

Performance and accuracy for your Applications...

Modicon LMC058

Intelligence integrated in the «Motion Controller»



SoMachine

Schneider
Electric

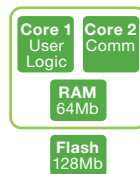
> A motion controller and a logic controller in one product

The LMC058 Motion Controller is the new compact, performant and totally expandable PAC from Schneider Electric. The expandability is based on the concept «Flexible Machine Control» by Schneider Electric. The LMC058 Motion Controllers are destined to the Machine Builders (OEMs), who design Packaging Machines, Conveying and/or Storage Machines, Textile Machines, Wood-Working Machines, ... by offering them Performant Solutions in terms of Motion Control for Synchronized Axis, Speed Control, High Speed Counting and Communication Networks. Because Schneider Electric is permanently focusing on Customers requests and Machines Evolution needs, LMC058 Motion Controller has been designed in order to satisfy the OEM market requirements in terms of performance, simplicity of installation and Evolution.



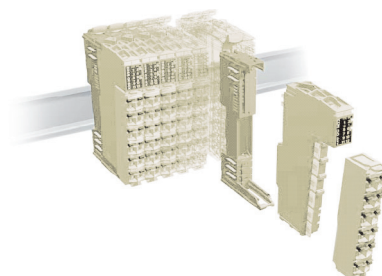
> Improve your machine performance

- > 4 Synchronized Axis in 2ms
- > Up to 8 Synchronized axis
- > CANmotion Bus Master Embedded
- > CANopen Bus Master Embedded
- > Encoder Master Input Embedded
- > 8 High Speed Counters embedded (200kHz each)



> Standard & Advanced Motion control functions

- > Relative and Absolute positioning
- > Velocity control
- > Homing
- > Virtual axis
- > CAM profiles
- > Electronic gear
- > Interpolation
- > Shift Compensation



30%
Saving time
in assembly,
wiring and
commissioning

1 Speed up machine design

- > SoMachine Software Motion and Logic Program in:
 - 6 Programming Languages (IEC 1131-3)
 - Function Blocks
 - Came Profile Editor
 - Commissioning Tools as Trace, Oscilloscope

2 Ethernet Embedded: Performance and Openess

- > 10/100 Mbits/s Available Protocols:
 - Ethernet IP Device
 - Ethernet TCP Modbus
 - SoMachine Protocol
- +
 - FTP Server Embedded
 - WebServer Embedded

3 CANopen Master Embedded

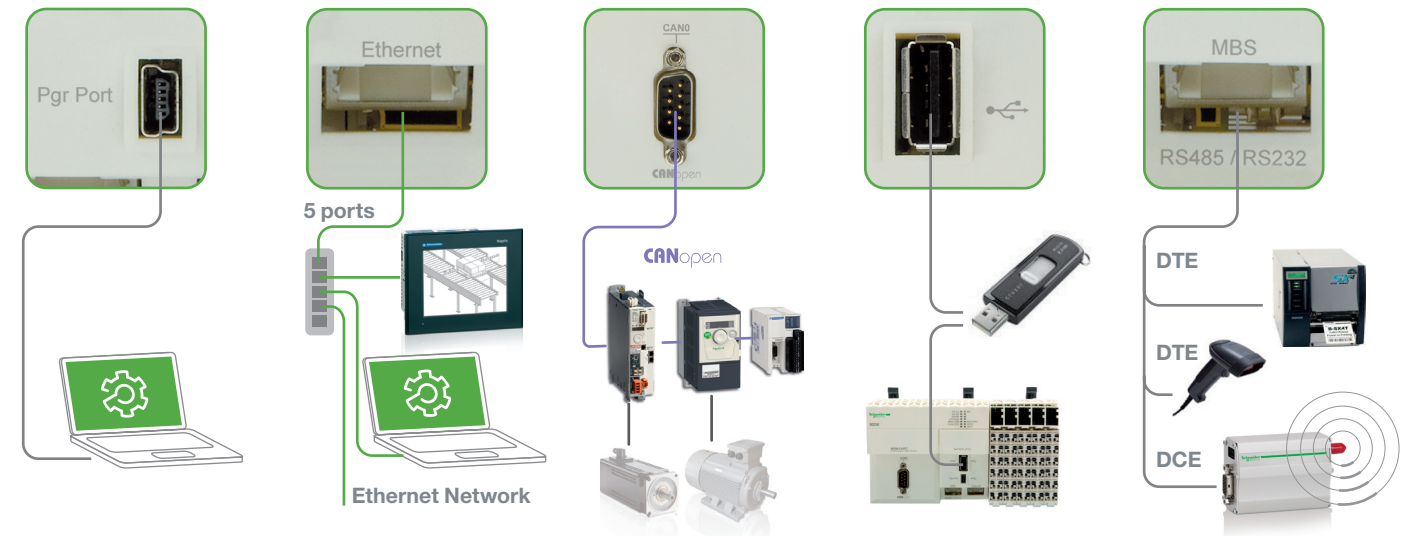
- > Flexibility for your Distributed Architectures:
 - Up to 63 Slaves
 - Up to 1 Mbits/s
- > Speed Up Machine Design:
 - CANopen Configurator integrated in SoMachine Software
 - PLCOpen Motion Libraries

