AC Current Measuring Transducer

with true RMS measuring

AMU150 (5A)

AMU110 (1A)

Functional Ranges:

<table>
<thead>
<tr>
<th>Input (rated)</th>
<th>Output</th>
<th>Jumper setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5A</td>
<td>0-20mA</td>
<td>A</td>
</tr>
<tr>
<td>0-5A</td>
<td>4-20mA</td>
<td>C</td>
</tr>
<tr>
<td>0-5A</td>
<td>0-10V</td>
<td>A</td>
</tr>
<tr>
<td>0-5A</td>
<td>2-10V</td>
<td>C</td>
</tr>
</tbody>
</table>

Application:

The Measuring Transducer AMU is used to transform an AC current to an 0/4-20mA or 0/2-10V output signal for driving display units and controls. The potential separation of the measuring circuit from the output circuit and the supply voltage (10-34VDC) make the AMU150/110 suitable in particular for use in disturbed environments and with ambiguous potentials. This allows the unit to also measure AC currents on other voltage levels.

The input value 0 – 5A(1A) AC is measured as true RMS and then transferred to the output in linear fashion. Internal jumper settings allow the device to be operated at output ranges of 0-20mA, 4-20mA, 0-10V and 2-10V. The trimmer potentiometers located on the top of the device allow the output value and the zeroing to be adapted to the periphery.

Connections and Settings

The output circuit can supply the 20mA signal or a simultaneous 10V signal (top terminals). The supply voltage is connected to the bottom terminals. The coding of the jumpers for setting the operating modes is usually carried out according to customer specifications. The customer can change the jumper settings at any time by opening the snap-in housings (by pressing the two nipples on the ends) and changing the jumper setting (with no operating voltage applied).

Technical Data

Typ: AC Current (RMS) Measuring Transducer AMU110 (0-1A), AMU150 (0-5A)
Construction: Plastic housing on 35 mm hat acc. to DIN EN 50022
Material of housing: Bayblend FR 1439/0240 modified ABS with burning protection UL 94 V0
Dimension/Weight: 22.5x68x109mm (WxHxD), appr. 100 g
Supply voltage: 10 - 34 VDC, max. 100mA, mispolarisation protection (or 15-20VAC, 100mA)
Input: AC current 50 - 400Hz up to 5A (0.04 Ohm), True RMS measurement
Outputs: 0/4-20mA (max.500 Ohm) and 0/2-10V (min. 1KOhm or max. 10mA)
Measuring delay: 200ms (90% of maximum value)
Class of accuracy: < 1%
Linear distortion: < 0.5%
Temperature drift: < 0.25% / 10°C
On-period: 100 %
Voltage protection: Rated isolation voltage 600V 50Hz (Input: Output, Input- Aux., Output- Aux.)
Connecting terminals: 2 Wires per terminal up to 2.5 mm² each
Type of protection: Housing IP 40, IP 20 (VDE 0106T100/VBG4)
Ambient temperature: -10 °C to +55°C, 95% Hum
Mains isolating: EN 60 742 (safety transformers)
General regulations: EN 50 178 (electrical units in power current installation)
Radio interference: EN 55 022/B
EMV: EN 61000 und EN V 50 140
Installation position: Any
Maintenance: Maintenancefree