Data sheet

UR20-4AO-UI-16-DIAG

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

www.weidmueller.com



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 (UOUT).

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 items

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Technical data

Approvals

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

Dimensions and weights

Depth	76 mm	Depth (inches)	2.9921 inch
Height	120 mm	Height (inches)	4.7244 inch
Width	11.5 mm	Width (inches)	0.4528 inch
Mounting dimension - height	128 mm	Net weight	86 g

Temperatures

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

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption	
RoHS Exemption (if applicable/known)	7a, 7cl	
REACH SVHC	Lead 7439-92-1	
SCIP	82327f13-cd27-455a-ab5b-a62e1996dcf8	
Product Carbon Footprint	Cradle to gate	8,705 kg CO2 eq.

analogue outputs

Short-circuit-proof	Yes	
load impedance voltage	> 1 kΩ (at >50 °C ambient temperature, max. total sensor current = 25 mA)	
Load impedance current	<600 Ω	
Repeat accuracy	<1 mV eff.	
Accuracy	±0,1 % FSR max., 0,05 % FSR typ.	
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)	
Resolution	16 Bit	
Temperature coefficient	20 ppm voltage / 31 ppm current measurement / °K	
Simultaneity factor	min.	0 %
	nominal	100 %
	max.	100 %
Number analogue outputs	4	
Module diagnosis	Yes	
Individual channel diagnosis	Yes	
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)	
Response time	1 ms / 4 channels	
Output current as per application	min.	0 mA

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	nominal	185 mA
	max.	185 mA
Monotonicity	Yes	
Cross-talk between the channels in FSR	0.001 %	
Actuator connection	2-wire (automatic detection), 4-wire	
Actuator supply	min.	0 mA
	nominal	185 mA
	max.	185 mA
Max. error between T min. and T max. in FSR	220 %	
Substitute values	Yes	

Connection data

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

General data

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	UL 94 flammability rating	V-0
Test voltage	500 V	Surge voltage category	II
Pollution severity	2	Mounting rail	TS 35
Air pressure (operation)	≥ 795 hPa (height ≤ 2000 m) as per DIN EN 61131-2	Air humidity (transport)	10% to 95%, non-condensing 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	Air pressure (storage)	1013 hPa (height 0 m) to 700 hPa (height 3000 m) as per DIN EN 61131-2
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
Shock	15 g over 11 ms, half sinus wave, acc. to IEC 60068-2-27		

Power supply

Supply voltage	24 V DC +20 %/ -15 %, via the system bus	Current consumption from Isys, typ.	8 mA
Current consumption from IOUT (the respective power segment)	85 mA		

System data

Module type	Analogue output module	Interface	u-remote system bus
Galvanic isolation	500 V DC between the current paths	Process data	8 Byte
Connection type	PUSH IN	Field bus protocol	PROFINET IRT, PROFINET RT, PROFIBUS DP-V1, EtherCAT, Modbus/TCP, EtherNet/IP, CANopen,

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Technical data

			DeviceNet, POWERLINK, CC-Link, CC-Link IE TSN
Transmission speed of system bus, max.	48 MBit/s	Diagnostic data	2 Bit

Classifications

ETIM 8.0	EC001596	ETIM 9.0	EC001596
ETIM 10.0	EC001596	ECLASS 14.0	27-24-26-01
ECLASS 15.0	27-24-26-01		

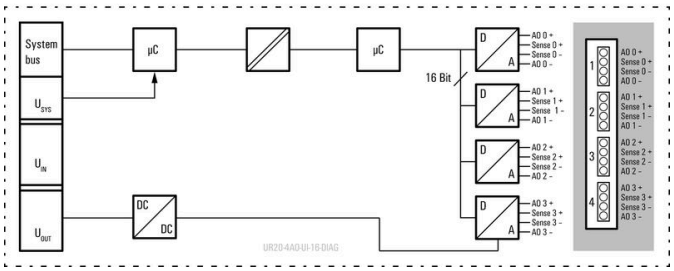
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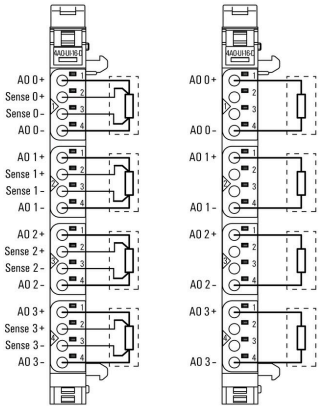
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Drawings

Block diagram



Connection diagram



Explanation of abbreviations

Analogue output modules

