# Product data sheet

Specifications

Green Premium™

## Unity M1 processor - RS232/485 - USB - I/O bus

**171CBU78090**

## Main

| | |
|---|---|
| Range of product | Modicon Momentum automation platform |
| Product or component type | Processor |
| Integrated connection type | USB port |

## Complementary

| | |
|---|---|
| Concept | Transparent Ready class B |
| Web services | Home pages<br>Properties<br>CPU status |
| Software designation | Unity Pro |
| Communication service | Modbus messaging 100 words, 200 I/O message per second |
| Processor name | Spear 320s |
| Word length | 32 bit |
| Supply voltage limits | 4.75…5.25 V |
| Clock frequency | 333 MHz |
| Topology | Multidrop Modbus |
| Communication port protocol | Modbus RS485/RS232 - 1 RJ45 19200 bps - 2-wire |
| Method of access | Master/slave |
| Control parameter | CRC-16 for Modbus |
| Addressing | 1...247 Modbus |
| Fail state | Safe I/O mode |
| Memory description | Program memory IEC 3584 kB<br>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)<br>1 LED (red) for processor or system fault (ERR)<br>1 LED (red) for I/O module fault (I/O)<br>1 LED (yellow) for channel 0 operating (CH0)<br>1 LED (yellow) for channel 1 operating (CH1) |
| Marking | CE |

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| 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 | 0.159 kg |

## Environment

| Material | Lexan |
|---|---|
| Dielectric strength | 0 V not isolated RS485/RS232<br>5000 V for 1 minute RS485 |
| Product certifications | C-Tick<br>FM |
| Standards | EN/IEC 61131-2<br>CSA C22.2 No 142<br>UL 508 |
| IP degree of protection | IP20 |
| Shock resistance | 15 gn during 11 ms sinusoidal vibrations |
| Resistance to electrostatic discharge | 6 kV contact conforming to EN/IEC 61131-2 zone B<br>6 kV contact conforming to IACS E10<br>8 kV on air conforming to EN/IEC 61000-4-2 |
| Resistance to electromagnetic fields | 15 V/m 80...2700 MHz conforming to EN/IEC 61000-4-3 |
| Ambient air temperature for operation | 0…60 °C |
| Ambient air temperature for storage | -40…85 °C |
| Relative humidity | 5…96 % |
| Operating altitude | <= 2000 m |

## Packing Units

| Unit Type of Package 1 | PCE |
|---|---|
| Number of Units in Package 1 | 1 |
| Package 1 Height | 7.5 cm |
| Package 1 Width | 11.0 cm |
| Package 1 Length | 21.0 cm |
| Package 1 Weight | 240.0 g |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 8 |
| Package 2 Height | 30.0 cm |
| Package 2 Width | 30.0 cm |
| Package 2 Length | 40.0 cm |
| Package 2 Weight | 2.346 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) |

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| | |
|---|---|
| **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 |
| **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 information go to www.P65Warnings.ca.gov |

**Processor and Option Adapter on a Typical Base**

**Mounting on a Wall**

4 x 25 mm
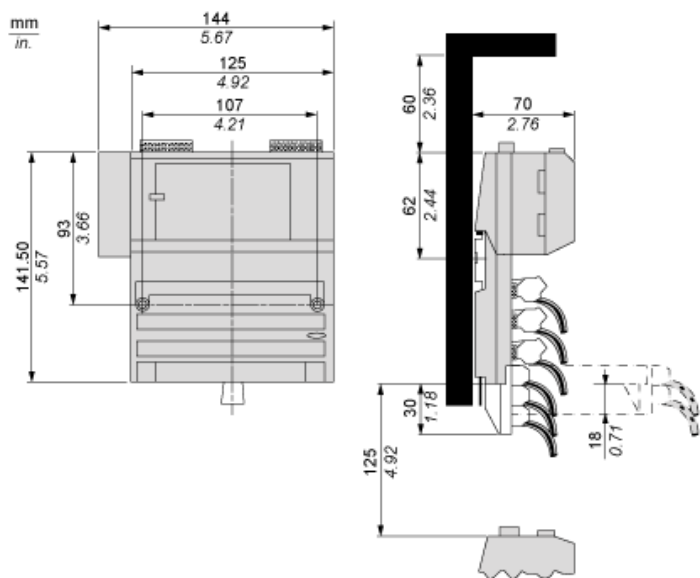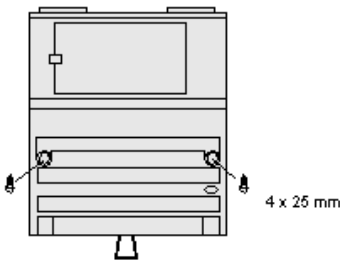
**Recommended replacement(s)**