



Main

| | |
|-----------------------------|--|
| Range of product | Easy Modicon M100 |
| Product or component type | Logic controller |
| [Us] rated supply voltage | 100...240 V AC |
| Discrete I/O number | 16 |
| Discrete input number | I2...I5: 4 fast input I6...I8: 3 regular input I0...I1: 2 high speed input |
| Discrete output number | 7 relay |
| Discrete input voltage | 24 V |
| Discrete input voltage type | DC |
| Discrete input current | 7 mA for regular input 7 mA for fast input 9 mA for high speed input |
| Discrete output voltage | 24 V DC 220 V AC |
| Discrete output current | 2 A |
| Discrete output type | Relay normally open |
| Power consumption in VA | 30...40 VA at 100...240 V AC (with max I/O) |

Complementary

| | |
|-----------------------------------|--|
| Supply voltage limits | 85...264 V |
| Voltage state 1 guaranteed | >= 15 V for input |
| Voltage state 0 guaranteed | <= 5 V for input |
| Network frequency | 50/60 Hz |
| Inrush current | 50 A |
| Input impedance | 3.3 kOhm for regular input 3.3 kOhm for fast input 2.81 kOhm for high speed input |
| Response time | 10 ms turn-on, Q0...Q6 terminal(s) for relay output 10 ms turn-off, Q0...Q6 terminal(s) for relay output 35 µs turn-on, I2...I5 terminal(s) for fast input 100 µs turn-off, I2...I5 terminal(s) for fast input 5 µs turn-on, I0...I1 terminal(s) for high speed input 5 µs turn-off, I0...I1 terminal(s) for high speed input 35 µs turn-on, I6...I8 terminal(s) for regular input 100 µs turn-off, I6...I8 terminal(s) for regular input |
| Configurable filtering time | 0 ms for input 3 ms for input 12 ms for input |
| Output voltage limits | 30 V DC 250 V AC |
| Maximum current per output common | 4 A at COM 0 4 A at COM 1 |
| Electrical durability | 100000 Cycles AC-12, 240 V, 480 VA, resistive 100000 cycles DC-12, 24 V, 48 W, resistive |
| Switching frequency | 0.1 Hz with maximum load 5 Hz without maximum load |
| Mechanical durability | 20000000 cycles for relay output |
| Minimum load | 10 mA at 5 V DC for relay output |
| Memory capacity | 1024 kB internal flash with 10000 instructions for backup of programs |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

| | |
|--|--|
| Data storage equipment | 32 GB micro SD card (optional) |
| Execution time for 1 KInstruction | 0.3 ms for event and periodic task |
| Execution time per instruction | 0.2 µs Boolean |
| Exct time for event task | 60 µs response time |
| Regulation loop | Adjustable PID regulator up to 14 simultaneous loops |
| Control signal type | Quadrature (x1, x2, x4) at 60 kHz for fast input (HSC mode) Pulse/Direction at 60 kHz for fast input (HSC mode) Single phase at 60 kHz for fast input (HSC mode) CW/CCW at 60 kHz for fast input (HSC mode) |
| Counting input number | 2 fast input (HSC mode) at 60 kHz 32 bits |
| Integrated connection type | USB port with mini B USB 2.0 connector Non isolated serial link serial 1 with terminal block connector and RS485 interface Non isolated serial link serial 2 with terminal block connector and RS232/RS485 interface |
| Transmission rate | 1.2...115.2 kbit/s (115.2 kbit/s by default) for bus length of 15 m for RS485 1.2...115.2 kbit/s (115.2 kbit/s by default) for bus length of 3 m for RS232 12 Mbit/s for USB |
| Communication port protocol | USB port: USB - SoMachine-Network Non isolated serial link: Modbus master/slave - RTU/ASCII or SoMachine-Network |
| Local signalling | 1 LED (green) for PWR 1 LED (green) for RUN 1 LED (red) for module error (ERR) 1 LED (green) for SD card access (SD) 1 LED (green) for SL1 1 LED per channel (green) for I/O state |
| Electrical connection | Removable screw terminal blockfor inputs Removable screw terminal blockfor outputs Removable screw terminal block, 4 terminal(s) for connecting the serial link1 Mini B USB 2.0 connectorfor a programming terminal Removable screw terminal block, 3 terminal(s) for connecting the 100-240 V AC power supply |
| Maximum cable distance between devices | Shielded cable: <10 m for fast input Shielded cable: <10 m for high speed input Unshielded cable: <150 m for output Unshielded cable: <50 m for regular input |
| Insulation | Between input and internal logic at 560 V AC Between fast input and internal logic at 560 V AC Between input groups at 560 V AC Non-insulated between inputs Between output and internal logic at 1780 V AC Between output groups at 1780 V AC Between supply and internal logic at 1780 V AC |
| Sensor power supply | 24 V DC |
| Mounting support | Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 plate or panel with fixing kit conforming to IEC 60715 |
| Height | 90 mm |
| Depth | 70 mm |
| Width | 110 mm |
| Product weight | 0.31 kg |

