

UR20-8DIO-P-3W-DIAG**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

Digital input and output modules More performance. Simplified. u-remote. Weidmüller u-remote – our innovative remote I/O concept with IP 20 which focuses purely on user benefits: tailored planning, faster installation, safer start-up, no more downtime. For considerably improved performance and greater productivity. Reduce the size of your cabinets with u-remote, thanks to the narrowest modular design on the market and the need for fewer power-feed modules. Our u-remote technology also offers tool-free assembly, while the modular "sandwich" design and integrated web server speed up installation, both in the cabinet and machine. Status LEDs on the channel and each u-remote module enable reliable diagnosis and rapid service. This and many other amazing ideas boost the availability of your machines and systems. And ensure smooth processes too. From planning to operation. u-remote stands for "More Performance". Simplified

General ordering data

Version	Remote I/O module, IP20, Digital signals, Input, Output, 8-channel
Order No.	2456530000
Type	UR20-8DIO-P-3W-DIAG
GTIN (EAN)	4050118471694
Qty.	1 pc(s).
Replacement parts	1350930000 2593320000

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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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digital inputs

Individual channel diagnosis	only auxiliary voltage output	Input filter	Input delay adjustable from 0 to 40 ms
Input type	P-switching, for Type 1 and Type 3 sensors as per IEC 61131-2	Input voltage, high	> + 11 V referred to 0 V of the output power supply U_{OUT}
Input voltage, low	< + 5 V referred to 0 V of the output power supply U_{OUT}	Module diagnosis	Yes
Number of digital inputs	8	Protective circuit	Constant current with thermal switch-off and automatic restart
Reverse polarity protection	No, Input voltage below -10 V can destroy the module	Sensor connection	2-wire, 3-wire
Sensor supply	≥ 0.3 A per connector, limited electronically	Short-circuit-proof	Yes
Type	PNP switched		

digital outputs

Actuator connection	2-wire, 3-wire	Actuator supply	≤ 0.3 A per connector; limited electronically
Feedback-free	Yes	Individual channel diagnosis	Yes, Overcurrent monitoring > 0.5 A, line break detection
Inductive load (DC13)	0.2 Hz	Lamp load (12 W)	10 Hz
Module diagnosis	Yes	Number of digital outputs	8
Output current per channel, max.	0.5 A	Output current per module, max.	4 A
Protective circuit	Constant current with thermal switch-off and automatic restart	Resistive load (min. 47 Ω)	1 kHz
Response time of the protective circuit (current limiting)	< 100µs	Sensor connection	2-wire, 3-wire
Short-circuit-proof	Yes	Switch-off energy (inductive)	< 150 mJ / channel
Type	PNP switched		

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
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} (the respective power segment)	8 mA	Current consumption from I _{OUT} (the respective power segment)	32 mA + I-Last
Current consumption from I _{sys} , typ.	8 mA	Reverse polarity protection	No, Input voltage below -10 V can destroy the module
Voltage supply	24 V DC +20 %/ -15 %, via the system bus		

System data

Field bus protocol	PROFINET IRT, PROFINET RT, PROFIBUS DP-V1, EtherCAT, Modbus/TCP, EtherNet/IP, CANopen, DeviceNet, POWERLINK, CC-Link, CC-Link IE TSN	Galvanic isolation	500 V DC between the current paths
Interface	u-remote system bus	Module type	Digital input module, Digital output module
Possible connection	2-wire, 3-wire	Transmission speed of system bus, max.	48 Mbit

Classifications

ETIM 6.0	EC001599	ETIM 7.0	EC001599
ETIM 8.0	EC001599	ETIM 9.0	EC001599
ETIM 10.0	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
ECLASS 13.0	27-24-26-04	ECLASS 14.0	27-24-26-04
ECLASS 15.0	27-24-26-04		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1 Diboron trioxide 1303-86-2 Lead monoxide 1317-36-8
SCIP	b5ed5bad-cbfe-4ad3-903c-fc3d1093a415

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Technical data

Approvals

Approvals



Approvals MAMID

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

Downloads

Approval/Certificate/Document of Conformity	KC certificate Lloyds Register certificate DNV certificate RINA certificate DEMKO15ATEX1525X KR Korean register certificate CCC certificate CCS certificate UKCA Declaration of Conformity - EN CE Declaration of Conformity - DE
Engineering Data	CAD data – STEP Compatibility information – Combinability of UR20
Product Change Notification	Release-Notes - Firmware
Software	Firmware – Current firmware UR20-8DIO-P-3W-DIAG Firmware – Archive firmware UR20-8DIO-P-3W-DIAG
User Documentation	Handbuch u-remote DE Manual u-remote EN
Catalogues	Catalogues in PDF-format

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Catalogue status 10.05.2025 / We reserve the right to make technical changes.

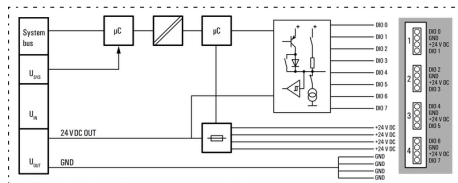
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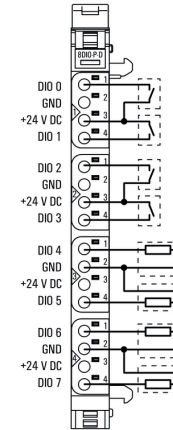
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Drawings

Block diagram



Connection diagram



Explanation of abbreviations

Digital input and output modules

