AC Current Sensor CYCS11-LTAD

This current sensor series is based on electromagnetic induction principle and has good stability for measuring 1A ~ 100A AC current and high isolation between primary current and secondary output signal. This sensor can be used for measurement of different AC currents.

**Product Characteristics**
- Excellent accuracy
- Very good linearity
- Less power consumption
- Window structure
- Electrically isolating the output of the transducer from the current carrying conductor
- No insertion loss
- Current overload capability

**Applications**
- Various power supply
- Communication systems
- Leakage current measurement
- Numerical controlled machine tools
- Current difference measurement
- Electric circuits measurement
- Microcomputer monitoring
- Electric power network monitoring

**Electrical Data**

<table>
<thead>
<tr>
<th>Primary Nominal Current $I_r$, AC (A)</th>
<th>Measuring Range AC (A)</th>
<th>Output Current DC (mA)</th>
<th>Aperture Diameter (mm)</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>± 2</td>
<td>4-20mA DC±0.5%</td>
<td>Ø20.0</td>
<td>CYCS11-LTAD01A</td>
</tr>
<tr>
<td>5</td>
<td>± 10</td>
<td></td>
<td></td>
<td>CYCS11-LTAD05A</td>
</tr>
<tr>
<td>10</td>
<td>± 20</td>
<td></td>
<td></td>
<td>CYCS11-LTAD10A</td>
</tr>
<tr>
<td>20</td>
<td>± 40</td>
<td></td>
<td></td>
<td>CYCS11-LTAD20A</td>
</tr>
<tr>
<td>30</td>
<td>± 60</td>
<td></td>
<td></td>
<td>CYCS11-LTAD30A</td>
</tr>
<tr>
<td>40</td>
<td>± 80</td>
<td></td>
<td></td>
<td>CYCS11-LTAD40A</td>
</tr>
<tr>
<td>50</td>
<td>± 100</td>
<td></td>
<td></td>
<td>CYCS11-LTAD50A</td>
</tr>
<tr>
<td>60</td>
<td>± 120</td>
<td></td>
<td></td>
<td>CYCS11-LTAD60A</td>
</tr>
<tr>
<td>75</td>
<td>± 150</td>
<td></td>
<td></td>
<td>CYCS11-LTAD75A</td>
</tr>
<tr>
<td>100</td>
<td>± 200</td>
<td></td>
<td></td>
<td>CYCS11-LTAD100A</td>
</tr>
</tbody>
</table>

The primary nominal current can be selected between 1A und 100A AC.

- Supply Voltage $V_{cc}$ = +24VDC ± 5%
- Current Consumption $I_c < 20mA$
- Galvanic Isolation, 50/60Hz, 1min: 2.5kV
- Isolation resistance @ 500 VDC > 500 MΩ
- Accuracy at $I_r$, $T_A=25°C$ (without offset), $X <0.5%$
- Linearity from 0 to $I_r$, $T_A=25°C$, $E_L <0.5%$ FS
- Electric Offset Current, $T_A=25°C$, $V_{oe} < +4mA$
- Thermal Drift of Offset Current, $V_{ot} < ±0.05mA/°C$
- Response Time at 90% of $I_P$ ($f=1k$ Hz), $t < 20ms$
- Frequency range: 50~1000Hz
- Ambient Operating Temperature $T_A=-40°C ~ +85°C$
- Ambient Storage Temperature $T_S=-40°C ~ +125°C$
PIN Definition and Dimensions

Notes:

1. Connect the terminals of power source, outputs respectively and correctly, never make wrong connection.
2. Two potentiometers can be adjusted, only if necessary, by turning slowly to the required accuracy with a small screwdriver.
3. The best accuracy can be achieved when the window is fully filled with primary cable (current carrying conductor).
4. The in-phase output can be obtained when the direction of current of current carrying conductor is the same as the direction of arrow marked on the transducer