

UC20-M3000

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



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

General ordering data

Version	Automation and EDGE Controller, u-OS pre-installed, supports container-software, open, flexible, independently, Dual Core ARM Cortex A53, 1200 MHz, -40 °C...70 °C, IP20
Order No.	2839150000
Type	UC20-M3000
GTIN (EAN)	4064675446101
Qty.	1 items

Technical data

Approvals

Approvals



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

Dimensions and weights

Depth	101 mm	Depth (inches)	3.9764 inch
Height	120 mm	Height (inches)	4.7244 inch
Width	80 mm	Width (inches)	3.1496 inch
Mounting dimension - height	120 mm	Net weight	588 g

Temperatures

Storage temperature	-40 °C ... +85 °C	Operating temperature	-40 °C...70 °C
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Probability of failure

SIL in compliance with IEC 61508	None		
MTBF	33 a		
MTBF	According to Standard	MIL-HDBK-217-FN2	
	Operating time (hours), min.	290778 h	
	Ambient temperature	50 °C	

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6aI, 6c, 7a, 7cI
REACH SVHC	1, 2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) 110-71-4, 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol 119-47-1, Lead titanium trioxide 12060-00-3, Diboron trioxide 1303-86-2, Lead monoxide 1317-36-8, Lead 7439-92-1, Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8

Connection data

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

UL 94 flammability rating	V-0		
Mounting rail	TS 35		
Air pressure (operation)	≥ 795 hPa as per IEC 61131-2		
Operating temperature installation dependent	Mounting position	horizontal	
	Operating altitude, max	2000 m	
	Operating temperature	min.	-40 °C
max.		70 °C	

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Mounting position	vertical	
Operating altitude, max	2000 m	
Operating temperature	min.	-40 °C
	max.	50 °C
Mounting position	horizontal	
Operating altitude, max	3000 m	
Operating temperature	min.	-40 °C
	max.	60 °C
Mounting position	vertical	
Operating altitude, max	3000 m	
Operating temperature	min.	-40 °C
	max.	50 °C
Air humidity (transport)	10% to 95%, non-condensing as per IEC 61131-2	
Air pressure (transport)	≥ 700 hPa as per IEC 61131-2	
Air pressure (storage)	≥ 700 hPa as per IEC 61131-2	
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	

Power supply

Feed current for IIN (input current path), 10 A max.	Current consumption from I _{sys} , typ.	116 mA	
Supply voltage for outputs	24 V DC +20 %/ -15 %	Supply voltage system and inputs	24 V DC +20 %/ -15 %
Feed current for IOU _T (output current path), max.	10 A		

System data

Module type	Controller	Interface	2x Host (USB-A 2.0), 2x 1 Gbps (RJ45)
max. number of modules	64	Configuration interface	USB-C (3.1), MicroSD CARD
Program data memory expansion possible	Yes	Program data memory size	2 GB
Processor	Dual Core ARM Cortex A53, 1200 MHz	User data memory size	16 GB
Connection type	PUSH IN	Engineering tool	u-OS
Programming environment	CODESYS	Type of program data memory	DDR4
Memory (Flash)	16 GB	Real-time clock	Battery buffered
Type of user data memory	eMMC	Field bus protocol	EtherNet/IP, PROFINET

Guarantee

Time interval	1 year
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Important note

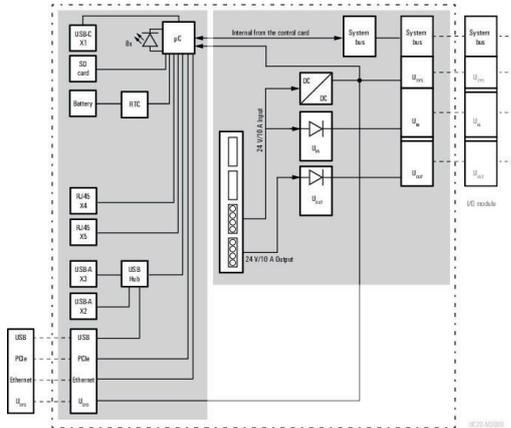
Product information	The matching end brackets are included with the control.
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Classifications

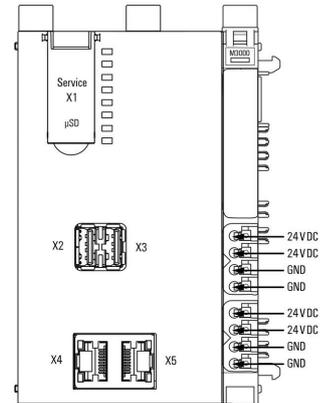
ETIM 8.0	EC000236	ETIM 9.0	EC000236
ETIM 10.0	EC000236	ECLASS 14.0	27-24-22-07
ECLASS 15.0	27-24-22-07		

Drawings

Block diagram



Connection diagram



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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



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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		

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		

Custom printing



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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 ST		

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Accessories

USB cable - USB A - USB C

Assembled IE cables



General ordering data

Type	IE-USB-A-C-2.0M	Version	
Order No.	2838380020		USB cable, USB A, USB C, PVC, 2 m
GTIN (EAN)	4064675444329		
Qty.	1 ST		

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		