



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx ULD 15.0013X**

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Certificate history:

Status: **Current**

Issue No: 14

[Issue 13 \(2024-12-10\)](#)

[Issue 12 \(2024-05-24\)](#)

[Issue 11 \(2023-11-21\)](#)

[Issue 10 \(2023-03-09\)](#)

[Issue 9 \(2021-11-22\)](#)

[Issue 8 \(2021-06-14\)](#)

[Issue 7 \(2021-01-08\)](#)

[Issue 6 \(2020-07-08\)](#)

[Issue 5 \(2019-12-19\)](#)

[Issue 4 \(2019-08-20\)](#)

Date of Issue: 2025-04-16

Applicant: **Weidmüller Interface GmbH & Co. KG**
Klingenbergstrasse 26
Detmold 32758
Germany

Equipment: **Interface modules, Open Type Programmable Controllers
– Series UR20 u-remote.**

Optional accessory:

Type of Protection: **Increased Safety "ec", Sealed Device "nC"**

Marking: Ex ec nC IIC T4 Gc (model UR20-4RO-CO-255 only)

Ex ec IIC T4 Gc (all other models)

-20 °C to +60 °C

Approved for issue on behalf of the IECEx
Certification Body:

Lucy Frieders

Position:

Staff Engineer

Signature:
(for printed version)

Date:
(for printed version)

2025-04-16

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Manufacturer: **Weidmüller Interface GmbH & Co. KG**
Klingenbergstrasse 26
Detmold 32758
Germany

Manufacturing locations: **Weidmüller Interface GmbH & Co. KG**
Klingenbergstrasse 26
Detmold 32758
Germany

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[DK/ULD/ExTR15.0014/00](#)
[DK/ULD/ExTR15.0014/03](#)
[DK/ULD/ExTR15.0014/06](#)
[DK/ULD/ExTR15.0014/09](#)
[DK/ULD/ExTR15.0014/12](#)

[DK/ULD/ExTR15.0014/01](#)
[DK/ULD/ExTR15.0014/04](#)
[DK/ULD/ExTR15.0014/07](#)
[DK/ULD/ExTR15.0014/10](#)
[DK/ULD/ExTR15.0014/13](#)

[DK/ULD/ExTR15.0014/02](#)
[DK/ULD/ExTR15.0014/05](#)
[DK/ULD/ExTR15.0014/08](#)
[DK/ULD/ExTR15.0014/11](#)
[DK/ULD/ExTR15.0014/14](#)

Quality Assessment Report:

[NL/DEK/QAR12.0052/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Interface modules, Open Type Programmable Controllers – Series UR20 u-remote modules are intended to be used in combination with programmable controllers and intended to be used for communication and input / output purposes. The system consists of Bus Coupler Modules and Input / Output Modules with different functions.

The Input and Output Modules are consisting of a base module with connections to the communication bus and power sources, different electronic modules, and a modular terminal block module.

Please see Annex for specific models and additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0, accessible only by the use of a tool.
- The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.
- When using relay modules (UR20-4RO-CO-255; UR20-4RO-SSR-255) in explosive atmosphere: Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Added models and updated modules.

Issue 2: The following models were added to the certificate: UR20-4AI-R-HS-16-DIAG, UR20-16DO-N-PLC-INT, UR20-16DI-N-PLC-INT, UR20-FBC-PL, UR20-FBC-MOD-TCP-V2. Revisions to printed wiring boards.

Issue 3: Added new models and updated some existing models.

Issue 4: The following models were added: UR20-1SSI-BTL, UR20-8AI-RTD-DIAG-2W, UR20-8DIO-P-3W-DIAG and UR20-1SM-50W-6DI2DO-P.

The following models were updated: UR20-FBC-PN-IRT, UR20-FBC-DN, UR20-FBC-EIP, UR20-8DO-P and UR20-FBC-EC, UR20-4AI-UI-16, UR20-4AI-UI-12 and UR20-4AI-UI-16-DIAG, UR20-FBC-MOD-TCP and UR20-FBC-MOD-TCP-V2, UR20-4DO-P-2A, UR20-16DI-P, UR20-16DO-P, UR20-1COM-232-485-422, UR20-FBC-PB-DP, UR20-4DO-P-2A, UR20-8DI-P-2W, UR20-8DI-P-3W, UR20-8DI-N-3W, UR20-4AI-RTD-DIAG, UR20-4AI-RTD-HP-DIAG and UR20-4AI-TC-DIAG.

