

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

UR20-8DIO-P-3W-DIAG

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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
Operating temperature, min.	-20 °C	Operating temperature, max.	60 °C

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		

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Technical data

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	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

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Technical data

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

Approvals

Approvals



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

Downloads

Approval/Certificate/Document of Conformity	RINA certificate DEMKO 15ATEX1525X CCC certificate UKCA Declaration of Conformity - EN CE Declaration of Conformity - DE
Engineering Data	CAD data – STEP Compatibility information – Combinability of UR20
Software	Firmware – Current firmware UR20-8DIO-P-3W-DIAG
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN
Catalogues	Catalogues in PDF-format

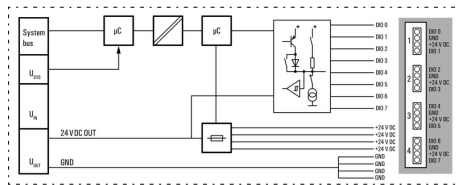
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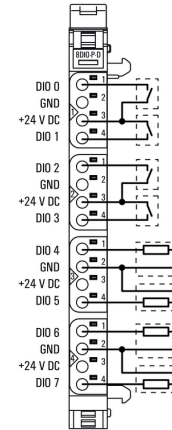
Drawings

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Block diagram

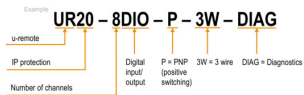


Connection diagram



Explanation of abbreviations

Digital input and output modules



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Accessories**Aluminum**

Aluminum has the second best electrical conductivity after copper. One advantage is low weight, anMiscellaneous is outstanding corrosion protection.

General ordering data

Type	TS 35X7.5 2M/AL/BK	Version
Order No.	0330800000	Rail, TS 35, TS 35 x 7.5, without slot, Aluminium, untreated
GTIN (EAN)	4008190100650	
Qty.	2 m	

Stainless steel

Stainless steel is a collective term for all types of steel (alloys) with a high degree of purity and corrosion resistance.

General ordering data

Type	TS 35X7.5 2M/CRN	Version
Order No.	1747350000	Rail, TS 35, TS 35 x 7.5, without slot, Stainless steel, rust-proof,
GTIN (EAN)	4032248003372	Stainless steel 1.4301, untreated
Qty.	2 m	

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Accessories

Custom printing



The Dekafix (DEK) marker is the universal marker for all conductor and plug-in connectors as well as for electronic sub-assemblies. The system is ideal for short number sequences and covers a wide range of ready-printed markers.

Strips for fast installation in only one work step. The printing is easy to read, rich in contrast and available in various widths.

- Large range of ready-to-use markers
- Strips for fast installation
- Terminal markers, suitable for all Weidmüller cable connectors
- Available as blank MultiCard or with standard printing

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

Type	DEK 5/8-11.5 MC SDR	Version	
Order No.	1341610000		Dekafix, Terminal marker, 5 x 8 mm, Pitch in mm (P): 8.00
GTIN (EAN)	4050118146059		Weidmueller, To customer specification
Qty.	100 pc(s).		

Blank



The Dekafix (DEK) marker is the universal marker for all conductor and plug-in connectors as well as for electronic sub-assemblies. The system is ideal for short number sequences and covers a wide range of ready-printed markers.

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- Large range of ready-to-use markers
- Strips for fast installation
- Terminal markers, suitable for all Weidmüller cable connectors
- Available as blank MultiCard or with standard printing

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

Type	DEK 5/8-11.5 MC NE WS	Version	
Order No.	1341630000		Dekafix, Terminal marker, 5 x 8 mm, Pitch in mm (P): 8.00
GTIN (EAN)	4050118145946		Weidmueller, white
Qty.	500 pc(s).		

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Accessories

Blank



General ordering data

Type	PM 2.7/2.6 MC NE WS	Version
Order No.	1323710000	OMNIMATE Signal - series PM, Pusher markers, 2.7 x 2.6 mm, Pitch in
GTIN (EAN)	4050118126778	mm (P): 3.50 Weidmueller, white
Qty.	960 pc(s).	

Accessories



Potential-distribution modules; system accessory

A wide range of accessory modules is available for individual requirements of machine and plant engineering. Various potential distribution modules are available for the supply of sensors with 2- to 4-wire connection technology directly from the remote I/O system. These offer 16 "PUSH IN" potential points and supply your application with any auxiliary potential available. An empty module, where the system bus and voltage supply are looped through, allows you to plan expansion slots in a system and to start these up without any interruptions if required.

General ordering data

Type	UR20-SM-ACC	Version
Order No.	1339920000	Cover, ,
GTIN (EAN)	4050118144727	
Qty.	20 pc(s).	

Type	UR20-EBK-ACC	Version
Order No.	1346610000	End bracket, ,
GTIN (EAN)	4050118151596	
Qty.	5 pc(s).	

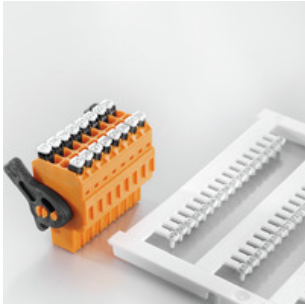
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Accessories

Custom printing



General ordering data

Type	PM 2.7/2.6 MC SDR	Version
Order No.	1323700000	OMNIMATE Signal - series PM, Pusher markers, 2.7 x 2.6 mm, Pitch in
GTIN (EAN)	4050118126761	mm (P): 3.50 Weidmueller, To customer specification
Qty.	192 pc(s).	

Steel



Steel DIN rails are the most widespread on the market. Among metal DIN rails, they have the lowest shortcircuit protection, similar to stainless steel.

General ordering data

Type	TS 35X7.5/LL 2M/ST/ZN	Version
Order No.	0514500000	Rail, TS 35, TS 35 x 7.5, with slot, Steel, galvanic zinc plated and
GTIN (EAN)	4008190046019	passivated
Qty.	2 m	
Type	TS 35X7.5/LL 2M/ST/SZ	Version
Order No.	7915060000	Rail, TS 35, TS 35 x 7.5, with slot, Steel, galvanic zinc plated and
GTIN (EAN)	4032248296279	passivated
Qty.	2 m	
Type	TS 35X7.5 2M/ST/ZN	Version
Order No.	0383400000	Rail, TS 35, TS 35 x 7.5, without slot, Steel, galvanic zinc plated and
GTIN (EAN)	4008190088026	passivated
Qty.	2 m	
Type	TS 35X7.5/LL 1M/ST/ZN	Version
Order No.	0514510000	Rail, TS 35, TS 35 x 7.5, with slot, Steel, galvanic zinc plated and
GTIN (EAN)	4008190116620	passivated
Qty.	1 m	

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Replacement parts

Basic modules



General ordering data

Type	UR20-BM-SP	Version	Packaging
Order No.	1350930000	Replacement part , Flange-mounted housing	Cardboard
GTIN (EAN)	4050118402735		box
Qty.	5 pc(s).		

Plugkit



General ordering data

Type	UR20-PK-2456530000-SP	Version
Order No.	2593320000	Replacement part
GTIN (EAN)	4050118605419	
Qty.	5 pc(s).	