### TM258LF42DR

# compact base M258 - 42 I/O - 24 V DC - Relay - CANopen



Product availability: Non-Stock - Not normally stocked in distribution facility



| Main                         |                                  |
|------------------------------|----------------------------------|
| Range of product             | Modicon M258                     |
| Product or component type    | Logic controller                 |
| Product specific application | -                                |
| Discrete I/O number          | 42                               |
| Discrete output number       | 12 relay output<br>4 fast output |

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|-----|--|--|
|     |  |  |

| - Compression y                               |  |
|---|--|
| Discrete input number                         | 10 fast input<br>12 input  |
|   | 4 regular input  |
| Discrete input logic                          | Sink fast input  |
|   | Sink regular input   |
|   | Source input   |
| Discrete input voltage                        | 24 V   |
| Discrete input voltage type                   | DC   |
| Voltage state 1 guaranteed                    | >= 15 Vfor fast input  |
|   | >= 15 Vfor fast output<br>>= 15 Vfor regular input   |
| Valte as a state O missing and                |  |
| Voltage state 0 guaranteed                    | <= 5 Vfor fast input <= 5 Vfor fast output   |
|   | <= 5 Vfor regular input  |
| Discrete input current                        | 4 mAfor fast input   |
| ·   | 4 mAfor regular input  |
| Input impedance                               | 6 kOhm fast input  |
|   | 6 kOhm regular input   |
| Configurable filtering time                   | 0 ms fast input/regular input and fast output  |
|   | 1.5 ms fast input/regular input and fast output  |
|   | 12 ms fast input/regular input and fast output 4 ms fast input/regular input and fast output |
| Anti bounce filtering                         | 2 µs4 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                         | 19.228.8 V   |
| Discrete output current                       | 4 mAfor fast output  |
| [Us] rated supply voltage                     | 24 V DC embedded expert modules power  |
|   | 24 V DC I/O power segment  |
| Consilionalita na lineita                     | 24 V DC main supply  |
| Supply voltage limits                         | 20.428.8 V   |
| [In] rated current                            | 0.04 Afor embedded expert modules power 0.33 Afor main supply                                |
|   | 10 Afor I/O power segment  |
|   | · · · · · · · · · · · · · · · · · · ·  |

| Peak current                          | <= 100 kA during <= 70 s main supply <= 25 kA during <= 500 s I/O power segment <= 50 kA during <= 150 s embedded expert modules power 1.2 A during > 70 s main supply   |  |
|---------------------------------------|--|--|
| Power consumption in W                | <= 17.22 W   |  |
| Execution time per instruction        | 22 ns : Boolean  |  |
| Memory description                    | Flash 128 MB<br>Internal RAM 64 MB   |  |
| Realtime clock                        | With user calibration realtime clock, drift: <= 6 s/month Without any user calibration realtime clock, drift: < 30 s/monthat 77 °F (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), 300115200 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 1640.42 ft (500 m), CANopen 250 kbit/s for bus length of 820.21 ft (250 m), CANopen 50 kbit/s for bus length of 3280.84 ft (1000 m), CANopen 500 kbit/s for bus length of 328.08 ft (100 m), CANopen 10 kbit/s for bus length of 16404.2 ft (5000 m), CANopen 1000 kbit/s for bus length of 13.12 ft (4 m), CANopen 20 kbit/s for bus length of 8202.1 ft (2500 m), CANopen 800 kbit/s for bus length of 82.02 ft (25 m), CANopen |  |
| Counting input number                 | 8 counting input(s) 200 kHz  |  |
| Local signalling                      | 1 LED per channel I/O state 1 LED CAN0 STS 1 LED MBS COM 1 LED green/red APP0 1 LED green/red APP1 1 LED green/red Eth NS (Ethernet network status) 1 LED green/red Eth ST (Ethernet status) 1 LED green/red RUN/MS (module status) 1 LED green/red USB host 1 LED green/yellow Eth LA (Ethernet activity) 1 LED red BATT (battery status)   |  |
| Marking                               | CE   |  |
| Mounting support                      | Symmetrical DIN rail   |  |
| Width                                 | 10.33 in (262.5 mm)  |  |
| Height                                | 3.9 in (99 mm)   |  |
| Depth                                 | 3.35 in (85 mm)  |  |
| Product weight                        | 1.76 lb(US) (0.8 kg)   |  |
|                                       |  |  |
| Environment                           | 004.000.011.440  |  |
| Standards                             | CSA C22.2 No 142<br>IEC 61131-2<br>CSA C22.2 No 213<br>UL 508  |  |
| Product certifications                | GOST-R<br>CULus<br>CSA<br>C-Tick   |  |
| Ambient air temperature for operation | 32131 °F (055 °C) without derating factor horizontal installation 32140 °F (060 °C) with derating factor horizontal installation 32122 °F (050 °C) vertical installation   |  |
| Ambient air temperature for storage   | -13158 °F (-2570 °C)   |  |
| Relative humidity                     | 595 % without condensation   |  |
| IP degree of protection               | IP20 conforming to IEC 61131-2   |  |
| Pollution degree                      | 2 conforming to IEC 60664  |  |
| Operating altitude                    | 06561.68 ft (02000 m)  |  |
| Storage altitude                      | 09842.52 ft (03000 m)  |  |
| Vibration resistance                  | 1 gn 8.4150 Hz DIN rail<br>3.5 mm 58.4 Hz DIN rail   |  |
| Shock resistance                      | 15 gn 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  | 0.91 V/yd (1 V/m) 22.7 GHz conforming to EN/IEC 61000-4-3 9.14 V/yd (10 V/m) 802000 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<br>1 kV common mode conforming to EN/IEC 61000-4-5                                 |
| Disturbance radiated/conducted        | CISPR 11   |

