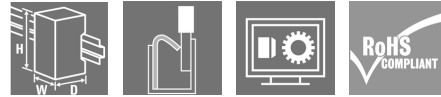


UR20-16DI-N-PLC-INT

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 μ s 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, PLC
Order No.	1315400000
Type	UR20-16DI-N-PLC-INT
GTIN (EAN)	4050118118568
Qty.	1 pc(s).
Replacement parts	1350930000 1346930000 1559800000

UR20-16DI-N-PLC-INT

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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	82 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	3 ms
Input voltage, high	< - 11 V referred to +24 V of the input power supply U_{IN}	Input voltage, low	> - 5 V referred to +24 V of the input power supply U_{IN}
Module diagnosis	Yes	Number of digital inputs	16
Reverse polarity protection	Yes	Sensor connection	PLC-Interface
Sensor supply	external	Type	Types 1 and 3, EN 61131-2

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 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		

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Technical data

Power supply

Current consumption from I_{IN} (the respective power segment)	< 15 mA	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

Diagnostic 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, IEC 61162-450
Galvanic isolation	1 Byte 500 V DC between the current paths	Interface	u-remote system bus
Module type	Special module	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

Approvals

Approvals



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

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Technical data

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

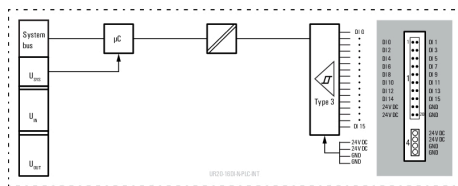
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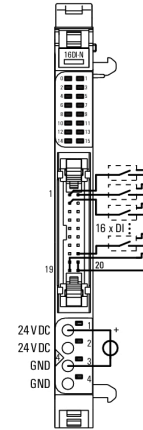
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Drawings

Block diagram

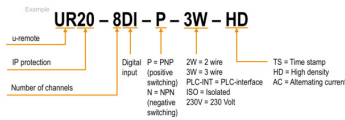


Connection diagram



Explanation of abbreviations

Digital input modules



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Replacement parts

Plugkit



General ordering data

Type	UR20-PK-13 15400000-SP	Version	
Order No.	155980000	Replacement part	
GTIN (EAN)	4050118364637		
Qty.	5 pc(s).		

Basic modules



General ordering data

Type	UR20-BM-SP	Version		Packaging
Order No.	135093000	Replacement part , Flange-mounted housing		Cardboard box
GTIN (EAN)	4050118402735			
Qty.	5 pc(s).			

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Replacement parts**Electronic modules****General ordering data**

Type	UR20-EM-1315400000-SP	Version
Order No.	1346930000	Replacement part
GTIN (EAN)	4050118151701	
Qty.	1 pc(s).	

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Accessories

Ribbon cable, not halogen-free



General ordering data

Type	PAC-UNIV-HE20-LCH-1M	Version
Order No.	7789306010	Pre-assembled cable, PAC, Cable LiYY, 0.14 mm ²
GTIN (EAN)	8430243969062	
Qty.	1 pc(s).	
Type	PAC-UNIV-HE20-F-1M	Version
Order No.	1349790010	Pre-assembled cable, PAC
GTIN (EAN)	4032248161003	
Qty.	1 pc(s).	
Type	PAC-UNIV-HE20-HE20-1M	Version
Order No.	1349670010	Pre-assembled cable, PAC
GTIN (EAN)	4032248161294	
Qty.	1 pc(s).	

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

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).	

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	

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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).		

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 passivated	
GTIN (EAN)	4008190046019		
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 passivated	
GTIN (EAN)	4008190116620		
Qty.	1 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 passivated	
GTIN (EAN)	4008190088026		
Qty.	2 m		

Data sheet

UR20-16DI-N-PLC-INT

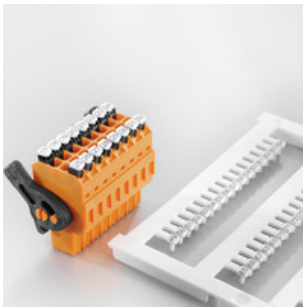
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Accessories

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		

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).		

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).		

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Accessories

Blank



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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 pc(s).		