

**UR20-4RO-SSR-255****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image****Digital output modules P- or N-switching; short-circuit-proof; up to 3-wire + FE**

The module electronics supply the connected actuators from the output current path ( $U_{OUT}$ ).

Digital output modules are available in the following variants: 4 DO, 8 DO with 2- and 3-wire technology, 16 DO with or without PLC interface connection. They are mainly used for the incorporation of decentralised actuators. All outputs are designed for DC-13 actuators acc. to DIN EN 60947-5-1 and IEC 61131-2 specifications. As with the digital input modules, frequencies of up to 1 kHz are possible. Protection of the outputs ensures maximum system safety. This consists of an automatic restart following a short-circuit. Clearly visible LEDs signal the status of the entire module as well as the status of individual channels.

In addition to the standard applications of the digital output modules, the range also includes special variants such as the 4RO-SSR module for rapidly switching applications. Fitted with solid state technology, 0.5 A is available here to each output. Furthermore, there is also the 4RO-CO relay module for power-intensive applications. It is equipped with four CO contacts, optimised for a switching voltage of 255 V UC and designed for a switching current of 5 A.

**General ordering data**

|                   |  |
|-------------------|--|
| Version           | Remote I/O module, IP20, Digital signals, Output, Relay                          |
| Order No.         | <a href="#">1315540000</a>   |
| Type              | UR20-4RO-SSR-255   |
| GTIN (EAN)        | 4050118118445  |
| Qty.              | 1 pc(s).   |
| Replacement parts | <a href="#">1350930000</a> <a href="#">1484000000</a> <a href="#">1347120000</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      | 47 g       |

## Temperatures

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

## digital outputs

|                                  |                        |     |
|----------------------------------|------------------------|-----|
| Feedback-free                    | Yes                    |     |
| Individual channel diagnosis     | No                     |     |
| Max. response time, high         | 10 ms                  |     |
| Max. response time, low          | 10 ms                  |     |
| Max. switching frequency         | 20 Hz                  |     |
| Module diagnosis                 | Yes                    |     |
| Number                           | 4                      |     |
| Output current per channel, max. | 1 A                    |     |
| Output current per channel, min. | 50 mA                  |     |
| Output current per module, max.  | 4 A                    |     |
| Short-circuit-proof              | No                     |     |
| Simultaneity factor              | max.                   | 0 % |
|                                  | min.                   | 0 % |
|                                  | nominal                | 0 % |
| Switching voltage, max.          | 255 V AC, UL: 277 V AC |     |
| Type                             | SSR / Triac            |     |

## Connection data

|  |                      |  |                      |
|--|----------------------|--|----------------------|
| Number   | 4                    | 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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## 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) | < 15 mA                                  | Current consumption from I <sub>sys</sub> , typ. | 8 mA |
| Voltage supply   | 24 V DC +20 %/ -15 %, via the system bus |  |      |

## System data

|  |   |                    |                                    |
|--|---|--------------------|------------------------------------|
| Connection type                        | PUSH IN   | Diagnostic data    | 1 Bit                              |
| 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        | Digital output module              |
| Possible connection                    | Single-conductor, 2-wire  | Process data       | 4 Bit                              |
| Transmission speed of system bus, max. | 48 Mbit   |                    |                                    |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC001599    | ETIM 7.0    | EC001599    |
| ETIM 8.0    | EC001599    | ETIM 9.0    | EC001599    |
| ECLASS 9.0  | 27-24-26-04 | ECLASS 9.1  | 27-24-26-04 |
| ECLASS 10.0 | 27-24-26-04 | ECLASS 11.0 | 27-24-26-04 |
| ECLASS 12.0 | 27-24-26-04 | ECLASS 13.0 | 27-24-26-04 |

## 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="#">KC certificate</a><br><a href="#">Compass safe distance certificate</a><br><a href="#">Lloyds Register certificate</a><br><a href="#">DNV/GL 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="#">DEMKO15ATEX1525X</a><br><a href="#">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>   |
| Engineering Data                            | <a href="#">Zuken E3.S</a>   |
| User Documentation                          | <a href="#">MAN_U-REMOTE_DE</a><br><a href="#">MAN_U-REMOTE_EN</a>   |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>   |

