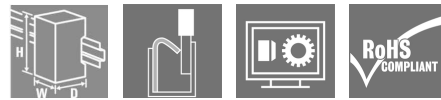


Automation Products - u-remote IP20 UR20-4AI-RTD-DIAG

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image



Available for TC and RTD; 16-bit resolution; 50/60 Hz suppression

The involvement of thermocouple and resistance-temperature sensors is indispensable for a variety of applications. Weidmüller's 4-channel input modules are suited for all common thermocouple elements and resistance temperature sensors. With an accuracy of 0.2% of the measurement-range end value and a resolution of 16 bit, cable break and values above or below the limit value are detected by means of individual channel diagnostics. Additional features such as an automatic 50 Hz to 60 Hz suppression or external as well as internal cold-junction compensation, as available with the RTD module, round off the scope of function.

The module electronics supply the connected sensors with power from the input current path (U_{IN}).

General ordering data

| | |
|------------|-----------------------------------------------------------|
| Type | UR20-4AI-RTD-DIAG |
| Order No. | 1315700000 |
| Version | Remote I/O module, IP20, Analog signals, Temperature, RTD |
| GTIN (EAN) | 4050118118872 |

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Technical data

Dimensions and weights

| | | | |
|-----------------------------|---------|-----------------|------------|
| Width | 11.5 mm | Width (inches) | 0.453 inch |
| Height | 120 mm | Height (inches) | 4.724 inch |
| Depth | 76 mm | Depth (inches) | 2.992 inch |
| Mounting dimension - height | 128 mm | Net weight | 91 g |

Temperatures

| | | | |
|-----------------------------|-------------------|-----------------------------|-------------------|
| Operating temperature, max. | 60 °C | Operating temperature, min. | -20 °C |
| Storage temperature, max. | 85 °C | Storage temperature, min. | -40 °C |
| Operating temperature | -20 °C ... +60 °C | Storage temperature | -40 °C ... +85 °C |

Environmental Product Compliance

| | |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

analogue inputs

| | | | |
|------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------|
| Accuracy | 0.2% FSR / 0.3% FSR for Ni sensors / 0.6% FSR for Cu10 | Conversion time | adjustable, 36...240 ms |
| Individual channel diagnosis | Yes | Internal resistance U | 1 MΩ |
| Module diagnosis | Yes | Number of analogue inputs | 4 |
| Resolution | 16 Bit | Reverse polarity protection | Yes |
| Sensor connection | 2-wire, 3-wire, 4-wire | Temperature coefficient | ≤ 50 ppm/K |
| Type | Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni 200, Ni500, Ni1000, Cu10, 40Ω, 80Ω, 150Ω, 300Ω, 500Ω, 1kΩ, 2kΩ, 4kΩ | | |

Connection data

| | | | |
|------------------------------------------------------|----------------------|------------------------------------------------------|----------------------|
| Type of connection | PUSH IN | Wire connection cross section, finely stranded, max. | 1.5 mm ² |
| Wire connection cross-section, finely stranded, min. | 0.14 mm ² | Wire cross-section, finely stranded, max. (AWG) | AWG 16 |
| Wire cross-section, finely stranded, min. (AWG) | AWG 26 | Wire cross-section, solid, max. | 1.5 mm ² |
| Wire cross-section, solid, max. (AWG) | AWG 16 | Wire cross-section, solid, min. | 0.14 mm ² |
| Wire cross-section, solid, min. (AWG) | AWG 26 | | |

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Technical data

General data

| | | | |
|---------------------------|------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------|
| Air humidity (operation) | 10% to 95%, non-condensing as per DIN EN 61131-2 | Air humidity (storage) | 10% to 95%, non-condensing as per DIN EN 61131-2 |
| Air humidity (transport) | 10% to 95%, non-condensing as per DIN EN 61131-2 | Air pressure (operation) | ≥ 795 hPa (height ≤ 2000 m) as per DIN EN 61131-2 |
| Air pressure (storage) | 1013 hPa (height 0 m) to 700 hPa (height 3000 m) as per DIN EN 61131-2 | Air pressure (transport) | 1013 hPa (height 0 m) to 700 hPa (height 3000 m) as per DIN EN 61131-2 |
| Pollution severity | 2 | Shock | 15 g over 11 ms, half sinus wave, acc. to IEC 60068-2-27 |
| Surge voltage category | II | Test voltage | 500 V |
| UL 94 flammability rating | V-0 | Vibration resistance | 5 Hz ≤ f ≤ 8.4 Hz: 3.5-mm amplitude as per IEC 60068-2-6, 8.4 Hz ≤ f ≤ 150 Hz: 1 g acceleration as per IEC 60068-2-6 |

Power supply

| | | | |
|-----------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------|------------------------------------------|
| Current consumption from I _{IN} (power segment of the field bus coupler), typ. | 8 mA | Current consumption from I _{IN} (the respective power segment) | < 20 mA |
| Reverse polarity protection | Yes | Voltage supply | 24 V DC +20 %/ -15 %, via the system bus |

System data

| | | | |
|--------------------|--------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------|
| Diagnostic data | 20 Byte | Field bus protocol | CANopen, DeviceNet, EtherCAT, EtherNet/IP, Modbus/TCP, PROFINET IRT, PROFIBUS DP-V1, POWERLINK |
| Galvanic isolation | DC 500 V between current paths | Interface | u-remote system bus |
| Module type | Temperature module | Parameter data | 32 Byte |
| Process data | 8 Byte | Transmission speed of system bus, max. | 48 Mbit |

Classifications

| | | | |
|-------------|-------------|------------|-------------|
| ETIM 6.0 | EC001597 | ETIM 7.0 | EC001597 |
| eClass 9.0 | 27-24-26-02 | eClass 9.1 | 27-24-26-02 |
| eClass 10.0 | 27-24-26-02 | | |

Approvals

Approvals



ROHS Conform

**Automation Products - u-remote IP20
UR20-4AI-RTD-DIAG**

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Technical data**Downloads**

| | |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | Declaration of Conformity Compass safe distance certificate Lloyds Register certificate DNV/GL certificate ABS certificate RINA certificate Bureau Veritas - Type Approval Certificate |
| Brochure/Catalogue | CAT U_REMOTE 16/17 EN |
| Engineering Data | EPLAN, WSCAD, Zuken E3.S |
| Engineering Data | STEP |
| Product Change Notification | Release-Notes - Firmware |
| Software | Firmware UR20-4AI-RTD-DIAG UR20-4AI-TC-DIAG Archiv Firmware UR20-4AI-RTD-TC |
| User Documentation | MAN_U-REMOTE_DE MAN_U-REMOTE_EN |