Issue 5: The following models were added: UR20-FBC-PB-DP-V2, UR20-FBC-CC, UR20-8DI-ISO-2W. The following models were updated: UR20-8DO-P, UR20-16DO-P.

Issue 6: The following models were added to the certificate: UR20-4AI-I-HART-16-DIAG, UR20-4AI-UI-ISO-16-DIAG, UR20-1COM-CANOPEN and the construction of the following module was modified: UR20-4AI-R-HS-16-DIAG.

Issue 7: Addition of model UR20-FBC-CC-TSN.

Issue 8: The construction of models UR20-4AO-UI-16 and UR20-4AO-UI-16-DIAG was modified. Models UR20-2AO-UI-16-DIAG, UR20-2AO-UI-16, UR20-2AO-UI-ISO-16-DIAG, UR20-4DO-ISO-4A, UR20-2AI-UI-16, UR20-2AI-UI-16-DIAG were added.

Issue 9: Changed the protection type from "nA" according to IEC 60079-15, Ed. 4 to "ec" according to IEC 60079-7, Ed. 5.1. Upgraded to the newest editions of all standards. Updated the marking drawings reflecting the new protection method "ec".

Issue 10: The construction of models UR20-4DO-P-2A, UR20-8DO-P, UR20-16DO-P, UR20-2PWM-PN-2A, UR20-2PWM-PN-0.5A, UR20-PF-O, UR20-PF-I, UR20-FBC-EC, UR20-FBC-PN-IRT-V2 was modified. Models UR20-1COM-232-485-422-V2, UR20-2PWM-I-2.5A-2DI-P were added.

Issue 11: Model UR20-AUX-VSYS was added to the certificate. An alternate construction of Model UR20-4AO-UI-16-DIAG was introduced. Update of Technical Documents.

Issue 12: Alternative constructions of models UR20-8DO-P, UR20-16DO-P and UR20-16DO-N were introduced and tested and related Technical Documents were updated.

Issue 13: Added 2 new models UR20-8DI-PN-FSCC and UR20-4DI-4DO-PN-FSCC, added alternate construction of models UR20-8DI-PN-FSOE-V2, UR20-8DI-PN-FSPS-V2, UR20-4DI-4DO-PN-FSOE-V2 and UR20-4DI-4DO-PN-FSPS-V2. The model UR20-8DI-PN-FSCC is representative of models UR20-8DI-PN-FSOE-V2, UR20-8DI-PN-FSPS-V2. The model UR20-4DI-4DO-PN-FSCC is representative of models UR20-4DI-4DO-PN-FSOE-V2, UR20-4DI-4DO-PN-FSPS-V2.

Issue 14: Added models UR20-1COM-CAN and UR20-4AI-I-HART-ISO 16. Model UR20-1COM-CAN is represented by model UR20-1COM-CANOPEN that was already certified.

Annex:

[Annex to IECEx ULD 15.0013X Issue 14.pdf](#)