## Ordering and shipping details

| Category              | 22532 - M258 PLC  |  |
|-----------------------|-------------------|--|
| Discount Schedule     | PC12              |  |
| GTIN                  | 00785901684770    |  |
| Nbr. of units in pkg. | 1                 |  |
| Package weight(Lbs)   | 2.280000000000002 |  |
| Returnability         | N                 |  |
| Country of origin     | AT                |  |

#### Offer Sustainability

| Sustainable offer status         | Green Premium product  |
|----------------------------------|--|
| 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  |
| Product environmental profile    | Available  |
| Product end of life instructions | Available  |
| California proposition 65        | WARNING: This product can expose you to chemicals including:   |
| Substance 1                      | Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. |
| More information                 | For more information go to www.p65warnings.ca.gov  |

#### Contractual warranty

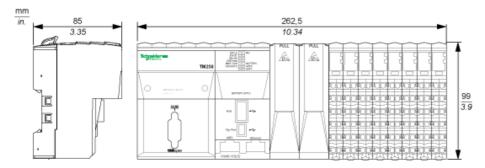
| Contractad Warranty |           |
|---------------------|-----------|
| Warranty period     | 18 months |

# Product data sheet Dimensions Drawings

## TM258LF42DR

#### Controller

#### **Dimensions**



### TM258LF42DR

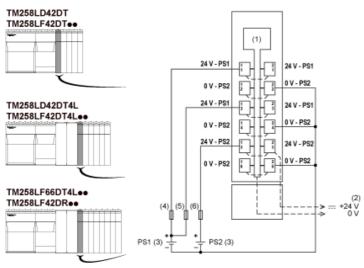
#### TM5 System Wiring Recommendations

#### Wire Sizes to Use with Removable Spring Terminal Blocks

|   | mm<br>in. | 0.35 |         | 1       |         |                  |
|---|-----------|------|---------|---------|---------|------------------|
|   |           | mm²  | 0,082,5 | 0,252,5 | 0,251,5 | 2 x 0,252 x 0,75 |
| Γ |           | AWG  | 2814    | 24 14   | 2416    | 2 x 242 x 18     |

#### **External Power Supplies**

#### Wiring Diagram of the Controller Power Distribution Module



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

## **Mouser Electronics**

**Authorized Distributor** 

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Schneider Electric: TM258LF42DR