

Product data sheet

Specifications



analog input module, Modicon TM5, 4I, +/-10V, 0 to 20mA, 4 to 20mA, 12bits

TM5SAI4L

Product availability: Stock - Normally stocked in distribution facility

Main

| | |
|---------------------------|---|
| Range of Product | Modicon TM5 |
| Product or Component Type | Analog input module |
| Analogue input number | 4 |
| Analogue input type | voltage +/- 10 V differential current 0...20 mA/4...20 mA differential |
| Analogue input resolution | 12 bits + sign +/- 10 V 12 bits 0...20 mA/4...20 mA |

Complementary

| | |
|---|--|
| Range Compatibility | Modicon M258 Modicon LMC058 |
| Product Compatibility | Motion controller Logic controller |
| Measurement resolution | 2.441 mV, +/- 10 V 4.883 µA, 0...20 mA/4...20 mA |
| Color | White |
| Input impedance | >= 20 mOhm voltage |
| Load impedance ohmic | <= 400 Ohm current) |
| Sampling duration | 1 ms all inputs with filtering 400 µs all inputs without filtering |
| Measurement error | < 0.08 % of full scale +/- 10 V +/- 10 V 25 °C < 0.08 % of full scale 0...20 mA/4...20 mA 25 °C |
| Temperature coefficient | +/- 0.009 %FS/°C current +/- 0.006 %FS/°C voltage |
| Non-linearity | < 0.025 %FS voltage < 0.05 %FS 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 % |
| EMI/RFI Noise rejection (100 kHz to 10 MHz) | > 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 46 mA 24 V DC input/output |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| | |
|--------------------------------|-------------------------|
| Maximum power dissipation in W | 1.11 W |
| Marking | CE |
| Net Weight | 0.055 lb(US) (0.025 kg) |

Environment

| | |
|---------------------------------------|--|
| Standards | CSA C22.2 No 213 IEC 61131-2 UL 508 CSA C22.2 No 142 |
| Product Certifications | CSA cULus GOST-R 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...9842.5 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 IEC 61000-4-2 8 kV in air IEC 61000-4-2 |
| Resistance to electromagnetic fields | 0.9 V/m (1 V/m) 2...2.7 GHz IEC 61000-4-3 9.1 V/m (10 V/m) 80...2000 MHz IEC 61000-4-3 |
| Resistance to fast transients | 1 kV IEC 61000-4-4 I/O) 1 kV IEC 61000-4-4 shielded cable) 2 kV IEC 61000-4-4 power lines) |
| Surge withstand | 0.5 kV differential mode IEC 61000-4-5 1 kV common mode IEC 61000-4-5 |
| Electromagnetic compatibility | EN/IEC 61000-4-6 |
| Disturbance radiated/conducted | CISPR 11 |

Ordering and shipping details

| | |
|-------------------|---------------|
| Category | US1PC1222532 |
| Discount Schedule | PC12 |
| GTIN | 3595864074733 |
| Returnability | Yes |
| Country of origin | AT |

Packing Units

| | |
|------------------------|---------------------|
| Unit Type of Package 1 | PCE |
| Nbr. of units in pkg. | 1 |
| Package 1 Height | 0.827 in (2.100 cm) |

| | |
|-------------------------------------|-------------------------|
| Package 1 Width | 2.402 in (6.100 cm) |
| Package 1 Length | 4.252 in (10.800 cm) |
| Package weight(Lbs) | 1.376 oz (39.000 g) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 97 |
| Package 2 Height | 5.906 in (15.000 cm) |
| Package 2 Width | 11.811 in (30.000 cm) |
| Package 2 Length | 15.748 in (40.000 cm) |
| Package 2 Weight | 9.189 lb(US) (4.168 kg) |

Contractual warranty

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



Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint

[Environmental Disclosure](#)

[Product Environmental Profile](#)

Use Better

Materials and Substances

Packaging made with recycled cardboard

No

Packaging without single use plastic

Yes

[EU RoHS Directive](#)

Pro-active compliance (Product out of EU RoHS legal scope)

REACH Regulation

[REACH Declaration](#)

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

PVC free

Yes

Use Again

Repack and remanufacture

[Circularity Profile](#)

[End of Life Information](#)