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TYPE DESIGNATION

Models: UR20-FBC-PN-IRT, UR20-FBC-EC, UR20-FBC-MOD-TCP, UR20-FBC-PB-DP, UR20-4DI-P, UR20-16DI-P, UR20-16DI-P-PLC-INT, UR20-4DO-P, UR20-4DO-P-2A, UR20-8DO-P, UR20-16DO-P, UR20-16DO-P-PLC-INT, UR20-4RO-CO-255, UR20-4AI-UI-16, UR20-8AI-I-PLC-INT, UR20-4AO-UI-16, UR20-4AO-UI-16-DIAG, UR20-4AI-UI-16-DIAG, UR20-4AI-RTD-DIAG, UR20-4AI-TC-DIAG, UR20-PF-I, UR20-PF-O, UR20-16AUX-GND-I, UR20-16AUX-I, UR20-16AUX-GND-O, UR20-16AUX-O, UR20-16AUX-FE, UR20-8DI-P-3W, UR20-ES, UR20-FBC-EIP, UR20-1CNT-100-1DO, UR20-2CNT-100, UR20-2DI-P-TS, UR20-2FCNT-100, UR20-2PWM-PN-0.5A, UR20-2PWM-PN-2A, UR20-4AI-UI-12, UR20-4AI-UI-16-DIAG-HD, UR20-4AI-UI-16-HD, UR20-4DI-P-TS, UR20-4DO-PN-2A, UR20-4RO-SSR-255, UR20-8DI-P-2W, UR20-8DI-P-3W-HD, UR20-PF-O-1DI-SIL, UR20-PF-O-2DI-DELAY-SIL, UR20-PF-O-2DI-SIL, UR20-1COM-232-485-422, UR20-1COM-232-485-422-V2, UR20-1SSI, UR20-4DI-2W-230V-AC, UR20-8AI-I-16-DIAG-HD, UR20-8AI-I-16-HD, UR20-16DO-N, UR20-4DI-N, UR20-8DO-P-2W-HD, UR20-16DI-N, UR20-1CNT-500, UR20-4DO-N, UR20-4DO-N-2A, UR20-8DI-N-3W, UR20-8DO-N, UR20-4DI-4DO-PN-FSPS, UR20-4DI-4DO-PN-FSOE, UR20-8DI-PN-FSPS, UR20-8DI-PN-FSOE, UR20-FBC-CAN, UR20-FBC-DN, UR20-4AO-UI-16-DIAG-HD, UR20-4AO-UI-16-HD, UR20-1COM-SAI-PRO, UR20-4AI-R-HS-16-DIAG, UR20-16DO-N-PLC-INT, UR20-16DI-N-PLC-INT, UR20-FBC-PL, UR20-FBC-MOD-TCP-V2, UR20-4AO-UI-16-M, UR20-4AO-UI-16-M-DIAG, UR20-4AI-UI-DIF-16-DIAG, UR20-4AI-UI-DIF-32-DIAG, UR20-4COM-IO-LINK, UR20-4AI-RTD-HP-DIAG, UR20-4DI-4DO-PN-FSPS-V2, UR20-4DI-4DO-PN-FSOE-V2, UR20-8DI-PN-FSPS-V2, UR20-8DI-PN-FSOE-V2, UR20-2AI-SG-24-DIAG, UR20-FBC-PN-IRT-V2, UR20-1SSI-BTL, UR20-8AI-RTD-DIAG-2W, UR20-8DIO-P-3W-DIAG, UR20-1SM-50W-6DI2DO-P, UR20-FBC-PB-DP-V2, UR20-FBC-CC, UR20-8DI-ISO-2W, UR20-4AI-I-HART-16-DIAG, UR20-4AI-UI-ISO-16-DIAG, UR20-1COM-CAN, UR20-1COM-CANOPEN, UR20-FBC-CC-TSN, UR20-2AO-UI-16-DIAG, UR20-2AO-UI-16, UR20-2AO-UI-ISO-16-DIAG, UR20-4DO-ISO-4A, UR20-2AI-UI-16, UR20-2AI-UI-16-DIAG, UR20-2PWM-I-2.5A-2DI-P, UR20-AUX-VSYS, UR20-4AI-I-HART-ISO-16, UR20-8DI-PN-FSCC, UR20-4DI-4DO-PN-FSCC may be followed by additional characters.

PARAMETERS RELATING TO THE SAFETY

Model	Type	Main Input	Auxiliary Input / Output
UR20-FBC-PN-IRT	Bus Coupler ProfiNet IRT	Input voltage I port: DC 24V	Output voltage system bus: 5Vdc +/-2%
UR20-FBC-PN-IRT-V2		Input current at I port at full load: ≤10A	Output current at system bus at full load: 2.56A
		Input voltage O port: DC 24V	Output / input current at O / I Port at full load: 24Vdc, 10A at 55°C, 8A at 60°C
		Input current at O port at full load: ≤10A	



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Model	Type	Main Input	Auxiliary Input / Output
UR20-FBC-EC	Bus Coupler EtherCat	Input voltage I port: DC 24V Input current at I port at full load: ≤10A Input voltage O port: DC 24V Input current at O port at full load: ≤10A	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 24Vdc, 10A at 55°C, 8A at 60°C
UR20-FBC- MOD-TCP	Bus Coupler ModBus TCP	Input voltage I port: DC 24V Input current at I port at full load: ≤10A Input voltage O port: DC 24V Input current at O port at full load: ≤10A	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 24Vdc, 10A at 55°C, 8A at 60°C
UR20-FBC-PB- DP	Bus Coupler Profibus DP	Input voltage I port: DC 24V Input current at I port at full load: ≤10A Input voltage O port: DC 24V Input current at O port at full load: ≤10A	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 24Vdc, 10A at 55°C, 8A at 60°C



