

## UR20-FBC-PL

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Product image



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**More performance. Simplified.  
u-remote.**

Weidmüller u-remote – our innovative remote I/O concept with IP 20 which focuses purely on user benefits: tailored planning, faster installation, safer start-up, and no more downtime for considerably improved performance and greater productivity.

Reduce the size of your cabinets with u-remote, thanks to the narrowest modular design on the market and the need for fewer power-feed modules. Our u-remote technology offers tool-free assembly while the modular “sandwich” design and integrated web server speed up installation, both in the cabinet and machine. Status LEDs on the channel and each u-remote module enable reliable diagnosis and rapid service.

Our products boost the availability of your machines and systems, and ensure smooth processes, from planning to operation.

u-remote stands for “More Performance.” Simplified.

## General ordering data

|                   |                                                        |
|-------------------|--------------------------------------------------------|
| Version           | Remote I/O fieldbus coupler, IP20, Ethernet, POWERLINK |
| Order No.         | <a href="#">1334940000</a>                             |
| Type              | UR20-FBC-PL                                            |
| GTIN (EAN)        | 4050118138146                                          |
| Qty.              | 1 pc(s).                                               |
| Replacement parts | <a href="#">2425170000</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                       | 52 mm  | Width (inches)  | 2.047 inch |
| Mounting dimension - height | 128 mm | Net weight      | 224 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 <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 |                           |                                                                        |

## Power supply

|                                                               |                      |
|---------------------------------------------------------------|----------------------|
| Current consumption from I <sub>sys</sub> , typ.              | 100 mA               |
| Feed current for I <sub>IN</sub> (input current path)         | min. 10,000 mA       |
|                                                               | max. 10,000 mA       |
|                                                               | nominal 10,000 mA    |
| Feed current for I <sub>IN</sub> (input current path), max.   | 10 A                 |
| Feed current for I <sub>OUT</sub> (output current path)       | nominal 10,000 mA    |
|                                                               | min. 10,000 mA       |
|                                                               | max. 10,000 mA       |
| Feed current for I <sub>OUT</sub> (output current path), max. | 10 A                 |
| Feed current for the system, max.                             | 4 A                  |
| Supply voltage for outputs                                    | 24 V DC +20 %/ -15 % |

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## Technical data

|                                  |                                          |
|----------------------------------|------------------------------------------|
| Supply voltage system and inputs | 24 V DC +20 %/ -15 %                     |
| Voltage supply                   | 24 V DC +20 %/ -15 %, via the system bus |

## System data

|                                        |                                                 |                                      |                            |
|----------------------------------------|-------------------------------------------------|--------------------------------------|----------------------------|
| Configuration interface                | Micro USB 2.0                                   | Connection type                      | 2x RJ45 plug-in connectors |
| Diagnostic data                        | 3,008 Byte                                      | Field bus protocol                   | POWERLINK                  |
| Fieldbus interface                     | Full / Half Duplex, Auto MDI/X, Autonegotiation | Interface                            | u-remote system bus        |
| Module type                            | Bus coupler                                     | Parameter data                       | 4 kByte                    |
| Process data                           | 2,980 Byte                                      | Transmission rate of field bus, max. | 100 Mbit/s                 |
| Transmission speed of system bus, max. | 48 Mbit/s                                       | max. number of modules               | 64                         |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC001603    | ETIM 7.0    | EC001603    |
| ETIM 8.0    | EC001603    | ETIM 9.0    | EC001603    |
| ECLASS 9.0  | 27-24-26-07 | ECLASS 9.1  | 27-24-26-07 |
| ECLASS 10.0 | 27-24-26-07 | ECLASS 11.0 | 27-24-26-07 |
| ECLASS 12.0 | 27-24-26-07 | ECLASS 13.0 | 27-24-26-07 |
| ECLASS 14.0 | 27-24-26-07 |             |             |

## Environmental Product Compliance

|                                      |                                                                      |
|--------------------------------------|----------------------------------------------------------------------|
| REACH SVHC                           | Lead 7439-92-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol 119-47-1 |
| SCIP                                 | 98e19a7e-033b-4e68-93e3-c47b30de875e                                 |
| RoHS Compliance Status               | Compliant with exemption                                             |
| RoHS Exemption (if applicable/known) | 7a, 7cl                                                              |

## Important note

|                     |                                                          |
|---------------------|----------------------------------------------------------|
| Product information | The matching end brackets are included with the coupler. |
|---------------------|----------------------------------------------------------|

## Approvals

Approvals



|                           |            |
|---------------------------|------------|
| ROHS                      | Conform    |
| UL File Number Search     | UL Website |
| Certificate no. (cULus)   | E141197    |
| Certificate no. (cULusEX) | E223527    |

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

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">KC certificate</a><br><a href="#">Compass safe distance certificate</a><br><a href="#">Lloyds Register certificate</a><br><a href="#">DNV certificate</a><br><a href="#">ABS certificate</a><br><a href="#">RINA certificate</a><br><a href="#">Bureau Veritas - Type Approval Certificate</a><br><a href="#">PRS (Polish Register of Shipping)</a><br><a href="#">NIPPON KAIJI KYOKAI Certificate</a><br><a href="#">DEMKO 15ATEX1525X</a><br><a href="#">CCC certificate</a><br><a href="#">UR20 coupler CCC certificate</a><br><a href="#">UKCA Declaration of Conformity - EN</a><br><a href="#">CE Declaration of Conformity - DE</a> |
| Engineering Data                            | <a href="#">CAD data – STEP</a><br><a href="#">Compatibility information – Combinability of UR20</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Product Change Notification                 | <a href="#">Release-Notes - Firmware, XDD and Supported modules list</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Software                                    | <a href="#">Library and function block – Language Pack UR20_FBC</a><br><a href="#">Firmware – Archiv Firmware files POWERLINK coupler</a><br><a href="#">Firmware – Current Firmware file POWERLINK coupler</a><br><a href="#">Device description – Current XDD files POWERLINK coupler</a><br><a href="#">Device description – Archiv XDD files POWERLINK coupler</a><br><a href="#">Driver – USB driver</a>                                                                                                                                                                                                                                          |
| User Documentation                          | <a href="#">MAN_U-REMOTE_DE</a><br><a href="#">MAN_U-REMOTE_EN</a><br><a href="#">MAN_UR20_WEBSERVER_DE</a><br><a href="#">MAN_UR20_WEBSERVER_EN</a><br><a href="#">20211018 Security Advisory – Remote I/O fieldbus couplers (IP20) affected by INFRA:HALT vulnerabilities</a>                                                                                                                                                                                                                                                                                                                                                                        |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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## Drawings

The diagram illustrates the control system architecture. It features a central microcontroller (μC) interfaced with a USB and two RS485 modules. The μC manages the 'Internal control card' and communicates with the 'System bus'. The 'System bus' is connected to a '24 V/12 A Input' block, which provides power to the '24 V/10 A Output' block. This output block has three channels: 'Uc' (Control voltage), 'Ua' (Actuator voltage), and 'Um' (Motor voltage). Each channel is connected to a 'System bus' block, which then feeds into a corresponding 'U' block (Uc, Ua, Um). The 'Uc' block is connected to a '24 V/12 A Input' block, which is connected to a '24 V/10 A Output' block. The 'Ua' block is connected to a '24 V/12 A Input' block, which is connected to a '24 V/10 A Output' block. The 'Um' block is connected to a '24 V/12 A Input' block, which is connected to a '24 V/10 A Output' block.

### Field bus coupler

