

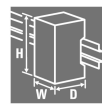
UR20-4AO-UI-16**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

2- or 4-wire connection; 16-bit resolution; 4 outputs
The analogue output module controls up to 4 analogue actuators with $\pm 10\text{ V}$, $\pm 5\text{ V}$, $0\ldots 10\text{ V}$, $0\ldots 5\text{ V}$, $2\ldots 10\text{ V}$, $1\ldots 5\text{ V}$, $0\ldots 20\text{ mA}$ or $4\ldots 20\text{ mA}$ with an accuracy of 0.05% of the measurement-range end value. An actuator with 2-, 3- or 4-wire technology can be connected to each plug-in connector. The measurement range is defined channel-by-channel using parameterisation. In addition, each channel has its own status LED.
The outputs are supplied from the output current path (UOUT).

General ordering data

| | |
|------------|---|
| Version | Remote I/O module, IP20, Analog signals, Output, 4-channel, Current/Voltage |
| Order No. | 1315680000 |
| Type | UR20-4AO-UI-16 |
| GTIN (EAN) | 4050118118803 |
| Qty. | 1 ST |

Technical data

Approvals

Approvals



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

Dimensions and weights

| | | | |
|-----------------------------|---------|-----------------|-------------|
| Depth | 76 mm | Depth (inches) | 2.9921 inch |
| Height | 120 mm | Height (inches) | 4.7244 inch |
| Width | 11.5 mm | Width (inches) | 0.4528 inch |
| Mounting dimension - height | 128 mm | Net weight | 87 g |

Temperatures

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

Environmental Product Compliance

| | |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 7a, 7cl |
| REACH SVHC | Lead 7439-92-1 |
| SCIP | 82327f13-cd27-455a-ab5b-a62e1996dcf8 |

analogue outputs

| | | |
|-----------------------------------|---|--------|
| Short-circuit-proof | Yes | |
| load impedance voltage | > 1 kΩ (at >50 °C ambient temperature, max. total sensor current = 25 mA) | |
| Load impedance current | <600 Ω | |
| Repeat accuracy | <1 mV eff. | |
| Accuracy | ±0,1 % FSR max., 0,05 % FSR typ. | |
| Type | 1. U (0...5 V, 0...10 V, 1...5 V, 2...10 V, ±10 V), 2. I (0-20 mA or 4-20 mA) | |
| Resolution | 16 Bit | |
| Temperature coefficient | 20 ppm voltage / 31 ppm current measurement / °K | |
| Simultaneity factor | min. | 0 % |
| | nominal | 100 % |
| | max. | 100 % |
| Number of analogue outputs | 4 | |
| Module diagnosis | Yes | |
| Individual channel diagnosis | No | |
| Output variable | Voltage (0...5 V, 0...10 V, 1...5 V, 2...10 V, ±10 V, ±5 V), Current (0...20 mA or 4...20 mA) | |
| Response time | 1 ms / 4 channels | |
| Output current as per application | min. | 0 mA |
| | nominal | 185 mA |

UR20-4AO-UI-16

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

| | | |
|---|--------------------------------------|--------|
| | max. | 185 mA |
| Monotonicity | Yes | |
| Cross-talk between the channels in FSR | 0.001 % | |
| Actuator connection | 2-wire (automatic detection), 4-wire | |
| Actuator supply | min. | 0 mA |
| | nominal | 185 mA |
| | max. | 185 mA |
| Max. error between T min. and T max. in 220 % FSR | | |
| Substitute values | Yes | |

Connection data

| | |
|---|--|
| Wire cross-section, finely stranded, max. AWG 16 (AWG) | Wire cross-section, finely stranded, min. AWG 26 (AWG) |
| Wire cross-section, solid, max. (AWG) AWG 16 | Wire cross-section, solid, min. (AWG) AWG 26 |
| Type of connection PUSH IN | Wire cross-section, solid, max. 1.5 mm ² |
| Wire cross-section, solid, min. 0.14 mm ² | Wire connection cross section, finely stranded, max. 1.5 mm ² |
| Wire connection cross section, finely stranded, min. 0.14 mm ² | |

General data

| | | | |
|--------------------------|--|---------------------------|--|
| 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 | UL 94 flammability rating | V-0 |
| Test voltage | 500 V | Surge voltage category | II |
| Pollution severity | 2 | Rail | TS 35 |
| Air pressure (operation) | ≥ 795 hPa (height ≤ 2000 m) as per DIN EN 61131-2 | Air humidity (transport) | 10% to 95%, non-condensing 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 | Air pressure (storage) | 1013 hPa (height 0 m) to 700 hPa (height 3000 m) as per DIN EN 61131-2 |
| 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 |
| Shock | 15 g over 11 ms, half sinus wave, acc. to IEC 60068-2-27 | | |

