

Fluid level gauge

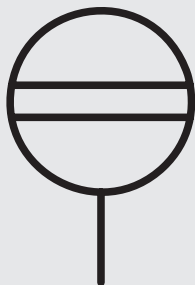
Long version

FSA



SYMBOL

Size 0500 - 1000



DESCRIPTION

The FSA is a high-quality and robust fluid level gauge for large-volume tanks. It was designed for continuous level control for both hydraulic/lubricating oils and other fluids (taking account of media compatibility).

The fluid enters the unit via the lower connection bore and is clearly visible in the tube. This means that the fluid level can be easily seen on the outside of the housing.

If the correct size is selected, only one FSA is needed to display the fluid level even for large-volume tanks.

PRODUCT FEATURES

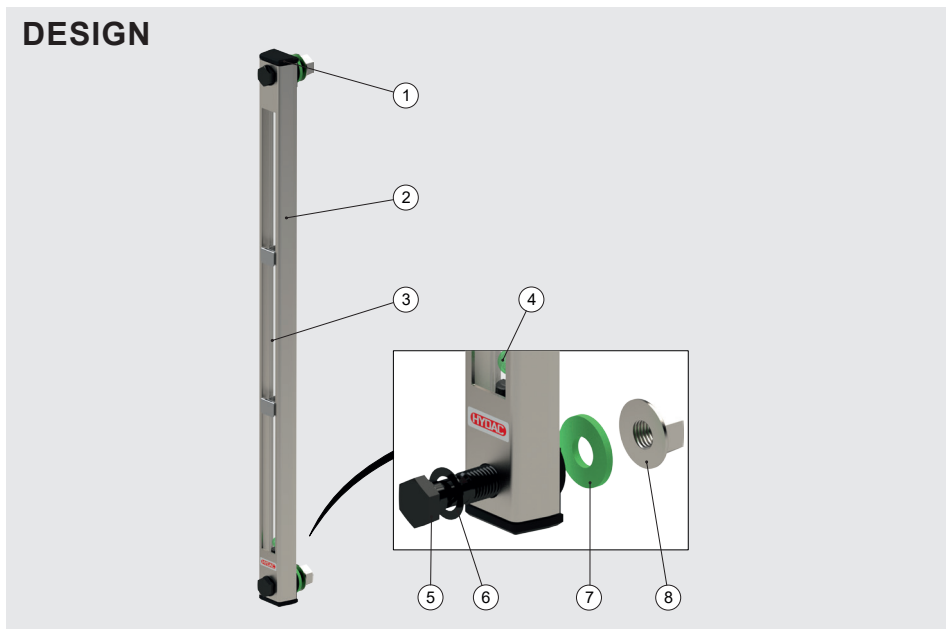
- Nominal size 500–1000 mm
- Round riser tube made of high-quality plastic or glass
- Connectors made of aluminium
- Steel or stainless steel frame with multiple windows
- Double O-ring sealing to compensate for length expansion

CUSTOMER BENEFITS

- Robust design
- Reduced leakage points
- Increased hydraulic fluid temperature, media compatibility and UV-resistance
- Reduced risk of damage to the O-ring for the bolt resulting from incorrect installation at the tank
- Improved torque reliability

DESIGN

Item	Description
(1)	Connector (2x)
(2)	Housing frame
(3)	Riser tube
(4)	Float
(5)	Banjo bolt (2x)
(6)	Washer (2x)
(7)	Seal (2x)
(8)	Mounting nut (2x)



Model code

(also order example)

FSA - 0500 - 0 . 10405 / O2 / M12 . 000

Designation

FSA = fluid level gauge

Nominal size (≅ centre distance of bolts in mm)

0500, 0600, 0700, 0800, 0900, 1000

Material of seal

0 = NBR (Perbunan)

2 = FKM (Viton)

Tube geometry / materials

Tube geometry

1 = round tube Ø19

Material – tube

0 = plastic

1 = glass

Material – connectors

4 = aluminium (seal = sealing washer)

5 = aluminium (seal = quad ring)

6 = aluminium (seal = O-ring)

Material – frame

03 = stainless steel

05 = steel, powder-coated

Options

Contrast pane

O2 = without contrast pane, hollow ball green Ø10

Additional thermal function

- = no additional function (standard)

FF = preparation for sensor thermometer

FT100 = sensor thermometer 100 mm

FT200 = sensor thermometer 200 mm

FT300 = sensor thermometer 300 mm

Type of connection

M12 = M12x55

Connection elements

Material of bolts/nuts

0 = bolt and poss. nut steel (surface protection galvanised, chromium(VI)-free)

2 = bolt and poss. nut stainless steel

Seal

0 = with seal

1 = no seal

Mounting nuts

0 = with mounting nuts

1 = without mounting nuts

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.

