



Main

| | |
|------------------------------|------------------------------------|
| Range of product | Modicon M258 |
| Product or component type | Logic controller |
| Product specific application | For solutions |
| Software function | Applicatives functions blocks |
| Discrete I/O number | 66 |
| Analogue input number | 4 |
| Discrete output number | 24 for output 4 for fast output |

Complementary

| | |
|-----------------------------|---|
| Discrete input number | 10 for fast input 24 for input 4 for regular input |
| Discrete input logic | Sink for fast input Sink for regular input Source for input |
| Discrete input voltage | 24 V |
| Discrete input voltage type | DC |
| Analogue input type | Current 0...20 mA Current 4...20 mA Voltage +/- 10 V |
| Analogue input resolution | 12 bits |
| Voltage state 1 guaranteed | >= 15 V for fast input >= 15 V for fast output >= 15 V for regular input |
| Voltage state 0 guaranteed | <= 5 V for fast input <= 5 V for fast output <= 5 V for regular input |
| Discrete input current | 4 mA for fast input 4 mA for regular input |
| Input impedance | 6 kOhm for fast input 6 kOhm for regular input |
| Configurable filtering time | 0 ms for fast input/regular input and fast output 1.5 ms for fast input/regular input and fast output 12 ms for fast input/regular input and fast output 4 ms for fast input/regular input and fast output |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---|--|
| Anti bounce filtering | 2 μ s...4 ms (configurable) fast input/regular input and fast output |
| Cable distance between devices | 30 m for fast input 30 m for fast output 30 m for regular input |
| Isolation between channels and internal logic | 500 Vrms AC |
| Isolation between channels | None |
| Discrete output logic | Source |
| Discrete output voltage | 24 V DC |
| Output voltage limits | 19.2...28.8 V |
| Discrete output current | 4 mA for fast output |
| [Us] rated supply voltage | 24 V DC for embedded expert modules power 24 V DC for I/O power segment 24 V DC for main supply |
| Supply voltage limits | 20.4...28.8 V |
| [In] rated current | 0.04 A for embedded expert modules power 0.31 A for main supply 10 A for I/O power segment |
| Peak current | \leq 100 kA during \leq 70 s main supply \leq 25 kA during \leq 500 s I/O power segment \leq 50 kA during \leq 150 s embedded expert modules power 1.2 A during $>$ 70 s main supply |
| Power consumption in W | \leq 18.11 W |
| Execution time per instruction | 22 ns : Boolean |
| Memory description | Flash 128 MB Internal RAM 64 MB |
| Realtime clock | With user calibration realtime clock, drift: \leq 6 s/month Without any user calibration realtime clock, drift: $<$ 30 s/month at 25 °C |
| Data backed up | Variables of type retain and retain persistent CR2477M Renata, 1.5 years autonomy |
| Integrated connection type | 1 CANopen male SUB-D 9, CANopen master 1 isolated serial link female RJ45, Ethernet Modbus TCP/IP slave (10BASE-T/100BASE-TX) 2 free slots PCI 1 isolated serial link female RJ45, Modbus master/slave RTU/ASCII or character mode ASCII (RS232/RS485), 300...115200 bps 1 isolated serial link mini B USB, 480 Mbit/s 1 isolated serial link USB type A, 480 Mbit/s |
| Transmission rate | 125 kbit/s for bus length of 500 m, CANopen 250 kbit/s for bus length of 250 m, CANopen 50 kbit/s for bus length of 1000 m, CANopen 500 kbit/s for bus length of 100 m, CANopen 10 kbit/s for bus length of 5000 m, CANopen 1000 kbit/s for bus length of 4 m, CANopen 20 kbit/s for bus length of 2500 m, CANopen 800 kbit/s for bus length of 25 m, CANopen |
| Counting input number | 8 counting input(s) 200 kHz |
| Local signalling | 1 LED per channel for I/O state 1 LED for CAN0 STS 1 LED for MBS COM 1 LED green/red for APP0 1 LED green/red for APP1 1 LED green/red for Eth NS (Ethernet network status) 1 LED green/red for Eth ST (Ethernet status) 1 LED green/red for RUN/MS (module status) 1 LED green/red for USB host 1 LED green/yellow for Eth LA (Ethernet activity) 1 LED red for BATT (battery status) |
| Marking | CE |
| Mounting support | Symmetrical DIN rail |
| Width | 262.5 mm |
| Height | 99 mm |
| Depth | 85 mm |
| Product weight | 0.8 kg |