Take-back

No

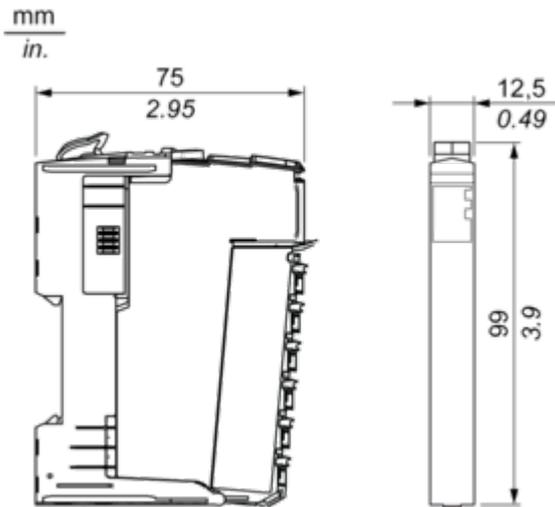
WEEE Label

 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

TM5 Slice

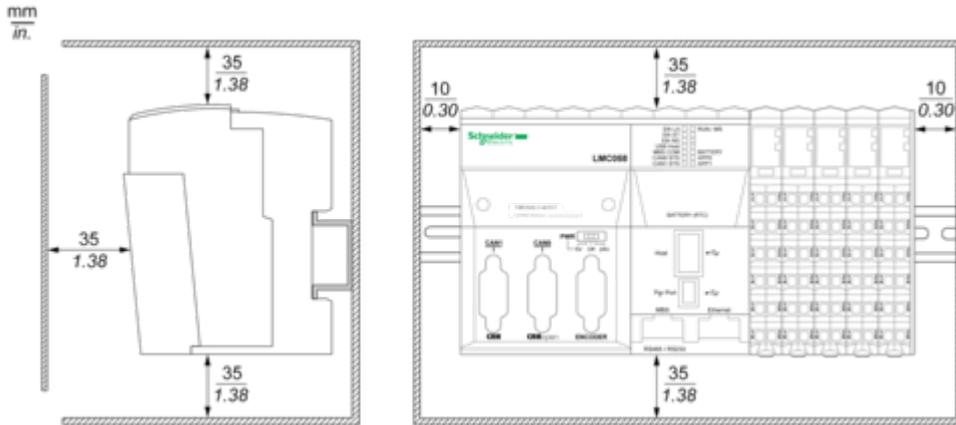
Dimensions



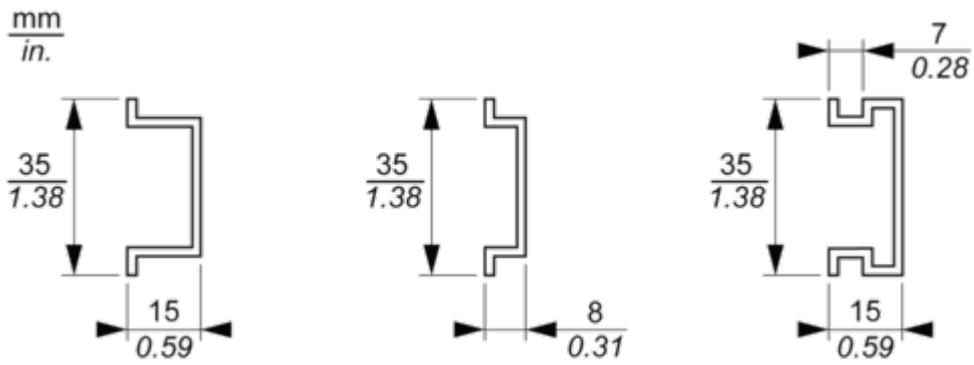
Mounting and Clearance

TM5 System

Spacing Requirements



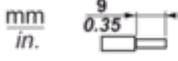
Mounting on a DIN Rail



Connections and Schema

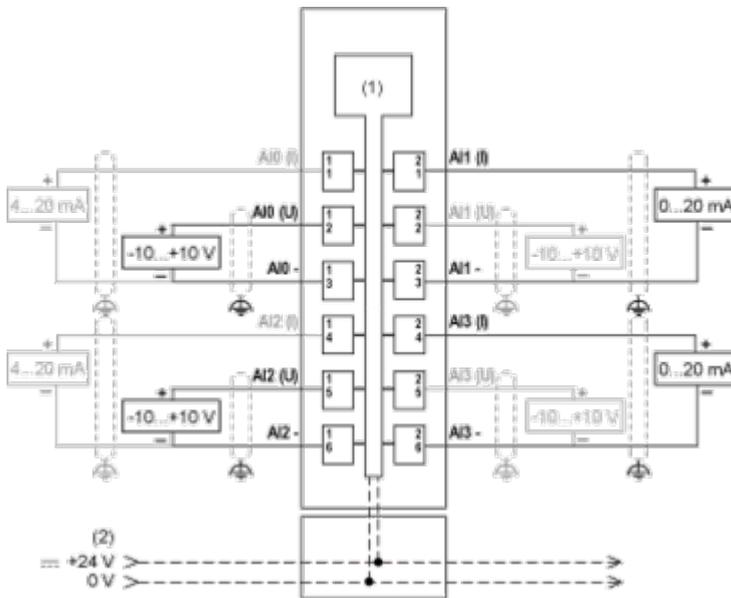
TM5 System Wiring Recommendations

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 4AI $\pm 10V/0-20mA/4-20mA$ 12 Bits

Wiring Diagram



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