

UR20-2PWM-PN-0.5A**Weidmüller Interfaces GmbH & Co. KG**

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Product image**Pulse width modulation and stepper motor modules**

As part of the u-remote system, Weidmüller offers a specialised solution for controlling small motors with a current requirement of 0.5 A to 2 A, which can also be used to control valve flaps. The pulse width modulation modules can be adjusted within the switching frequencies up to 40 kHz and the modules can also be switched in the motor control with the aid of push/pull output stages, e.g. to change the direction of rotation.

Weidmüller's stepper motor module is efficient and flexible for use in the automation of robots, handling systems or placement machines with stepper motors. Variably adjustable operating parameters as well as a wide range supply from 12 V DC to 50 V DC make the module flexibly applicable for various target applications. Six integrated, parameterizable encoder or digital inputs and two digital outputs with 0.5 A make the control module a complete solution in the smallest of spaces.

As with all modules of the u-remote system, the features are convincing - from the modular design and exchangeable electronics to the removable and pluggable terminal strip. The module electronics supplies the connected actuators from the output current path (UOUT)

General ordering data

Version	Remote I/O module, IP20, Digital signals, PWM, 0.5 A per channel
Order No.	1315600000
Type	UR20-2PWM-PN-0.5A
GTIN (EAN)	4050118118629
Qty.	1 pc(s).
Replacement parts	1350930000 1347180000 1484010000

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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	85 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

Accuracy	1 Bit	
Actuator connection	2-wire, 3-wire, 3-wire + FE	
Actuator supply	min.	0 mA
	max.	750 mA
	nominal	750 mA
Data width	2 Byte Input, 12 Byte Output	
Feedback-free	Yes	
Individual channel diagnosis	No	
Max. response time, high	100 ns	
Max. response time, low	100 ns	
Module diagnosis	Yes	
Number of digital outputs	2	
Output current as per application	nominal	1,000 mA
	min.	0 mA
	max.	1,000 mA
Output current per channel, max.	500 mA	
Output current per module, max.	1,000 mA	
Pulse duty factor	0---100% push/pull or push, parameterisable	
Resolution	32 Bit	
Short-circuit-proof	Yes	
Simultaneity factor	nominal	100 %
	max.	100 %
	min.	0 %
Switching frequency, inductive load	Static, 6 Hz ... 40 kHz	
Switching frequency, lamp load	Static, 6 Hz ... 40 kHz	
Switching frequency, resistive load	Static, 6 Hz ... 40 kHz	
Type	DO PWM push / pull	

Connection data

Type of connection	PUSH IN	Wire connection cross section, finely stranded, max.	1.5 mm ²
Wire connection cross section, finely stranded, min.	0.14 mm ²	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 ²
Wire cross-section, solid, max. (AWG)	AWG 16	Wire cross-section, solid, min.	0.14 mm ²
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 _{OUT} (the respective power segment)	40 mA	Current consumption from I _{sys} , typ.	8 mA
Voltage supply	24 V DC +20 %/-15 %, via the system bus		

System data

Field bus protocol	PROFINET IRT, PROFINET RT, PROFIBUS DP-V1, EtherCAT, Modbus/TCP, EtherNet/IP, CANopen, DeviceNet, POWERLINK, CC-Link, CC-Link IE TSN	Galvanic isolation	500 V DC between the current paths
Interface	u-remote system bus	Module type	Functional module
Transmission speed backplane bus, max.	48 Mbit/s	Transmission speed of system bus, max.	48 Mbit

Classifications

ETIM 6.0	EC001601	ETIM 7.0	EC001601
ETIM 8.0	EC001601	ECLASS 9.0	27-24-26-05
ECLASS 9.1	27-24-26-05	ECLASS 10.0	27-24-26-05
ECLASS 11.0	27-24-26-05	ECLASS 12.0	27-24-26-05

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	82327f13-cd27-455a-ab5b-a62e1996dcf8

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Technical data

Approvals

Approvals



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

Downloads

Approval/Certificate/Document of Conformity	DEMKO15ATEX1525X 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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[illegible]

Example

UR20-2PWM-I-2.5A-2DI-P

- u-remote
- IP protection
- Pulse width modulation
- 2A = 2 Ampere
0.5A = 0.5 Ampere
2.5A = 2.5 Ampere
- PNP (positive switching)
- Digital input
- Number of channels
- I = current (I)
P = PNP (positive switching)
PM = configurable PMH/PMN (positive / negative switching)
- Number of channels