



## Transducer for phase angle difference EURAX G 537



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The following symbols in the Operating Instructions indicate safety precautions which must be strictly observed:



The instruments must only be disposed of in the current way!

### 1. Read first and then ...

The proper and safe operation of the device assumes that the Operating Instructions is **read carefully** and the safety warnings given in the Section

#### 4. Electrical connections

are **observed**.

The device should only be handled by appropriately trained personnel who are familiar with it and authorised to work in electrical installations.

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### 2. Brief description

The transducer EURAX G 537 converts the phase angle difference of two synchronised supplies into a load independent DC current or a load-independent DC voltage proportional to the measured value.

### 3. Technical data

#### Measuring inputs

Measuring range: Within  $-180 - 0 - 180$  °el, but clear indication only to  $-175 - 0 - 175$  °el; measuring span  $\leq 20$  °el

Nominal frequency: 50 or 60 Hz

Nominal input voltages: Generator and bus bar 10 - 230 V or 230 - 690 V (max. 230 V with power supply from voltage measuring input)

#### Measuring output

DC current: 0 - 1 to 0 - 20 mA resp. live-zero  
 0.2 - 1 to 4 - 20 mA  $\pm 1$  to  $\pm 20$  mA

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Burden voltage:  $-12$  V / 15 V

External resistance:  $R_{ext} \max. [k\Omega] \leq \frac{15 \text{ V}}{I_{AN} [\text{mA}]}$   
 resp.  $\leq \frac{-12 \text{ V}}{-I_{AN} [\text{mA}]}$   
 $I_{AN}$  = Full scale output

DC voltage: 0 - 1 to 0 - 10 V  
 0.2 - 1 to 2 - 10 V  $\pm 1$  to  $\pm 10$  V

Load capacity: Max. 4 mA

#### Power supply

DC, AC power pack (DC or 40 - 400 Hz)

Rated voltage	Tolerance
85 - 230 V DC / AC	DC - 15 to + 33%
24 - 60 V DC / AC	AC $\pm 15\%$

Power consumption:  $\leq 2.5$  W resp.  $\leq 3.5$  VA

#### Option

Power supply from measuring input (self powered):  $\geq 24 - 60$  VAC or 85 - 230 VAC

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### Accuracy (acc. to IEC 688)

Reference value:  $\Delta\varphi = 90^\circ$   
 Basic accuracy: Class 0.5

### Safety

Pollution degree: 2  
 Installation category: III

### Environmental conditions

Operating temperature:  $-10$  to  $+55$  °C  
 Storage temperature:  $-40$  to  $+70$  °C  
 Relative humidity of annual mean:  $\leq 75\%$   
 Altitude: 2000 m max.  
 Indoor use statement!

### 4. Electrical connections

Connect the leads according to the instructions on nameplate.

Make sure that all cables are not live when making the connections!  
**Impending danger by high input voltage or high power supply voltage!**

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Note that, ...

... the data required to carry out the prescribed measurement must correspond to those marked on the nameplate of the EURAX G 537 ( $\ominus$  measuring inputs,  $\ominus$  measuring output and  $\rightarrow$  power supply)

... the resistance in the output circuit may not **overrange** the current output value

$$R_{ext} \max. [k\Omega] \leq \frac{15 \text{ V}}{I_{AN} [\text{mA}]} \text{ resp. } \leq \frac{-12 \text{ V}}{-I_{AN} [\text{mA}]}$$

( $I_{AN}$  = current output value) and not **underrange** the voltage output value

$$R_{ext} \min. [k\Omega] \geq \frac{U_{AN} [\text{V}]}{4 \text{ mA}}$$

( $U_{AN}$  = voltage output value!)

... the measurement output cables should be twisted pairs and run as far as possible away from heavy cables!

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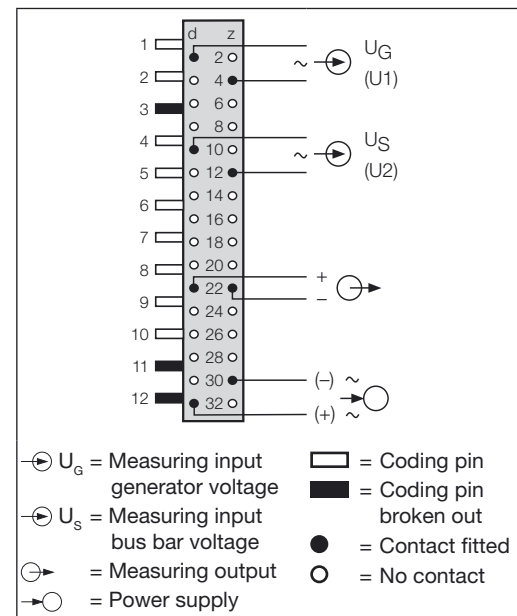


Fig. 1. View of the rear of plug-in module.

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### 5. Commissioning and maintenance

Switch on the power supply and the measuring input. It is possible during the operation to disconnect the output line and to connect a check instrument, e.g. for a functional test.

No maintenance is required.

### 6. Dimensional drawing

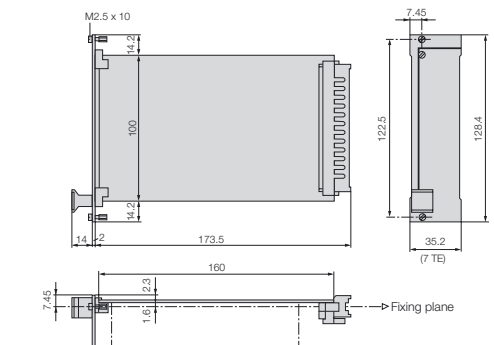


Fig. 2. Front plate width 7 TE.

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