometer with probe (200 mm / 7.87 in) and a dual scale up to 100 °C / 212 °F **T1CF**
 Dial thermometer with probe (300 mm / 11.81 in) and a dual scale up to 100 °C / 212 °F **T2CF**

⑥ Banjo Bolt Size

Metric ISO thread M12 (standard option) **12**
 Metric ISO thread M10 **10**
 Unified coarse thread 1/2-13 UNC **U1**
 Unified fine thread 1/2-20 UNF (special option) **U2**
 Unified extra-fine thread 1/2-28 UNEF (special option) **U3**

⑦ Thermo Switch / Temperature Sensor Option

Supplied without Thermo Switch / Temperature Sensor -
 Thermo Switch TS-SNA/SNK; Break contact (normally closed); Equipped with standard connector **0**
 Thermo Switch TS-SNA/SNK; Break contact (normally closed); Equipped with connector M12 **0D**
 Thermo Switch TS-SNA/SNK; Make contact (normally open); Equipped with standard connector **C**
 Thermo Switch TS-SNA/SNK; Make contact (normally open); Equipped with connector M12 **CD**
 Temperature Sensor TS-SNA/SNK-PT100; Equipped with connector M12 **PT100**

Thermo Switches / Temperature Sensors only available for banjo bolt size M12. Please see pages E8 and E9 for details.

⑧ 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**

Only to be indicated when using a Thermo Switch.

Options T1C/T1CF and T2C/T2 CF are not available for banjo bolt size M10 and not be used in conjunction with Thermo Switches or Temperature Sensors. Please see page E8 for details.

Characteristics

Visual fluid level indication in hydraulic reservoirs with maximum tank pressures not exceeding 2 bar / 29 PSI; ideal for custom applications in terms of reservoir capacities and dimensions

Nominal Sizes

- Special sizes beyond the normal of 305 mm / 12 in up to a maximum nominal size of 950 mm / 37.4 in – even for small and medium quantities
- High-precision manufacturing within 1 mm tolerance to customer requirements

Design

- Robust design thanks to one or more struts that subdivide the display into 2 or more sections
- Positioning of the strut(s) based on engineering considerations and/or according to particular customer requirements
- Precise visual indication of the fluid level by use of scale plates (only available for nominal sizes smaller than 670 mm / 26.4 in) or by use of a coloured floating element (recommended option for nominal sizes larger than 670 mm / 26.4 in)
- Plastic dampening clips to reduce vibration of the sight tube are used for nominal sizes larger than 450 mm / 17.7 in

Materials

- Housing made of Steel, Aluminium or Stainless Steel
- Sight tube and plugs made of Polyamide (PA)
- Sealings made of NBR (Buna-N®)
- Scale plate made of PVC
- Floating element made of Polyamide (PA)

Special sight tube materials for improved UV or chemical resistance and use with special media (such as bio-degradable fluids, diesel oils, gasolines, etc.) as well as special sealing materials, e.g. FPM (Viton®), and scale plate materials, e.g. Aluminium, are available on request.

Please also ask for our special low-temperature versions, suitable for extreme temperatures up to -40 °C / -40 °F.

Accessories / Options

- Capillary tube thermometers with a dual Celsius / Fahrenheit scale and a temperature display range of up to +80 °C / +180 °F
- Dial thermometers with probe and a Celsius or a dual Celsius / Fahrenheit scale with a temperature display range of up to +100 °C / +212 °F
- Thermo switches
- Temperature sensors

Please see pages E8 and E9 for details.

Level Gauge (Special Options) - Type SNA



Inquiry Checklist

In case that you require a special property or custom-designed level gauge, please use this checklist to provide us with details. If necessary, please also include further details, like the type of fluid in use, its temperature and viscosity.

Nominal Size

Bolt centre distance (in mm)

Housing Material

Aluminium Steel Stainless Steel

Housing Design

Regular housing design with positioning of strut(s) based on engineering considerations

Please provide additional details / drawing for custom housing designs.

Banjo Bolt Size

M12 M10 1/2–13 UNC
 1/2–20 UNF 1/2–28 UNEF

Banjo Bolt Material

Steel Stainless Steel

Sealing Material

NBR (Buna-N®) FPM (Viton®) EPDM

Alternative sealing materials to be defined separately.

Level Indication

- Scale plate (only for nominal sizes smaller than 670 mm / 26.4 in)
- Scale plate made of PVC
 - Scale plate made of Aluminium
 - Without thermometer on scale plate
 - Capillary tube thermometer with dual Celsius / Fahrenheit scale up to +80 °C / +180 °F
 - Floating element (recommended option for nominal sizes larger than 670 mm / 26.4 in)
- With STAUFF logo
 Neutral design without any logo
 Custom-design (please specify)

Other types of level indication (magnetic floats, etc.) to be defined separately.

Options

- Dial thermometer with probe
- Celsius scale up to +100 °C
 - Dual scale up to +100 °C / +212 °F
 - Length of probe: 200 mm / 7.87 in
 - Length of probe: 300 mm / 11.81 in
- Thermo Switch TS-SNA/SNK
- Break contact; Standard connector
 - Break contact; Connector M12
 - Make contact; Standard connector
 - Make contact; Connector M12
 - Contact switches at +60 °C / +140 °F
 - Contact switches at +70 °C / +158 °F
 - Contact switches at +80 °C / +176 °F
 - Contact switches at +90 °C / +194 °F
- Temperature Sensor TS-SNA/SNK-PT100