

Product data sheet

Specifications



Logic controller, Modicon M258, compact base 42 + 4 I/O, 24 V DC



TM258LD42DT4L

Main

Range of product Modicon M258

Product or component type Logic controller

Product specific application -

Discrete I/O number 42

Analogue input number 4

Discrete output number 12 output
4 fast output

Complementary

Discrete input number 10 for fast input
12 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

Anti bounce filtering 2 µs...4 ms configurable fast input/regular input and fast output

Maximum 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 10 A for I/O power segment 0.31 A for main supply
Peak current	100 kA (duration = <= 70 s) for main supply 25 kA (duration = <= 500 s) for I/O power segment 50 kA (duration = <= 150 s) for embedded expert modules power 1.2 A (duration = > 70 s) for main supply
Power consumption in W	14.14 W
Memory description	Flash 128 MB Internal RAM 64 MB
Realtime clock	Without any user calibration clock, clock drift < 30 s/month at 25 °C With user calibration clock, clock drift <= 6 s/month
Data backed up	Variables of type retain and retain persistent CR2477M Renata, 1.5 years autonomy
Integrated connection type	1 isolated serial link with female RJ45 connector Modbus with master/slave RTU/ASCII or character mode ASCII, physical interface: RS232/RS485, transmission rate: 300...115200 bps 1 isolated serial link with female RJ45 connector Ethernet Modbus TCP/IP with slave, physical interface: 10BASE-T/100BASE-TX 1 isolated serial link with mini B USB connector, transmission rate: 480 Mbit/s 1 isolated serial link with USB type A connector, transmission rate: 480 Mbit/s 2 free slots PCI
Counting input number	8 counting input(s) at 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	237.5 mm
Height	99 mm
Depth	85 mm
Net weight	0.77 kg

Environment

Standards	IEC 61131-2 CSA C22.2 No 213 CSA C22.2 No 142 UL 508
Product certifications	cULus CSA GOST-R C-Tick
Ambient air temperature for operation	0...55 °C without derating (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 at 8.4...150 Hz on DIN rail 3.5 mm at 5...8.4 Hz on 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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	13.3 cm
Package 1 Width	15.6 cm
Package 1 Length	37.0 cm
Package 1 Weight	924.0 g
Unit Type of Package 2	S04
Number of Units in Package 2	6
Package 2 Height	30.0 cm
Package 2 Width	40.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	6.259 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

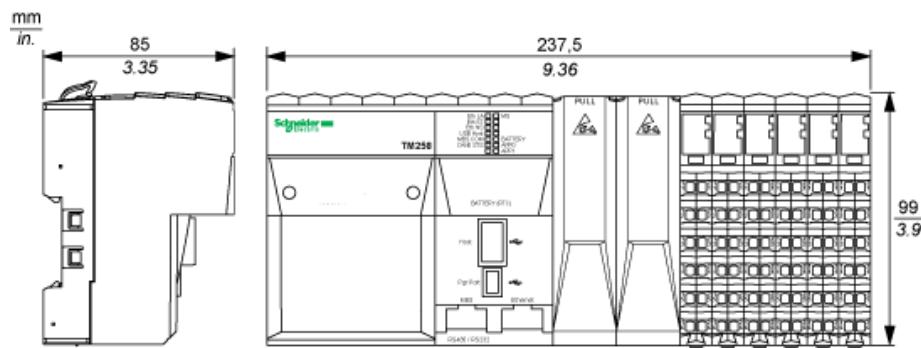
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months
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Controller

Dimensions

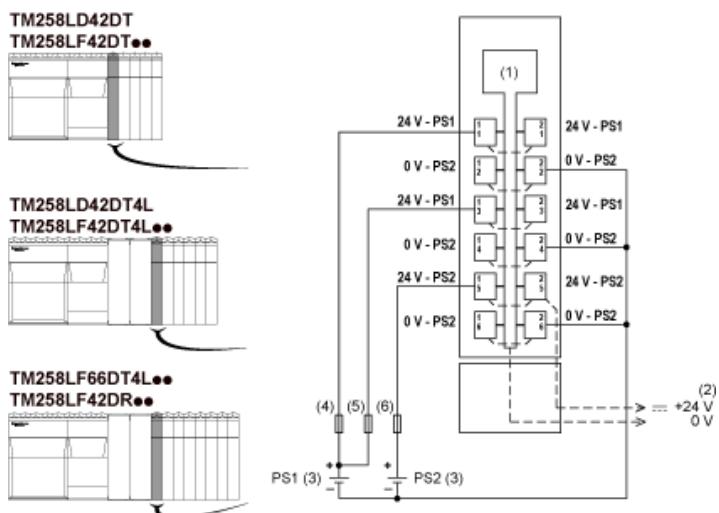


TM5 System Wiring Recommendations**Wire Sizes to Use with Removable Spring Terminal Blocks**

mm in.	9 0,35"	—	—	—
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

Recommended replacement(s)