TECHNICAL DATA

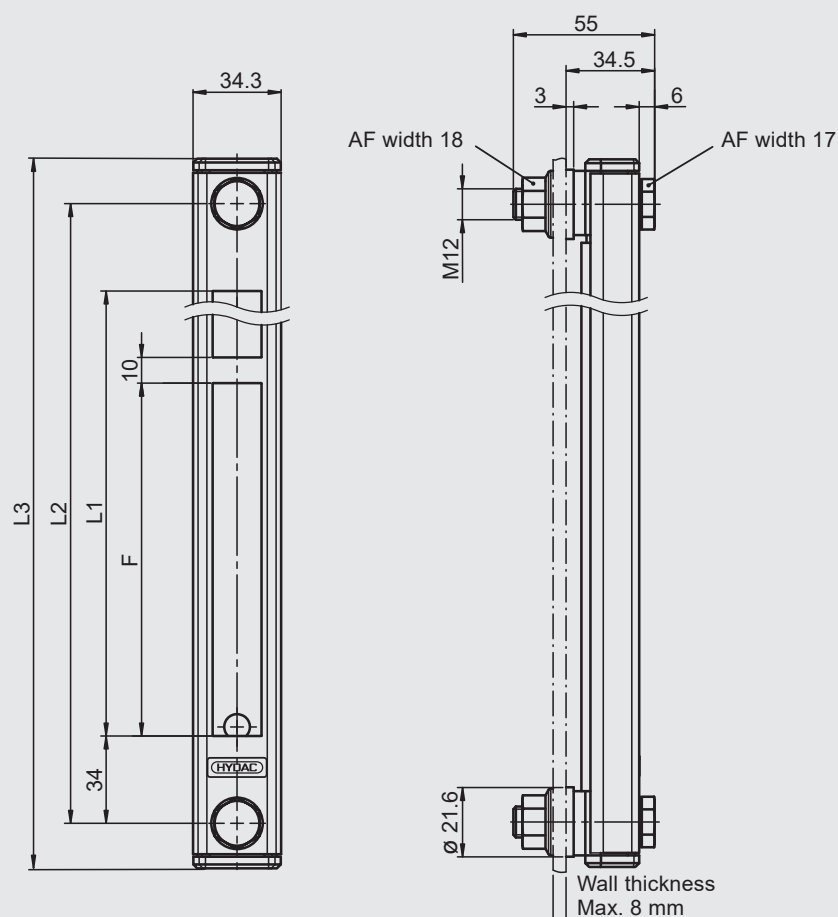
Connection	Banjo bolt M12x55					
Type of connection	Threaded hole (M12) or through-bore (Ø13)					
Mounting position	vertically on the tank wall					
Weight	Size 0500	Size 0600	Size 0700	Size 0800	Size 0900	Size 1000
	0.68 kg	0.75 kg	0.84 kg	0.92 kg	0.99 kg	1.13 kg
Design of riser tube	Round tube Ø19					
Media	Mineral oil to DIN 51524 Part 1 and 2, water, oil, emulsions (other fluids on request)					
Viscosity of fluid	Max. 2000 mm²/s					
Max. operating pressure	0.5 bar (higher pressures on request)					
Flow direction	no orientation restrictions					
Ambient temperature	-20 °C to +95 °C					
Temperature of operating fluid	-20 °C to +95 °C (others on request)					
Material:						
Connectors:	Aluminium					
Riser tube:	High-quality plastic or glass					
Housing frame:	Steel, powder-coated, or stainless steel					
Seal:	FKM or NBR (EPDM on request)					
Bolts, nuts:	Steel galvanised or stainless steel					
Accessories	Shut-off elements (ABV, ABK, ABS)					

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.