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Model	Type	Main Input	Auxiliary Input / Output
UR20-FBC-EIP	Bus Coupler Ethernet IP	Input voltage I port: DC 24V Input current at I port at full load: ≤10A Input voltage O port: DC 24V Input current at O port at full load: ≤10A	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 24Vdc, 10A at 55°C, 8A at 60°C
UR20-FBC-CAN UR20-FBC-DN	Bus Coupler CANopen	Input voltage I port: DC 24V Input current at I port at full load: ≤10A Input voltage O port: DC 24V Input current at O port at full load: ≤10A	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 10A at 60°C
UR20-FBC-PL	Bus Coupler Powerlink	Input voltage I port: DC 24V Input current at I port at full load: ≤10A Input voltage O port: DC 24V Input current at O port at full load: ≤10A	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 8A at 60°C, horizontal mounting, 6A at 55°C, vertical mounting
UR20-FBC-MOD-TCP-V2	Bus Coupler Modbus/TCP	Input voltage I port: DC 24V Input current at I port at full load: ≤10A Input voltage O port: DC 24V Input current at O port at full load: ≤10A	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 8A at 60°C, horizontal mounting, 6A at 55°C, vertical mounting



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Model	Type	Main Input	Auxiliary Input / Output
UR20-4DI-P UR20-2DI-P-TS UR20-4DI-P-TS UR20-4DI-N	2 or 4 Digital Inputs	rated voltage: 24V DC from internal I bus	rated voltage: 24V DC sensor supply: 24Vdc, 2A resistive maximum per sensor, unfused
UR20-16DI-P UR20-16DI-N	16 Digital Inputs	rated voltage: 24V DC from internal I bus	rated voltage: 24V DC
UR20-16DI-N-PLC-INT	16 Digital Inputs	rated voltage: 24V DC from the 4 pole terminal block of the module	rated voltage: 24V DC
UR20-16DI-P-PLC-INT	16 Digital Inputs	rated voltage: 24V DC from the 4 pole terminal block of the module	rated voltage: 24V DC sensor supply: 24Vdc, 1A maximum per pole, unfused
UR20-4DO-P UR20-4DO-N	4 Digital Outputs	rated voltage: 24V DC from internal O bus	rated voltage: 24V DC output current (DO): 0.5A resistive maximum per output sensor supply (auxiliary 24VDC): 2A maximum per sensor, unfused
UR20-4DO-P-2A UR20-4DO-N-2A	4 Digital Outputs	rated voltage: 24V DC from internal O bus	rated voltage: 24V DC output current (DO): 2A resistive or tungsten maximum per output sensor supply (auxiliary 24VDC): 2A maximum per sensor, unfused Total current: 10A per module
UR20-8DO-P UR20-8DO-P-2W-HD UR20-8DO-N	8 Digital Outputs	rated voltage: 24V DC from internal O bus	rated voltage: 24V DC output current: 24Vdc, 0.5A resistive, pilot duty or tungsten maximum per output
UR20-16DO-P UR20-16DO-N	16 Digital Outputs	rated voltage: 24V DC from internal bus	rated voltage: 24V DC output current: 24Vdc, 0.5A resistive, pilot duty or tungsten maximum per output
UR20-16DO-N-PLC-INT	16 Digital Outputs	rated voltage: 24V DC from the 4 pole terminal block of the module	24V DC 0.5 A General Purpose (per output channel)
UR20-16DO-P-PLC-INT	16 Digital Outputs	rated voltage: 24V DC from the 4 pole terminal block of the module	rated voltage: 24V DC output current (auxiliary supply): auxiliary supply: 24Vdc, 1A maximum per pole, unfused