Power supply

| | | | |
|--|---|--|------|
| Voltage supply | 24 V DC +20 %/-15 %, via the system bus | Current consumption from I _{sys} , typ. | 8 mA |
| Current consumption from I _{OUT} (the respective power segment) | 85 mA | | |

System data

| | | | |
|--------------------|--|--|---------------------|
| Module type | Analogue output module | Interface | u-remote system bus |
| Galvanic isolation | 500 V DC between the current paths | Process data | 8 Byte |
| Field bus protocol | PROFINET IRT, PROFINET RT, PROFIBUS DP-V1, EtherCAT, Modbus/TCP, EtherNet/IP, CANopen, | Transmission speed of system bus, max. | 48 Mbit |

UR20-4AO-UI-16

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

| | | | |
|----------------|--|-----------------|-------|
| | DeviceNet, POWERLINK, CC-Link, CC-Link IE TSN | | |
| Parameter data | 12 Byte | Diagnostic data | 1 Bit |

Classifications

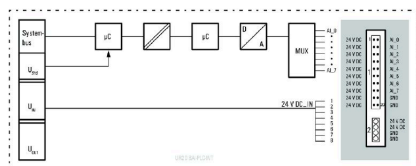
| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC001596 | ETIM 7.0 | EC001596 |
| ETIM 8.0 | EC001596 | ETIM 9.0 | EC001596 |
| ETIM 10.0 | EC001596 | ECLASS 9.0 | 27-24-26-01 |
| ECLASS 9.1 | 27-24-26-01 | ECLASS 10.0 | 27-24-26-01 |
| ECLASS 11.0 | 27-24-26-01 | ECLASS 12.0 | 27-24-26-01 |
| ECLASS 13.0 | 27-24-26-01 | ECLASS 14.0 | 27-24-26-01 |
| ECLASS 15.0 | 27-24-26-01 | | |

Tender specification sheets

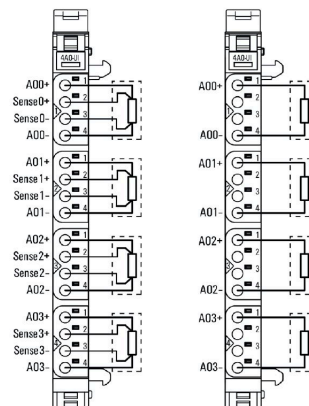
| | |
|--------------------|--|
| Long specification | <p>Analogue output module 4AO-UI-16 4-channel analogue output module Connection system: PUSH IN Dimensions (HxWxD): 120 mm (with lever: 128 mm), 11.5 mm, 76 mm Module status: display via collective message, LED at the top of the module Channel status: indication directly at the contact point Weight: 83 g Module diagnosis: yes Individual channel diagnosis: no Operating temperature: -20°C - +60°C Process data: 8 bytes Parameter data: 12 bytes Diagnostic data: 1 bit Galvanic isolation: between field and system bus Supply voltage: 24 VDC +25% / -15% Internal current consumption: 8 mA Supply current consumption: 85 mA Accuracy: 0.05% FSR Resolution: 16 bits Response time: 1 ms for 4 channels Output parameters: voltage or current Internal resistance U: 100 kΩ Internal resistance I: 41.2 Ω Brand: Weidmüller Type: UR20-4AI-UI-16</p> |
|--------------------|--|

Drawings

Block diagram

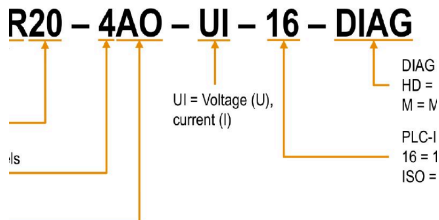


Connection diagram



Explanation of abbreviations

t modules



UR20-4AO-UI-16

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

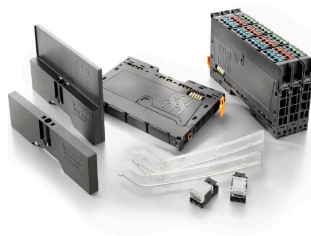
D-32758 Detmold

Germany

www.weidmueller.com

Accessories

Accessories



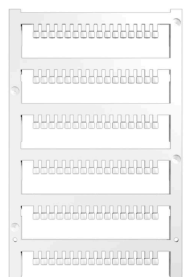
System accessory

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 ST | |
| Type | UR20-SM-ACC | Version |
| Order No. | 1339920000 | Cover, , |
| GTIN (EAN) | 4050118144727 | |
| Qty. | 20 ST | |

