

UR20-4DO-PN-2A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Digital output modules P- or N-switching; short-circuit-proof; up to 3-wire + FE

The module electronics supply the connected actuators from the output current path (U_{OUT}).

Digital output modules are available in the following variants: 4 DO, 8 DO with 2- and 3-wire technology, 16 DO with or without PLC interface connection. They are mainly used for the incorporation of decentralised actuators. All outputs are designed for DC-13 actuators acc. to DIN EN 60947-5-1 and IEC 61131-2 specifications. As with the digital input modules, frequencies of up to 1 kHz are possible. Protection of the outputs ensures maximum system safety. This consists of an automatic restart following a short-circuit. Clearly visible LEDs signal the status of the entire module as well as the status of individual channels.

In addition to the standard applications of the digital output modules, the range also includes special variants such as the 4RO-SSR module for rapidly switching applications. Fitted with solid state technology, 0.5 A is available here to each output. Furthermore, there is also the 4RO-CO relay module for power-intensive applications. It equipped with four CO contacts, optimised for a switching voltage of 255 V UC and designed for a switching current of 5 A.

General ordering data

Version	Remote I/O module, IP20, 4-channel, Digital signals, Output
Order No.	1394420000
Type	UR20-4DO-PN-2A
GTIN (EAN)	4050118195408
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	85 g
Width	11.5 mm	Width (inches)	0.453 inch

Temperatures

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

REACH SVHC	Lead 7439-92-1
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digital outputs

Actuator connection	2-wire, 3-wire, 3-wire + FE	
Actuator supply	max.	2,000 mA
	nominal	2,000 mA
	min.	0 mA
Feedback-free	Yes	
Individual channel diagnosis	No	
Inductive load (DC13)	2 Hz	
Lamp load (12 W)	1 kHz	
Max. response time, high	100 µs	
Max. response time, low	250 µs	
Module diagnosis	Yes	
Number of digital outputs	4	
Output current as per application	nominal	8,000 mA
	min.	0 mA
	max.	8,000 mA
Output current per channel, max.	2 A	
Output current per module, max.	8,000 mA	
Positive or negative switching	Positive or negative switching	
Resistive load (min. 47 Ω)	1 kHz	
Response time of the protective circuit (current limiting)	< 100µs	
Short-circuit-proof	Yes (thermal cut-out)	
Simultaneity factor	nominal	100 %
	min.	0 %
	max.	100 %
Switch-off energy (inductive)	< 150 mJ / channel	
Type	Inductive, Ohmic, Lamp load	

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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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	Type of restricted area	thermal	
	Positive expansion	X coordinate	43 mm
		Z coordinate	85 mm
		Y coordinate	160 mm
	Negative expansion	X coordinate	-28 mm
		Z coordinate	0 mm
		Y coordinate	-40 mm
Shock	15 g over 11 ms, half sinus wave, acc. to IEC 60068-2-27		
Surge voltage category	II		
Test voltage	500 V		
Vibration resistance	5 Hz $\leq f \leq 8.4$ Hz: 3.5-mm amplitude as per IEC 60068-2-6, 8.4 Hz $\leq f \leq 150$ 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.	max.	8 mA
	nominal	8 mA
	min.	8 mA
Current consumption from I _{OUT} (the respective power segment)	10 mA + load	
Current consumption from I _{OUT} (the respective power segment)	max.	10 mA
	nominal	10 mA
	min.	10 mA
Voltage supply	24 V DC +20 %/ -15 %, via the system bus	

RS interface

Connection type	2-wire, 3-wire, 3-wire + FE	Individual channel diagnosis	No
Module diagnosis	Yes	Short-circuit-proof	Yes (thermal cut-out)

Serial inputs

Connection type	2-wire, 3-wire, 3-wire + FE	Individual channel diagnosis	No
Module diagnosis	Yes	Short-circuit-proof	Yes (thermal cut-out)

System data

Connection type	2-wire, 3-wire, 3-wire + FE	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	Special module	Transmission speed of system bus, max.	48 Mbit

Creation date March 23, 2021 8:31:54 PM CET

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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	ECLASS 11.0	27-24-26-02

Approvals

Approvals



ROHS	Conform
UL File Number Search	E141197

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 PRS (Polish Register of Shipping) NIPPON KAIJI KYOKAI Certificate
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD, Zuken E3.S
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN

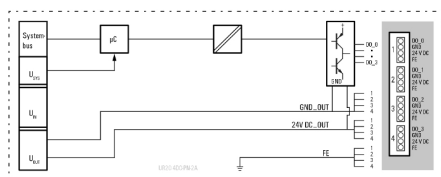
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Drawings

Block diagram



Connection diagram