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Model	Type	Main Input	Auxiliary Input / Output
UR20-4RO-CO-255	4 Relay Outputs	rated voltage: 24V DC from internal O bus	rated voltage: 250Vac rated current: 2.4A per channel at 60°C and 3A per channel at 55°C
UR20-4AI-UI-16 UR20-4AI-UI-12 UR20-4AI-UI-16-HD UR20-8AI-I-16-DIAG-HD UR20-8AI-I-16-HD	4 or 8 Analog Inputs	rated voltage: 24V DC from internal I bus	type of input: analog +/-10V, +/-5V, 0..10V, 0..5V, 2..10V, 1..5V, 0..20mA or 4..20mA sensor supply: 24Vdc 2A maximum per sensor, unfused, 0.5A for HD version, fused
UR20-8AI-I-PLC-INT	8 Analog Inputs	rated voltage: 24V DC from the 4 pole terminal block of the module	type of input: analog 0..20mA or 4..20mA sensor supply: 24Vdc, 1A maximum, fused
UR20-4AO-UI-16 UR20-4AO-UI-16-DIAG UR20-4AO-UI-16-DIAG-HD UR20-4AO-UI-16-HD	4 Analog Outputs	rated voltage: 24V DC from internal O bus	type of output: analog +/-10V, +/-5V, 0..10V, 0..5V, 2..10V, 1..5V, 0..20mA or 4..20mA
UR20-2AO-UI-16 UR20-2AO-UI-16-DIAG	2 Analog Outputs	rated voltage: 24V DC from internal O bus	type of output: analog +/-10V, +/-5V, 0..10V, 0..5V, 2..10V, 1..5V, 0..20mA or 4..20mA
UR20-4AI-UI-16-DIAG UR20-4AI-UI-16-DIAG-HD	4 Analog Inputs	rated voltage: 24V DC from internal I bus	type of input: analog +/-10V, +/-5V, 0..10V, 0..5V, 2..10V, 1..5V, 0..20mA or 4..20mA sensor supply: 24Vdc, 0.5A fused
UR20-2AI-UI-16 UR20-2AI-UI-16-DIAG	2 Analog Inputs	rated voltage: 24V DC from internal I bus	type of input: analog +/-10V, +/-5V, 0..10V, 0..5V, 2..10V, 1..5V, 0..20mA or 4..20mA sensor supply: 2A maximum per sensor, unfused.



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Model	Type	Main Input	Auxiliary Input / Output
UR20-4AI-RTD-DIAG UR20-4AI-RTD-HP-DIAG UR20-8AI-RTD-DIAG-2W	4 or 8 Analog Inputs Resistive Temperature Detection	rated voltage: 24V DC from internal I bus	type of input: analog Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni 200, Ni500, Ni1000, Cu10, 40 Ω , 80 Ω , 150 Ω , 300 Ω , 500 Ω , 1 k Ω , 2 k Ω , 4 k Ω
UR20-4AI-TC-DIAG	4 Analog Inputs Thermocouple	rated voltage: 24V DC from internal I bus	type of input: analog TC type J, K, T, B, N, E, R, S, L, U, C, mV +/-15.625mV, +/-31.25mV, +/- 62.5mV, +/-125mV +/-250mV, 500mV, +/-1000mV, +/-2000mV
UR20-PF-I	Power Feed Input	rated voltage: 24V DC from 4 pole terminal block	rated voltage: 24V DC rated current: 10A
UR20-PF-O	Power Feed Output	rated voltage: 24V DC from the 4 pole terminal block	rated voltage: 24V DC rated current: 10A
UR20-16AUX-GND-I UR20-16AUX-I UR20-ES	Potential Distribution Module for Input Current Path	rated voltage: 24V DC from internal I bus	0V / GND rated current: 10A
UR20-16AUX-GND-O UR20-16AUX-O UR20-16AUX-FE	Potential Distribution Module for Output Current Path	rated voltage: 24V DC from internal O bus	0V / GND rated current: 10A
UR20-8DI-P-3W UR20-8DI-P-2W UR20-8DI-P-3W-HD UR20-8DI-N-3W	8 Digital Inputs	rated voltage: 24V DC from internal I bus	rated voltage: 24V DC sensor supply: 24Vdc, 2A maximum per sensor unfused, HD version FWT 1 to 4: 0.5A maximum total current, FWT 5 to 8: 0.5A maximum total current



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Model	Type	Main Input	Auxiliary Input / Output
UR20-2FCNT-100 UR20-1CNT100-1DO UR20-2CNT-100	Counter with or without digital output	rated voltage: 24V DC from internal I bus	rated voltage: 24V DC output current 1CNT-1DO: 0.5A resistive maximum per output sensor supply: 24Vdc, 2A maximum per sensor unfused
UR20-2PWM-PN-0.5A UR20-2PWM-PN-2A	Pulse Width Controller with 0.5A or 2A output	rated voltage: 24V DC from internal O bus	rated voltage: 24V DC output current: 0.5(for ...PN-0.5A models) 2A (for ...PN-2A models) resistive maximum per output sensor supply: 24Vdc, 2A maximum per sensor unfused
UR20-4DO-PN-2A	4 Digital Outputs	rated voltage: 24V DC from internal O bus	rated voltage: 24V DC output current: 2A resistive or tungsten maximum per output sensor supply: 24Vdc 2A maximum per sensor, unfused total current per module: 10A maximum
UR20-4RO-SSR-255	4 Solid State Relay Outputs		Rated voltage: 24V DC SSR rated voltage: 250Vac SSR rated current: 1A resistive maximum per channel, unfused
UR20-PF-O-1DI-SIL UR20-PF-O-2DI-SIL UR20-PF-O-2DI-DELAY-SIL	Power Feed Output	rated voltage: 24V DC from the 4 pole terminal block of the module	rated voltage: 24V DC rated current: OSSD: 8A resistive SSI: 0.5A resistive



