

## Fluid level gauge with pilot operated non-return valve FSA ... SO7/SO78 2xIB

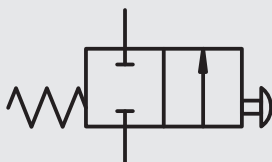
### SYMBOL

Size 076 – 1000

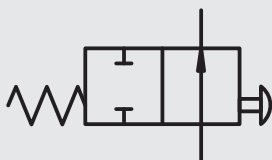


### FUNCTION OF NON-RETURN VALVE (RV)

Initial position



RV operated



### DESCRIPTION

The FSA is a high-quality and robust fluid level gauge for tanks for level control in hydraulic tanks.

The current fluid level is shown in the riser tube of the fluid level gauge by simultaneously pressing the upper and lower buttons of the non-return valves as far as they will go. This means that the fluid level can be easily seen on the outside of the housing.

With the optional use of a thermometer, the current temperature of the fluid will also be shown.

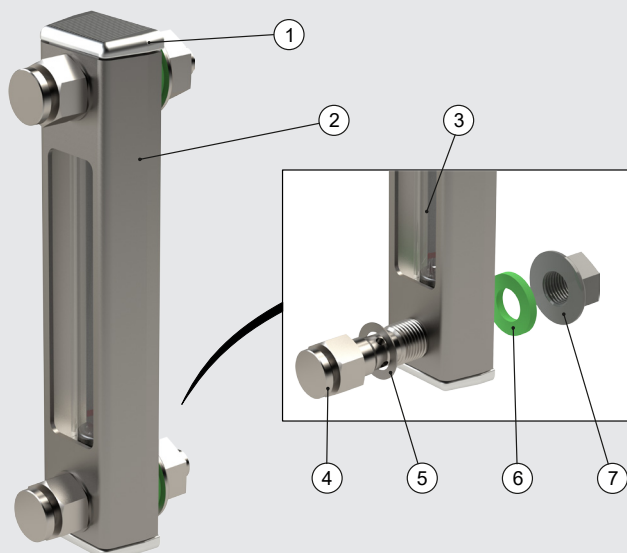
### PRODUCT FEATURES

- Nominal size 076 – 1000 mm
- Round glass riser tube
- Connectors made of aluminium or PA
- Stainless steel frame
- Integration of non-return valves in the connection screws.
- The additional washer prevents the housing from being scratched by spanners.

### CUSTOMER BENEFITS

- Robust design
- Can also be used when using fluids containing glycol
- Leakage protection in case of glass breakage
- Certification by Bureau Veritas (Size 076 - 1000) and/or American Bureau of Shipping (Size 076-381)

### DESIGN



Pos.	Description
(1)	Connector (2x)
(2)	Housing frame
(3)	Riser tube
(4)	Banjo bolt with integrated non-return valve (2x)
(5)	Washer (2x)
(6)	Sealing washer (2x)
(7)	Mounting nut (2x)

**Model code**

(also order example)

FSA - 254 - 2 . 0 / T / 12 SO7/SO78 2xIB ...

**Designation**

FSA = fluid level gauge

**Nominal size** ( $\cong$  centre distance of bolts in mm)

076, 127, 176, 254, 381, 500, 600, 700, 800, 900, 1000

**Seal material**

1 = NBR (Perbunan)

2 = FKM (Viton)

**Tube geometry**

0 = Round tube Ø19

**Additional thermometer function**

- = no additional function (standard)

T = thermometer in the indicator tube

**Type of connection**

12 = M12

**Design**

SO7 = Frame, mounting screws and nuts made of stainless steel

SO78 2xIB = with 2x screws M12 ISOLATOR Bolt

**Certification**

BV = certified by Bureau Veritas (sizes 076 - 1000)

ABS = certified by American Bureau of Shipping (sizes 076 - 381)

