

# Product datasheet

Specifications



## compact base - 42 + 4 I/O - 24 V DC supply - 2 slots for PCI

LMC058LF424

### 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                  | 10 for fast input<br>12 for input<br>4 for regular input  |
| Discrete input logic                   | Sink for fast input<br>Sink for regular input<br>Source for input   |
| Discrete input voltage                 | 24 V  |
| Discrete input voltage type            | DC  |
| Analogue input number                  | 4   |
| Analogue input type                    | Current: 0...20 mA<br>Current: 4...20 mA<br>Voltage: +/- 10 V   |
| Analogue input resolution              | 12 bits   |
| Voltage state 1 guaranteed             | >= 15 V for fast input<br>>= 15 V for fast output<br>>= 15 V for regular input  |
| Voltage state 0 guaranteed             | <= 5 V for fast input<br><= 5 V for fast output<br><= 5 V for regular input   |
| Discrete input current                 | 4 mA for fast input<br>4 mA for regular input   |
| Input impedance                        | 6 kOhm for fast input<br>6 kOhm for regular input   |
| Configurable filtering time            | 0 ms for fast input/regular input and fast output<br>1.5 ms for fast input/regular input and fast output<br>12 ms for fast input/regular input and fast output<br>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  |
| Insulation                             | Between channels and internal logic at 500 V AC<br>Non-insulated between channels   |

|                                   |   |
|-----------------------------------|---|
| <b>Discrete output number</b>     | 12 output<br>4 fast output  |
| <b>Discrete output logic</b>      | Source  |
| <b>Discrete output voltage</b>    | 24 V DC   |
| <b>Output voltage limits</b>      | 19.2...28.8 V   |
| <b>Discrete output current</b>    | 4 mA for fast output  |
| <b>[Us] rated supply voltage</b>  | 24 V DC for embedded expert modules power   |
| <b>Supply voltage limits</b>      | 20.4...28.8 V   |
| <b>[In] rated current</b>         | 0.04 A for embedded expert modules power<br>10 A for I/O power segment<br>0.3 A for main supply   |
| <b>Peak current</b>               | 100 kA (duration = <= 70 s) for main supply<br>25 kA (duration = <= 500 s) for I/O power segment<br>50 kA (duration = <= 150 s) for embedded expert modules power<br>1.2 A (duration = > 70 s) for main supply  |
| <b>Power consumption in W</b>     | 14.14 W   |
| <b>Memory type</b>                | 128 MB flash<br>64 MB RAM   |
| <b>Realtime clock</b>             | Without any user calibration clock, clock drift < 30 s/month at 25 °C<br>With user calibration clock, clock drift <= 6 s/month  |
| <b>Data backed up</b>             | Battery variables of type retain and retain persistent  |
| <b>Battery life</b>               | 1.5 year(s)   |
| <b>Integrated connection type</b> | 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<br>1 CAN port with male SUB-D 9 connectorCANmotion bus or CANopen with master<br>1 CAN port with male SUB-D 9 connectorCANopen with master<br>1 encoder with female SUB-D 15 connector<br>1 isolated serial link with female RJ45 connectorEthernet Modbus TCP/IP with slave, physical interface: 10BASE-T/100BASE-TX<br>1 isolated serial link with mini B USB connector, transmission rate: 480 Mbit/s<br>1 isolated serial link with USB type A connector, transmission rate: 480 Mbit/s<br>2 free slots PCI |
| <b>Transmission rate</b>          | 10 kbit/s for bus length of 5000 m for CANopen<br>1000 kbit/s for bus length of 4 m for CANopen<br>125 kbit/s for bus length of 500 m for CANopen<br>20 kbit/s for bus length of 2500 m for CANopen<br>250 kbit/s for bus length of 250 m for CANopen<br>50 kbit/s for bus length of 1000 m for CANopen<br>500 kbit/s for bus length of 100 m for CANopen<br>800 kbit/s for bus length of 25 m for CANopen  |
| <b>Counting input number</b>      | 8 counting input(s) at 200 kHz  |
| <b>Local signalling</b>           | 1 LED for CAN0 STS<br>1 LED green/red for CAN1 STS<br>1 LED green/yellow for MBS COM<br>1 LED per channel for APP0<br>1 LED red for APP1  |
| <b>Marking</b>                    | CE  |
| <b>Mounting support</b>           | Symmetrical DIN rail  |
| <b>Width</b>                      | 237.5 mm  |
| <b>Height</b>                     | 99 mm   |
| <b>Depth</b>                      | 85 mm   |
| <b>Net weight</b>                 | 0.77 kg   |
| <b>Environment</b>                |   |
| <b>Standards</b>                  | UL 508<br>IEC 61131-2<br>CSA C22.2 No 213<br>CSA C22.2 No 142   |
| <b>Product certifications</b>     | cULus<br>CSA<br>C-Tick<br>GOST-R  |