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UR20-1COM-232-485-422 UR20-1COM-232-485-422-V2 UR20-1SSI-BTL	1 Port Digital Interface	rated voltage: 24 V DC from internal I bus	Data interface signal: 232, 485 or 422 Load sensor supply: 0.4A (5V) or 0.5A (24V) / 0.4A (5V) or 0.4A (24V)
UR20-1SSI	1 Port Inout Card for Incremental Encoder	rated voltage: 24V DC from internal I bus	1 RS422 Output 2 RS422 Input Load sensor supply: 0.4A (5V) or 0.5A (24V)
UR20-1CNT-500	1 Port Counter Inout Card for Incremental Encoder	rated voltage: 24V DC from internal I bus	3 RS422 Inputs Load sensor supply: 0.4A (5V) or 0.5A (24V)
UR20-4DI-4DO-PN-FSPS UR20-4DI-4DO-PN-FSPS-V2 UR20-4DI-4DO-PN-FSOE UR20-4DI-4DO-PN-FSOE-V2	4 digital inputs and 4 digital outputs	rated voltage: 24V DC from internal bus	Load output rail: 6.4A Load input rail: 10A Load bus rail: 2.56A Input Signal P-Mode: 24V / N-Mode: 0V Load Sensor Supply: 0.8A, each channel Load Output signal: 0.5A, each channel
UR20-8DI-PN-FSPS UR20-8DI-PN-FSPS-V2 UR20-8DI-PN-FSOE UR20-8DI-PN-FSOE-V2	8 digital inputs	rated voltage: 24V DC from internal I bus	Load output rail: 6.4A Load input rail: 10A Load bus rail: 2.56A Input Signal P-Mode: 24V / N-Mode: 0V Load Sensor Supply: 0.8A, each channel Load Output signal: 0.5A, each channel
UR20-4DI-2W-230V-AC	4 Digital Inputs	rated voltage: 24 V	Rated input voltage: 230V AC



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Model	Type	Main Input	Auxiliary Input / Output
UR20-1COM-SAI-PRO	1 Port Communication Extension	rated voltage: 24V DC from internal I bus	Input signal: SAI-PRO-Module Load sensor supply: 3A
UR20-4AI-R-HS-16-DIAG	AI Module 4 analog inputs	Rated voltage: 24V DC from internal I bus	Type of input: analog 300Ohm..50kOhm Potentiometer supply (internal 10V DC): 50mA maximum per potentiometer, unfused
UR20-2AI-SG-24-DIAG	Strain Gauge module 2 Analog Inputs	5Vdc system bus 24V DC from internal I bus	rated voltage: 24V DC
UR20-4AO-UI-16-M UR20-4AO-UI-16-M-DIAG	AO Module 4 analog outputs	5Vdc system bus 24V DC from internal O bus	Voltage: 0..5V, $\pm 5V$, 0..10V, $\pm 10V$, 1..5V, 2..10V Current: 0..20mA, 4..20mA
UR20-4AI-UI-DIF-16-DIAG UR20-4AI-UI-DIF-32-DIAG	AI Module 4 analog inputs	5Vdc system bus 24V DC from internal I bus	Voltage: 0..5V, $\pm 5V$, 0..10V, $\pm 10V$, 1..5V, 2..10V Current: 0..20mA, 4..20mA
UR20-4COM-IO-LINK	Comm. Module	5Vdc system bus 24V DC from internal I bus	0,5 A per channel, total max. 2 A
UR20-8DIO-P-3W-DIAG	Digital I/O Module	5Vdc system bus: 8mA 24Vdc output rail: 34mA + 4*0.3 A sensor supply	8 output channels ≤ 0.5 A each
UR20-1SM-50W-6DI2DO-P	Stepper Motor Module	5Vdc system bus: 8mA 24Vdc input current path: 27 mA 24Vdc output current path: 10 mA	2 output channels ≤ 0.5 A each 6 input channels max. 0.5 A each For 40°C ambient: Stepper motor supply 50 V, 2 A; For 60°C ambient: Stepper motor supply 30 V, 1 A
UR20-FBC-PB-DP-V2	Bus Coupler Profibus DP	Input voltage I port: DC 24V +20%/-15% Input current at I port at full load: $\leq 10A$ Input voltage O port: DC 24V +20%/-15% Input current at O port at full load: $\leq 10A$	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 10A at 60°C, horizontal mounting.