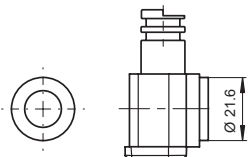
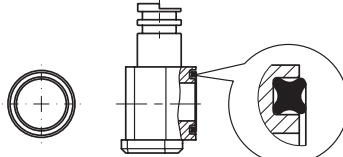
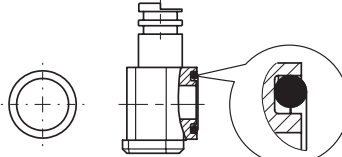
DIMENSIONS

(dimensions in mm)



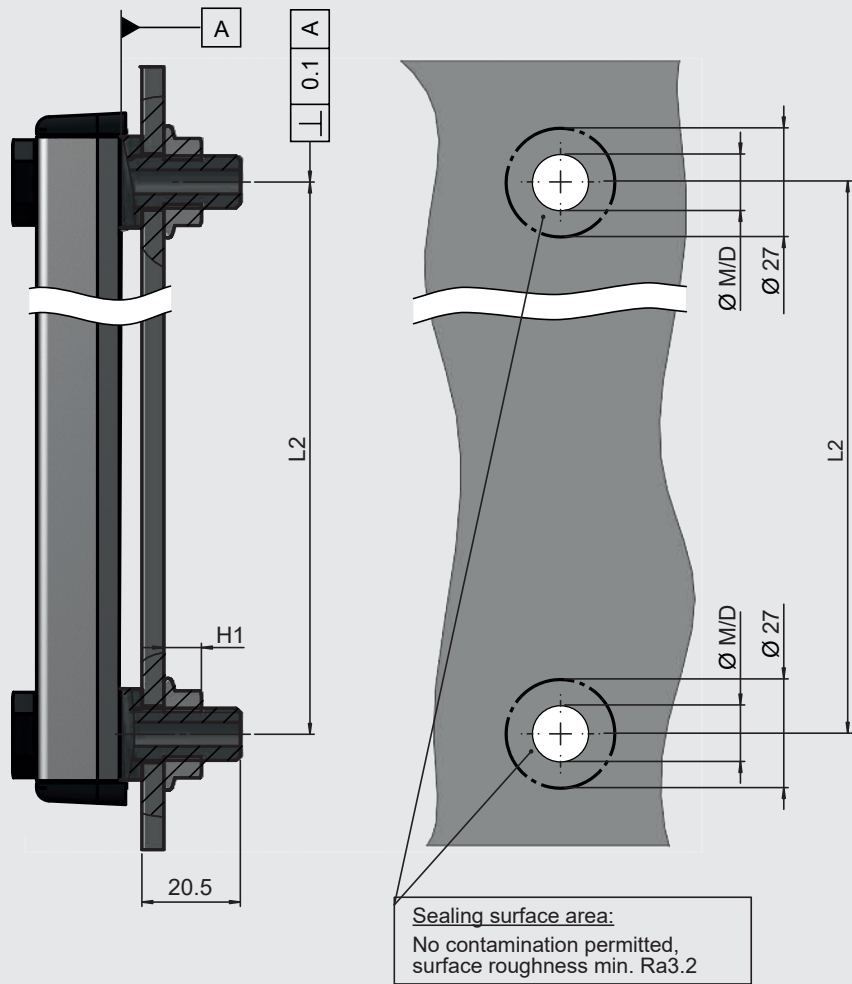
Nominal size \cong Centre distance of bolts [mm]	L1 [mm]	L2 [mm]	L3 [mm]	F [mm]	Quantity F
0500	432	500	535	137	3
0600	532	600	635	170	3
0700	632	700	735	150	4
0800	732	800	835	175	4
0900	832	900	935	158	5
1000	932	1000	1035	147	6

SEAL VARIANTS or tank connection

Sealing washer (standard)	Quad ring (only for alum. connectors)	O-ring (only for alum. connectors)
		

INSTALLATION INFORMATION

(dimensions in mm)



Screw	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 _{0.5} Nm / 6 ^{+0.5} Nm

SPARE PARTS

Seal kit, standard (6x O-ring, 2x sealing washer)

Nom. size	Size	Material	Order no. = part no.
0500 - 1000	M12	NBR	4664417
0500 - 1000	M12	FKM	4664418

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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