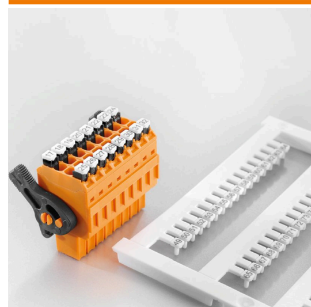
Blank



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 |
| GTIN (EAN) | 4050118126778 | in mm (P): 3.50 Weidmueller, white |
| Qty. | 960 ST | |

Custom printing



UR20-4AO-UI-16

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Accessories

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 |
| GTIN (EAN) | 4050118126761 | in mm (P): 3.50 Weidmueller, To customer specification |
| Qty. | 192 ST | |

| | | |
|------------|----------------------------|---|
| 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 ST | |

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 ST | |

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, Accessories, Aluminium, untreated, Width: 2000 mm, |
| GTIN (EAN) | 4008190100650 | Height: 35 mm, Depth: 7.5 mm |
| Qty. | 40 M | |

UR20-4AO-UI-16

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Accessories

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, Accessories, Stainless steel 1.4301, untreated, Width: |
| GTIN (EAN) | 4032248003372 | 2000 mm, Height: 35 mm, Depth: 7.5 mm |
| Qty. | 40 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 2M/ST/ZN | Version |
| Order No. | 0383400000 | Terminal rail, Accessories, Steel, galvanic zinc plated and passivated, |
| GTIN (EAN) | 4008190088026 | Width: 2000 mm, Height: 35 mm, Depth: 7.5 mm |
| Qty. | 40 M | |
| Type | TS 35X7.5/LL 2M/ST/ZN | Version |
| Order No. | 0514500000 | Terminal rail, Accessories, Steel, galvanic zinc plated and passivated, |
| GTIN (EAN) | 4008190046019 | Width: 2000 mm, Height: 35 mm, Depth: 7.5 mm |
| Qty. | 40 M | |
| Type | TS 35X7.5/LL 1M/ST/ZN | Version |
| Order No. | 0514510000 | Terminal rail, Accessories, Steel, galvanic zinc plated and passivated, |
| GTIN (EAN) | 4008190116620 | Width: 1000 mm, Height: 35 mm, Depth: 7.5 mm |
| Qty. | 20 M | |
| Type | TS 35X7.5/LL 2M/ST/SZ | Version |
| Order No. | 7915060000 | Terminal rail, Accessories, Steel, galvanic zinc plated and passivated, |
| GTIN (EAN) | 4032248296279 | Width: 2000 mm, Height: 35 mm, Depth: 7.5 mm |
| Qty. | 40 M | |

UR20-4AO-UI-16

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Accessories

Crimping tools



Crimping tools for wire end ferrules, with and without plastic collars

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

General ordering data

| | | | |
|------------|----------------------------|---------|--|
| Type | PZ 2.5 S | Version | |
| Order No. | 2903690000 | | 0.14mm ² , 2.5mm ² , Trapezoidal crimp |
| GTIN (EAN) | 4099986027008 | | |
| Qty. | 1 ST | | |

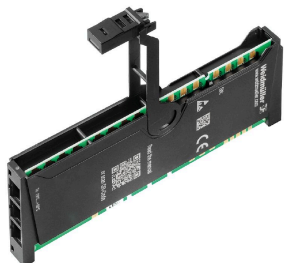
Basic modules



General ordering data

| | | | |
|------------|----------------------------|---------|---|
| Type | UR20-BM-SP | Version | |
| Order No. | 1350930000 | | Replacement part , Flange-mounted housing |
| GTIN (EAN) | 4050118402735 | | |
| Qty. | 5 ST | | |

Electronic modules



General ordering data

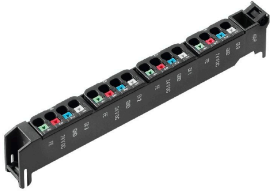
| | | | |
|------------|----------------------------|---------|------------------|
| Type | UR20-EM-1315680000-SP | Version | |
| Order No. | 1347270000 | | Replacement part |
| GTIN (EAN) | 4050118248326 | | |
| Qty. | 1 ST | | |

UR20-4AO-UI-16**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Accessories****Plugkit****General ordering data**

| | | | |
|------------|----------------------------|------------------|--|
| Type | UR20-PK-1315680000-SP | Version | |
| Order No. | 1484070000 | Replacement part | |
| GTIN (EAN) | 4050118293463 | | |
| Qty. | 5 ST | | |