



Main

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|---------------------------|---|
| Range of product | Modicon TM5 |
| Product or component type | Analog input module |
| Analogue input number | 4 |
| Analogue input type | Current 0...20 mA, differential Voltage +/- 10 V, differential |
| Analogue input resolution | 15 bits + sign +/- 10 V 15 bits 0...20 mA |

Complementary

| | |
|---------------------------|--|
| Range compatibility | Modicon LMC058 Modicon M258 |
| Product compatibility | Motion controller Logic controller |
| Measurement resolution | 305 μ V, +/- 10 V 610 nA, 0...20 mA |
| Color | White |
| Input impedance | \geq 20 mOhm voltage |
| Load impedance ohmic | \leq 400 Ohm (current) |
| Sampling duration | 50 μ s |
| Measurement error | $<$ 0.08 % of full scale, +/- 10 V, +/- 10 V at 25 °C $<$ 0.08 % of full scale, 0...20 mA, 0...20 mA at 25 °C |
| Temperature coefficient | 0.01 %FS/°C |
| Non-linearity | $<$ 0.01 %FS, analogue input type: voltage $<$ 0.015 %FS, analogue input type: current |
| 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 4 LEDs green input status |
| Current consumption | 2 mA 5 V DC bus 63 mA 24 V DC input/output |
| Power dissipation in W | \leq 1.51 W |
| Marking | CE |
| Product weight | 0.06 lb(US) (0.025 kg) |

Environment

| | |
|---------------------------------------|---|
| standards | CSA C22.2 No 142 IEC 61131-2 UL 508 CSA C22.2 No 213 |
| product certifications | CSA C-Tick CULus GOST-R |
| ambient air temperature for operation | 32...122 °F (0...50 °C) (vertical installation) |

| | |
|---------------------------------------|---|
| | 32...131 °F (0...55 °C) without derating factor (horizontal installation) 32...140 °F (0...60 °C) with derating factor (horizontal installation) |
| ambient air temperature for storage | -13...158 °F (-25...70 °C) |
| relative humidity | 5...95 % without condensation |
| IP degree of protection | IP20 conforming to IEC 61131-2 |
| pollution degree | 2 conforming to IEC 60664 |
| operating altitude | 0...6561.68 ft (0...2000 m) |
| storage altitude | 0...9842.52 ft (0...3000 m) |
| vibration resistance | 1 gn (f= 8.4...150 Hz) DIN rail 3.5 mm (f= 5...8.4 Hz) DIN rail |
| shock resistance | 15 gn 11 ms |
| resistance to electrostatic discharge | 4 kV on contact conforming to EN/IEC 61000-4-2 8 kV in air conforming to EN/IEC 61000-4-2 |
| resistance to electromagnetic fields | 0.91 V/yd (1 V/m) 2...2.7 GHz conforming to EN/IEC 61000-4-3 9.14 V/yd (10 V/m) 80...2000 MHz conforming to EN/IEC 61000-4-3 |
| resistance to fast transients | 1 kV I/O conforming to EN/IEC 61000-4-4 1 kV shielded cable conforming to EN/IEC 61000-4-4 2 kV power lines conforming to EN/IEC 61000-4-4 |
| surge withstand | 0.5 kV differential mode conforming to EN/IEC 61000-4-5 1 kV common mode conforming to EN/IEC 61000-4-5 |
| electromagnetic compatibility | EN/IEC 61000-4-6 |
| disturbance radiated/conducted | CISPR 11 |

Offer Sustainability

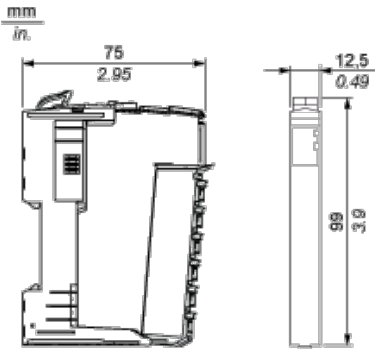
| | |
|--|--|
| Green Premium product | Green Premium product |
| Compliant - since 1039 - Schneider Electric declaration of conformity | Compliant - since 1039 - Schneider Electric declaration of conformity |
| Reference not containing SVHC above the threshold | Reference not containing SVHC above the threshold |
| Available | Available |
| Available | Available |
| WARNING: This product can expose you to chemicals including: | 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. | 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 | For more information go to www.p65warnings.ca.gov |

