UR20-4AO-UI-16-DIAG

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image

2- or 4-wire connection; 16-bit resolution; 4 outputs

The analogue output module controls up to 4 analogue actuators with +/-10 V, +/-5 V, 0...10 V, 0...5 V, 2...10 V, 1...5 V, 0...20 mA or 4...20 mA with an accuracy of 0.05% of the measurement-range end value. An actuator with 2-, 3- or 4-wire technology can be connected to each plug-in connector. The measurement range is defined channel-by-channel using parameterisation. In addition, each channel has its own status LED.

The outputs are supplied from the output current path (U_{OUT}).

General ordering data

Version	Remote I/O module, IP20, Analog signals, Output, 4-channel, Current/Voltage
Order No.	1315730000
Type	UR20-4AO-UI-16-DIAG
GTIN (EAN)	4050118118667
Qty.	1 pc(s).

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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
Mounting dimension - height	128 mm	Net weight	86 g
Width	11.5 mm	Width (inches)	0.453 inch

Temperatures

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

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

analogue outputs

Accuracy	±0,1 % FSR max., 0,05 % FSR typ.	
Actuator connection	2-wire (automatic detection), 4-wire	
Actuator supply	nominal	185 mA
	min.	0 mA
	max.	185 mA
Cross-talk between the channels	0.001 % FSR	
Individual channel diagnosis	Yes	
Load impedance current	< 600 Ω	
Max. error between T min. and T max.	220 ppm FSR	
Module diagnosis	Yes	
Monotonicity	Yes	
Number of analogue outputs	4	
Output current as per application	nominal	185 mA
	min.	0 mA
	max.	185 mA
Output variable	Voltage (0...5 V, 0...10 V, 1...5 V, 2...10 V, ±10 V, ±5 V), Current (0...20 mA or 4...20 mA)	
Repeat accuracy	< 1 mV eff.	
Resolution	16 Bit	
Response time	1 ms / 4 channels	
Short-circuit-proof	Yes	
Simultaneity factor	max.	100 %
	nominal	100 %
	min.	0 %
Substitute values	Yes	
Temperature coefficient	20 ppm voltage / 31 ppm current measurement / °K	
Type	1. U (0...5 V, 0...10 V, 1...5 V, 2...10 V, ±10 V), 2. I (0–20 mA or 4–20 mA)	
load impedance voltage	> 1 kΩ (at >50 °C ambient temperature, max. total sensor current = 25 mA)	

Connection data

Type of connection	PUSH IN	Wire connection cross section, finely stranded, max.	1.5 mm²
Wire connection cross section, finely stranded, min.	0.14 mm²	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 mm²
Wire cross-section, solid, max. (AWG)	AWG 16	Wire cross-section, solid, min.	0.14 mm²
Wire cross-section, solid, min. (AWG)	AWG 26		

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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		
Restricted area	Positive expansion	X coordinate	43 mm
		Z coordinate	85 mm
		Y coordinate	160 mm
	Type of restricted area	thermal	
	Negative expansion	Z coordinate	0 mm
		Y coordinate	-40 mm
		X coordinate	-28 mm
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} (power segment of the fieldbus coupler), typ.	min.	8 mA
	nominal	8 mA
	max.	8 mA
Current consumption from I_{OUT} (the respective power segment)	85 mA	
Current consumption from I_{OUT} (the respective power segment)	max.	85 mA
	min.	85 mA
	nominal	85 mA
Voltage supply	24 V DC +20 %/ -15 %, via the system bus	

RS interface

Individual channel diagnosis	Yes	Module diagnosis	Yes
Short-circuit-proof	Yes		

Serial inputs

Individual channel diagnosis	Yes	Module diagnosis	Yes
Short-circuit-proof	Yes		

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System data

Diagnostic data	2 Bit	Field bus protocol	CANopen, DeviceNet, EtherCAT, EtherNet/IP, Modbus/TCP, PROFINET IRT, PROFIBUS DP-V1, POWERLINK
Galvanic isolation	500 V DC between the current paths	Interface	u-remote system bus
Module type	Analogue output module	Process data	8 Byte
Transmission speed of system bus, max.	48 Mbit		

Classifications

ETIM 6.0	EC001596	ETIM 7.0	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

Approvals

Approvals	
ROHS	Conform
UL File Number Search	E141197

Downloads

Approval/Certificate/Document of Conformity	Declaration_of_Conformity
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD, Zuken E3.S
Product Change Notification	Release-Notes - Firmware
Software	Archiv_Firmware_UR20-4AO_UI 4AO_UI-0002151-01_02_00-4
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN

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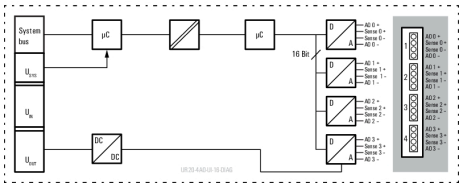
Drawings

Block diagram



Connection diagram