

# DIVELIX



Edition: 2020-05  
Version: 2  
Art. no.: 207080



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# 1 DIVELIX

## 1.1 Level sensor

DIVELIX 4 : measuring range 0 ... 400 mbar

DIVELIX V : measuring range 0 ... 20000 mbar

The level sensor transmits an output signal proportional to the filling height. Whenever the volume is to be indicated, the filling level height must be converted into a filling volume.

## 1.2 DIVELIX . I

The output current is 4 mA when the immersion probe is not immersed in liquid, and 20 mA when the final value of the measuring range is reached. Balancing the output current is not possible. The electrical connection is made using a plastic housing with the protective system IP43.

## 1.3 DIVELIX . U

The electronics of the measuring transducer DIVELIX . U is integrated in a plastic housing with the protective system IP43. A separate power supply ( $\pm 15$  V) supplies the immersion probe DIVELIX with the necessary auxiliary power. The electronics converts the current output signal of the probe into a voltage output signal of 0 ... 10 volts.

The zero point and final value can be adjusted within a wide range so that, when the immersion probe is used in connection with the measuring transducer DIVELIX . U, it is capable of providing an output voltage of 0 ... 10 volts. The amplification of the DIVELIX . U is pre-selected by means of four DIP switches and is then precisely adjusted using a trimmer.

### 1.3.1 Balancing

Before the balancing operation is carried out, the immersion probe should be in operation for approx. 15 minutes, i.e. be supplied with voltage.

For the purpose of this balancing operation, a voltmeter with a measuring range of 20 volts is then parallel-connected to terminals 4 (signal +) and 7 (GND -).

Zero point adjustment [0 %]:

Do not immerse the immersion probe in the medium. Adjust to 0 volts using the trimmer labelled as zero (ex-works set to 0 volts).

Final value adjustment [100 %]:

Determining the filling height in %. The immersion probe is lowered to the bottom of the container. If the filling height is, e.g. 73 %, the output voltage must then be adjusted to 7.3 volts using the trimmer labelled as 100 %.

Switch positions for 10 volts of output voltage = 100 % filling height

Usable measuring range of the immersion probe:

%		mA
9.3 ...	12.5	[5.5 ... 6.0] = all switches OFF [factory setting]
11.8 ...	17.5	[5.9 ... 6.8] = switch 1 ON
15.6 ...	26.2	[6.5 ... 8.2] = switch 2 ON
21.8 ...	50.0	[7.5 ... 12.0] = switch 3 ON
32.5 ...	100.0	[9.2 ... 20.0] = all switches ON

Example:

