



Main

| | |
|---------------------------|---|
| Range of Product | Modicon TM5 |
| Product or Component Type | Analog input module |
| Analogue input number | 6 |
| Analogue input type | Thermocouple - 210...1200 °C thermocouple J Thermocouple - 270...1300 °C thermocouple N Thermocouple - 270...1372 °C thermocouple K Thermocouple - 50...1768 °C thermocouple S |
| Analogue input resolution | 16 bits |

Complementary

| | |
|--------------------------------|--|
| Range Compatibility | Modicon LMC058 Modicon M258 |
| Product Compatibility | Logic controller Motion controller |
| Measurement resolution | 0.1 °C |
| Color | White |
| Input filtering | 1...66.7 ms configurable by software |
| Measurement error | +/- 0.1 % of full scale - 210...1200 °C thermocouple J 25 °C +/- 0.11 % of full scale - 270...1300 °C thermocouple N 25 °C +/- 0.11 % of full scale - 270...1372 °C thermocouple K 25 °C +/- 0.17 % of full scale - 50...1768 °C thermocouple S 25 °C |
| Temperature coefficient | 0.01 %FS/°C thermocouple |
| Non-linearity | +/- 0.001 %FS thermocouple |
| Type of Cable | Shielded cable |
| Isolation | No insulation between channels 500 Vrms AC insulation between channel and bus |
| Supply | Internal |
| [Us] rated supply voltage | 24 V DC -15...20 % |
| Common mode rejection | > 70 dB |
| Local signalling | 1 LED green power supply 1 LED red power supply 6 LEDs green input status |
| Current consumption | 2 mA 5 V DC bus 38 mA 24 V DC input/output |
| Maximum power dissipation in W | 0.92 W |
| Marking | CE |
| Net Weight | 0.06 lb(US) (0.025 kg) |

Environment

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|---------------------------------------|--|
| Standards | IEC 61131-2 CSA C22.2 No 213 UL 508 CSA C22.2 No 142 |
| Product Certifications | CSA GOST-R CULus C-tick |
| Ambient air temperature for operation | 32...131 °F (0...55 °C) without derating horizontal installation) 32...140 °F (0...60 °C) with derating factor horizontal installation) 32...122 °F (0...50 °C) vertical installation) |
| Ambient Air Temperature for Storage | -13...158 °F (-25...70 °C) |
| Relative humidity | 5...95 % without condensation |
| IP degree of protection | IP20IEC 61131-2 |
| Pollution degree | 2 IEC 60664 |
| Operating altitude | 0...6561.68 ft (0...2000 m) |
| Storage altitude | 0.00...9842.52 ft (0...3000 m) |
| Vibration resistance | 1 gn 8.4...150 Hz DIN rail 3.5 mm 5...8.4 Hz DIN rail |
| Shock resistance | 15 gn 11 ms |
| Resistance to electrostatic discharge | 4 KV on contact EN/IEC 61000-4-2 8 kV in air EN/IEC 61000-4-2 |
| Resistance to electromagnetic fields | 0.91 V/m (1 V/m) 2...2.7 GHz EN/IEC 61000-4-3 9.14 V/m (10 V/m) 80...2000 MHz EN/IEC 61000-4-3 |
| Resistance to fast transients | 1 KV EN/IEC 61000-4-4 I/O) 1 KV EN/IEC 61000-4-4 shielded cable) 2 kV EN/IEC 61000-4-4 power lines) |
| Surge withstand | 0.5 KV differential mode EN/IEC 61000-4-5 1 kV common mode EN/IEC 61000-4-5 |
| Electromagnetic compatibility | EN/IEC 61000-4-6 |
| Disturbance radiated/conducted | CISPR 11 |

Ordering and shipping details

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|-----------------------|------------------|
| Category | 22532 - M258 PLC |
| Discount Schedule | PC12 |
| GTIN | 3595864074788 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 1.45 oz (41 g) |
| Returnability | No |
| Country of origin | AT |

Packing Units

| | |
|------------------------------|-----------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 0.79 in (2 cm) |
| Package 1 width | 2.36 in (6 cm) |
| Package 1 Length | 4.13 in (10.5 cm) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 97 |
| Package 2 Weight | 9.44 lb(US) (4.28 kg) |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |