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Model	Type	Main Input	Auxiliary Input / Output
UR20-FBC-CC	Bus Coupler CC-Link	Input voltage I port: DC 24V +20%/-15% Input current at I port at full load: ≤10A Input voltage O port: DC 24V +20%/-15% Input current at O port at full load: ≤10A	Output voltage system bus: 5Vdc +/-2% Output current at system bus at full load: 2.56A Output / input current at O / I Port at full load: 10A at 60°C, horizontal mounting.
UR20-8DI-ISO- 2W	DI module 8 digital inputs	5 V DC 8 mA from system bus	24 Vdc and 48 Vdc input types
UR20-4AI-I- HART-16-DIAG	AI Module 4 analog inputs	Rated voltage: 24V DC from internal I bus	Type of input: analog HART 0..20mA or 4..20mA; Sensor supply (auxiliary 24V DC):0.5A maximum per sensor, fused
UR20-4AI-UI- ISO-16-DIAG	AI Module 4 analog inputs	Rated voltage: 24V DC from internal I bus	Type of input: analog +/-10V, +/- 5V, 0..10V, 0..5V, 2..10V, 1..5V, 0..20mA or 4..20mA
*UR20-1COM- CAN, UR20- 1COM- CANOPEN	1 port Communication module	Rated voltage: 24V DC from internal I bus	Data interface signal: CANopen bus
UR20-FBC-CC- TSN	CC-Link IE TSN Fieldbus Coupler	System supply: SELV 24Vdc +20%/-15% Supply for I/O rails: SELV 24Vdc +20%/-15% Rail current in/out: 10A max. (horizontal mounting, 60°C surrounding air temperature)	System bus: 5Vdc +/-2%, 2.56A full load
UR20-2AO-UI- ISO-16-DIAG	AO Module 2 isolated analog outputs	Rated voltage: 24V DC from internal O bus	type of output: analog +/-10V, +/- 5V, 0..10V, 0..5V, 2..10V, 1..5V, 0..20mA or 4..20mA
UR20-4DO- ISO-4A	DO Module 4 isolated digital outputs	Rated voltage: 24V DC from internal O bus	rated voltage: 48V DC / 24V AC (from external supply; not from O bus) output current: 4A DC / 2A AC maximum per output; Total current per module: 16A DC / 8A AC maximum



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Model	Type	Main Input	Auxiliary Input / Output
UR20-2PWM-I-2.5A-2DI-P	PWM Module with 2 PWM outputs; 2 digital inputs	Rated voltage: 24V DC from internal O bus	2 Inputs, -30... +30Vdc Sensor supply (auxiliary 24V DC): 0.3 A maximum per sensor, fused 2 PWM outputs: 24V DC, max 3A, 1-channel operation; 24Vdc DC, max 2.5A, 2-channel operation
UR20-AUX-VSYS	Auxiliary module	Rated voltage: 5V DC from internal system bus ; rated current : 820 mA	N/A
UR20-8DI-PN-FSCC UR20-8DI-PN-FSPS-V2 (alt. construction) UR20-8DI-PN-FSOE-V2(alt. construction)	Digital input module with 8 digital inputs	Rated voltage: 24V DC from internal bus	Input Signal P-Mode: 24V / N-Mode: 0V Load Sensor Supply: 0.8A, each channel (4)
UR20-4DI-4DO-PN-FSCC UR20-4DI-4DO-PN-FSPS-V2 (alt. construction) UR20-4DI-4DO-PN-FSOE-V2 (alt. construction)	Digital input and output module with 4 digital inputs and 4 digital outputs	Rated voltage: 24V DC from internal bus	Input Signal P-Mode: 24V / N-Mode: 0V Load Output signal: 0.5A, each channel (4) Load Sensor Supply: 0.8A, each channel (2)
*UR20-4AI-I-HART-ISO-16	Analogue input module with 4 analogue inputs	Rated voltage: 24V DC from internal bus	Type of input: 0..20mA, 4..20mA, 4..20mA HART

