

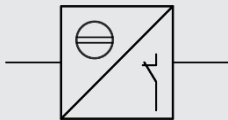
Fluid level sensor FSK...LED



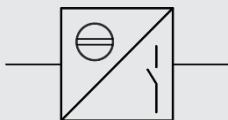
SYMBOL

Size 127 - 381

O - opening contact



C - closing contact



FEATURES

- Nominal size 127–381
- Additional visual display of the operating state
- Switching contact available as opening contact (type O) or closing contact (type C)

Item	Description
(1)	Connection piece, top
(2)	Housing frame
(3)	Float
(4)	Riser tube
(5)	Connection piece, bottom
(6)	LED status display
(7)	Seal
(8)	Male connector
(9)	Banjo bolt (2x)
(10)	Washer (2x)
(11)	Sealing disc (2x)
(12)	Nut for through-bore (2x)

DESCRIPTION

HYDAC fluid level sensors now enable the fluid level “almost empty/empty” to be displayed on an external “indicator”, thanks to a magnetic float and a reed contact.

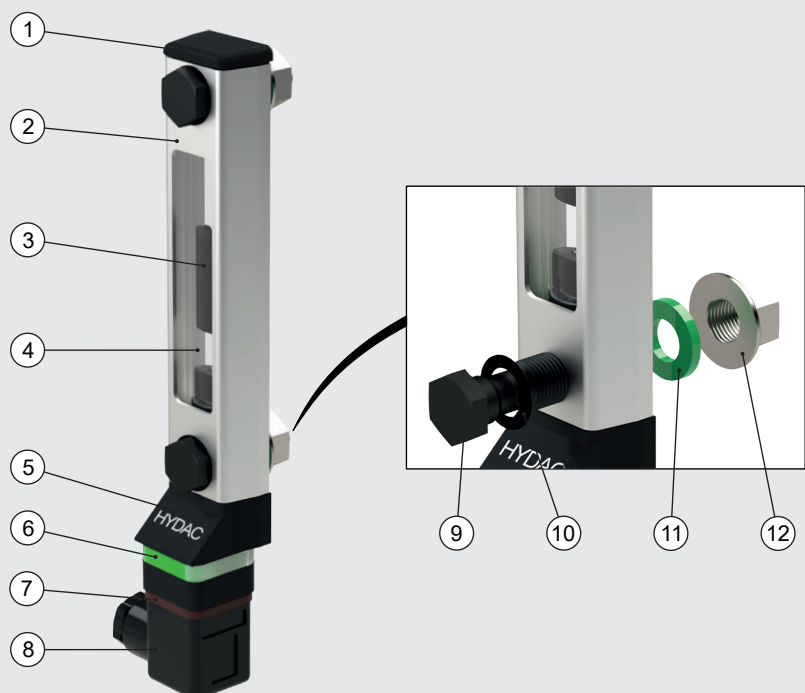
Limited space, bad lighting or even large distances are just some of the situations that can make a visual check of fluid levels difficult.

Our solution: a transparent connection piece between the FSK connector part and the male connector. Its integrated LEDs immediately indicate the current operating status of the tank with a corresponding colour.

PRODUCT ADVANTAGES

- Additional visual display of the operating state (LED)
- Fully integrated into the part
- Very clear visual warning (red light) when a critical state is reached
- For all standard FSK fluid level sensors with a 4-pin male connector

DESIGN



Model code

(also order example)

FSK - 127 - 2 . 4 / C / - / 12 / Z4 LED

Designation

FSK = fluid level sensor

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

127, 176, 254, 381

Seal material

2 = FKM (Viton)

Series

(determined by manufacturer)

Switching function

O = normally closed (opens at the switching level)

C = normally open (closes at the switching level)

Additional thermometer function

– = no additional function (standard)

FT 100 = temperature gauge 100 *

FT 200 = temperature gauge 200 *

FT 300 = temperature gauge 300 *

TSL 60 = temperature switch nominal temperature 60 °C *

TSL 70 = temperature switch nominal temperature 70 °C *

TSL 80 = temperature switch nominal temperature 80 °C *

TFP 100 = temperature probe -40 °C ... +125 °C *

Type of connection

M12 = M12 x 45 (standard)