Immersion probe final value 400 mbar = 4 ... 20 mA

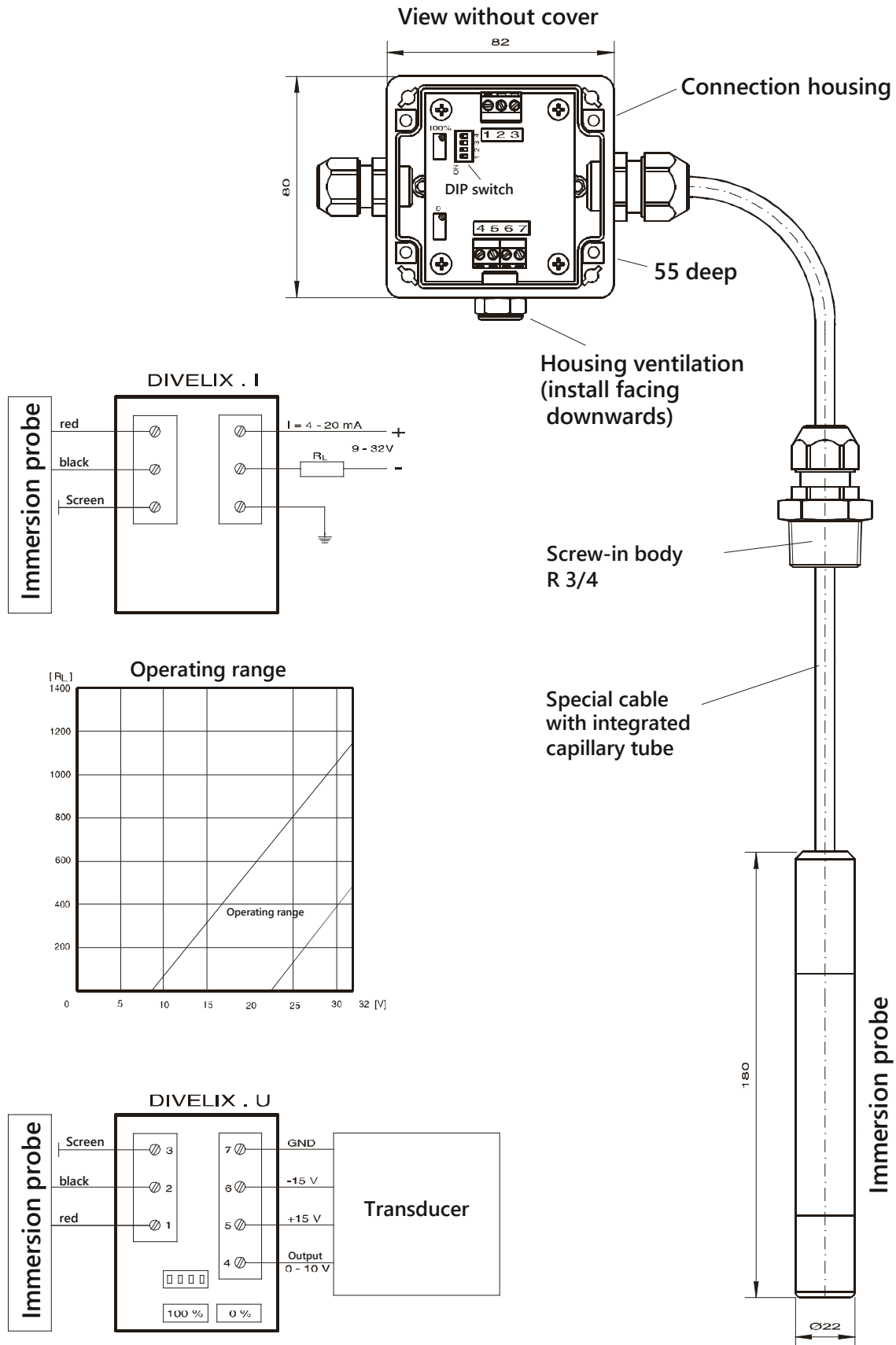
Tank height 1800 mm

Density of the liquid 0.85 kg/l

100 % filling height = 153 mbar = 38.25 % of the final value of the measuring range or  $\Delta I = 6.12 \text{ mA} + 4 \text{ mA} = 10.12 \text{ mA}$  of probe current at 100 % immersion depth.

The output current at 100 % immersion depth is 10.12 mA in the case of the DIVELIX 4 I.

In the case of the DIVELIX 4 U, switch the DIP switch 3 to ON and then adjust to 10 V using the 100 % trimmer with the probe completely immersed in liquid. If the tank is only filled up to 70 % , then adjust to 7 V using the 100 % trimmer.





**EU-Konformitätserklärung  
EU Declaration of Conformity  
Déclaration UE de Conformité**

**FAFNIR GmbH  
Bahrenfelder Straße 19  
22765 Hamburg / Germany**

erklärt als Hersteller in alleiniger Verantwortung, dass das Produkt  
declares as manufacturer under sole responsibility that the product  
déclare sous sa seule responsabilité en qualité de fabricant que le produit

**Tauchsonde  
Level Transmitter  
Transmetteur de Niveau  
DIVELIX ...**

den Vorschriften der europäischen Richtlinien  
complies with the regulations of the European directives  
est conforme aux réglementations des directives européennes suivantes

<b>2011/65/EU</b>	<b>Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten</b>	<b>RoHS</b>
<b>2011/65/EU</b>	<b>Restriction of the use of certain hazardous substances in electrical and electronic equipment</b>	<b>RoHS</b>
<b>2011/65/UE</b>	<b>Limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques</b>	<b>RoHS</b>
<b>2014/30/EU</b>	<b>Elektromagnetische Verträglichkeit</b>	<b>EMV</b>
<b>2014/30/EU</b>	<b>Electromagnetic compatibility</b>	<b>EMC</b>
<b>2014/30/UE</b>	<b>Compatibilité électromagnétique</b>	<b>CEM</b>

durch die Anwendung folgender harmonisierter Normen entspricht  
by applying the harmonised standards  
par l'application des normes

**RoHS / RoHS / RoHS  
EMV / EMC / CEM**

**EN 50581:2012  
EN 61326-1:2013**

Das Produkt ist bestimmt als Elektro- und Elektronikgerät der RoHS-  
The product is determined as electrical and electronic equipment of RoHS  
Le produit est déterminés comme des équipements électriques et électroniques de RoHS

**Kategorie / Category / Catégorie**

**Überwachungs- und Kontrollinstrumenten in der Industrie /  
Industrial Monitoring and Control Instruments /  
Instruments de contrôle et de surveillance industriels**

Das Produkt entspricht den EMV-Anforderungen  
The product complies with the EMC requirements  
Le produit est conforme aux exigences CEM

**Störaussendung / Emission / Émission  
Störfestigkeit / Immunity / D'immunité**

**Klasse A / Class A / Classe A  
Industrielle elektromagnetische Umgebung /  
Industrial electromagnetic environment /  
Environnement électromagnétique industriel**

Hamburg, 20.04.2016  
Ort, Datum / Place, Date / Lieu, Date

  
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