

## UR20-4AO-UI-16-M

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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

### Product image, Similar to illustration



### 2- or 4-wire connection; 16-bit resolution; 4 outputs

The analogue output module controls up to 4 analogue actuators 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 an accuracy of 0.05% of the measurement-range end value. An actuator with 2-, 3- or 4-wire technology can be connected to each plug-in connector. The measurement range is defined channel-by-channel using parameterisation. In addition, each channel has its own status LED.

The outputs are supplied from the output current path ( $U_{OUT}$ ).

### General ordering data

Version	Remote I/O module, IP20, Analog signals, Output, 4-channel, Current/Voltage
Order No.	<a href="#">2453880000</a>
Type	UR20-4AO-UI-16-M
GTIN (EAN)	4050118467970
Qty.	1 pc(s).
Replacement parts	<a href="#">1350930000</a> <a href="#">2508770000</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	94 g

## Temperatures

Storage temperature	-40 °C ... +85 °C	Operating temperature	-20 °C ... +60 °C
Operating temperature, min.	-20 °C	Operating temperature, max.	60 °C

## analogue outputs

Accuracy	±0,1 % FSR max., 0,05 % FSR typ.	Actuator connection	2-wire (automatic detection), 4-wire
Cross-talk between the channels	0.001 % FSR	Individual channel diagnosis	No
Load impedance current	< 600 Ω	Max. error between T min. and T max.	220 ppm FSR
Module diagnosis	Yes	Monotonicity	Yes
Number of analogue outputs	4	Output variable	Voltage (0...5 V, 0...10 V, 1...5 V, 2...10 V, ±10 V, ±5 V), Current (0...20 mA or 4...20 mA)
Repeat accuracy	< 1 mV eff.	Resolution	16 Bit
Response time	1 ms / 4 channels	Short-circuit-proof	Yes
Substitute values	Yes	Temperature coefficient	20 ppm voltage / 31 ppm current measurement / °K
Type	1. U (0...5 V, 0...10 V, 1...5 V, 2...10 V, ±10 V), 2. I (0-20 mA or 4-20 mA)	load impedance voltage	> 1 kΩ (at >50 °C ambient temperature, max. total sensor current = 25 mA)

## 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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## Technical data

## 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>OUT</sub> (the respective power segment)	85 mA	Current consumption from I <sub>sys</sub> , typ.	8 mA
Voltage supply	24 V DC +30 %/ -25 %, via the system bus		

## System data

Field bus protocol	CANopen, DeviceNet, EtherCAT, EtherNet/IP, Modbus/TCP, PROFINET IRT, PROFIBUS DP-V1, POWERLINK	Galvanic isolation	DC 500 V between current paths
Interface	u-remote system bus	Module type	Analogue output module
Process data	8 Byte	Transmission speed of system bus, max.	48 Mbit

## Classifications

ETIM 6.0	EC001596	ETIM 7.0	EC001596
ETIM 8.0	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

## 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="#">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="#">UKCA Declaration of Conformity - EN</a> <a href="#">CE Declaration of Conformity - DE</a>
Engineering Data	<a href="#">Compatibility information – Combinability of UR20</a> <a href="#">CAD data – STEP</a>
Product Change Notification	<a href="#">Release-Notes - Firmware</a>
Software	<a href="#">Firmware – Archive firmware UR20-4AO-UI</a> <a href="#">Firmware – Current firmware UR20-4AO-UI</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>

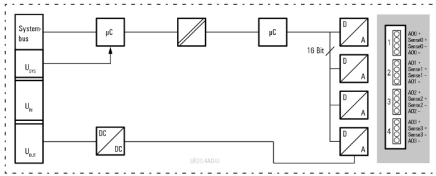
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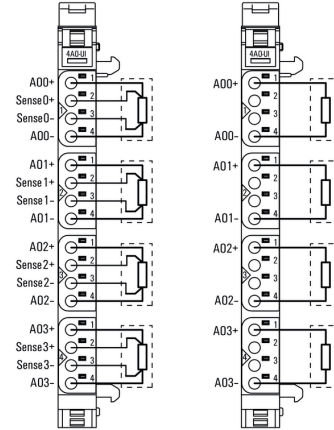
**Drawings**

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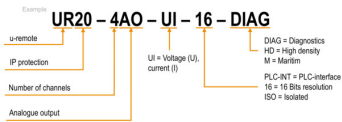


**Similar to illustration**



**Explanation of abbreviations**

**Analogue output 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.	<a href="#">0330800000</a>	Rail, TS 35, TS 35 x 7.5, without slot, Aluminium, untreated
GTIN (EAN)	4008190100650	
Qty.	2 m	

## 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>	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

## 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).	

## 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.

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- Large range of ready-to-use markers
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- Terminal markers, suitable for all Weidmüller cable connectors
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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).	

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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).	

**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.	<a href="#">1339920000</a>	Cover, ,
GTIN (EAN)	4050118144727	
Qty.	20 pc(s).	

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

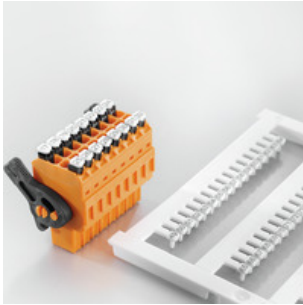
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# Accessories

## 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).		

## 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.	<a href="#">0514500000</a>		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.	<a href="#">7915060000</a>		Rail, TS 35, TS 35 x 7.5, with slot, Steel, galvanic zinc plated and
GTIN (EAN)	4032248296279		passivated
Qty.	2 m		
Type	TS 35X7.5 2M/ST/ZN	Version	
Order No.	<a href="#">0383400000</a>		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 1M/ST/ZN	Version	
Order No.	<a href="#">0514510000</a>		Rail, TS 35, TS 35 x 7.5, with slot, Steel, galvanic zinc plated and
GTIN (EAN)	4008190116620		passivated
Qty.	1 m		

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**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).		

**Plugkit**



**General ordering data**

Type	UR20-PK-2453880000-SP	Version
Order No.	<a href="#">2508770000</a>	Replacement part
GTIN (EAN)	4050118525700	
Qty.	5 pc(s).	