Environment

| | |
|---------------------------------------|---|
| IP degree of protection | IP20 with protective cover in place |
| Product certifications | CE |
| Standards | EN/IEC 61010-2-201 EN/IEC 61131-2 |
| Electromagnetic compatibility | Electrostatic discharge immunity test - test level: 8 kV (air discharge) conforming to EN/IEC 61000-4-2 Electrostatic discharge immunity test - test level: 6 kV (contact discharge) conforming to EN/IEC 61000-4-2 Susceptibility to electromagnetic fields - test level: 10 V/m (80 MHz...3 GHz) conforming to EN/IEC 61000-4-3 Conducted emission - test level: 79 dB μ V/m QP/66 dB μ V/m AV (power lines (AC)) conforming to EN/IEC 55011 Conducted emission - test level: 73 dB μ V/m QP/60 dB μ V/m AV (power lines (AC)) conforming to EN/IEC 55011 Radiated emission - test level: 40 dB μ V/m QP class A (10 m) conforming to EN/IEC 55011 Radiated emission - test level: 47 dB μ V/m QP class A (10 m) conforming to EN/IEC 55011 Magnetic field at power frequency - test level: 30 A/m (I/O) conforming to EN/IEC 61000-4-8 Electrical fast transient/burst immunity test - test level: 2 kV (power lines) conforming to EN/IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 2 kV (relay output) conforming to EN/IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 1 kV (I/O) conforming to EN/IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 1 kV (serial link) conforming to EN/IEC 61000-4-4 1.2/50 μ s shock waves immunity test - test level: 1 kV (power lines (DC)) conforming to EN/IEC 61000-4-5 1.2/50 μ s shock waves immunity test - test level: 2 kV (power lines (AC)) conforming to EN/IEC 61000-4-5 1.2/50 μ s shock waves immunity test - test level: 2 kV (relay output) conforming to EN/IEC 61000-4-5 1.2/50 μ s shock waves immunity test - test level: 1 kV (I/O) conforming to EN/IEC 61000-4-5 1.2/50 μ s shock waves immunity test - test level: 1 kV (shielded cable) conforming to EN/IEC 61000-4-5 1.2/50 μ s shock waves immunity test - test level: 0.5 kV class A (power lines (DC)) conforming to EN/IEC 61000-4-5 1.2/50 μ s shock waves immunity test - test level: 1 kV class A (power lines (AC)) conforming to EN/IEC 61000-4-5 1.2/50 μ s shock waves immunity test - test level: 1 kV (relay output) conforming to EN/IEC 61000-4-5 Conducted RF disturbances - test level: 10 V (0.15...80 MHz) conforming to EN/IEC 61000-4-6 |
| Shock resistance | 15 gn for 11 ms 30 gn for 6 ms |
| Immunity to microbreaks | 10 ms |
| Vibration resistance | 3.5 mm at 5...8.4 Hz on symmetrical rail 1 gn at 8.4...150 Hz on symmetrical rail 3.5 mm at 5...8.4 Hz on panel mounting 3 gn at 8.4...150 Hz on panel mounting |
| Relative humidity | 10...95 %, without condensation (in operation) 10...95 %, without condensation (in storage) |
| Ambient air temperature for operation | 0...55 °C (horizontal installation) |
| Ambient air temperature for storage | -25...70 °C |
| Pollution degree | \leq 2 |
| Operating altitude | 0...2000 m |
| Storage altitude | 0...3000 m |

Packing Units

| | |
|------------------------------|-----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 9.493 cm |
| Package 1 Width | 12.157 cm |
| Package 1 Length | 13.668 cm |
| Package 1 Weight | 450 g |

| | |
|------------------------------|----------|
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 18 |
| Package 2 Height | 30 cm |
| Package 2 Width | 30 cm |
| Package 2 Length | 40 cm |
| Package 2 Weight | 8600 g |
| Unit Type of Package 3 | P12 |
| Number of Units in Package 3 | 432 |
| Package 3 Height | 95 cm |
| Package 3 Width | 80 cm |
| Package 3 Length | 120 cm |
| Package 3 Weight | 215400 g |

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 |
| China RoHS Regulation | China RoHS Declaration |
| RoHS exemption information | Yes |
| 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 |

Dimensions Drawings

Dimensions

