



## Main

|                           |   |
|---------------------------|---|
| Range of Product          | Modicon TM5   |
| Product or Component Type | Analog input module   |
| Analogue input number     | 2   |
| Analogue input type       | Current 0...20 mA differential<br>Voltage +/- 10 V differential |
| Analogue input resolution | 15 bits + sign +/- 10 V<br>15 bits 0...20 mA                    |

## Complementary

|                                |  |
|--------------------------------|--|
| Range Compatibility            | Modicon LMC058<br>Modicon M258   |
| Product Compatibility          | Logic controller<br>Motion controller  |
| Measurement resolution         | 305 $\mu$ V, +/- 10 V<br>610 nA, 0...20 mA   |
| Color                          | White  |
| Input impedance                | $\geq$ 20 mOhm voltage   |
| Load impedance ohmic           | $\leq$ 400 Ohm current)  |
| Sampling duration              | 50 $\mu$ s   |
| Measurement error              | $<$ 0.08 % of full scale +/- 10 V +/- 10 V 25 $^{\circ}$ C<br>$<$ 0.08 % of full scale 0...20 mA 0...20 mA 25 $^{\circ}$ C |
| Temperature coefficient        | 0.01 %FS/ $^{\circ}$ C   |
| Non-linearity                  | $<$ 0.01 %FS voltage<br>$<$ 0.015 %FS current  |
| Type of Cable                  | Shielded cable   |
| Isolation                      | 500 Vrms AC insulation between channel and bus<br>No insulation between channels   |
| Supply                         | Internal   |
| [Us] rated supply voltage      | 24 V DC -15...20 %   |
| Common mode rejection          | $>$ 70 dB  |
| Local signalling               | 1 LED green power supply<br>1 LED red power supply<br>2 LEDs green input status  |
| Current consumption            | 2 mA 5 V DC bus<br>50 mA 24 V DC input/output  |
| Maximum power dissipation in W | 1.21 W   |
| Marking                        | CE   |
| Net Weight                     | 0.06 lb(US) (0.025 kg)   |

## Environment

|                                       |  |
|---------------------------------------|--|
| Standards                             | CSA C22.2 No 142<br>IEC 61131-2<br>UL 508<br>CSA C22.2 No 213  |
| Product Certifications                | C-tick<br>GOST-R<br>CULus<br>CSA   |
| Ambient air temperature for operation | 32...131 °F (0...55 °C) without derating horizontal installation)<br>32...140 °F (0...60 °C) with derating factor horizontal installation)<br>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<br>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<br>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<br>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)<br>1 KV EN/IEC 61000-4-4 shielded cable)<br>2 kV EN/IEC 61000-4-4 power lines)  |
| Surge withstand                       | 0.5 KV differential mode EN/IEC 61000-4-5<br>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

|                       |                  |
|-----------------------|------------------|
| Category              | 22532 - M258 PLC |
| Discount Schedule     | PC12             |
| GTIN                  | 3595864074726    |
| 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             | 9.48 lb(US) (4.3 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| 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

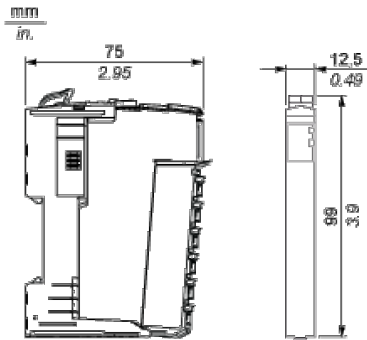
|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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TM5 Slice

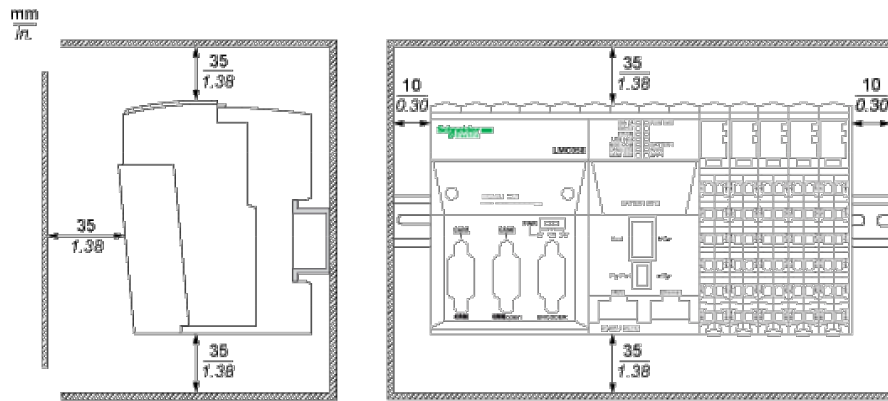
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Dimensions

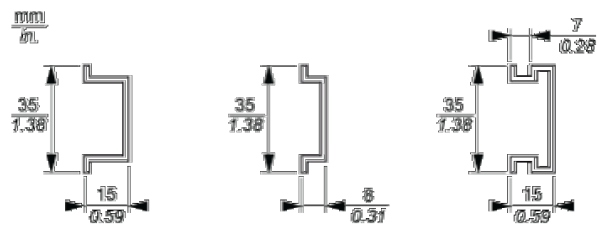


TM5 System

Spacing Requirements






Mounting on a DIN Rail



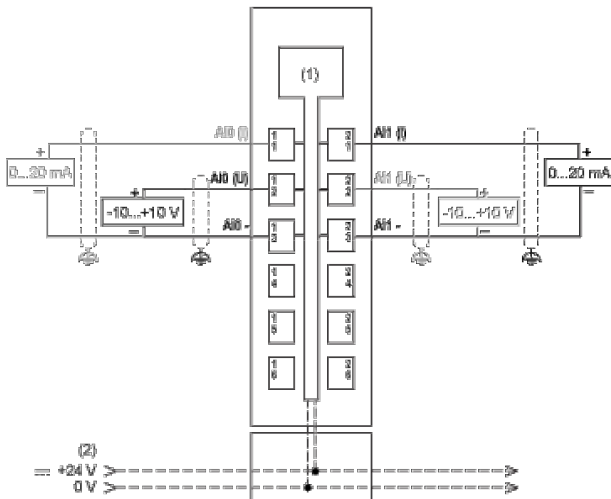
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

| mm<br>in        |  |  |  |  |
|-----------------|---|---|---|---|
| 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 2AI ±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