



## Main

Range of product	Modicon LMC058
Product or component type	Motion controller
Product specific application	-
Discrete I/O number	42
Battery type	3 V CR2477M lithium battery

## Complementary

Discrete input number	4 regular input 12 input 10 fast input
Discrete input logic	Source input Sink regular input Sink fast input
Discrete input voltage	24 V
Discrete input voltage type	DC
Analogue input number	4
Analogue input type	Voltage +/- 10 V Current 4...20 mA Current 0...20 mA
Analogue input resolution	12 bits
Voltage state1 guaranteed	>= 15 V regular input >= 15 V fast output >= 15 V fast input
Current state 1 guaranteed	>= 2 mA regular input >= 2 mA fast output >= 2 mA fast input
Voltage state 0 guaranteed	<= 5 V regular input <= 5 V fast output <= 5 V fast input
Current state 0 guaranteed	<= 1.5 mA regular input <= 1.5 mA fast output <= 1.5 mA fast input
Discrete input current	4 mA regular input 4 mA fast input
Input impedance	6 kOhm regular input 6 kOhm fast input
Configurable filtering time	4 ms fast input/regular input and fast output 12 ms fast input/regular input and fast output 1.5 ms fast input/regular input and fast output 0 ms fast input/regular input and fast output
Anti bounce filtering	2 µs...4 ms configurable fast input/regular input and fast output
Cable length	<= 30 m for fast input
Insulation	Non-insulated between channels Between channels and internal logic at 500 V AC
Discrete output number	4 fast output 12 output
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 for embedded expert modules power
Supply voltage limits	20.4...28.8 V
[In] rated current	0.3 A main supply 10 A I/O power segment 0.04 A embedded expert modules power
Peak current	1.2 A (duration= > 70 s) for main supply <= 50 kA (duration= <= 150 s) for embedded expert modules power <= 25 kA (duration= <= 500 s) for I/O power segment < 100 kA (duration= <= 70 s) for main supply
Power consumption	<= 14.14 W
Execution time per instruction	22 ns Boolean
Memory type	64 MB RAM memory 128 MB flash memory
Realtime clock	With user calibration <= 6 s/month Without any user calibration < 30 s/month at 25 °C
Data backed up	Variables of type retain and retain persistent with battery
Battery life	1.5 yr
Integrated connection type	2 free slots PCI 1 isolated serial link with USB type A connector; transmission rate: 480 Mbit/s 1 isolated serial link with mini B USB connector; transmission rate: 480 Mbit/s 1 isolated serial link with female RJ45 connector; protocol: Ethernet Modbus TCP/IP with slave method; physical interface: 10BASE-T/100BASE-TX 1 encoder with female SUB-D 15 connector 1 CAN port with male SUB-D 9 connector; protocol: CANopen with master method 1 CAN port with male SUB-D 9 connector; protocol: CANmotion bus or CANopen with master method 1 isolated serial link with female RJ45 connector; protocol: Modbus with master/slave method; transmission frame: RTU/ASCII or character mode ASCII; physical interface: RS232/RS485; transmission rate: 300...115200 bps
Transmission rate	800 kbit/s with 25 m bus; protocol: CANopen 500 kbit/s with 100 m bus; protocol: CANopen 50 kbit/s with 1000 m bus; protocol: CANopen 250 kbit/s with 250 m bus; protocol: CANopen 20 kbit/s with 2500 m bus; protocol: CANopen 125 kbit/s with 500 m bus; protocol: CANopen 1000 kbit/s with 4 m bus; protocol: CANopen 10 kbit/s with 5000 m bus; protocol: CANopen
Counting input number	8 at 200 kHz
Local signalling	1 LED red for APP1 1 LED per channel for APP0 1 LED green/yellow for MBS COM 1 LED green/red for CAN1 STS 1 LED for CAN0 STS
Marking	CE
Mounting support	Symmetrical DIN rail
Width	237.5 mm
Height	99 mm
Depth	85 mm
Product weight	0.77 kg

## Environment

Standards	CSA C22.2 No 142 IEC 61131-2 UL 508 CSA C22.2 No 213
Product certifications	CSA C-Tick CULus GOST-R
Ambient air temperature for operation	0...50 °C vertical installation 0...60 °C with horizontal installation 0...55 °C without horizontal installation
Ambient air temperature for storage	-25...70 °C
Relative humidity	5...95 % without condensation

