

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
Order No.	2839150000
Type	UC20-M3000
GTIN (EAN)	4064675446101
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	101 mm	Depth (inches)	3.976 inch
Height	120 mm	Height (inches)	4.724 inch
Width	80 mm	Width (inches)	3.15 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	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		

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Power supply

Current consumption from I_{sys} , typ.	116 mA	Feed current for I_{IN} (input current path), max.	10 A
Feed current for I_{OUT} (output current path), 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	Connection type	PUSH IN
Engineering tool	u-OS	Interface	2x Host (USB-A 2.0), 2x 1 Gbps (RJ45)
Memory (Flash)	16 GB	Module type	Controller
Processor	Dual Core ARM Cortex A53, 1200 MHz	Program data memory expansion possible	No
Program data memory size	2 GB	Programming environment	CODESYS
Real-time clock	Battery buffered	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	27-24-22-07
ECLASS 14.0	27-24-22-07		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6a, 6c, 7a, 7cl
REACH SVHC	1, 2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) 110-71-4 6,6'-di-tert-butyl-2,2'-methylene-di-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

Important note

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

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_322323-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULusEX)	E223527

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Technical data

Downloads

Approval/Certificate/Document of Conformity	DNV approval for UC20-M3000/M4000 Declaration of Conformity
Engineering Data	Quick start guide – Modbus - Understanding Coils and Register Quick start guide – Function blocks for UR20-3EM-230V-AC CAD data – STEP Application notes – Ethernet over EtherCAT with Codesys and u-OS
User Documentation	u-control MX000 Manual (English) u-control MX000 Handbuch (Deutsch) Security Data Sheet u-OS V1.0 Application notes – Industrial Product Security Guideline Quick start guide – Quick reference / Instruction inlay - u-control web hardware
Catalogues	Catalogues in PDF-format

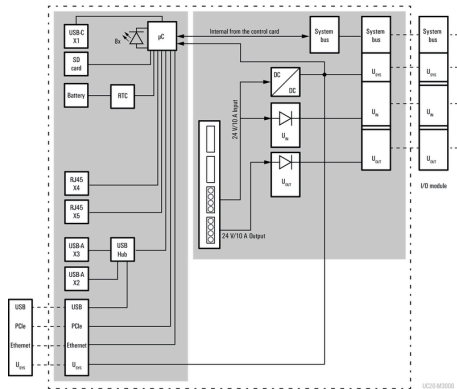
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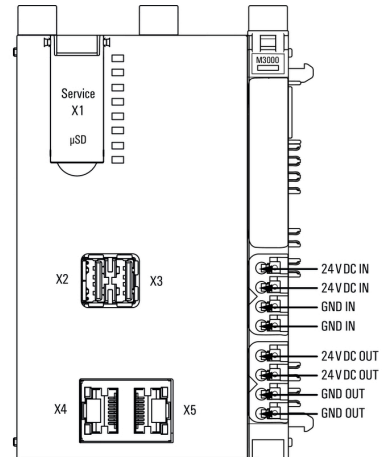
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Drawings

Block diagram



Connection diagram



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Accessories

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).	

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 pc(s).	

Type	UR20-SM-ACC	Version
Order No.	1339920000	Cover, ,
GTIN (EAN)	4050118144727	
Qty.	20 pc(s).	

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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).	

Blank



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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).	

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www.weidmueller.com**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 pc(s).	

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

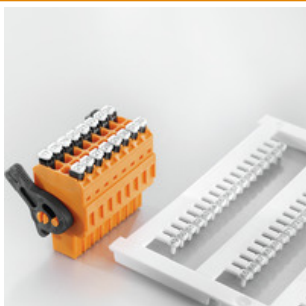
Type	PZ 2.5 S	Version
Order No.	2903690000	0.14mm ² , 2.5mm ² , Trapezoidal crimp
GTIN (EAN)	4099986027008	
Qty.	1 pc(s).	

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www.weidmueller.com**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).	