M10 = M10 x 45 *

Male connector

Z4 = 4-pin Hirschmann (standard)

SEW = 4-pin M12x1 (sensor connector, horizontal) on request

SES = 4-pin M12x1 (sensor connector, vertical) on request

Additional details

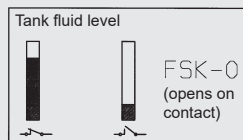
LED = display of operating status

NOTICE:

The TS temperature switch cannot be combined with the FT temperature gauge.

* optional

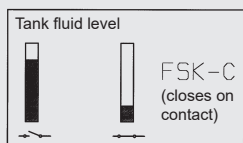
SWITCHING LOGIC



Depending on the tank's fluid level, the FSK fluid level sensor with opening contact and closing contact has the following switching logic:

In each case, the switching logic of the fluid level sensor starts with a full tank.

With the opening contact version, the switching contact opens when the fluid drops below the switching level.



Correspondingly, with the closing contact version, the switching contact closes when the fluid drops below the switching level.

Suitable protective circuits must be used for inductive and capacitive loads.

NOTICE

The vehicle/system manufacturer or the owner must check the product's suitability for the particular operating conditions and environmental conditions (pressure, viscosity, temperature, dynamics, cleaning).

To avoid damage to the FSK, we recommend cleaning the inside of the tank and sealing the tank before the FSK is installed for the first time. We also advise against cleaning the FSK with solvents, and in particular using steam jets, as this could cause damage.

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

TECHNICAL DATA

Connector	Banjo bolt M12x45 or M10x45			
Type of connection	Threaded hole M12 / M10 or through-bore Ø13 / Ø11			
Mounting position	vertically on the tank wall			
Weight	Size 0127	Size 0176	Size 0254	Size 0381
	0.256 kg	0.268 kg	0.251 kg	0.265 kg
Operating fluids	Mineral oil in acc. with DIN 51524 Part 1 and 2, water, oil, emulsions and synthetic fluids			
Viscosity of fluid	max. 2000 mm²/s			
Pressure	0.5 bar			
Flow direction	no restrictions			
Fluid temperature	-20 °C ... +80 °C			
Ambient temperature	-20 °C ... +70 °C			
Material:	Housing frame	Aluminium		
	Riser tube	High-quality plastic		
	Seals	FKM or NBR		
	Steel parts	Zinc-plated steel		
	Connectors	High-quality plastic		

ACCESSORIES

All fluid level sensors can be supplied with the following options: shut-off elements ABV, ABK, ABS

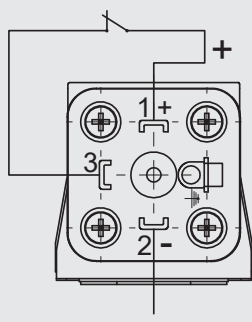
ELECTRICAL SPECIFICATIONS

Contact load	max. 8 W
Input voltage	5 - 48 V DC
Switching current	max. 0.2 A
Protection class	IP 65

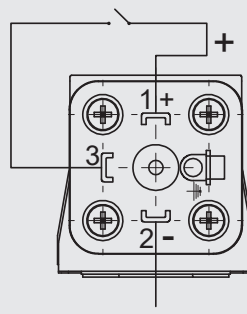
PIN CONNECTIONS

Male connector Z4 (as supplied)

Type O / opening contact



Type C / closing contact



OPERATING STATUS DISPLAY

Switching status



The front area lights up green.

