

UR20-2PWM-PN-0.5A

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



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.	131560000
Type	UR20-2PWM-PN-0.5A
GTIN (EAN)	4050118118629
Qty.	1 items

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Technical data

Approvals

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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	85 g

Temperatures

Storage temperature	-40 °C ... +85 °C	Operating temperature	-20 °C...60 °C
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Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption		
RoHS Exemption (if applicable/known)	7a, 7cI		
REACH SVHC	Lead 7439-92-1, Diboron trioxide 1303-86-2, Lead monoxide 1317-36-8		
SCIP	b5ed5bad-cbfe-4ad3-903c-fc3d1093a415		
Product Carbon Footprint	Cradle to gate	8,058 kg CO2 eq.	

digital outputs

Short-circuit-proof	Yes		
Number of digital outputs	2		
Accuracy	1 Bit		
Type	DO PWM push / pull		
Resolution	32 Bit		
Feedback-free	Yes		
Max. response time, low	100 ns		
Output current per channel, max.	500 mA		
Simultaneity factor	min.	0 %	
	nominal	100 %	
	max.	100 %	
Pulse duty factor	0--100% push/pull or push, parameterisable		
Switching frequency, resistive load	Static, 6 Hz ... 40 kHz		
Switching frequency, inductive load	Static, 6 Hz ... 40 kHz		
Module diagnosis	Yes		
Switching frequency, lamp load	Static, 6 Hz ... 40 kHz		
Individual channel diagnosis	No		

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Output current as per application	min.	0 mA
	nominal	1000 mA
	max.	1000 mA
Max. response time, high	100 ns	
Data width	2 Byte Input, 12 Byte Output	
Actuator connection	2-wire, 3-wire, 3-wire + FE	
Output current per module, max.	1000 mA	
Actuator supply	min.	0 mA
	nominal	750 mA
	max.	750 mA

Connection data

Wire cross-section, finely stranded, max. (AWG)	AWG 16	Wire cross-section, finely stranded, min. (AWG)	AWG 26
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, min.	0.14 mm ²	Wire cross-section, solid, max.	1.5 mm ²
Wire connection cross section, finely stranded, min.	0.14 mm ²	Wire connection cross section, finely stranded, max.	1.5 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	Mounting 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

Supply voltage	24 V DC +20 %/ -15 %, via the system bus	Current consumption from Isys, typ.	8 mA
Current consumption from IOU (the respective power segment)	40 mA		

System data

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

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Important note

Product information This article will no longer be available in the future. Successor: 3036960000 (UR20-2PWM-PN-0.5A-V2)

Classifications

ETIM 8.0	EC001601	ETIM 9.0	EC001601
ETIM 10.0	EC001601	ECLASS 14.0	27-24-26-05
ECLASS 15.0	27-24-26-05		

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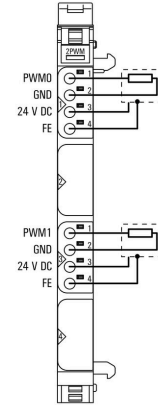
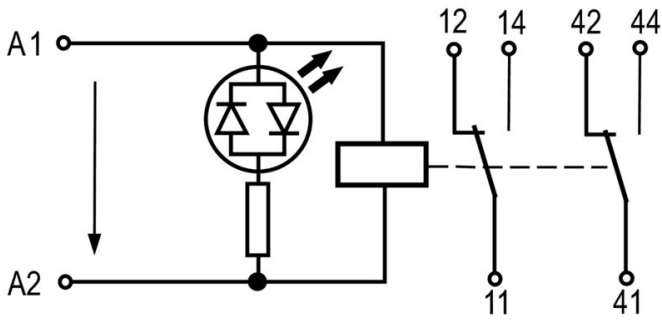
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Drawings

Block diagram

Connection diagram

AC-Version



Explanation of abbreviations

Pulse width modulation modules

