



## Main

|                           |                                                                           |
|---------------------------|---------------------------------------------------------------------------|
| Range of product          | Modicon TM5                                                               |
| Product or component type | Analog input module                                                       |
| Analogue input number     | 4                                                                         |
| Analogue input type       | Voltage +/- 10 V differential<br>Current 0...20 mA/4...20 mA differential |
| Analogue input resolution | 12 bits + sign +/- 10 V<br>12 bits 0...20 mA/4...20 mA                    |

## Complementary

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Range compatibility            | Modicon M258<br>Modicon LMC058                                                                                    |
| Product compatibility          | Motion controller<br>Logic controller                                                                             |
| Measurement resolution         | 2.441 mV, +/- 10 V<br>4.883 µA, 0...20 mA/4...20 mA                                                               |
| Colour                         | White                                                                                                             |
| Input impedance                | >= 20 mOhm voltage                                                                                                |
| Load impedance ohmic           | <= 400 Ohm (current)                                                                                              |
| Sampling duration              | 1 Ms, analogue input type: all inputs with filtering<br>400 µs, analogue input type: all inputs without filtering |
| Measurement error              | < 0.08 % of full scale +/- 10 V +/- 10 V at 25 °C<br>< 0.08 % of full scale 0...20 mA/4...20 mA at 25 °C          |
| Temperature coefficient        | +/- 0.009 %FS/°C, analogue input type: current<br>+/- 0.006 %FS/°C, analogue input type: voltage                  |
| Non-linearity                  | < 0.025 %FS, analogue input type: voltage<br>< 0.05 %FS, analogue input type: current                             |
| Type of cable                  | Shielded cable                                                                                                    |
| Isolation                      | No insulation between channels<br>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 for power supply<br>1 LED red for power supply<br>4 LEDs green for input status                       |
| Current consumption            | 2 mA at 5 V DC bus<br>46 mA at 24 V DC input/output                                                               |
| Maximum power dissipation in W | 1.11 W                                                                                                            |
| Marking                        | CE                                                                                                                |
| Net weight                     | 0.025 kg                                                                                                          |

## Environment

|                                       |                                                                                                                                                        |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                             | CSA C22.2 No 213<br>IEC 61131-2<br>UL 508<br>CSA C22.2 No 142                                                                                          |
| Product certifications                | CSA<br>CULus<br>GOST-R<br>C-Tick                                                                                                                       |
| Ambient air temperature for operation | 0...55 °C without derating (horizontal installation)<br>0...60 °C with derating factor (horizontal installation)<br>0...50 °C (vertical installation)  |
| Ambient air temperature for storage   | -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...2000 m                                                                                                                                             |
| Storage altitude                      | 0...3000 m                                                                                                                                             |
| Vibration resistance                  | 1 gn at 8.4...150 Hz on DIN rail<br>3.5 mm at 5...8.4 Hz on DIN rail                                                                                   |
| Shock resistance                      | 15 gn for 11 ms                                                                                                                                        |
| Resistance to electrostatic discharge | 4 kV on contact conforming to EN/IEC 61000-4-2<br>8 kV in air conforming to EN/IEC 61000-4-2                                                           |
| Resistance to electromagnetic fields  | 1 V/m 2...2.7 GHz conforming to EN/IEC 61000-4-3<br>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<br>1 kV (shielded cable) conforming to EN/IEC 61000-4-4<br>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<br>1 kV common mode conforming to EN/IEC 61000-4-5                                             |
| Electromagnetic compatibility         | EN/IEC 61000-4-6                                                                                                                                       |
| Disturbance radiated/conducted        | CISPR 11                                                                                                                                               |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 41 g    |
| Package 1 Height             | 2 cm    |
| Package 1 width              | 6 cm    |
| Package 1 Length             | 10.5 cm |

## Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| REACH free of SVHC         | Yes                                                                                                                         |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                              |
| Toxic heavy metal free     | Yes                                                                                                                         |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                      |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                                                     |
| 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

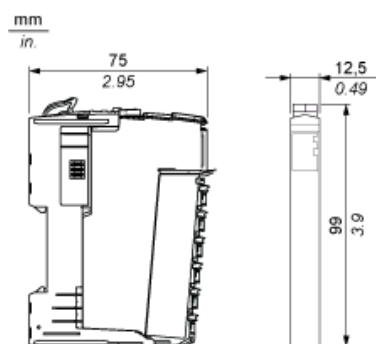
|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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TM5 Slice

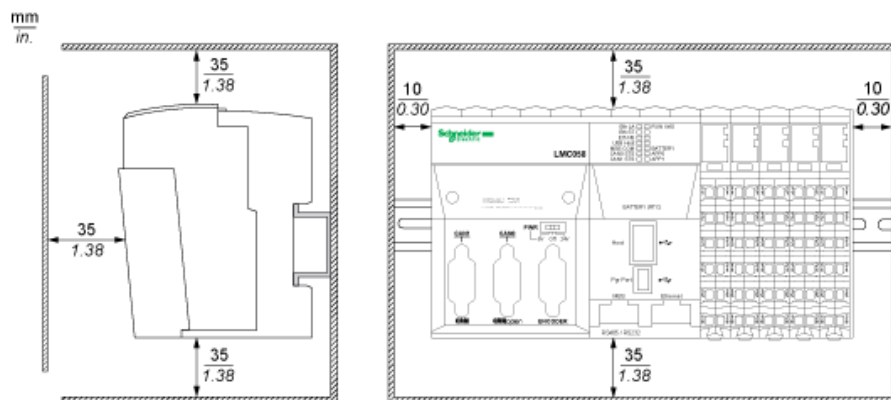
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Dimensions

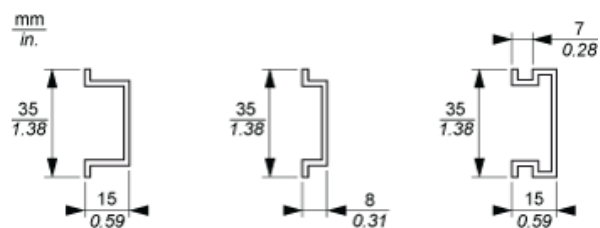


## TM5 System

### Spacing Requirements



### Mounting on a DIN Rail



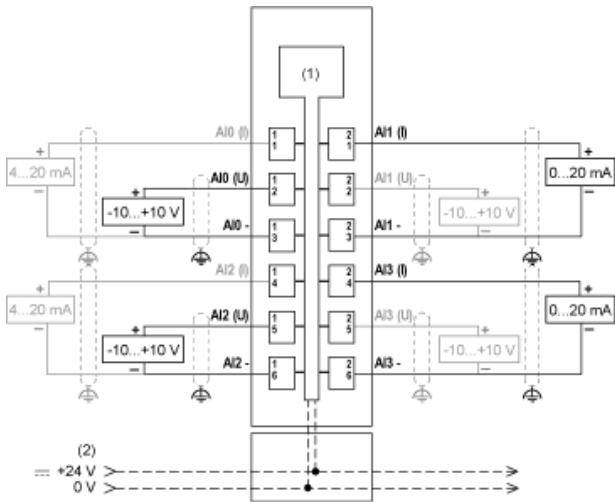
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

| <div>mm</div> <div>in.</div> |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| mm <sup>2</sup>              | 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/4-20mA 12 Bits

Wiring Diagram



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