

UR20-4DO-P

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

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.

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

General ordering data

Version	Remote I/O module, IP20, Digital signals, Output, 4-channel
Order No.	1315220000
Type	UR20-4DO-P
GTIN (EAN)	4050118118391
Qty.	1 pc(s).
Replacement parts	1350930000 1346700000 1483960000

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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	86 g

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	SCIP	82327f13-cd27-455a-ab5b-a62e1996dcf8
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digital outputs

Actuator connection	2-wire, 3-wire, 3-wire + FE		
Actuator supply	max.	8,000 mA	
	nominal	750 mA	
	min.	0 mA	
Feedback-free	Yes		
Individual channel diagnosis	No		
Inductive load (DC 13)	0.2 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	max.	2,000 mA	
	min.	0 mA	
	nominal	2,000 mA	
Output current per channel, max.	500 mA		
Output current per module, max.	2,000 mA		
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	max.	100 %	
	min.	0 %	
	nominal	100 %	
Switch-off energy (inductive)	< 150 mJ / channel		
Type	Lamp load, Ohmic, Inductive		

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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Catalogue status 23.09.2022 / We reserve the right to make technical changes.

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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
		Y coordinate 160 mm	
		Z coordinate 85 mm	
	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 _{OUT} (the respective power segment)	10 mA + load	Current consumption from I _{sys} , typ.	8 mA
Voltage supply	24 V DC +20 %/ -15 %, via the system bus		

System data

Diagnostic data	1 Bit	Galvanic isolation	500 V DC between the current paths
Interface	u-remote system bus	Module type	Digital output module
Possible connection	2-wire, 3-wire, 3 conductor FES	Process data	4 Bit
Transmission speed of system bus, max. 48 Mbit			

Classifications

ETIM 6.0	EC001599	ETIM 7.0	EC001599
ETIM 8.0	EC001599	ECLASS 9.0	27-24-26-04
ECLASS 9.1	27-24-26-04	ECLASS 10.0	27-24-26-04
ECLASS 11.0	27-24-26-04	ECLASS 12.0	27-24-26-04

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Technical data

Approvals

Approvals



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

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 DEMKO15ATEX1525X CCC certificate UKCA Declaration of Conformity - EN
Engineering Data	CAD data – STEP Compatibility information – Combinability of UR20
Engineering Data	EPLAN, WSCAD, Zuken E3.S
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN
Catalogues	Catalogues in PDF-format

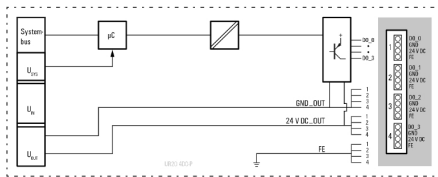
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Drawings

Block diagram



Connection diagram

