

Product data sheet

Specifications



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

TM258LD42DT

Product availability : Stock - 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 output 4 fast output

Complementary

Discrete input number	10 fast input 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 V fast input >= 15 V fast output >= 15 V regular input
Voltage state 0 guaranteed	<= 5 V fast input <= 5 V fast output <= 5 V regular input
Discrete input current	4 mA fast input 4 mA 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 µs...4 ms configurable fast input/regular input and fast output
Maximum cable distance between devices	<98.43 ft (30 m) fast input <98.43 ft (30 m) fast output <98.43 ft (30 m) 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 fast output
[Us] rated supply voltage	24 V DC embedded expert modules power 24 V DC I/O power segment 24 V DC main supply
Supply voltage limits	20.4...28.8 V
Line Rated Current	0.04 A embedded expert modules power 0.25 A main supply 10 A I/O power segment
Peak current	100 kA <= 70 s)main supply 25 kA <= 500 s)I/O power segment 50 kA <= 150 s)embedded expert modules power 1.2 A > 70 s)main supply
Power Consumption in W	13.03 W
Memory description	Flash 128 MB Internal RAM 64 MB
Realtime clock	Without any user calibration < 30 s/month 77 °F (25 °C) With user calibration <= 6 s/month
Data backed up	Variables of type retain and retain persistent CR2477M Renata, 1.5 years
Integrated connection type	1 isolated serial link female RJ45 Modbus master/slave RTU/ASCII or character mode ASCII RS232/ RS485 300...115200 bps 1 isolated serial link female RJ45 Ethernet Modbus TCP/IP slave 10BASE-T/100BASE-TX 1 isolated serial link mini B USB 480 Mbit/s 1 isolated serial link USB type A 480 Mbit/s
Counting input number	8 200 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	6.89 in (175 mm)
Height	3.90 in (99 mm)
Depth	3.35 in (85 mm)
Net Weight	1.10 lb(US) (0.5 kg)

Environment

Standards	CSA C22.2 No 142 UL 508 IEC 61131-2 CSA C22.2 No 213
Product Certifications	C-tick CSA cULus GOST-R
Ambient air temperature for operation	32...131 °F (0...55 °C) without derating horizontal installation) 32...140 °F (0...60 °C) with derating factor horizontal installation) 32...122 °F (0...50 °C) vertical installation)
Ambient Air Temperature for Storage	-13...158 °F (-25...70 °C)
Relative humidity	5...95 % without condensation
IP degree of protection	IP20IEC 61131-2
Pollution degree	2 IEC 60664

Operating altitude	0...6561.68 ft (0...2000 m)
Storage altitude	0.00...9842.52 ft (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 11 ms
Resistance to electrostatic discharge	4 kV on contact EN/IEC 61000-4-2 8 kV in air EN/IEC 61000-4-2
Resistance to electromagnetic fields	0.91 V/m (1 V/m) 2...2.7 GHz EN/IEC 61000-4-3 9.14 V/m (10 V/m) 80...2000 MHz EN/IEC 61000-4-3
Resistance to fast transients	1 kV EN/IEC 61000-4-4 I/O) 1 kV EN/IEC 61000-4-4 shielded cable) 2 kV EN/IEC 61000-4-4 power lines)
Surge withstand	0.5 kV differential mode EN/IEC 61000-4-5 1 kV common mode EN/IEC 61000-4-5
Disturbance radiated/ conducted	CISPR 11

Ordering and shipping details

Category	22532-M258 PLC
Discount Schedule	PC12
GTIN	3595864074191
Returnability	No
Country of origin	AT

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.31 in (13.5 cm)
Package 1 Width	6.10 in (15.5 cm)
Package 1 Length	12.40 in (31.5 cm)
Package 1 Weight	28.22 oz (800.0 g)
Unit Type of Package 2	S04
Number of Units in Package 2	6
Package 2 Height	11.81 in (30.0 cm)
Package 2 Width	15.75 in (40.0 cm)
Package 2 Length	23.62 in (60.0 cm)
Package 2 Weight	11.90 lb(US) (5.4 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
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
REACH Regulation	REACH Declaration
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

Contractual warranty

Warranty	18 months
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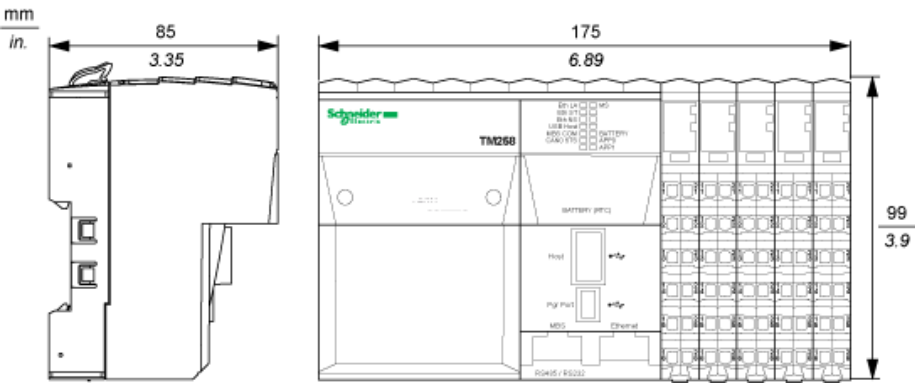
Product data sheet

Dimensions Drawings

TM258LD42DT

Controller

Dimensions



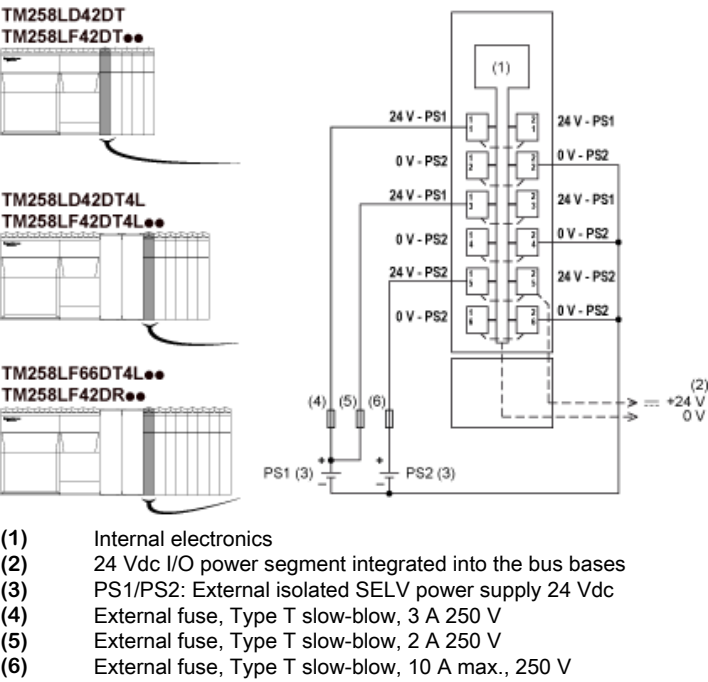
TM5 System Wiring Recommendations

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



Recommended replacement(s)