



Unity M1E processor - RS232/485 - Ethernet - USB - I/O bus - global data

171CBU98091

Main

Range of product	Modicon Momentum automation platform
Product or component type	Processor
Product compatibility	Modicon STB I/O
Integrated connection type	USB port Ethernet

Complementary		
Concept	Transparent Ready class B	
Web services	Bandwidth monitoring Properties CPU status Ethernet statistics Home pages	
Software designation	Unity Pro	
Communication service	Modbus messaging 125 words, 200 I/O message per second Global Data, 2200 I/O message per second Modbus TCP I/O Scanner and Messaging	
Processor name	Spear 320s	
Word length	32 bit	
Supply voltage limits	4.755.25 V	
Clock frequency	333 MHz	
Topology	Multidrop Modbus Star Modbus TCP	
Communication port protocol	Modbus RS485/RS232 - 1 RJ45 19200 bps - 2-wire Modbus TCP ETHERNET - 1 RJ45 10/100 Mbps - twisted shielded pairs cable CAT 5E UTP	
Method of access	Client/server Master/slave	
Control parameter	CRC-32 for Modbus TCP/IP CRC-16 for Modbus	
Addressing	1247 Modbus Unique IEEE global address Modbus TCP	
Fail state	Safe I/O mode	
Memory description	Program memory IEC 3584 kB Program memory LL984 3584 kB	
Register words	26048	
I/O limit processor capacity	2048 inputs/2048 outputs	

Number of devices	32 Modbus
Exact time for 1 Kinstruction	83 ns
Local signalling	1 LED (green) for processor running (RUN) 1 LED (red) for processor or system fault (ERR) 1 LED (red) for I/O module fault (I/O) 1 LED (yellow) for channel 0 operating (CH0) 1 LED (green) for data rate (ETH 100) 1 LED (green) for data rate (ETH LINK) 1 LED (green) for status of Ethernet network (ETH STS)
Marking	CE
Current consumption	500 mA at 5 V DC
Module format	Standard
Product mounting	35 mm symmetrical DIN rail
Height	60.6 mm
Width	144 mm
Depth	53.47 mm
Net weight	0.163 kg
Environment	
Material	Lexan
Dielectric strength	0 V not isolated RS485/RS232 5000 V for 1 minute ETHERNET
Product certifications	C-Tick FM
Standards	UL 508 CSA C22.2 No 142 EN/IEC 61131-2
	LIWILG 01131-2
IP degree of protection	IP20
IP degree of protection Shock resistance	
	IP20
Shock resistance Resistance to electrostatic	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity Operating altitude	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity Operating altitude Packing Units	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C 596 % <= 2000 m
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity Operating altitude Packing Units Unit Type of Package 1	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C 596 % <= 2000 m
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity Operating altitude Packing Units Unit Type of Package 1 Number of Units in Package 1	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C 596 % <= 2000 m
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity Operating altitude Packing Units Unit Type of Package 1 Package 1 Height	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C 596 % <= 2000 m PCE 1 7.0 cm
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity Operating altitude Packing Units Unit Type of Package 1 Number of Units in Package 1 Package 1 Height Package 1 Width	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C 596 % <= 2000 m PCE 1 7.0 cm
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity Operating altitude Packing Units Unit Type of Package 1 Number of Units in Package 1 Package 1 Height Package 1 Width Package 1 Length	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C 596 % <= 2000 m PCE 1 7.0 cm 11.0 cm 20.0 cm
Shock resistance Resistance to electrostatic discharge Resistance to electromagnetic fields Ambient air temperature for operation Ambient air temperature for storage Relative humidity Operating altitude Packing Units Unit Type of Package 1 Number of Units in Package 1 Package 1 Height Package 1 Weight	IP20 15 gn during 11 ms sinusoidal vibrations 6 kV contact conforming to EN/IEC 61131-2 zone B 6 kV contact conforming to IACS E10 8 kV on air conforming to EN/IEC 61000-4-2 15 V/m 802700 MHz conforming to EN/IEC 61000-4-3 060 °C -4085 °C 596 % <= 2000 m PCE 1 7.0 cm 11.0 cm 20.0 cm

Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	2.355 kg
Offer Sustainability	
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

information go to www.P65Warnings.ca.gov

California proposition 65

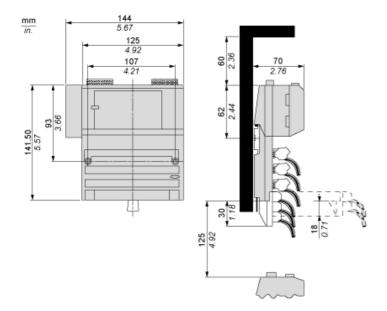
WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more

Product data sheet

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Dimensions Drawings

Processor and Option Adapter on a Typical Base

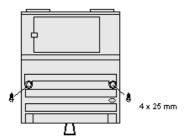


Product data sheet

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Mounting and Clearance

Mounting on a Wall



Recommended replacement(s)