**TECHNICAL DATA**

<b>Connection</b>		Banjo bolt M12 with integrated non-return valve										
<b>Type of connection</b>		Threaded hole M12 or through-bore Ø13										
<b>Mounting position</b>		vertically on the tank wall										
<b>Weight</b>	Size kg	076 0.27	127 0.35	176 0.36	254 0.41	381 0.48	500 0.78	600 0.85	700 0.97	800 1.07	900 1.16	1000 1.26
<b>Design of riser tube</b>		Round tube Ø19										
<b>Media</b>		Mineral oil in acc. with DIN 51524 Part 1 and 2, water, oil, emulsions, synthetic fluids glycol and fluids containing glycol										
<b>Viscosity of fluid</b>		max. 2000 mm²/s										
<b>Pressure</b>		1 bar (higher pressures on request)										
<b>Flow direction</b>		no orientation restrictions										
<b>Temperature range</b>		0 °C ... +100 °C 0 °C ... +80 °C (with thermometer)										
<b>Material:</b>	Connectors: Riser tube: Housing frame: Seal: Bolts, nuts Contrast pane:	Aluminium, plastic Glass Stainless steel NBR or FKM Stainless steel Aluminium										
<b>Certification</b>		Bureau Veritas (Size 076-381, plastic connector) Bureau Veritas (Size 500-1000, aluminium connector) American Bureau of Shipping (Size 076-381, aluminium connector)										

**NOTICE:**

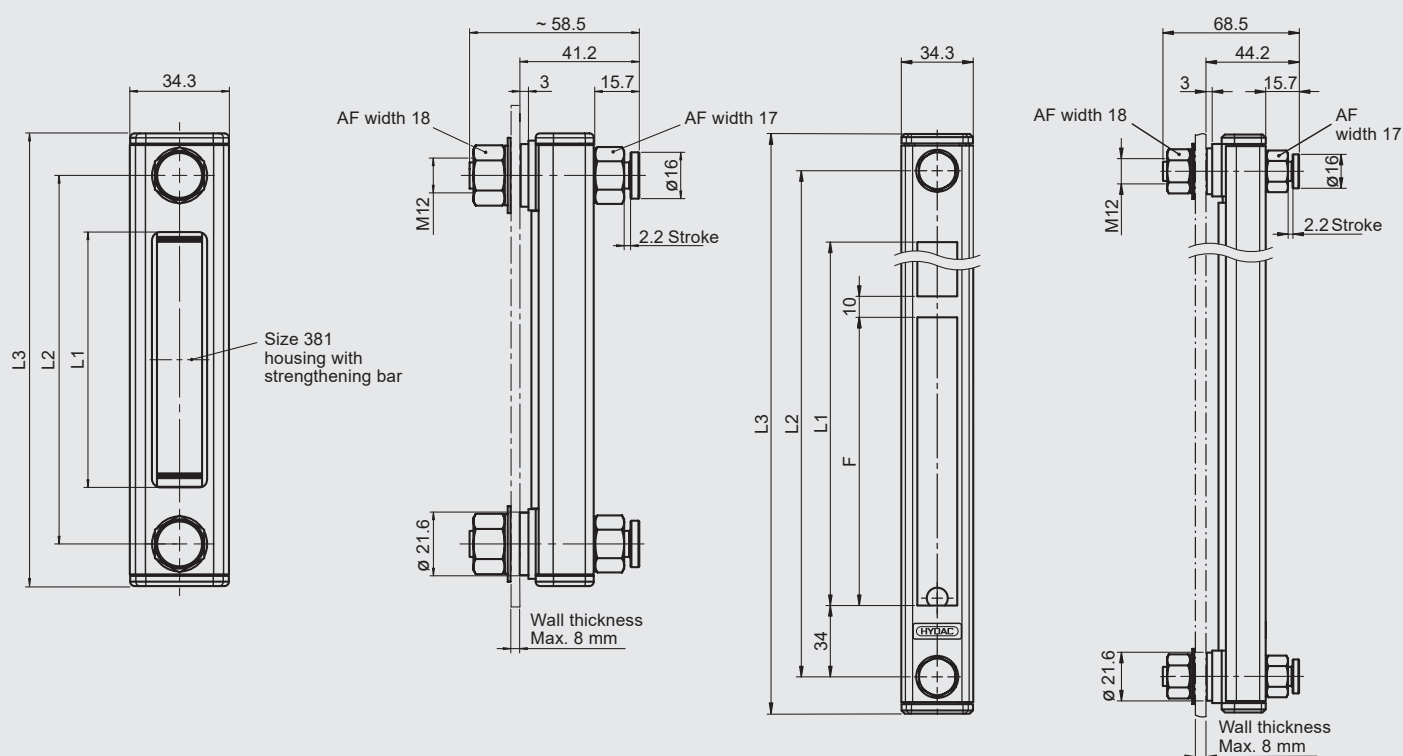
To ensure correct functioning, pressure, viscosity and temperature specifications must be observed. For perfect function at high temperatures, it must be ensured that the tightening torques of the bolts are not changed after the initial installation.

## DIMENSIONS

(dimensions in mm)

Size 76 – 381

Size 500 - 1000



### NOTE:

Actuate both non-return valves simultaneously to check the fluid level!

