

UR20-16DO-P

Weidmüller Interface GmbH & Co. KG

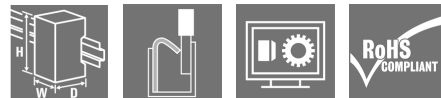
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image


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

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, Digital signals, Output, 16-channel
Order No.	1315250000
Type	UR20-16DO-P
GTIN (EAN)	4050118118537
Qty.	1 pc(s).
Replacement parts	1350930000 1346730000 1483990000

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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	83 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	Single-conductor	
Feedback-free	Yes	
Individual channel diagnosis	No	
Inductive load (DC13)	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	16	
Output current as per application	nominal	8,000 mA
	min.	0 mA
	max.	8,000 mA
Output current per channel, max.	500 mA	
Output current per module, max.	8,000 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	min.	0 %
	nominal	100 %
	max.	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, min.	0.14 mm ²	Wire connection cross section, finely stranded, max.	1.5 mm ²
Wire cross-section, finely stranded, min. (AWG)	AWG 26	Wire cross-section, finely stranded, max. (AWG)	AWG 16
Wire cross-section, solid, max. (AWG)	AWG 16	Wire cross-section, solid, max.	1.5 mm ²
Wire cross-section, solid, min. (AWG)	AWG 26	Wire cross-section, solid, min.	0.14 mm ²

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

Creation date 22 October 2022 03:01:01 CEST

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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
	Negative expansion	Z coordinate	0 mm
		Y coordinate	-40 mm
		X coordinate	-28 mm
Type of restricted area		thermal	
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)	20 mA + load	Current consumption from I_{SYS} , typ.	8 mA
Voltage supply	24 V DC $\pm 20\%$ / -15% , via the system bus		

System data

Connection type	PUSH IN	Diagnostic data	1 Bit
Field bus protocol	PROFINET IRT, PROFINET RT, PROFIBUS DP-V1, EtherCAT, Modbus/TCP, EtherNet/IP, CANopen, DeviceNet, POWERLINK, CC-Link, CC-Link IE TSN, IEC 61162-450	Galvanic isolation	
Interface	u-remote system bus	Module type	Digital output module
Possible connection	Single-conductor	Process data	2 Byte
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 DEMKO 15ATEX1525X 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

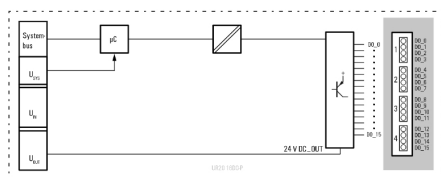
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Drawings

Block diagram



Connection diagram