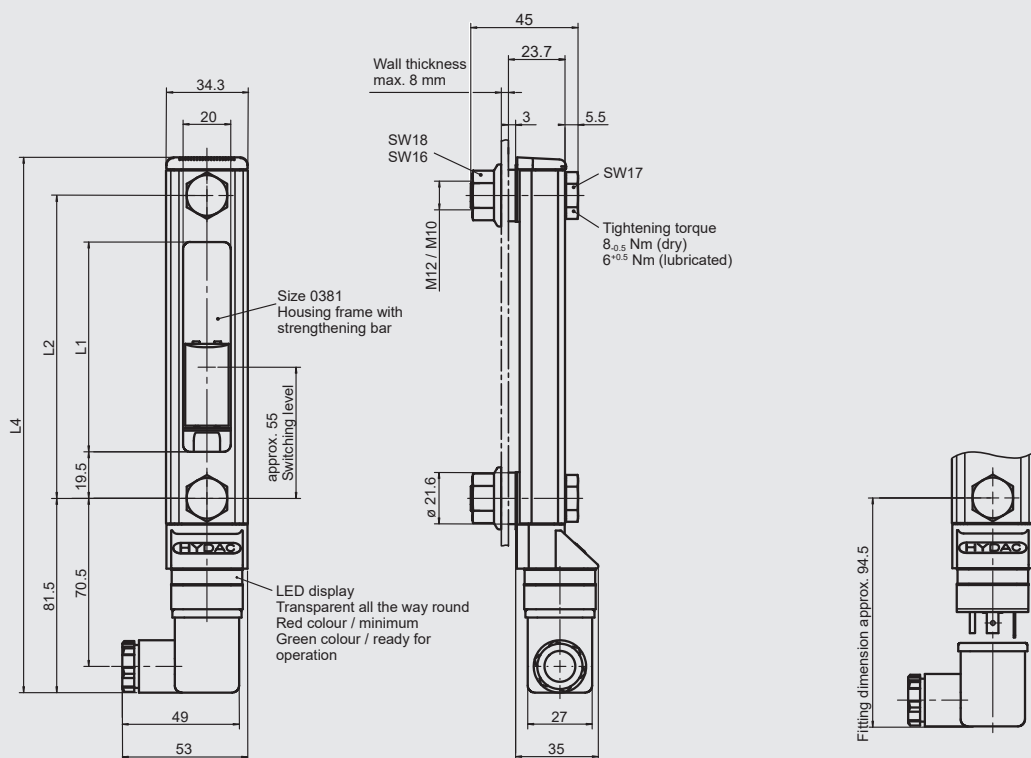
Alarm status



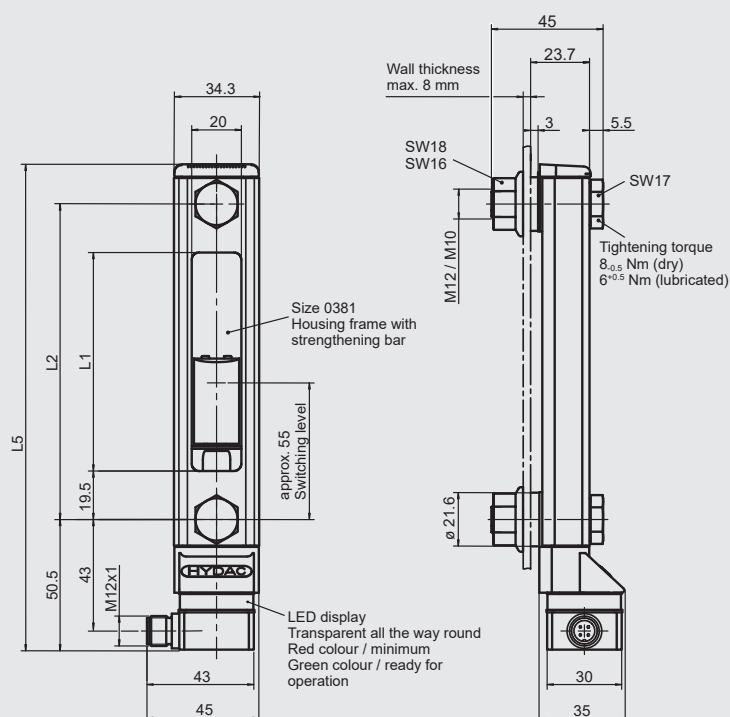
The LED lights up red all the way round.

