

UR20-4DI-P

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 www.weidmueller.com

Product image



Digital input modules P- or N-switching; Reverse polarity protection, up to 3-wire +FE

Digital input modules from Weidmüller are available in different versions and are used primarily to receive binary control signals from sensors, transmitters, switches or proximity switches. Thanks to their flexible design, they will satisfy your need for well co-ordinated project planning with reserve potential.

All modules are available with 4, 8 or 16 inputs and comply fully with IEC 61131-2. The digital input modules are available as P- or N-switching variant. The digital inputs are for Type 1 and Type 3 sensors in accordance with the standard. With a maximum input frequency of up to 1 kHz, they are used in many different applications. The variant for PLC interface units enables rapid cabling to the proven Weidmüller interface sub-assemblies using system cables. This ensures rapid incorporation into your overall system. Two modules with a timestamp function are able to capture binary signals and to provide a timestamp in 1 µs resolution. Further solutions are possible with

the module UR20-4DI-2W-230V-AC which works with accurate current up to 230V as an input signal.

The module electronics supply the connected sensors from the input current path (U_{IN}).

General ordering data

Version	Remote I/O module, IP20, Digital signals, Input, 4-channel
Order No.	1315170000
Type	UR20-4DI-P
GTIN (EAN)	4050118118254
Qty.	1 Stück
Replacement parts	1350930000 1346640000 1346440000

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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 inputs

Individual channel diagnosis	No	
Input filter	configurable	
Input voltage, high	> 11 V	
Input voltage, low	< 5 V	
Module diagnosis	Yes	
Number of digital inputs	4	
Reverse polarity protection	Yes	
Sensor connection	2-wire, 3-wire, 3-wire + FE	
Sensor supply	Yes	
Sensor supply	min.	0 mA
	max.	8.000 mA
	nominal	750 mA
Type	Types 1 and 3, EN 61131-2	

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)	< 10 mA + sensor feed	Current consumption from I _{sys} , typ.	8 mA
Reverse polarity protection	Yes	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	Digital input module
Possible connection	2-wire, 3-wire, 3 conductor FES, Single-conductor	Process data	4 Bit
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	KC certificate 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 CE Declaration of Conformity - DE
Engineering Data	CAD data – STEP Compatibility information – Combinability of UR20
Engineering Data	WSCAD, Zuken E3.S, EPLAN
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN
Catalogues	Catalogues in PDF-format

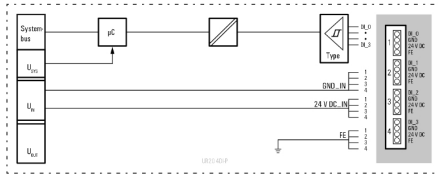
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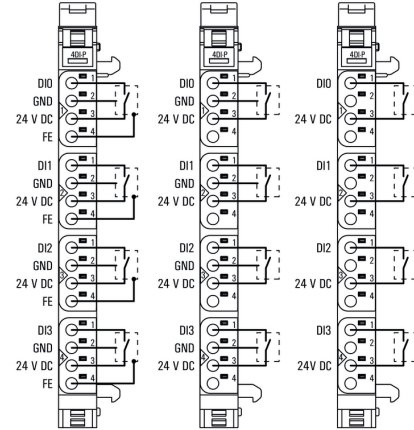
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Zeichnungen

Block diagram

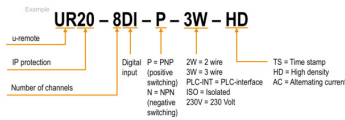


Connection diagram



Explanation of abbreviations

Digital input modules



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Replacement parts

Electronic modules



General ordering data

Type	UR20-EM-1315170000-SP	Version
Order No.	1346640000	Replacement part
GTIN (EAN)	4050118248494	
Qty.	1 Stück	

Basic modules



General ordering data

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

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Replacement parts

Plugkit



General ordering data

Type	UR20-PK-13 15 170000-SP	Version
Order No.	1346440000	Replacement part, Plug-in connector, ,
GTIN (EAN)	4050118151220	
Qty.	5 Stück	

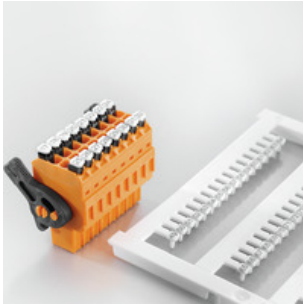
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Accessories

Custom printing



General ordering data

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

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	Rail, TS 35, TS 35 x 7.5, without slot, Stainless steel, rust-proof,
Order No.	1747350000		Stainless steel 1.4301, untreated
GTIN (EAN)	4032248003372		
Qty.	2 m		

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Accessories

Aluminum



Aluminum has the second best electrical conductivity after copper. One advantage is low weight, another 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	

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 Stück	

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Accessories

Blank



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

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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 Stück	

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-EBK-ACC	Version
Order No.	1346610000	End bracket, ,
GTIN (EAN)	4050118151596	
Qty.	5 Stück	

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Accessories

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

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 Stück		

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 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 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		

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Accessories

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	