

**UR20-16DO-N-PLC-INT**

**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, PLC
Order No.	<a href="#">1315450000</a>
Type	UR20-16DO-N-PLC-INT
GTIN (EAN)	4050118118452
Qty.	1 Stück
Replacement parts	<a href="#">1350930000</a> <a href="#">1346990000</a> <a href="#">2000540000</a>

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## Technische Daten

### 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	87 g

### Temperatures

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

### digital outputs

Actuator connection	PLC-Interface		
Feedback-free	Yes		
Individual channel diagnosis	No		
Inductive load (DC 13)	0.2 Hz		
Lamp load (12 W)	10 Hz		
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	min.	0	
	nominal	0	
	max.	0	
Output current per channel, max.	500 mA		
Output current per module, max.	8,000 mA		
Output current per module, remark	2 A with supply via a flat ribbon cable		
Resistive load (min. 47 Ω)	1 kHz		
Response time of the protective circuit (current limiting)	< 100µs		
Short-circuit-proof	Yes (thermal cut-out)		
Switch-off energy (inductive)	< 150 mJ / channel		
Type	Lamp load, Ohmic, Inductive		

### Connection data

I/O plug-in connector	20-pin ribbon cable connection	Type of connection	PUSH IN
Wire connection cross section, finely stranded, max.	1.5 mm <sup>2</sup>	Wire connection cross section, finely stranded, min.	0.14 mm <sup>2</sup>
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 <sup>2</sup>	Wire cross-section, solid, max. (AWG)	AWG 16
Wire cross-section, solid, min.	0.14 mm <sup>2</sup>	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
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 <sub>OUT</sub> (the respective power segment)	30 mA	Current consumption from I <sub>sys</sub> , typ.	8 mA
Voltage supply	24 V DC +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	500 V DC between the current paths
Interface	u-remote system bus	Module type	Special module
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

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	82327f13-cd27-455a-ab5b-a62e1996dcf8

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## Technische Daten

### Approvals

Approvals



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

### Downloads

Approval/Certificate/Document of Conformity	<a href="#">KC certificate</a> <a href="#">Compass safe distance certificate</a> <a href="#">Lloyds Register certificate</a> <a href="#">DNV/GL certificate</a> <a href="#">ABS certificate</a> <a href="#">RINA certificate</a> <a href="#">Bureau Veritas - Type Approval Certificate</a> <a href="#">PRS (Polish Register of Shipping)</a> <a href="#">NIPPON KAIJI KYOKAI Certificate</a> <a href="#">DEMKO15ATEX1525X</a> <a href="#">CCC certificate</a> <a href="#">UKCA Declaration of Conformity - EN</a> <a href="#">CE Declaration of Conformity - DE</a>
Engineering Data	<a href="#">CAD data – STEP</a> <a href="#">Compatibility information – Combinability of UR20</a>
Engineering Data	<a href="#">WSCAD, Zuken E3.S, EPLAN</a>
User Documentation	<a href="#">MAN_U-REMOTE_DE</a> <a href="#">MAN_U-REMOTE_EN</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

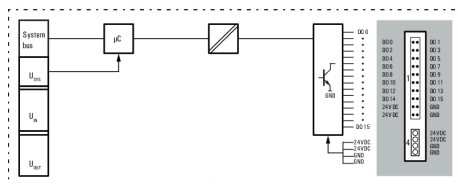
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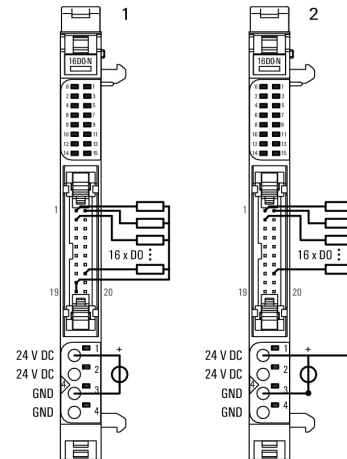
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## Zeichnungen

### Block diagram



### Connection diagram



### Explanation of abbreviations

#### Digital output modules