DIMENSIONS

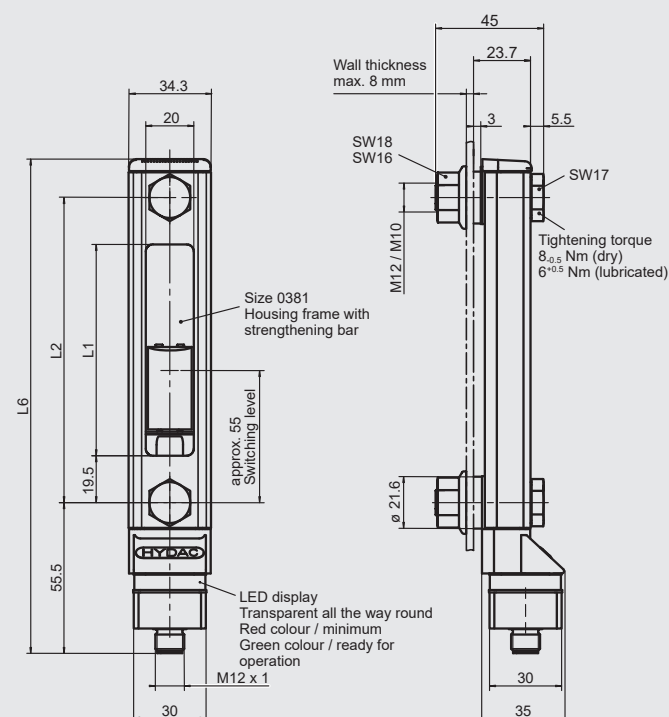
FSK...LED male connector Z4



FSK...LED SEW



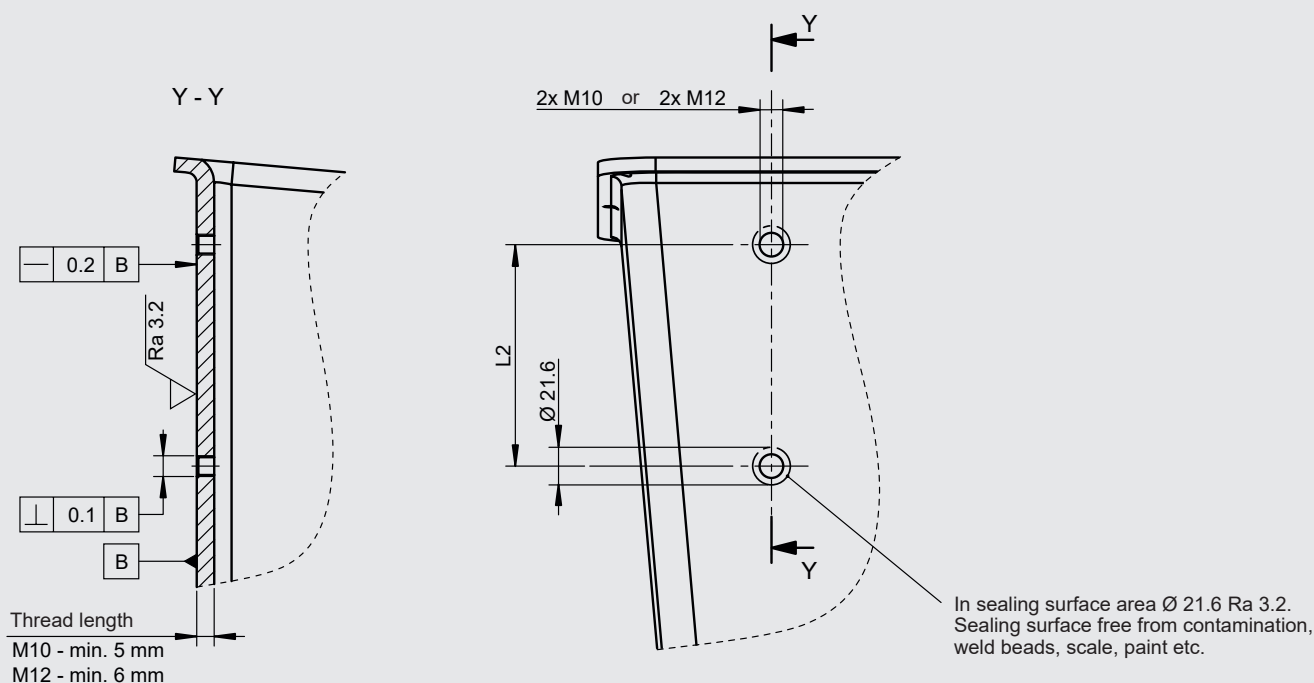
FSK...LED SES



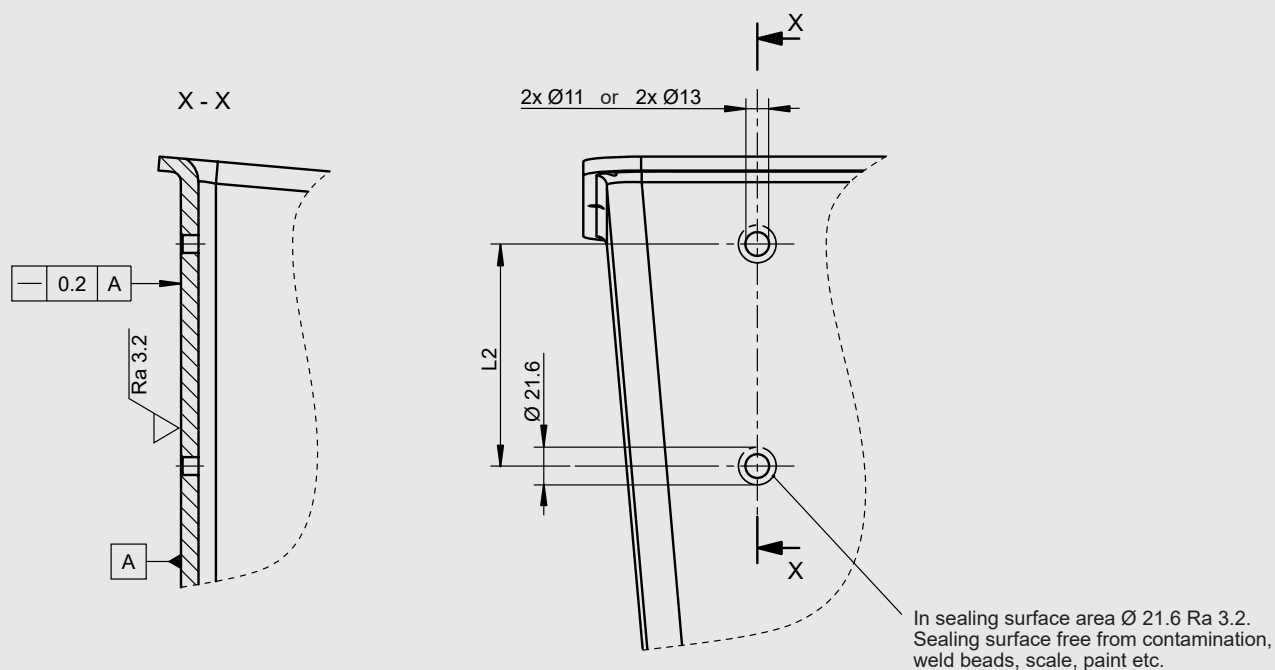
Nominal size	L1	L2	L4	L5	L6
≈ Centre distance of bolts	[mm]	[mm]	[mm]	[mm]	[mm]
0127	88	127	approx. 224.5	approx. 193.5	approx. 198.5
0176	137	176	approx. 273.5	approx. 242.5	approx. 247.5
0254	215	254	approx. 351.5	approx. 320.5	approx. 325.5
0381	342	381	approx. 478.5	approx. 447.5	approx. 452.5

INTERFACE (measurements in mm)

FSK with threaded hole



FSK with through-bore



SPARE PARTS

Seal kit	Order no. = part no.
SEAL KIT FSK	704627

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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