UR20-4RO-CO-255

Product image

Digital output modules P- or N-switching; short-circuit-proof; up to 3-wire + FE

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 equipped with four CO contacts, optimised for a switching voltage of 255 V UC and designed for a switching current of 5 A.

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

General ordering data

Version	Remote I/O module, IP20, Digital signals, Output, Relay
Order No.	1315550000
Type	UR20-4RO-CO-255
GTIN (EAN)	4050118118490
Qty.	1 pc(s).
Replacement parts	1350930000 1346500000 1347130000

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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	119 g

Temperatures

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

digital outputs

Derating	> 55°C / 80% @ 60°C		
Feedback-free	Yes		
Individual channel diagnosis	No		
Max. response time, high	20 ms		
Max. response time, low	20 ms		
Max. switching frequency	5 Hz		
Module diagnosis	Yes		
Number	4		
Output current as per application	min.	0 mA	
	nominal	0 mA	
	max.	0 mA	
Output current per channel, max.	6 A		
Output current per module, max.	24 A		
Short-circuit-proof	No		
Simultaneity factor	min.	0 %	
	nominal	0 %	
	max.	0 %	
Switching voltage, max.	255 V AC, UL: 277 V AC, DC		
Type	CO contact		

Connection data

Number	4		Type of connection	PUSH IN
Wire connection cross section, finely stranded, max.	1.5 mm²		Wire connection cross section, finely stranded, min.	0.14 mm²
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 mm²		Wire cross-section, solid, max. (AWG)	AWG 16
Wire cross-section, solid, min.	0.14 mm²		Wire cross-section, solid, min. (AWG)	AWG 26

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Technical data

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_{OUT} (the respective power segment)	< 15 mA	Current consumption from I_{sys}, 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	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

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

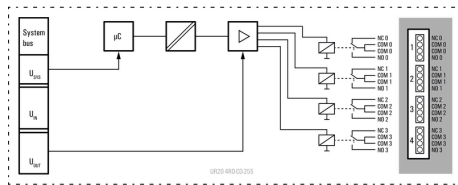|	
Approval/Certificate/Document of Conformity	Compass safe distance certificate
	Lloyds Register certificate
	DNV/GL certificate
	ABS certificate
	RINA certificate
	Bureau Veritas - Type Approval Certificate
	PRS (Polish Register of Shipping)
	NIPPON KAIJI KYOKAI Certificate
	DEMKO15ATEX1525X
	CCC certificate
	UKCA Declaration of Conformity - EN
	CE Declaration of Conformity - DE
Engineering Data	CAD data – STEP
	Compatibility information – Combinability of UR20
Engineering Data	WSCAD, Zuken E3.S
User Documentation	MAN_U-REMOTE_DE
	MAN_U-REMOTE_EN
Catalogues	Catalogues in PDF-format

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Drawings

Block diagram

Connection diagram
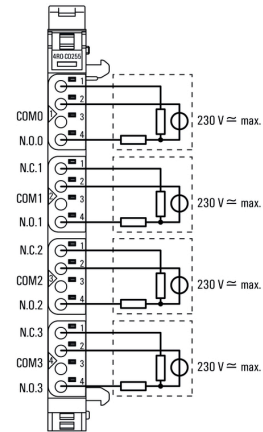
Explanation of abbreviations
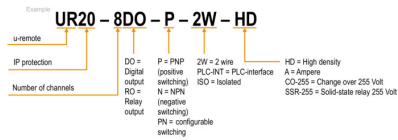
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Accessories

Accessories

Potential-distribution modules; system accessory

A wide range of accessory modules is available for individual requirements of machine and plant engineering. Various potential distribution modules are available for the supply of sensors with 2- to 4-wire connection technology directly from the remote I/O system. These offer 16 "PUSH IN" potential points and supply your application with any auxiliary potential available. An empty module, where the system bus and voltage supply are looped through, allows you to plan expansion slots in a system and to start these up without any interruptions if required.

General ordering data

Type	UR20-SM-ACC	Version	
Order No.	1339920000	Cover, ,	
GTIN (EAN)	4050118144727		
Qty.	20 pc(s).		
Type	UR20-EBK-ACC	Version	
Order No.	1346610000	End bracket, ,	
GTIN (EAN)	4050118151596		
Qty.	5 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.	1747350000	Rail, TS 35, TS 35 x 7.5, without slot, Stainless steel, rust-proof,
GTIN (EAN)	4032248003372	Stainless steel 1.4301, untreated
Qty.	2 m	

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Accessories

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

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

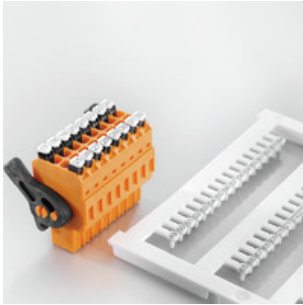| Type	DEK 5/8-11.5 MC SDR	Version
Order No.	1341610000	Dekafix, Terminal marker, 5 x 8 mm, Pitch in mm (P): 8.00
GTIN (EAN)	4050118146059	Weidmueller, To customer specification
Qty.	100 pc(s).	

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Accessories

Custom printing

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

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	Rail, TS 35, TS 35 x 7.5, without slot, Aluminium, untreated
GTIN (EAN)	4008190100650	
Qty.	2 m	

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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/ZN	Version
Order No.	0514500000	Rail, TS 35, TS 35 x 7.5, with slot, Steel, galvanic zinc plated and
GTIN (EAN)	4008190046019	passivated
Qty.	2 m	
Type	TS 35X7.5/LL 1M/ST/ZN	Version
Order No.	0514510000	Rail, TS 35, TS 35 x 7.5, with slot, Steel, galvanic zinc plated and
GTIN (EAN)	4008190116620	passivated
Qty.	1 m	
Type	TS 35X7.5/LL 2M/ST/SZ	Version
Order No.	7915060000	Rail, TS 35, TS 35 x 7.5, with slot, Steel, galvanic zinc plated and
GTIN (EAN)	4032248296279	passivated
Qty.	2 m	
Type	TS 35X7.5 2M/ST/ZN	Version
Order No.	0383400000	Rail, TS 35, TS 35 x 7.5, without slot, Steel, galvanic zinc plated and
GTIN (EAN)	4008190088026	passivated
Qty.	2 m	

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Accessories

Blank

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Strips for fast installation in only one work step. The printing is easy to read, rich in contrast and available in various widths.

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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.	1341630000	Dekafix, Terminal marker, 5 x 8 mm, Pitch in mm (P): 8.00	
GTIN (EAN)	4050118145946	Weidmueller, white	
Qty.	500 pc(s).		

Replacement parts

Electronic modules

General ordering data

Type	UR20-EM-1315550000-SP	Version	
Order No.	1347130000	Replacement part, ,	
GTIN (EAN)	4050118248401		
Qty.	1 pc(s).		

Plugkit

General ordering data

Type	UR20-PK-1315550000-SP	Version	
Order No.	1346500000	Replacement part, Plug-in connector, ,	
GTIN (EAN)	4050118151251		
Qty.	5 pc(s).		

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Replacement parts

Basic modules

General ordering data

Type	UR20-BM-SP	Version		Packaging
Order No.	1350930000	Replacement part, , Flange-mounted housing		Cardboard
GTIN (EAN)	4050118402735			box
Qty.	5 pc(s).			