Nominal size $\cong$ Centre distance of bolts [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Quantity F
076	37	76	103	-
127	88	127	154	-
176	137	176	203	-
254	215	254	281	-
381	342	381	408	2
500	432	500	535	3
600	532	600	635	3
700	632	700	735	4
800	732	800	835	4
900	832	900	935	5
1000	932	1000	1035	6

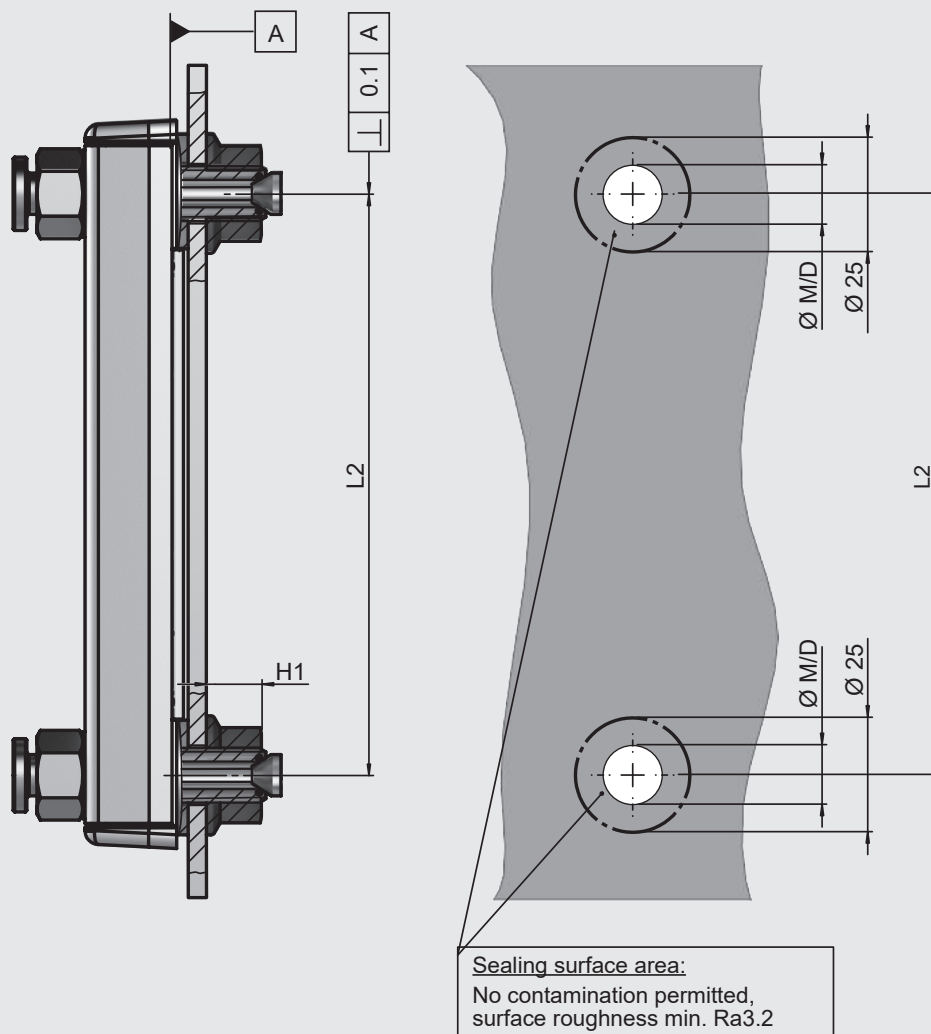
### NOTICE:

As regards the relevant operating and environmental conditions (temperature, dynamics, cleaning), the suitability of the product must be verified by the vehicle/system manufacturer or owner.

If you have any questions, please get in touch with your contact in Technical Sales.

# INSTALLATION INFORMATION

(dimensions in mm)



Bolt	Nut	Threaded hole ØM	Through-bore ØD	H1	Tightening torque dry / oiled
M12, SW17	M12, SW18	M12 – min. 6 mm deep	13 mm	12 mm	8 <sub>-0.5</sub> Nm / 6 <sup>+0.5</sup> Nm

## NOTE

The information in this brochure relates to the operating conditions and applications described.

For applications and/or operating conditions not described please contact the relevant technical department.

The operator is always responsible for determining the product suitability for the specific application. Quantified values for product characteristics are average values for a new product that undergo a time deterioration process.

Subject to technical modifications and errors.

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