

# Product data sheet

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 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
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 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

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 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
[In] Rated Current	0.04 A embedded expert modules power 10 A I/O power segment 0.31 A main supply
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	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 77 °F (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
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 2 free slots PCI
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	9.35 in (237.5 mm)
Height	3.90 in (99 mm)
Depth	3.35 in (85 mm)
Net Weight	1.70 lb(US) (0.77 kg)

## Environment

Standards	IEC 61131-2 CSA C22.2 No 213 CSA C22.2 No 142 UL 508
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Product Certifications	cULus CSA GOST-R C-Tick
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...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 IEC 61000-4-2 8 kV in air IEC 61000-4-2
Resistance To Electromagnetic Fields	0.91 V/yd (1 V/m) 2...2.7 GHz IEC 61000-4-3 9.14 V/yd (10 V/m) 80...2000 MHz IEC 61000-4-3
Resistance To Fast Transients	1 kV IEC 61000-4-4 I/O) 1 kV IEC 61000-4-4 shielded cable) 2 kV IEC 61000-4-4 power lines)
Surge Withstand	0.5 kV differential mode IEC 61000-4-5 1 kV common mode 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	5.24 in (13.300 cm)
Package 1 Width	6.22 in (15.800 cm)
Package 1 Length	14.57 in (37.000 cm)
Package 1 Weight	32.66 oz (926.000 g)
Unit Type Of Package 2	S04
Number Of Units In Package 2	6
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	15.75 in (40.000 cm)
Package 2 Length	23.62 in (60.000 cm)
Package 2 Weight	14.33 lb(US) (6.499 kg)

## Contractual warranty

Warranty	18 months
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# 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-CO<sub>2</sub> 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 >](#)

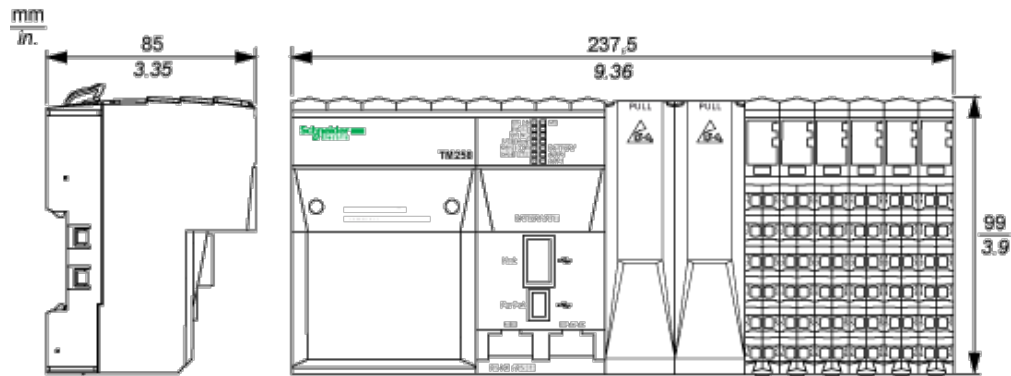
## Well-being performance

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

Dimensions Drawings

Controller




Dimensions



Connections and Schema

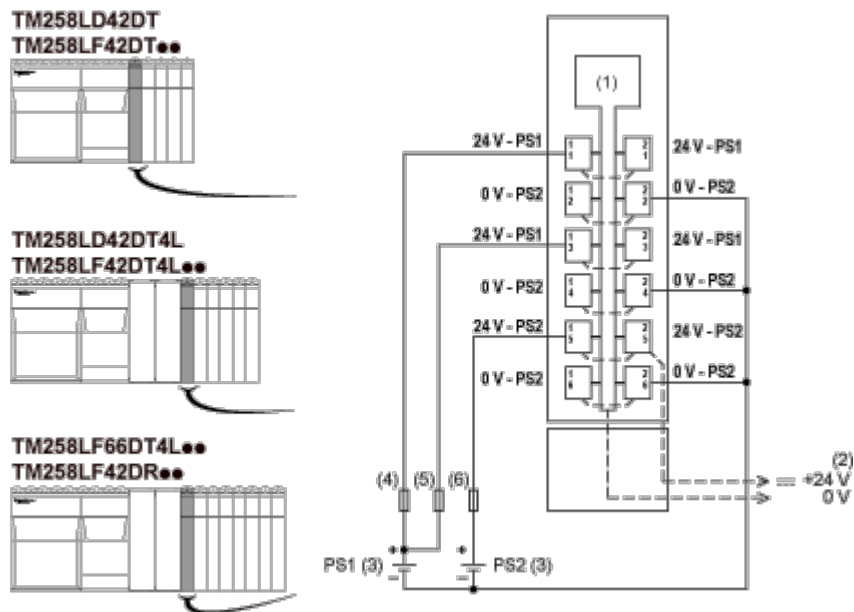
TM5 System Wiring Recommendations

Wire Sizes to Use with Removable Spring Terminal Blocks

<div><div><div>mm</div><div>in</div></div><div></div></div>				
mm <sup>2</sup>	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 16

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