



### Main

Range of product	Modicon M258
Product or component type	Logic controller
Product specific application	-
Discrete I/O number	42
Discrete output number	12 for output 4 for 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
Voltage state 1 guaranteed	$\geq 15$ V for fast input $\geq 15$ V for fast output $\geq 15$ V for regular input
Voltage state 0 guaranteed	$\leq 5$ V for fast input $\leq 5$ V for fast output $\leq 5$ 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 $\mu$ s...4 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	19.2...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 0.26 A for main supply 10 A for 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	<= 13.03 W
Execution time per instruction	22 ns : Boolean
Memory description	Flash 128 MB Internal RAM 64 MB
Realtime clock	With user calibration realtime clock, drift: <= 6 s/month Without any user calibration realtime clock, drift: < 30 s/month at 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) 1 isolated serial link female RJ45, Modbus master/slave RTU/ASCII or character mode ASCII (RS232/RS485), 300...115200 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 500 m, CANopen 250 kbit/s for bus length of 250 m, CANopen 50 kbit/s for bus length of 1000 m, CANopen 500 kbit/s for bus length of 100 m, CANopen 10 kbit/s for bus length of 5000 m, CANopen 1000 kbit/s for bus length of 4 m, CANopen 20 kbit/s for bus length of 2500 m, CANopen 800 kbit/s for bus length of 25 m, CANopen
Counting input number	8 counting input(s) 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	175 mm
Height	99 mm
Depth	85 mm
Product weight	0.55 kg

## Environment

Standards	CSA C22.2 No 142 IEC 61131-2
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UL 508  
CSA C22.2 No 213

Product certifications	CSA C-Tick cULus GOST-R
Ambient air temperature for operation	0...55 °C without derating factor 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 8.4...150 Hz DIN rail 3.5 mm 5...8.4 Hz 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
Electromagnetic compatibility	EN/IEC 61000-4-6
Disturbance radiated/conducted	CISPR 11

### Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1039 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold <a href="#">Reference not containing SVHC above the threshold</a>
Product environmental profile	Available <a href="#">Product environmental</a>
Product end of life instructions	Available <a href="#">End of life manual</a>






### Contractual warranty

Warranty period	18 months
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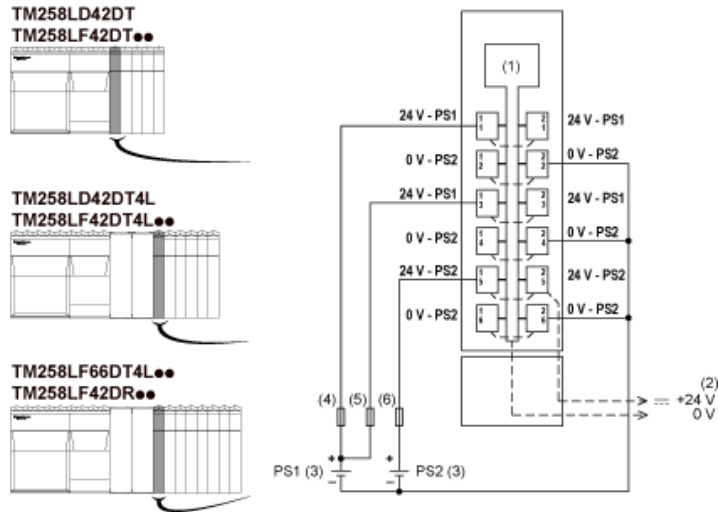
TM5 System Wiring Recommendations

Wire Sizes to Use with Removable Spring Terminal Blocks

mm in.					
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 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