

UR20-8AI-RTD-DIAG-2W**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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

Version	Remote I/O module, IP20, Analog signals, Temperature, RTD
Order No.	2555940000
Type	UR20-8AI-RTD-DIAG-2W
GTIN (EAN)	4050118566062
Qty.	1 pc(s).
Replacement parts	1350930000 2593300000

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Technical data

Dimensions and weights

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

Temperatures

Storage temperature	-40 °C ... +85 °C	Operating temperature	-20 °C ... +60 °C
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analogue inputs

Accuracy	0.2% FSR / 0.3% FSR for Ni sensors / 0.6% FSR for Cu10	Conversion time	80 ms
Individual channel diagnosis	Yes	Measured temperature value, max.	850 °C
Measured temperature value, min.	-200 °C	Module diagnosis	Yes
Number of analogue inputs	8	Resolution	16 Bit
Reverse polarity protection	Yes	Sensor connection	2-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		

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	Rail	TS 35
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		

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Power supply

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

System data

Field bus protocol	PROFINET IRT, PROFINET RT, PROFIBUS DP-V1, EtherCAT, Modbus/TCP, EtherNet/IP, CANopen, DeviceNet, POWERLINK, CC-Link, CC-Link IE TSN	Galvanic isolation	500 V DC between the current paths
Interface	u-remote system bus	Module type	Temperature module
Transmission speed of system bus, max.	48 Mbit		

Classifications

ETIM 6.0	EC001596	ETIM 7.0	EC001596
ETIM 8.0	EC001596	ETIM 9.0	EC001596
ECLASS 9.0	27-24-26-01	ECLASS 9.1	27-24-26-01
ECLASS 10.0	27-24-26-01	ECLASS 11.0	27-24-26-01
ECLASS 12.0	27-24-26-01	ECLASS 13.0	27-24-26-01

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	82327f13-cd27-455a-ab5b-a62e1996dcf8

Approvals

Approvals



UL File Number Search	UL Website
Certificate no. (cULus)	E141197
Certificate no. (cULusEX)	E223527

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Approval/Certificate/Document of Conformity	KC certificate
	Lloyds Register certificate
	DNV/GL certificate
	RINA certificate
	DEMKO 15ATEX1525X
	UKCA Declaration of Conformity - EN
Engineering Data	CE Declaration of Conformity - DE
	CAD data – STEP
	Compatibility information – Combinability of UR20
User Documentation	MAN_U-REMOTE_DE
	MAN_U-REMOTE_EN
Catalogues	Catalogues in PDF-format

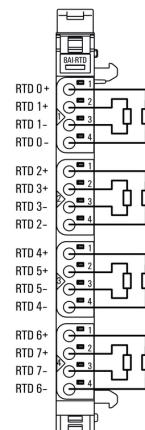
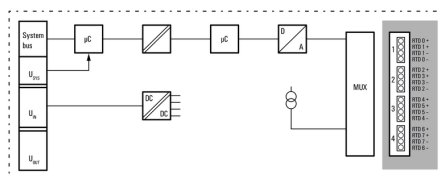
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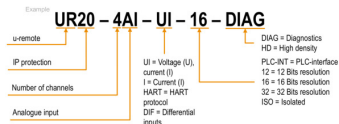
Drawings

Block diagram



Explanation of abbreviations

Analogue input modules



MAM_Cumulus:287298