The Modbus Universal AI/DI Module is intended to be used with a wide range of industrial sensors.

All parameters can be set via the Modbus RTU interface and via a programming socket behind the front panel. A free PC configuration software also offers extended setting options and extensive diagnostic functions during operation. A subset of the most common settings is also available via DIP switches.

The measuring value can be read over the Modbus RTU (RS485) interface.

The 2-way isolation guarantees reliable decoupling of the sensor circuit from the Processing circuit and the auxiliary power circuit. Auxiliary power and Modbus RTU can be connected via the connection terminals or via the In-Rail-Bus connector (see accessories).

- **High performance measuring input for all industrial sensors:** Pt, Ni, TC, KTY, mA, V, mV, Ω, Pot, Hz, PWM
- **Uni-/Bipolar and TRMS capture**
  Of current and voltage
- **Easy configurable**
  By DIP switch or USB interface
- **15 programmable user-specific settings**
  Directly selectable via DIP switches
- **Freely scalable**
  Up to 247 GEORGIN modules in one Modbus segment
- **Protective Separation up to 300 V AC/DC**
  Test voltage 3 kV
- **Highest accuracy**
  Measuring resolution up to 24 bit
- **In-Rail-Bus Connector for Modbus and Power Supply**
  Allows fast and economical installation
- **Extremely slim**
  Only 6.2 mm installation width
- **5 Years Warranty**
  Defects occurring within 5 years from delivery date shall be remedied free of charge at our plant

Block diagram

(carriage and insurance paid by sender)
Technical Data

**Input**

<table>
<thead>
<tr>
<th>Sensor / input signal</th>
<th>Measuring error</th>
<th>TC 1</th>
<th>Sensor / input signal</th>
<th>Measuring error</th>
<th>TC 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt100, Pt1000, JP100</td>
<td>0.1 K + 0.05 % m.v.</td>
<td>0.02 K/°C</td>
<td>Ni100, Ni120, Ni200</td>
<td>0.1 K + 0.05 % m.v.</td>
<td>0.02 K/°C</td>
</tr>
<tr>
<td>Pt200</td>
<td>0.3 K + 0.05 % m.v.</td>
<td>0.02 K/°C</td>
<td>Ni500</td>
<td>0.5 K + 0.05 % m.v.</td>
<td>0.02 K/°C</td>
</tr>
<tr>
<td>Pt500, Pt2000, Pt1000 (IEC 60751), JPH50</td>
<td>0.2 K + 0.05 % m.v.</td>
<td>0.02 K/°C</td>
<td>Ni1000</td>
<td>0.25 K + 0.05 % m.v.</td>
<td>0.02 K/°C</td>
</tr>
<tr>
<td>KTY (66 types)</td>
<td>0.1 K + 0.05 % m.v.</td>
<td>0.02 K/°C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dimensions**

- Weight: Approx. 70 g

**Modbus**

- Protocol: Modbus RTU (RS485)
- Module addressing: 1 to 247
- Baud rate: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
- Connection: Parity: Even, Odd, None. None 2 stop bits, None 1 stop bit. Response delay: 1 to 1000 ms
- Connectivity: Up to 247 GEORGIN Modbus devices without additional repeater (1/8 Load)

**General Data**

- Test voltage: 3 kV AC, 50 Hz, 1 min. Input against Modbus/power supply
- Working voltage 2 (Basic insulation): 600 V AC/DC for overvoltage category II and pollution degree 2 acc. to EN 61010-1
- Protection against dangerous body currents 2: Protective Separation by reinforced insulation acc. to EN 61010-1 up to 300 V AC/DC for overvoltage category II and contamination class 2 between input and Modbus/power supply.
- Ambient temperature: Operation: -25 °C to +70 °C, Transport and storage: -40 °C to +85 °C
- Power supply: 24 V DC, Voltage range 16.8 V to 31.2 V DC, max. 1.3 W
- EMC: EN 61326-1
- Construction: 6.2 mm (0.244") housing, protection type: IP 20, mounting on 35 mm DIN rail acc. to EN 60715

**Weight**

- Approx. 70 g

**Product line**

<table>
<thead>
<tr>
<th>Device</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modbus Universal AI/DI Module</td>
<td>GMB 96500 B</td>
</tr>
</tbody>
</table>