

UR20-16DO-P

Weidmüller Interface GmbH & Co. KG

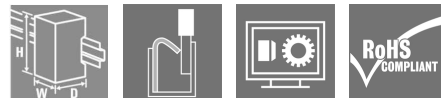
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



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

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, 16-channel
Order No.	1315250000
Type	UR20-16DO-P
GTIN (EAN)	4050118118537
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	83 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	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 V AC/DC		
Max. response time, low	250 V AC/DC		
Module diagnosis	Yes		
Number of digital outputs	16		
Output current as per application	min.	0 mA	
	nominal	8,000 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 %	
	max.	100 %	
	nominal	100 %	
Switch-off energy (inductive)	< 150 mJ / channel		
Type	Ohmic, Inductive, 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		

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

Creation date 08 December 2020 13:54:40 CET

Catalogue status 07.12.2020 / We reserve the right to make technical changes.

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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	Negative expansion	Z coordinate	0 mm
		Y coordinate	-40 mm
		X coordinate	-28 mm
	Positive expansion	X coordinate	43 mm
		Y coordinate	160 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 _{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	
	max.	8 mA	
	nominal	8 mA	
Current consumption from I _{OUT} (the respective power segment)	20 mA + load		
Current consumption from I _{OUT} (the respective power segment)	nominal	20 mA	
	min.	20 mA	
	max.	20 mA	
Voltage supply	24 V DC +20 %/ -15 %, via the system bus		

RS interface

Individual channel diagnosis	No	Module diagnosis	Yes
Short-circuit-proof	Yes (thermal cut-out)		

Serial inputs

Individual channel diagnosis	No	Module diagnosis	Yes
Short-circuit-proof	Yes (thermal cut-out)		

System data

Diagnostic data	1 ppm FSR	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	Digital output module	Possible connection	Single-conductor
Process data	2 Leiter	Transmission speed of system bus, max.	48 % FSR

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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



WATEXIECEX

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

Data sheet

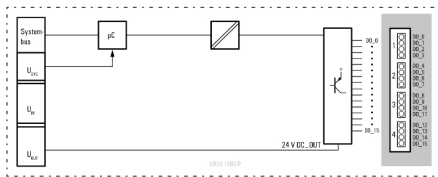
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Drawings

Block diagram



Connection diagram

