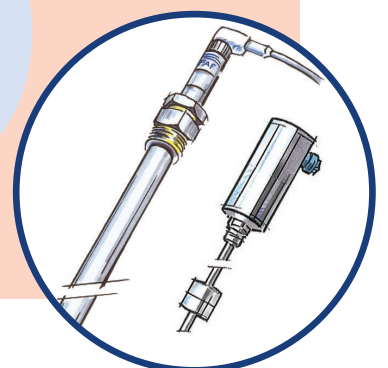


Continuous Level Sensor

DIVELIX

1.2.3



DIVELIX

The Hydrostatic Level Sensor for Liquid Media

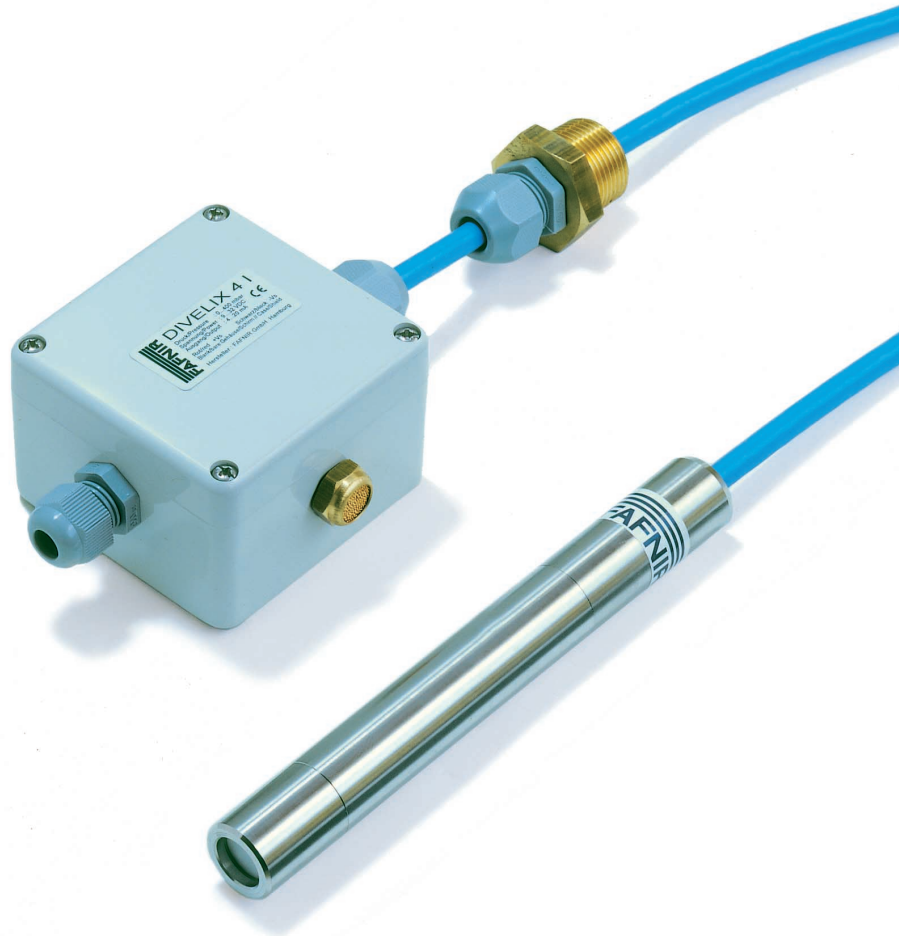
DIVELIX can continuously measure filling levels of liquids in storage tanks and containers.

DIVELIX is applied where other sensors are too big or cannot be used due to installations in tanks.

DIVELIX is particularly suitable for oil and oily liquids, brake fluid, glycerine as well as glycol e.a.

DIVELIX is applied in diesel, heating oil and oil tanks by trade and industry as well as in domestic tanks with non ex-hazardous liquids and a low solid content.

DIVELIX can be most advantageously applied together with the Tank Content Management System LOGI-X.



