

UC20-M3000**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



With u-control M3000, automation solutions can be perfectly integrated into the IoT. The powerful controller also works as an edge device for providing local information in the network and can be expanded by connecting function modules – ideal for automation and IIoT applications. u-control M4000 offers two additional CPU cores, two additional Ethernet interfaces and more RAM, NV RAM, and flash memory for complex edge computing in automation.

General ordering data

Version	Controller, IP20, AutomationController, CODESYS
Order No.	2839 150000
Type	UC20-M3000
GTIN (EAN)	4064675446101
Qty.	1 pc(s).

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Catalogue status 14.10.2023 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	100 mm	Depth (inches)	3.937 inch
Height	119 mm	Height (inches)	4.685 inch
Width	79 mm	Width (inches)	3.11 inch
Net weight	250 g		

Probability of failure

MTBF	According to Standard	MIL-HDBK-217-FN2
	Ambient temperature	50 °C

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

General data

Air humidity (operation)	10% to 95%, non-condensing as per IEC 61131-2			
Air humidity (storage)	10% to 95%, non-condensing as per IEC 61131-2			
Air humidity (transport)	10% to 95%, non-condensing as per IEC 61131-2			
Air pressure (operation)	≥ 795 hPa as per IEC 61131-2			
Air pressure (storage)	≥ 700 hPa as per IEC 61131-2			
Air pressure (transport)	≥ 700 hPa as per IEC 61131-2			
Operating temperature installation dependent	Mounting position	horizontal		
	Operating altitude, max	2,000 m		
	Operating temperature	min.	-40 °C	
		max.	70 °C	
	Mounting position	vertical		
	Operating altitude, max	2,000 m		
	Operating temperature	min.	-40 °C	
		max.	50 °C	
	Mounting position	horizontal		
	Operating altitude, max	3,000 m		
	Operating temperature	min.	-40 °C	
		max.	60 °C	
	Mounting position	vertical		
	Operating altitude, max	3,000 m		
	Operating temperature	min.	-40 °C	
		max.	50 °C	
Rail	TS 35			
UL 94 flammability rating	V-0			

Power supply

Current consumption from I _{sys} , typ.	≤ 450 mA at 24 V DC		
Feed current for I _{IN} (input current path)	max.	10 A	
	nominal	5 A	
	min.	0 A	

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Technical data

Feed current for I _{OUT} (output current path)	min.	0 A
	nominal	5 A
	max.	10 A
Supply voltage for outputs	24 V DC +20 %/ -15 %	
Supply voltage system and inputs	24 V DC +20 %/ -15 %	

System data

Configuration interface	USB-C (3.1), MicroSD CARD	Interface	2x Host (USB-A 2.0), 2x 1 Gbps (RJ45)
Memory (Flash)	8 GB	Processor (NRT-Core)	2x A53 (2x 2,3 DMIPS/MHz) @ 1200 MHz
Processor (RT-Core)	2x A53 (2x 2,3 DMIPS/MHz) @ 1200 MHz (pre-emptive Linux)	Program data memory expansion possible	No
Program data memory size	2 GB	Programming environment	CODESYS
Type of program data memory	DDR4	Type of user data memory	eMMC
User data memory size	16 GB	max. number of modules	64

Classifications

ETIM 6.0	EC000236	ETIM 7.0	EC000236
ETIM 8.0	EC000236	ETIM 9.0	EC000236
ECLASS 9.0	27-24-22-07	ECLASS 9.1	27-24-22-07
ECLASS 10.0	27-24-22-07	ECLASS 11.0	27-24-22-07
ECLASS 12.0	27-24-22-07	ECLASS 13.0	27242207

Important note

Product information Available from September 2023

Approvals

Approvals



UL File Number Search	UL Website
Certificate no. (cULusEX)	E223527

Downloads

Engineering Data	Quick start guide – Modbus - Understanding Coils and Register Quick start guide – Function blocks for UR20-3EM-230V-AC CAD data – STEP
Software	Software – u-link VPN-Client Software – CODESYS Development System 3.5 SP18.40 Software – CODESYS Development System 3.5 SP19.0 Software – CODESYS Control SL for Weidmueller u-OS Package Software – u-OS App CODESYS Control SL Runtime
User Documentation	u-link Technical User Guide u-control Handbuch (Deutsch) u-control Manual (English) 20210504 Security Advisory - Accidentally open network port in u-controls and IoT-Gateways 20221214 Security Advisory - Multiple IoT and control products affected by JavaScript injection vulnerability u-control MX0000 Manual (English)
Catalogues	Catalogues in PDF-format

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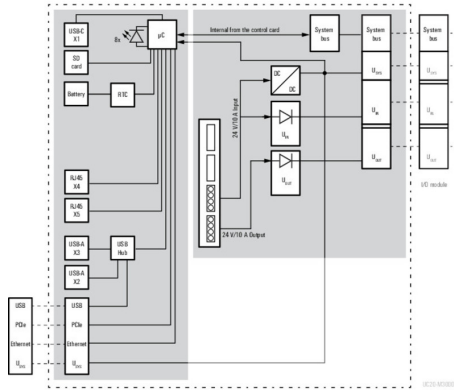
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Drawings

Block diagram



Connection diagram