Contractual warranty

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

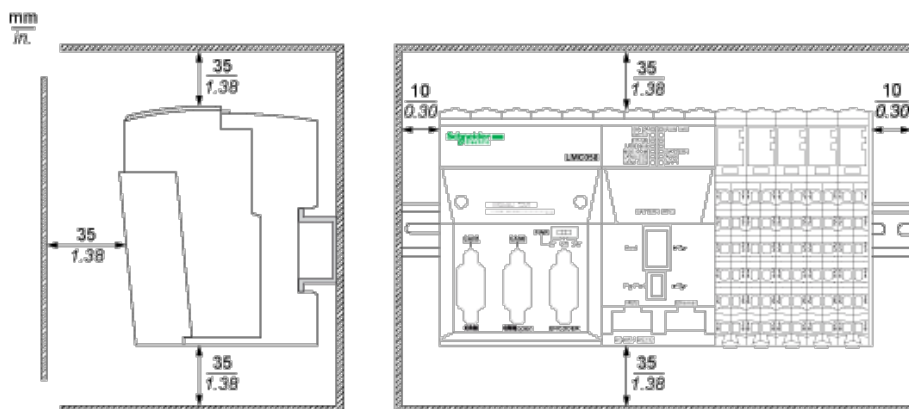
TM5 Slice

Dimensions

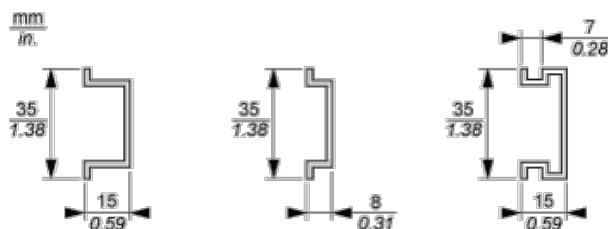


TM5 System

Spacing Requirements



Mounting on a DIN Rail



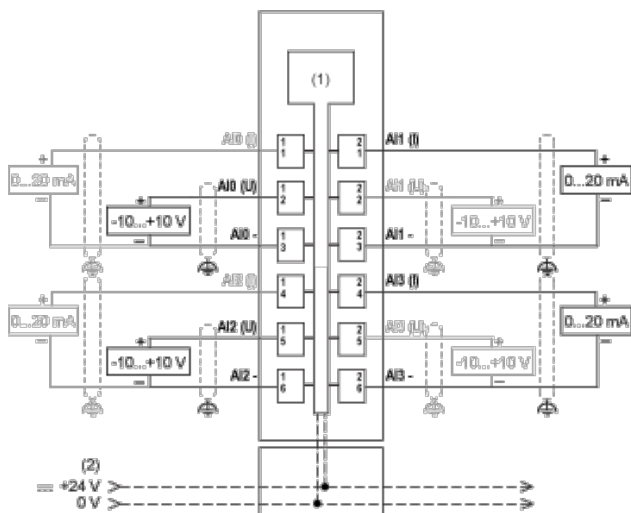
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

| mm in. | 9 0.35 | | | | |
|-----------------|------------|------------|------------|---------------------|--|
| 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 4AI ±10V/0-20mA 16 Bits

Wiring Diagram



- (1) Internal electronics
- (2) 24 Vdc I/O power segment integrated into the bus bases
- (I) Current
- (U) Voltage

Condition of Installation

Do not place 16-bit analog input modules side-by-side because their electromagnetic characteristics may lead to mutual interference and possible unintended equipment operation. Further, other types of equipments can generate similar electromagnetic interference affecting the conversion accuracy of the modules. In the physical configuration, a single slice of non-interfering equipment is sufficient to avoid this type of disturbance. Separate the 16-bit analog modules from each other and from the following equipment:

- TM5SBER2 Bus receiver

- | TM5SPS2 and TM5SPS2F Power Distribution Modules
- | TM258... and LMC058... Controllers