

# Product data sheet

Specifications



## Discrete I/O module, Modicon TM5, Digital input/output 4DI/4DO 24 V dcTime stamp 1 wire

TM5SDM8DTS

### Main

|                           |                     |
|---------------------------|---------------------|
| Range of product          | Modicon TM5         |
| Product or component type | Discrete I/O module |
| Discrete input number     | 4                   |
| Discrete input voltage    | 24 V                |
| Discrete output number    | 4                   |
| Discrete output type      | Transistor          |

### Complementary

|                                   |                                                                                          |
|-----------------------------------|------------------------------------------------------------------------------------------|
| Range compatibility               | PacDrive LMC motion controller                                                           |
| Product compatibility             | PacDrive LMC Pro 2<br>PacDrive LMC Pro<br>PacDrive LMC Eco                               |
| Discrete input voltage type       | DC                                                                                       |
| Input voltage limits              | 20.4...28.8 V                                                                            |
| Discrete input logic              | Sink                                                                                     |
| Discrete input current            | 1.3 mA                                                                                   |
| Input impedance                   | 18.4 kOhm                                                                                |
| Output voltage                    | 24 V DC                                                                                  |
| Output voltage limits             | 20.4...28.8 V                                                                            |
| Discrete output logic             | Source                                                                                   |
| Current per channel               | 0.1 A                                                                                    |
| Maximum current per output common | 0.4 A                                                                                    |
| Colour                            | White                                                                                    |
| Peak output current               | 0.4 A                                                                                    |
| Switching frequency               | <= 16 kHz resistive load                                                                 |
| Input filtering                   | >= 2 µs hardware                                                                         |
| Response time                     | <= 2 µs from state 0 to state 1 for output<br><= 2 µs from state 1 to state 0 for output |
| Maximum leakage current           | 25 µA when switched off                                                                  |
| Protection type                   | Overload protection<br>Short-circuit protection                                          |

|                                    |                                                                                              |
|------------------------------------|----------------------------------------------------------------------------------------------|
|                                    | Inductive overvoltage                                                                        |
| Isolation                          | No insulation between channels<br>500 Vrms AC insulation between channel and bus             |
| Maximum voltage drop               | <0.9 V at 0.1 A for output                                                                   |
| Maximum supply current for sensors | 600 mA                                                                                       |
| Current consumption                | 2 mA at 5 V DC bus<br>62.5 mA at 24 V DC input/output                                        |
| Maximum power dissipation in W     | 1.51 W                                                                                       |
| Local signalling                   | 1 LED green for power supply<br>1 LED red for power supply<br>8 LEDs for input/output status |
| Electrical connection              | 1 wire                                                                                       |
| Net weight                         | 0.025 kg                                                                                     |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                             | UL 508<br>CSA C22.2 No 142<br>EN/IEC 61131-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product certifications                | EAC<br>cULus<br>CE<br>C-Tick                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ambient air temperature for operation | -10...60 °C with derating factor (horizontal installation)<br>-10...50 °C with derating factor (vertical installation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Ambient air temperature for storage   | -40...70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Relative humidity                     | 5...95 % without condensation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| IP degree of protection               | IP20 conforming to EN/IEC 60529                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Pollution degree                      | 2 conforming to EN/IEC 61131-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Electromagnetic compatibility         | Electrostatic discharge immunity test, 4 kV on contact conforming to EN/IEC 61000-4-2<br>Electrostatic discharge immunity test, 8 kV in air conforming to EN/IEC 61000-4-2<br>Susceptibility to electromagnetic fields, 10 V/m 80...2000 MHz conforming to EN/IEC 61000-4-3<br>Electrical fast transient/burst immunity test, 1 kV I/O conforming to EN/IEC 61000-4-4<br>Electrical fast transient/burst immunity test, 1 kV shielded cable conforming to EN/IEC 61000-4-4<br>Electrical fast transient/burst immunity test, 2 kV power lines conforming to EN/IEC 61000-4-4<br>1.2/50 µs shock waves immunity test, 0.5 kV differential mode conforming to EN/IEC 61000-4-5<br>1.2/50 µs shock waves immunity test, 1 kV common mode conforming to EN/IEC 61000-4-5<br>Conducted RF disturbances conforming to EN/IEC 61000-4-6<br>Conducted and radiated emissions conforming to CISPR 11 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 2.0 cm  |
| Package 1 Width              | 6.0 cm  |
| Package 1 Length             | 11.0 cm |
| Package 1 Weight             | 39.0 g  |
| Unit Type of Package 2       | S02     |
| Number of Units in Package 2 | 42      |

|                  |          |
|------------------|----------|
| Package 2 Height | 15.0 cm  |
| Package 2 Width  | 30.0 cm  |
| Package 2 Length | 40.0 cm  |
| Package 2 Weight | 1.638 kg |

Recommended replacement(s)