Offer Sustainability

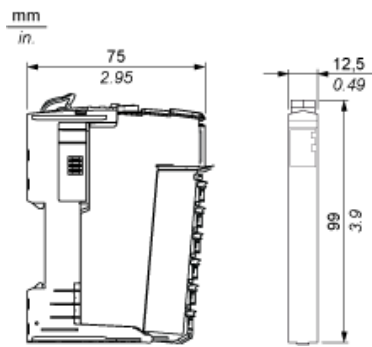
| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |
| REACH Regulation | REACH Declaration |
| REACH free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Toxic heavy metal free | Yes |
| 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. |
| PVC free | Yes |

Contractual warranty

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|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

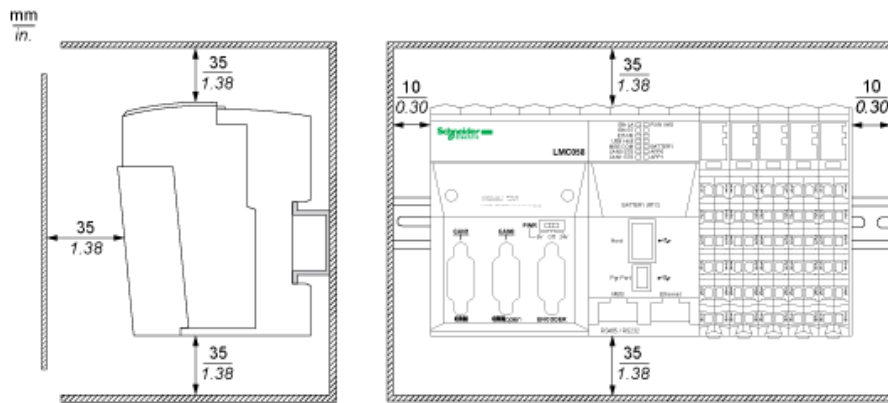
TM5 Slice

Dimensions

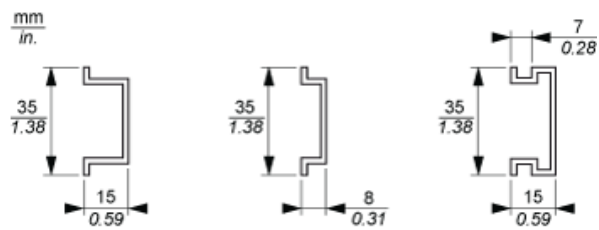


TM5 System

Spacing Requirements







Mounting on a DIN Rail



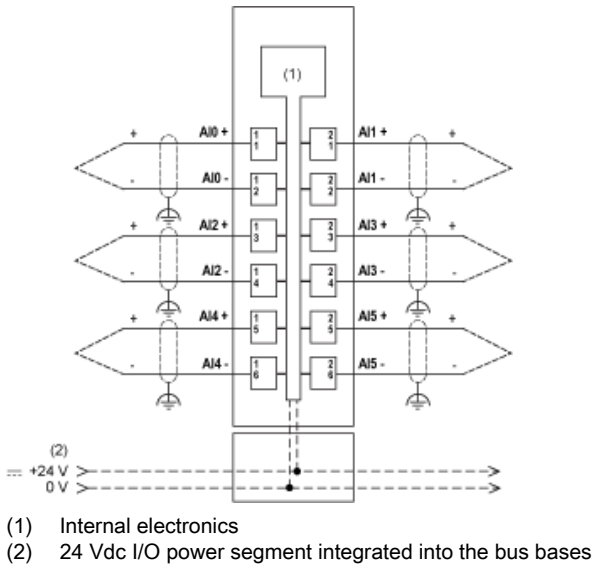
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

| mm in. |  |  |  |  |
|-----------------|---|---|---|---|
| mm ² | 0,08...2,5 | 0,25...2,5 | 0,25...1,5 | 2 x 0,25...2 x 0,75 |
| AWG | 28...14 | 24...14 | 24...16 | 2 x 24...2 x 18 |

Electronic Module 6AI Thermocouple J/K/N/S 16 Bits

Wiring Diagram



Ceramic Heating Element with Integrated Thermo Elements

Ripple voltage effects can potentially cause measurement errors.

The following figure shows the wiring diagram with a PDM:

