

UR20-8AI-I-PLC-INT**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image****Inputs can be parameterised; up to 3-wire + FE;
accuracy 0.1% FSR**

Analogue input modules of the u-remote system are available in many variants with different resolutions and wiring solutions.

Variants are available with 12- and 16-bit resolution, which record up to 4 analogue sensors with ± 10 V, ± 5 V, 0...10 V, 0...5 V, 2...10 V, 1...5 V, 0...20 mA or 4...20 mA with maximum accuracy. Each plug-in connector can optionally connect sensors with 2- or 3-wire technology. The parameters for the measurement range can be individually set for each channel. In addition, each channel has its own status LED.

A special variant for Weidmüller interface units enables current measurements with 16-bit resolution and maximum accuracy for 8 sensors at a time (0...20 mA or 4...20 mA).

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

General ordering data

Version	Remote I/O module, IP20, Analog signals, Input, PLC
Order No.	1315670000
Type	UR20-8AI-I-PLC-INT
GTIN (EAN)	4050118118810
Qty.	1 pc(s).
Replacement parts	1350930000 1483950000

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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	85 g

Temperatures

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

Accuracy	0.1% FSR	Conversion time	1 ms
Individual channel diagnosis	No	Internal resistance I	50 Ω
Module diagnosis	Yes	Number of analogue inputs	8
Resolution	16 Bit	Response time	< 0.1 s
Reverse polarity protection	Yes	Sensor connection	PLC interface unit
Sensor supply	external	Short-circuit-proof	Yes
Type	Current input		

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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Power supply

Current consumption from I_{IN} (the respective power segment)	< 20 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
	1 Bit		
Galvanic isolation	500 V DC between the current paths	Interface	u-remote system bus
Module type	Special module	Parameter data	14 Byte
Process data	16 Byte	Transmission speed of system bus, max.	48 Mbit/s

Classifications

ETIM 6.0	EC001596	ETIM 7.0	EC001596
ETIM 8.0	EC001596	ETIM 9.0	EC001596
ECLASS 9.0	27-24-26-01	ECLASS 9.1	27-24-26-01
ECLASS 10.0	27-24-26-01	ECLASS 11.0	27-24-26-01
ECLASS 12.0	27-24-26-01	ECLASS 13.0	27-24-26-01

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www.weidmueller.com**Technical data****Tender specification sheets**

Long specification

Analogue input module
8AI-I-PLC-INT 8-channel
analogue input module,
positively switching Mod-
ule for connecting ribbon
cables/transfer elements
Connection system: PUSH-
IN Dimensions (HxWxD):
120 mm (with lever: 128
mm), 11.5 mm, 76 mm
Module status: display via
collective message, LED
at the top of the module
Channel status: indica-
tion directly at the contact
point Weight: 73 g Mod-
ule diagnosis: yes Individ-
ual channel diagnosis: no
Reverse-polarity protection:
no Operating temperature:
-20°C - +60°C Process da-
ta: 16 bytes Parameter da-
ta: 14 bytes Diagnostic da-
ta: 1 bit Galvanic isolation:
between field and system
bus Supply voltage: 24
VDC +25% / -15% Inter-
nal current consumption:
8 mA Supply current con-
sumption: 20 mA Accura-
cy: 0.1% FSR Conversion
time: 1 ms Internal resis-
tance I: approx. 50 Ω Reso-
lution: 16 bits Brand: Wei-
dmüller Type: UR20-8AI-I-
PLC-INT

Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

SCIP

82327f13-cd27-455a-ab5b-a62e1996dcf8

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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	KC certificate DNV/GL certificate DEMKO15ATEX1525X CCC certificate UKCA Declaration of Conformity - EN CE Declaration of Conformity - DE
Engineering Data	CAD data – STEP Compatibility information – Combinability of UR20
Engineering Data	Zuken E3.S
Product Change Notification	Release-Notes - Firmware
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN
Catalogues	Catalogues in PDF-format

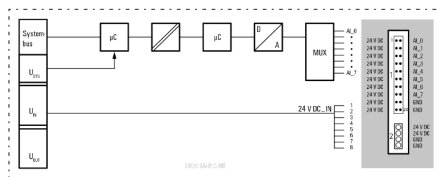
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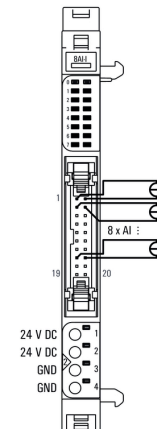
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Drawings

Block diagram

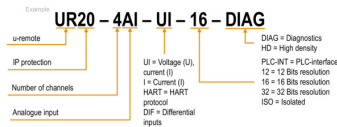


Connection diagram



Explanation of abbreviations

Analogue input modules



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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	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 2M/ST/ZN	Version
Order No.	0383400000	Terminal rail, without slot, Accessories, 35 x 7.5 x 2000 mm, Steel,
GTIN (EAN)	4008190088026	galvanic zinc plated and passivated
Qty.	2 m	
Type	TS 35X7.5/LL 2M/ST/SZ	Version
Order No.	7915060000	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.	0514500000	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.	0514510000	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

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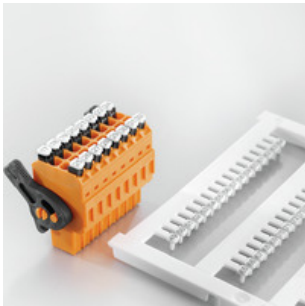
Germany

www.weidmueller.com**Accessories****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	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	

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).	

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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).	

Ribbon cable, not halogen-free



General ordering data

Type	PAC-UNIV-HE20-HE20-1M	Version
Order No.	1349670010	Pre-assembled cable, PAC
GTIN (EAN)	4032248161294	
Qty.	1 pc(s).	
Type	PAC-UNIV-HE20-LCH-1M	Version
Order No.	7789306010	Pre-assembled cable, PAC, Cable LiYY, 0.14 mm²
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).	

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Accessories

Blank



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

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- 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 pc(s).	

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.	1346610000	End bracket, ,
GTIN (EAN)	4050118151596	
Qty.	5 pc(s).	

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

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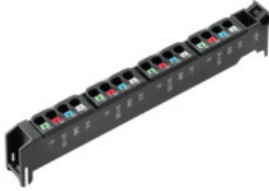
www.weidmueller.com**Accessories****Blank****General ordering data**

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).	

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Replacement parts**Plugkit****General ordering data**

Type	UR20-PK-13 15670000-SP	Version
Order No.	1483950000	Replacement part
GTIN (EAN)	4050118293425	
Qty.	5 pc(s).	

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 pc(s).		