Advantages of FAFNIR's Technology

- Compact design
- Robust and corrosion-resistant
- High measuring precision
- Small installation opening
- Maintenance-free
- Easy adjustability for different tank sizes

Function

The level sensor DIVELEX operates according to a hydrostatic measuring principle. A liquid column creates a hydrostatic pressure due to its mass. With a constant density of the liquid the difference pressure depends only on the filling level. The pressure sensor integrated into the immersion probe measures this pressure and thus supplies a signal proportional to the filling level. In order to avoid influencing measurements through variations of the ambient pressure the latter is physically eliminated by means of a capillary carried in the connection cable.

Design

- Pressure sensor
- Immersion sensor
- Immersion probe cable with integrated pressure balance capillary
- Screw-in unit
- Connection housing with pressure balance

Process Connection

The level sensor is supplied with an R³/₄ screw-in unit. The tank needs a corresponding sleeve.

Installation

The immersion probe has to be installed into the tank from the top. In cylindrical tanks it should be installed directly above the longitudinal axis of the container to guarantee a faultless measurement down to the minimum.

The immersion probe should be installed in a place free of flow and turbulence to avoid the movement and at worst the rotation of the immersion probe in the tank. If that is not possible, it should be installed in a dip or guide pipe.

In tanks with sediment on the bottom it must be ensured that after having been dipped into the tank the immersion probe will hang above the sediment area.

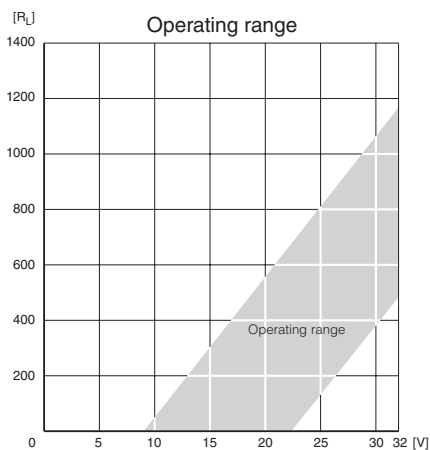
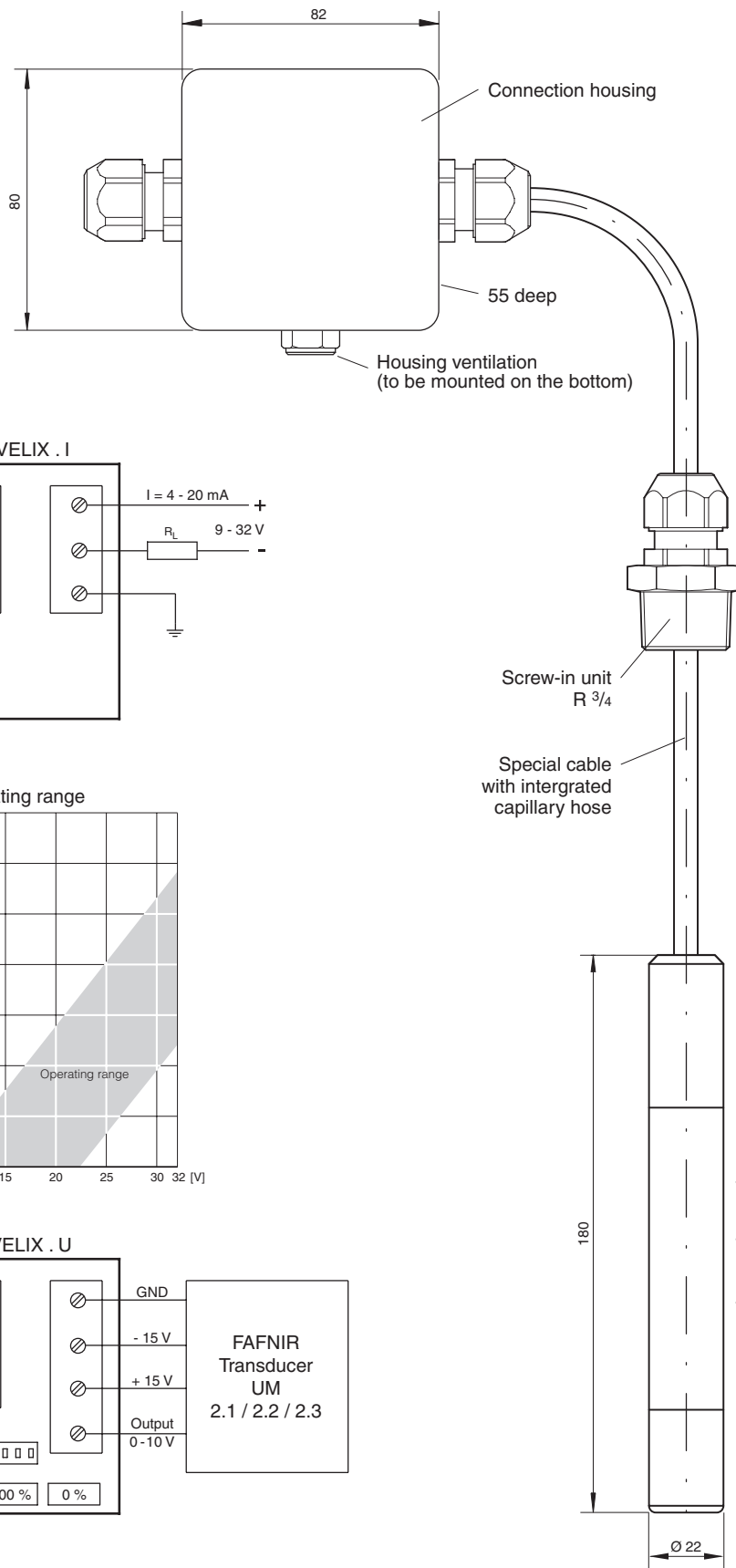
Please note that changes in density of the medium will lead to physically determined measurement errors.

