

**UR20-4DI-N****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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 mod-

ule 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.	<a href="#">1315350000</a>
Type	UR20-4DI-N
GTIN (EAN)	4050118118421
Qty.	1 pc(s).
Replacement parts	<a href="#">1350930000</a> <a href="#">1346870000</a> <a href="#">1559770000</a>

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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	87 g

## Temperatures

Storage temperature	-40 °C ... +85 °C	Operating temperature	-20 °C ... +60 °C
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## digital inputs

Individual channel diagnosis	No	
Input filter	configurable	
Input voltage, high	< - 11 V referred to +24 V of the input power supply U <sub>IN</sub>	
Input voltage, low	> - 5 V referred to +24 V of the input power supply U <sub>IN</sub>	
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	nominal	750 mA
	min.	0 mA
	max.	8,000 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 <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>sys</sub> , 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
	1 Byte		
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
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
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

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## Technical data

## 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="#">DEMKO 15ATEX1525X</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="#">Zuken E3.S</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>

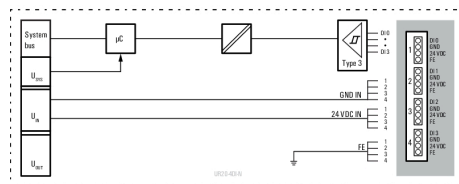
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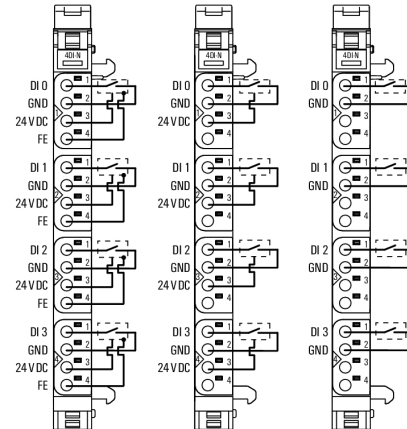
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## Drawings

## Block diagram

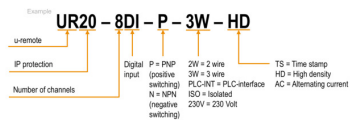


## Connection diagram



## Explanation of abbreviations

## Digital input modules



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[www.weidmueller.com](http://www.weidmueller.com)**Replacement parts****Basic modules****General ordering data**

Type	UR20-BM-SP	Version		Packaging	
Order No.	<a href="#">1350930000</a>	Replacement part, , Flange-mounted housing		Cardboard	
GTIN (EAN)	4050118402735			box	
Qty.	5 pc(s).				

**Electronic modules****General ordering data**

Type	UR20-EM-1315350000-SP	Version	
Order No.	<a href="#">1346870000</a>	Replacement part	
GTIN (EAN)	4050118151831		
Qty.	1 pc(s).		

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[www.weidmueller.com](http://www.weidmueller.com)**Replacement parts****Plugkit****General ordering data**

Type	UR20-PK-1315350000-SP	Version
Order No.	<a href="#">1559770000</a>	Replacement part
GTIN (EAN)	4050118364798	
Qty.	5 pc(s).	

## UR20-4DI-N

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## Accessories

## Accessories



## System accessory

Discover a wide range of accessories for your u-remote system - the ideal addition to make your applications even more efficient and flexible.

## General ordering data

Type	UR20-EBK-ACC	Version
Order No.	<a href="#">1346610000</a>	End bracket, ,
GTIN (EAN)	4050118151596	
Qty.	5 pc(s).	
Type	UR20-SM-ACC	Version
Order No.	<a href="#">1339920000</a>	Cover, ,
GTIN (EAN)	4050118144727	
Qty.	20 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.

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 NE WS	Version
Order No.	<a href="#">1341630000</a>	Dekafix, Terminal marker, 5 x 8 mm, Pitch in mm (P): 8.00
GTIN (EAN)	4050118145946	Weidmueller, white
Qty.	500 pc(s).	

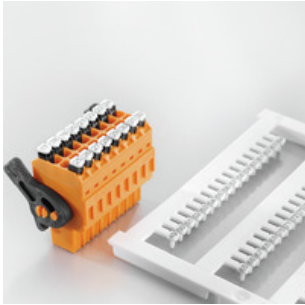


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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Custom printing****General ordering data**

Type	PM 2.7/2.6 MC SDR	Version
Order No.	<a href="#">1323700000</a>	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.	<a href="#">1323710000</a>	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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- Terminal markers, suitable for all Weidmüller cable connectors
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**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.	<a href="#">1341610000</a>	Dekafix, Terminal marker, 5 x 8 mm, Pitch in mm (P): 8.00
GTIN (EAN)	4050118146059	Weidmueller, To customer specification
Qty.	100 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.	<a href="#">1747350000</a>	Terminal rail, without slot, Accessories, 35 x 7.5 x 2000 mm,
GTIN (EAN)	4032248003372	Stainless steel, rust-proof, Stainless steel 1.4301, untreated
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.	<a href="#">0330800000</a>	Terminal rail, without slot, Accessories, 35 x 7.5 x 2000 mm,
GTIN (EAN)	4008190100650	Aluminium, untreated
Qty.	2 m	

## 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/SZ	Version
Order No.	<a href="#">7915060000</a>	Terminal rail, with slot, Accessories, 35 x 7.5 x 2000 mm, Slit width:
GTIN (EAN)	4032248296279	5.20 mm, Slit length: 25.00 mm, Steel, galvanic zinc plated and
Qty.	2 m	passivated
Type	TS 35X7.5/LL 2M/ST/ZN	Version
Order No.	<a href="#">0514500000</a>	Terminal rail, with slot, Accessories, 35 x 7.5 x 2000 mm, Slit width:
GTIN (EAN)	4008190046019	5.20 mm, Slit length: 25.00 mm, Steel, galvanic zinc plated and
Qty.	2 m	passivated
Type	TS 35X7.5/LL 1M/ST/ZN	Version
Order No.	<a href="#">0514510000</a>	Terminal rail, with slot, Accessories, 35 x 7.5 x 1000 mm, Slit width:
GTIN (EAN)	4008190116620	5.20 mm, Slit length: 25.00 mm, Steel, galvanic zinc plated and
Qty.	1 m	passivated
Type	TS 35X7.5 2M/ST/ZN	Version
Order No.	<a href="#">0383400000</a>	Terminal rail, without slot, Accessories, 35 x 7.5 x 2000 mm, Steel,
GTIN (EAN)	4008190088026	galvanic zinc plated and passivated
Qty.	2 m	