

UR20-1COM-232-485-422

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Digital counter and communication modules 100/500 kHz; 32-bit counter resolution; individual channel diagnosis

Incremental and absolute value encoders have become indispensable in today's automated systems.

Developed especially for these applications, Weidmüller offers you various counter modules that can accept an input frequency up to 500 kHz. The synchronous-serial interface (SSI) module allows high precision positioning tasks to be realised with absolute value encoders.

The module can be parameterised for listening or master mode operation in order to cope with all fields of application. A module with pulse input is available to you for frequency measurement up to 100 kHz and the UR20-1CNT-500 offers an input that can accept frequencies up to 500 kHz. The UR20-2CNT-100 module has two independent counter inputs; it is supplemented with the UR20-1CNT-100-1DO module with one counter, which however offers additional options thanks to a latch, gate and reset input. This allows external control of the counter. In addition, this module can trigger an immediate event via a digital output using a set reference value. The UR20-1COM-232-485-422 module offers you extended communication options; for example devices can be integrated consistently in u-remote systems via an RS232, RS485 or RS422 interface. The UR20-1COM-SAI-PRO module presents a solution for connecting the con-

trol cabinet to the field. This gateway allows the integration of up to 15 decentral IP67 SAI-PRO Subbus modules per u-remote module.

The module electronics supply the connected sensors with power from the input current path (UIN).

General ordering data

Version	Remote I/O module, IP20, 1-channel, RS232/RS485/RS422 communication, PUSH IN connection
Order No.	1315750000
Type	UR20-1COM-232-485-422
GTIN (EAN)	4050118118858
Qty.	1 pc(s).
Replacement parts	1350930000 1347350000 2425150000

UR20-1COM-232-485-422

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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	87.03 g

Temperatures

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

Connection data

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		

IP67 interface

Output current, supply voltage	max. 500 mA
--------------------------------	-------------

Power supply

Current consumption from I _{IN} (the respective power segment)	16 mA + load	Current consumption from I _{sys} , typ.	8 mA
Voltage supply	24 V DC +20 %/ -15 %, via the system bus		

UR20-1COM-232-485-422

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

RS interface

Output current, supply voltage	max. 500 mA	Standards RS232	DIN 66020, DIN 66259, EIA-RS 232C, CCITT V.24/V.28
Standards RS485/422	DIN 66259 Part 1 und 3, EIA-RS 422/485, CCITT V.11		

System 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	500 V DC between the current paths
Interface	u-remote system bus	Module type	Functional module
Output current	0.5 A	Transmission speed of system bus, max.	48 Mbit

Classifications

ETIM 6.0	EC001604	ETIM 7.0	EC001604
ETIM 8.0	EC001604	ETIM 9.0	EC001604
ECLASS 9.0	27-24-26-08	ECLASS 9.1	27-24-26-08
ECLASS 10.0	27-24-26-08	ECLASS 11.0	27-24-26-08
ECLASS 12.0	27-24-26-08	ECLASS 13.0	27-24-26-08

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

UR20-1COM-232-485-422**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data**Downloads**

Approval/Certificate/Document of Conformity	KC 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 DEMKO15ATEX1525X UKCA Declaration of Conformity - EN CE Declaration of Conformity - DE
Engineering Data	CAD data – STEP Library and function block – u-remote UR20 Library for Beckhoff TwinCAT3 - EN - V1.4.0 Library and function block – u-remote UR20 Library for CoDeSys 3.5 - EN - V2.2.1 Library and function block – u-remote UR20 Library for Rockwell - Studio5000 Compatibility information – Combinability of UR20 Library and function block – u-remote UR20 Library for Weidmueller u-create studio 1.20.2 - EN - V2.0.0 Application notes – UR20-1COM-RSxxx-V1 -Setup of Modbus and Serial communication in CODESYS
Engineering Data	Zuken E3.S
Product Change Notification	Release-Notes - Firmware
Software	Firmware – Current firmware UR20-1COM-232-485-422 Firmware – Archive firmware UR20-1COM-232-485-422
User Documentation	MAN U-REMOTE DE MAN U-REMOTE EN
Catalogues	Catalogues in PDF-format

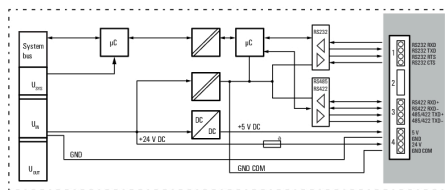
UR20-1COM-232-485-422

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

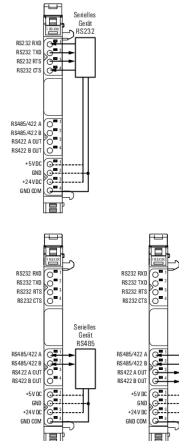
www.weidmueller.com

Drawings

Block diagram

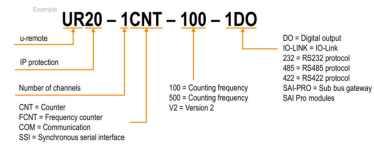


Connection diagram



Explanation of abbreviations

Digital counter- and communication- modules



UR20-1COM-232-485-422

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

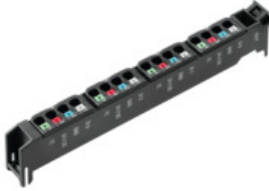
www.weidmueller.com

Replacement parts**Basic modules****General ordering data**

Type	UR20-BM-SP	Version		Packaging	
Order No.	1350930000	Replacement part, , Flange-mounted housing		Cardboard	
GTIN (EAN)	4050118402735			box	
Qty.	5 pc(s).				

Electronic modules**General ordering data**

Type	UR20-EM-1315750000-SP	Version	
Order No.	1347350000	Replacement part	
GTIN (EAN)	4050118152005		
Qty.	1 pc(s).		

UR20-1COM-232-485-422**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germanywww.weidmueller.com**Replacement parts****Plugkit****General ordering data**

Type	UR20-PK-1315750000-SP	Version
Order No.	2425150000	Replacement part
GTIN (EAN)	4050118433173	
Qty.	5 pc(s).	

UR20-1COM-232-485-422

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

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.	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).	

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.

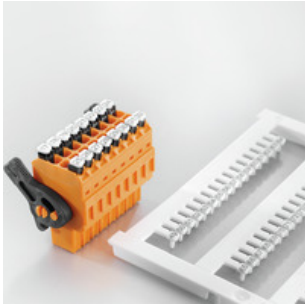
Strips for fast installation in only one work step. The printing is easy to read, rich in contrast and available in various widths.

- 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.	1341630000	Dekafix, Terminal marker, 5 x 8 mm, Pitch in mm (P): 8.00
GTIN (EAN)	4050118145946	Weidmueller, white
Qty.	500 pc(s).	

UR20-1COM-232-485-422**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germanywww.weidmueller.com**Accessories****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).	

UR20-1COM-232-485-422

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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).	

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	

UR20-1COM-232-485-422

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Accessories

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	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.	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
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	