The immersion probe must only be operated in pressureless tanks.

It is not suitable for sticky liquids (e.g. glue).

When connecting the cable for the immersion probe it must be ensured that the pressure balance capillary stays open and is protected from humidity.

DIVELIX 4
0 - 400 mbar



Dimensions in mm

Technical Data

Measuring Range:

DIVELIX 4 ...

- 0 ... 400 mbar corresp. to a filling level of 0 ... 4.0 m for a liquid of 1.0 kg/dm³ (density = 1 corresp. to water)

Different measuring ranges on request.

Signal Output:

DIVELIX ... I

- 4 ... 20 mA
- 4 mA at 0 mbar
- 20 mA at final value of measuring range

DIVELIX ... U

- 0 ... 10 V
- 0 V at 0 mbar
- 10 V adjustable at 100 % filling level

Measuring Accuracy:

- Reproducibility:
typ. ± 0.1 % of the measuring range
- Non-linearity:
typ. ± 0.2 % of the measuring range
- Temperature influence
(0 °C ... +50 °C):
Offset:
 ≤ 0.05 % of the measuring range / °C
Final value of measuring range:
 ≤ 0.05 % of the measuring range / °C

Operating Data:

DIVELIX ... I

- Auxiliary energy (U_S): 9 ... 32 V DC
- Power absorption: typ. 260 mW at $U_S = 15$ V and $I_L = 20$ mA

DIVELIX ... U

- Auxiliary energy + 15 V
- Power absorption: typ. 600 mW
- Operating temperature:
-40 °C ... +100 °C ¹⁾
- Operating temperature
(compensated): 0 °C ... +50 °C ¹⁾
- Storage temperature:
-55 °C ... +85 °C
- Pressure resistance: ≤ 1 bar
- Housing protection type: IP 68

Immersion Probe Cable:

- Cable with integrated pressure balance capillary
- Length: 5 m (standard)

Materials of Parts in

Contact with Media:

- Stainless steel, brass, aluminium, PE

¹⁾ The liquid must not freeze.

Purchase Order Codes

Please state the following order number in your purchase order.

DIVELIX

Hydrostatic level sensor with connection housing and 5 m immersion probe cable

Signal output	Current (I)		1
	Voltage (U)		2
Immersion probe	0 ... 400 mbar DIVELIX 4		4

Order number

524

Different measuring ranges and lengths of the immersion probe cable on request.

For further information contact us on telephone +49/40/39 82 07-0

Current information under: www.fafnir.com

