

Product datasheet

Specifications



logic controller, Modicon M258,
compact base, 42 + 4 IO, 24V 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

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

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
maximum 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 connectorModbus 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 connectorEthernet 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 IEC 61000-4-2 8 kV in air conforming to IEC 61000-4-2
Resistance to electromagnetic fields	1 V/m 2...2.7 GHz conforming to IEC 61000-4-3 10 V/m 80...2000 MHz conforming to IEC 61000-4-3
Resistance to fast transients	1 kV (I/O) conforming to IEC 61000-4-4 1 kV (shielded cable) conforming to IEC 61000-4-4 2 kV (power lines) conforming to IEC 61000-4-4
Surge withstand	0.5 kV differential mode conforming to IEC 61000-4-5 1 kV common mode conforming to 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	13.300 cm
Package 1 Width	15.800 cm
Package 1 Length	37.000 cm
Package 1 Weight	926.000 g
Unit Type of Package 2	S04
Number of Units in Package 2	6
Package 2 Height	30.000 cm
Package 2 Width	40.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	6.499 kg

Contractual warranty

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

Sustainability






Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)

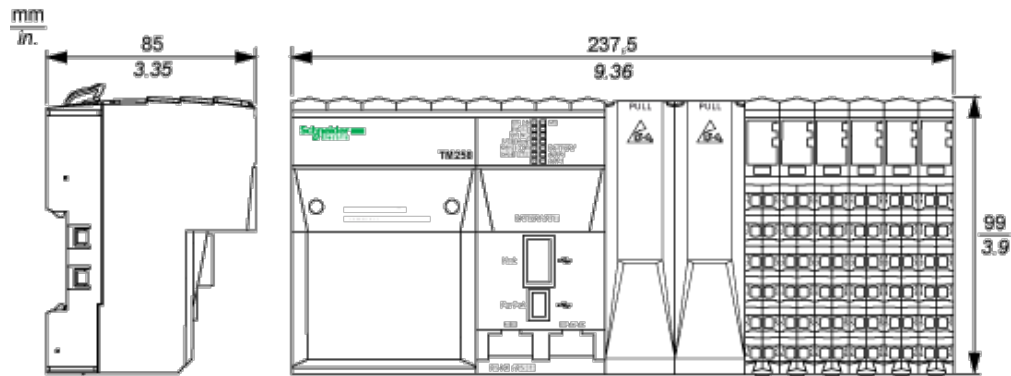
Well-being performance

	Reach Free Of Svhc	
	Toxic Heavy Metal Free	
	Mercury Free	
	Rohs Exemption Information	Yes
	Pvc Free	
Reach Regulation	REACH Declaration	
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration	
China Rohs Regulation	China RoHS declaration	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	

Dimensions Drawings

Controller




Dimensions



Connections and Schema

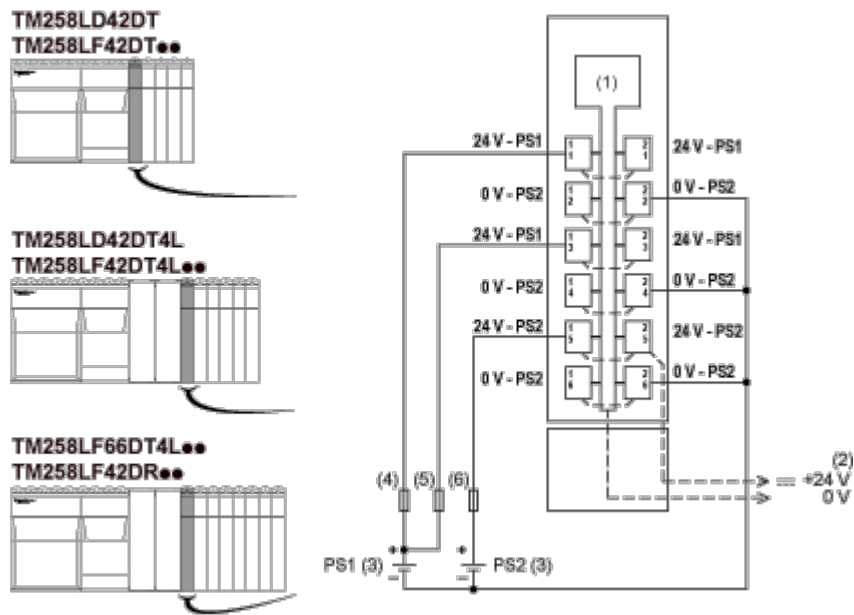
TM5 System Wiring Recommendations

Wire Sizes to Use with Removable Spring Terminal Blocks

<div><div>mm</div><div>in</div></div> <div></div>				
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