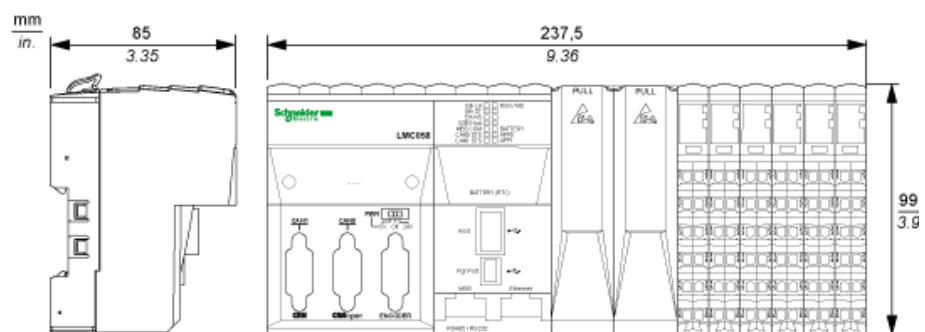
IP degree of protection	IP20 conforming to IEC 61131-2
Pollution degree	2 conforming to IEC 60664
Operating altitude	0...2000 m
Storage altitude	0...3000 m
Vibration resistance	3.5 mm at 5...8.4 Hz with DIN rail mounting 1 gn at 8.4...150 Hz with DIN rail mounting
Shock resistance	15 gn for 11 ms
Electromagnetic compatibility	Conducted and radiated emissions conforming to CISPR 11 Conducted RF disturbances conforming to EN/IEC 61000-4-6 Surge immunity test (test level: 1 kV) - common mode conforming to EN/IEC 61000-4-5 Surge immunity test (test level: 0.5 kV) - differential mode conforming to EN/IEC 61000-4-5 Electrical fast transient/burst immunity test (test level: 2 kV) - power lines conforming to EN/IEC 61000-4-4 Electrical fast transient/burst immunity test (test level: 1 kV) - shielded cable conforming to EN/IEC 61000-4-4 Electrical fast transient/burst immunity test (test level: 1 kV) - I/O conforming to EN/IEC 61000-4-4 Susceptibility to electromagnetic fields (test level: 10 V/m) - 80...2000 MHz conforming to EN/IEC 61000-4-3 Susceptibility to electromagnetic fields (test level: 1 V/m) - 2...2.7 GHz conforming to EN/IEC 61000-4-3 Electrostatic discharge immunity test (test level: 4 kV) - on air conforming to EN/IEC 61000-4-2 Electrostatic discharge immunity test (test level: 8 kV) - on contact conforming to EN/IEC 61000-4-2
Disturbance radiated/conducted	CISPR 11

### Offer Sustainability

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





## Controller

## Dimensions



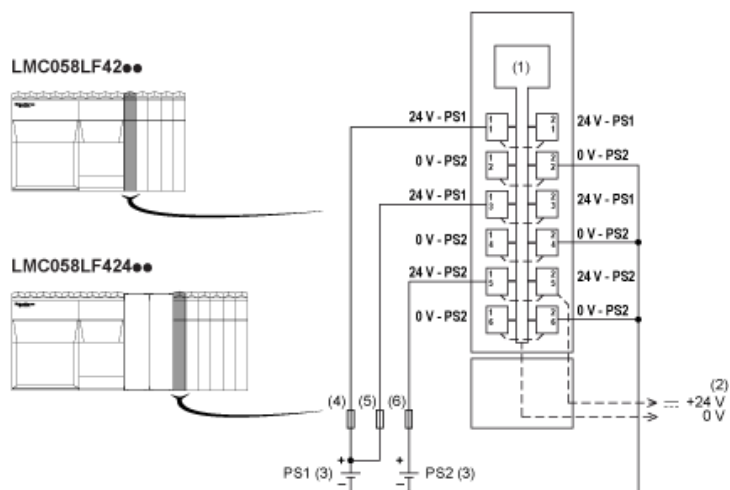
## TM5 System Wiring Recommendations

### 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