

UR20-4COM-IO-LINK**Weidmüller Interfaces GmbH & Co. KG**

Postfach 3030

32760 Detmold

Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

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 control 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
Order No.	1315740000
Type	UR20-4COM-IO-LINK
GTIN (EAN)	4050118118728
Qty.	1 pc(s).
Replacement parts	1350930000 2508760000

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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	87.62 g

Temperatures

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

IO-Link interface

Connection type of IO-Link interface	IO-Link	Individual channel diagnosis of IO-Link interfaces available	Yes
Module diagnosis of IO-Link interfaces available	Yes	Number of IO-Link interfaces	4
Output current of IO-Link interfaces (A L+)	0.5 A	Output current of IO-Link interfaces (C/Q DO Mode)	0.1 A
Short-circuit-proof of IO-Link interface	Yes		

digital inputs

Individual channel diagnosis	Yes	Input type	Type 1 in acc. with IEC 61131-2, Type 3 in acc. with IEC 61131-2
Input voltage, high	> 11 V	Input voltage, low	< 5 V
Module diagnosis	Yes	Number of digital inputs	4
Short-circuit-proof	Yes	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 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		

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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 _{IN} (the respective power segment)	25 mA + sensor feed	Current consumption from I _{sys} , typ.	8 mA
Voltage supply	24 V DC +20 %/ -15 %, via the system bus		

System data

Class	A	Connection type	IO-Link
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	
IO link standard	IEC 61131-9		500 V DC between the current paths
Module type	Functional module	Interface	u-remote system bus
Transmission speed of system bus, max.	48 Mbit	Output current	0.1 A C/Q (DO MODE), 0.5 A L+

Classifications

ETIM 6.0	EC001604	ETIM 7.0	EC001604
ETIM 8.0	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

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	DEMKO15ATEX1525X UKCA Declaration of Conformity - EN CE Declaration of Conformity - DE
Engineering Data	CAD data – STEP Compatibility information – Combinability of UR20 Application notes – Using 4COM-IO-LINK with topGUARD in Siemens TIA Portal - Siemens Tia Portal
Product Change Notification	Release-Notes - Firmware u-mation configurator - Release Notes
Software	Firmware – Archive firmware UR20-4COM-IO-LINK Firmware – Current firmware UR20-4COM-IO-LINK Software – u-mation configurator - Setup Software – u-mation configurator - Portable
User Documentation	MAN_U-REMOTE_DE MAN_U-REMOTE_EN MAN UR20 IO-LINK DE MAN UR20 IO-LINK EN
Catalogues	Catalogues in PDF-format

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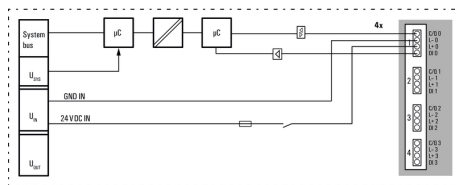
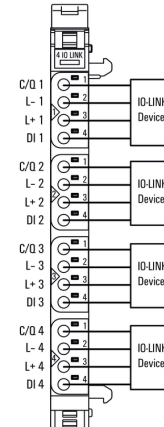
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Drawings

Block diagram

Connection diagram info@weidmueller.com

Explanation of abbreviations

Digital counter- and communication- modules

