

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

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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  $\pm 10$  V,  $\pm 5$  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.	<a href="#">1315670000</a>
Type	UR20-8AI-I-PLC-INT
GTIN (EAN)	4050118118810
Qty.	1 pc(s).
Replacement parts	<a href="#">1350930000</a> <a href="#">1483950000</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	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 <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

## 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)	< 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](http://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	<a href="#">KC certificate</a> <a href="#">DNV/GL certificate</a> <a href="#">DEMKO15ATEX1525X</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>
Product Change Notification	<a href="#">Release-Notes - Firmware</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>

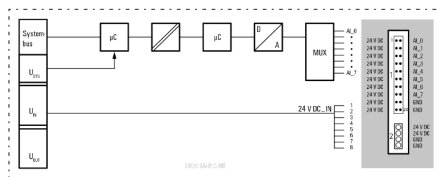
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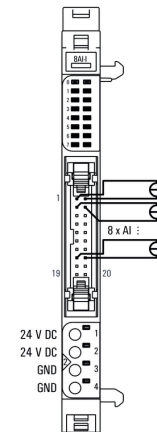
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## Drawings

## Block diagram

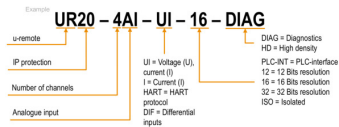


## Connection diagram



## Explanation of abbreviations

## Analogue input modules



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[www.weidmueller.com](http://www.weidmueller.com)**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).	

**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).	

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## 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.	<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	

## 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 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/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 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	
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



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## Accessories

## 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).	

## 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.	<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).	

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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.	<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).	

## 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.	<a href="#">0330800000</a>	Terminal rail, without slot, Accessories, 35 x 7.5 x 2000 mm,
GTIN (EAN)	4008190100650	Aluminium, untreated
Qty.	2 m	

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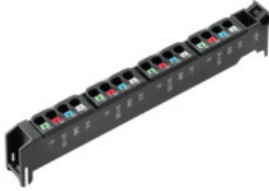
[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Ribbon cable, not halogen-free****General ordering data**

Type	PAC-UNIV-HE20-HE20-1M	Version
Order No.	<a href="#">1349670010</a>	Pre-assembled cable, PAC
GTIN (EAN)	4032248161294	
Qty.	1 pc(s).	
Type	PAC-UNIV-HE20-F-1M	Version
Order No.	<a href="#">1349790010</a>	Pre-assembled cable, PAC
GTIN (EAN)	4032248161003	
Qty.	1 pc(s).	
Type	PAC-UNIV-HE20-LCH-1M	Version
Order No.	<a href="#">7789306010</a>	Pre-assembled cable, PAC, Cable LiYY, 0.14 mm <sup>2</sup>
GTIN (EAN)	8430243969062	
Qty.	1 pc(s).	

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

Type	UR20-PK-13 15670000-SP	Version
Order No.	<a href="#">1483950000</a>	Replacement part
GTIN (EAN)	4050118293425	
Qty.	5 pc(s).	

**Basic modules****General ordering data**

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