Environment

| | |
|---------------------------------------|--|
| Standards | IEC 61131-2 CSA C22.2 No 213 UL 508 CSA C22.2 No 142 |
| Product certifications | GOST-R CSA cULus C-Tick |
| Ambient air temperature for operation | 0...55 °C without derating factor horizontal installation 0...60 °C with derating factor horizontal installation 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 8.4...150 Hz DIN rail 3.5 mm 5...8.4 Hz DIN rail |
| Shock resistance | 15 gn for 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 | 1 V/m 2...2.7 GHz conforming to EN/IEC 61000-4-3 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 |
| Disturbance radiated/conducted | CISPR 11 |

Offer Sustainability

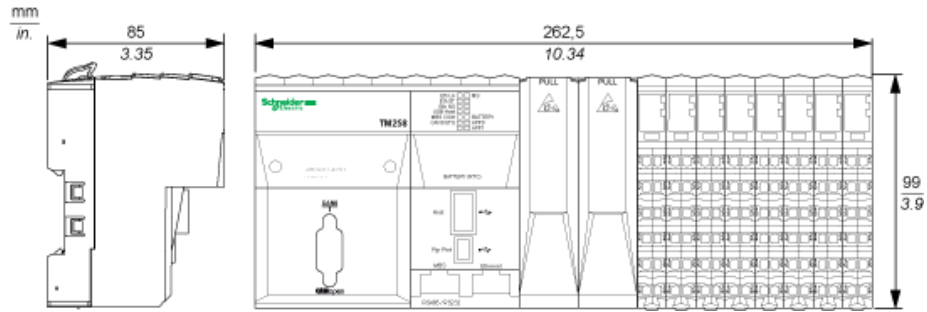
| | |
|------------------------|---|
| RoHS (date code: YYWW) | Compliant - since 1039 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity |
| REACH | Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold |

Contractual warranty

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






Controller

Dimensions



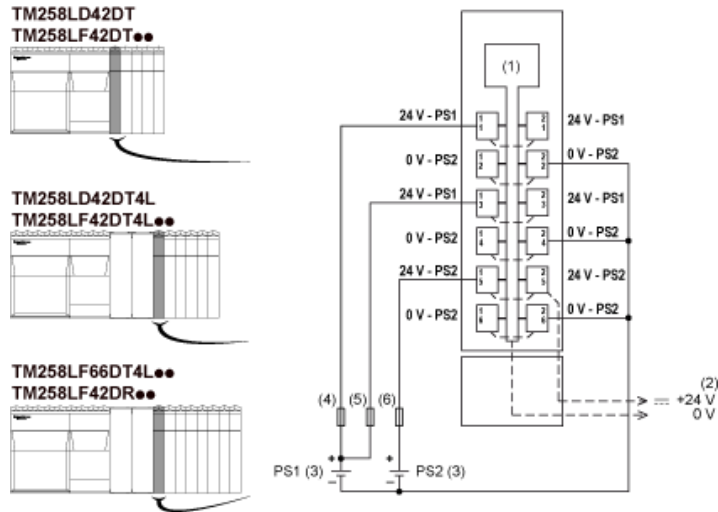
TM5 System Wiring Recommendations

Wire Sizes to Use with 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 |

External Power Supplies

Wiring Diagram of the Controller Power Distribution Module



- (1) Internal electronics
- (2) 24 Vdc I/O power segment integrated into the bus bases
- (3) PS1/PS2: External isolated SELV power supply 24 Vdc
- (4) External fuse, Type T slow-blow, 3 A 250 V
- (5) External fuse, Type T slow-blow, 2 A 250 V
- (6) External fuse, Type T slow-blow, 10 A max., 250 V