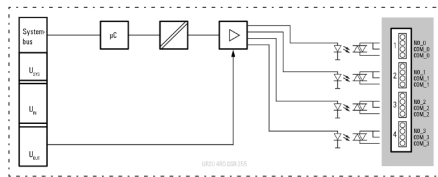
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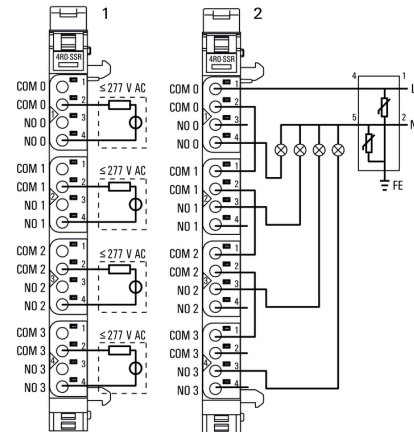
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## Drawings

## Block diagram

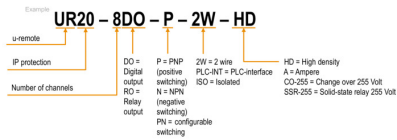


## Connection diagram



## Explanation of abbreviations

## Digital output modules



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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.

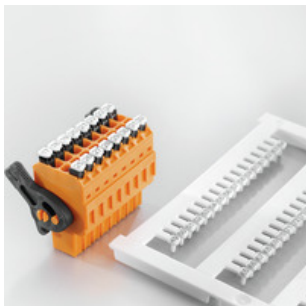
- Large range of ready-to-use markers
- Strips for fast installation
- Terminal markers, suitable for all Weidmüller cable connectors
- Available as blank MultiCard or with standard printing

**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).                 |   |

## 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).                 |   |

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## Accessories

## 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.  | <a href="#">7915060000</a> | 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.  | <a href="#">0514500000</a> | 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 2M/ST/ZN         | Version  |
| Order No.  | <a href="#">0383400000</a> | Terminal rail, without slot, Accessories, 35 x 7.5 x 2000 mm, Steel,   |
| GTIN (EAN) | 4008190088026              | galvanic zinc plated and passivated                                    |
| Qty.       | 2 m                        |  |
| Type       | TS 35X7.5/LL 1M/ST/ZN      | Version  |
| Order No.  | <a href="#">0514510000</a> | 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   |

## 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.  | <a href="#">0330800000</a> | Terminal rail, without slot, Accessories, 35 x 7.5 x 2000 mm, |
| GTIN (EAN) | 4008190100650              | Aluminium, untreated  |
| Qty.       | 2 m                        |   |

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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.  | <a href="#">1346610000</a> | End bracket, , |
| GTIN (EAN) | 4050118151596              |                |
| Qty.       | 5 pc(s).                   |                |
| Type       | UR20-SM-ACC                | Version        |
| Order No.  | <a href="#">1339920000</a> | Cover, ,       |
| GTIN (EAN) | 4050118144727              |                |
| Qty.       | 20 pc(s).                  |                |

**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).                 |   |



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## Accessories

## Blank



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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).                 |   |

## Stainless steel



Stainless steel is a collective term for all types of steel (alloys) with a high degree of purity and corrosion resistance.

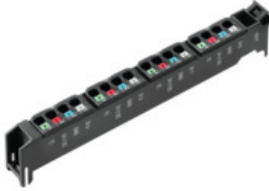
## General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | TS 35X7.5 2M/CRN           | Version  |
| Order No.  | <a href="#">1747350000</a> | 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                        |  |

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**Replacement parts****Plugkit****General ordering data**

|            |                            |                  |
|------------|----------------------------|------------------|
| Type       | UR20-PK-1315540000-SP      | Version          |
| Order No.  | <a href="#">1484000000</a> | Replacement part |
| GTIN (EAN) | 4050118293449              |                  |
| Qty.       | 5 pc(s).                   |                  |

**Electronic modules****General ordering data**

|            |                            |                  |
|------------|----------------------------|------------------|
| Type       | UR20-EM-1315540000-SP      | Version          |
| Order No.  | <a href="#">1347120000</a> | Replacement part |
| GTIN (EAN) | 4050118248418              |                  |
| Qty.       | 1 pc(s).                   |                  |

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| 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).                   |  |  |           |  |