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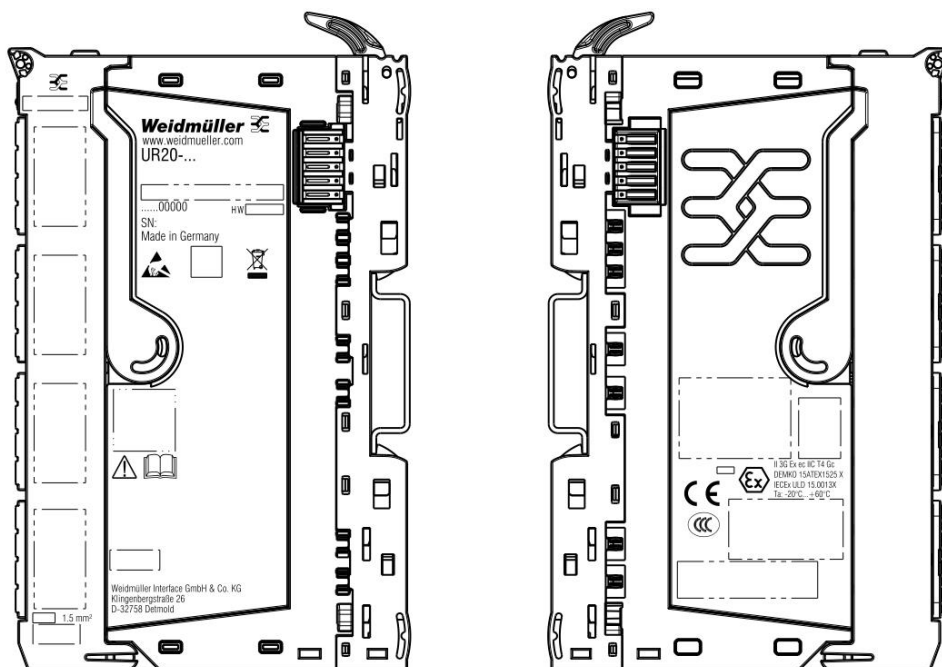
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MARKING

Marking has to be readable and indelible; it has to include the following indications:

Model without relay:



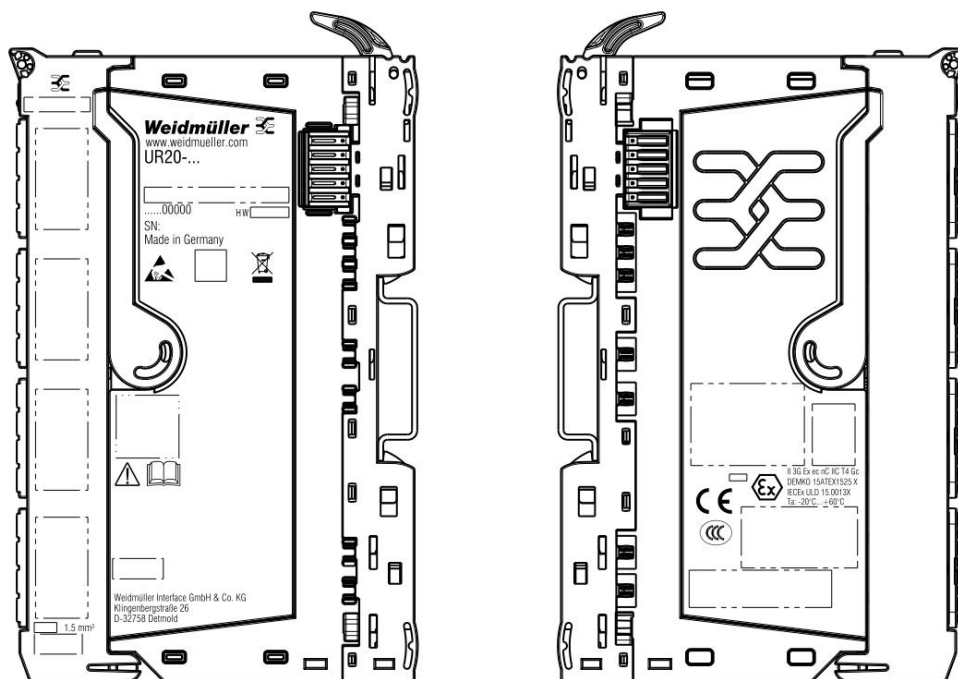
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Model with Relay:



ROUTINE EXAMINATIONS AND TESTS

Each piece of equipment defined above has to have successfully passed before delivery:

According to IEC 60079-7, clause 7.1 in combination with clause 6.1, a dielectric strength test has to be carried out at 100% of the products. Alternatively, routine tests may be performed on a statistical basis according to ISO 2859-1 with an acceptance quality limit (AQL) of 0,04. Routine test is to be carried out according to the applicable industry standard.