|  |  |
|--|--|
| <b>Ambient air temperature for operation</b> | 0...55 °C without derating (horizontal installation)<br>0...60 °C with derating factor (horizontal installation)<br>0...50 °C (vertical installation)  |
| <b>Ambient air temperature for storage</b>   | -25...70 °C  |
| <b>Relative humidity</b>                     | 5...95 % without condensation  |
| <b>IP degree of protection</b>               | IP20 conforming to IEC 61131-2   |
| <b>Pollution degree</b>                      | 2 conforming to IEC 60664  |
| <b>Operating altitude</b>                    | 0...2000 m   |
| <b>Storage altitude</b>                      | 0...3000 m   |
| <b>Vibration resistance</b>                  | 1 gn at 8.4...150 Hz on DIN rail<br>3.5 mm at 5...8.4 Hz on DIN rail   |
| <b>Shock resistance</b>                      | 15 gn for 11 ms  |
| <b>Electromagnetic compatibility</b>         | Electrostatic discharge immunity test - test level: 8 kV (on contact) conforming to EN/IEC 61000-4-2<br>Electrostatic discharge immunity test - test level: 4 kV (on air) conforming to EN/IEC 61000-4-2<br>Susceptibility to electromagnetic fields - test level: 1 V/m (2...2.7 GHz) conforming to EN/IEC 61000-4-3<br>Susceptibility to electromagnetic fields - test level: 10 V/m (80...2000 MHz) conforming to EN/IEC 61000-4-3<br>Electrical fast transient/burst immunity test - test level: 1 kV (I/O) conforming to EN/IEC 61000-4-4<br>Electrical fast transient/burst immunity test - test level: 1 kV (shielded cable) conforming to EN/IEC 61000-4-4<br>Electrical fast transient/burst immunity test - test level: 2 kV (power lines) conforming to EN/IEC 61000-4-4<br>Surge immunity test - test level: 0.5 kV (differential mode) conforming to EN/IEC 61000-4-5<br>Surge immunity test - test level: 1 kV (common mode) conforming to EN/IEC 61000-4-5<br>Conducted RF disturbances conforming to EN/IEC 61000-4-6<br>Conducted and radiated emissions conforming to CISPR 11 |
| <b>Disturbance radiated/<br/>conducted</b>   | CISPR 11   |

## Packing Units

|                                     |           |
|-------------------------------------|-----------|
| <b>Unit Type of Package 1</b>       | PCE       |
| <b>Number of Units in Package 1</b> | 1         |
| <b>Package 1 Height</b>             | 13.200 cm |
| <b>Package 1 Width</b>              | 15.800 cm |
| <b>Package 1 Length</b>             | 37.000 cm |
| <b>Package 1 Weight</b>             | 944.000 g |
| <b>Unit Type of Package 2</b>       | S04       |
| <b>Number of Units in Package 2</b> | 6         |
| <b>Package 2 Height</b>             | 30.000 cm |
| <b>Package 2 Width</b>              | 40.000 cm |
| <b>Package 2 Length</b>             | 60.000 cm |
| <b>Package 2 Weight</b>             | 6.376 kg  |

## Offer Sustainability

|                                 |   |
|---------------------------------|---|
| <b>Sustainable offer status</b> | Green Premium product   |
| <b>REACH Regulation</b>         | <a href="#">REACH Declaration</a>   |
| <b>REACH free of SVHC</b>       | Yes   |
| <b>EU RoHS Directive</b>        | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a> |
| <b>Toxic heavy metal free</b>   | Yes   |
| <b>Mercury free</b>             | Yes   |
| <b>China RoHS Regulation</b>    | <a href="#">China RoHS declaration</a>  |

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|                                   |   |
|-----------------------------------|---|
| <b>RoHS exemption information</b> | <a href="#">Yes</a>   |
| <b>Environmental Disclosure</b>   | <a href="#">Product Environmental Profile</a>   |
| <b>Circularity Profile</b>        | <a href="#">End of Life Information</a>   |
| <b>WEEE</b>                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| <b>PVC free</b>                   | Yes   |

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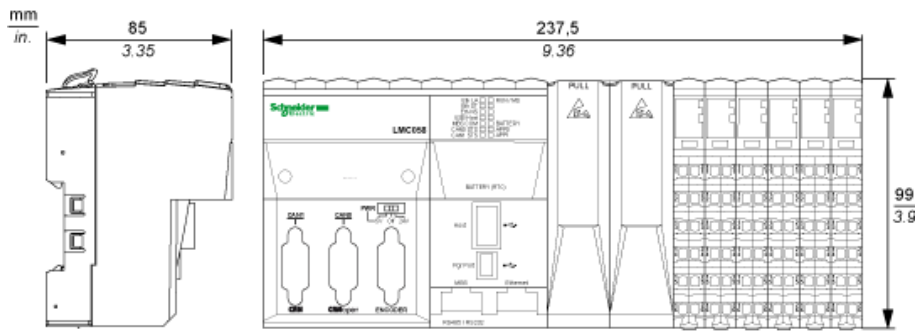
## **Contractual warranty**

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|                 |           |
|-----------------|-----------|
| <b>Warranty</b> | 18 months |
|-----------------|-----------|

Controller






Dimensions



**TM5 System Wiring Recommendations**

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**Wire Sizes to Use with Removable Spring Terminal Blocks**

| <br>mm<br>/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  |