4 Save time in Programing and Commissioning

- > Thanks to our 2 Standard USB Ports:
 - Mini-USB B Port for SoMachine Programming Software
 - USB-A Port for Memory key for Program, Firmware, Data Files Transfer
- Speed: 480Mbits/s

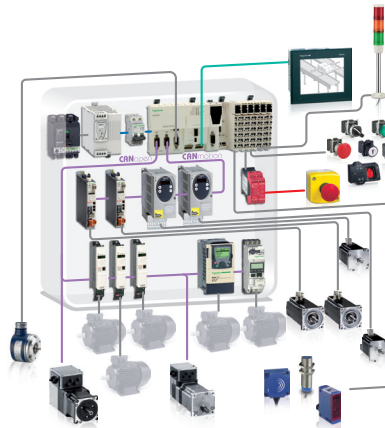
5 Serial line Embedded

- > Openess thanks to 2 Standards Protocols:
 - Modbus Master/Slave
 - Character RS232 or RS485
- > Data Terminal Equipment (DTE : printer, bar code scanner...)
- > Cordset for Data Communication Equipment (DCE: modem, converter...)



> Built-in motion bus

- > CanMotion and CanOpen Masters ready to use for your Machine Performance



> Local flexibility

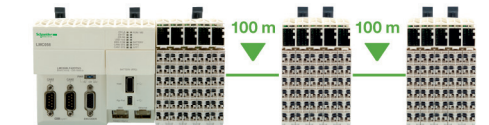
The COST of a «Compact» Controller
The FLEXIBILITY of a «Modular» Controller

- > Compact IO Modules:
 - Low Cost
 - High Density
- > Slice IO Modules:
 - Hot Swap
 - Modularity from 2 to 12 Channels
- > Removable Terminal Blocks
- > Spring Terminals
- > Hot swap
- > Daisy Chain on LEXIUM 32 ServoDrives

> Remote flexibility

TM5 I/O BUS because performance must be everywhere

- > Baudrate: 12 MBit/s
- > Modules Max : 250 Modules
- > Distance Max. entre 2 stations : 100 m
- > Minimum cycle time: 100 µs
- > Remote IOs synchronized with local IOs



> Ethernet, CanOpen, CanMotion
For Simplicity, efficiency, integration



SoMachine



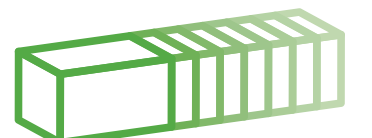
Packaging



Conveying



80 158 90



Up to 250 I/O's modules

> Modicon LMC058 selection guide

Logic controller compact bases

Power supply	24 VDC	24 VDC
Ethernet ¹	1 (RJ45)	1 (RJ45)
CANmotion master	1 (Sub-D9)	1 (Sub-D9)
Encoder master	1 (Sub-D15)	1 (Sub-D15)
CANopen master	1 (Sub-D9)	1 (Sub-D9)
Serial link	1 (RJ45)	1 (RJ45)
USB Ports (USB A - USB mini-B)	1-1	1-1
PCI slots ²	0	2
Digital Inputs	26/24 VDC - 8/200 KHz	26/24 VDC - 8/200 KHz
Digital Outputs	16 Trans 0.5A	16 Trans 0.5A
Analog Inputs	-	4 Inputs / 0-20mA / 4-20mA / -10V/+10V
Max. number of expansions	250	250
References	LMC058LF42S0	LMC058LF424S0

(1) TCP Modbus - Ethernet-IP Device - Server WEB / FTP - (2) Optionals Communication module

Compact I/O expansion modules

Power supply	24 VDC	24 VDC	24 VDC	24 VDC
Digital Inputs	12 Inputs - 24 VDC	24 Inputs - 24 VDC	24 Inputs - 24 VDC	12 Inputs - 24 VDC
Digital Outputs	8S Trans 0.5A	16S Trans 0.5A	18S Trans 0.5A	6S Trans 0.5A
Analog Inputs	-	-	-	4 Inputs / 0-20mA / 4-20mA / -10V/+10V
Analog Outputs	-	-	-	2 Outputs / 0-20mA / -10V/+10V
References	TM5C12D8T	TM5C24D12R	TM5C24D18T	TM5C12D6T6L

Digital I/O expansion modules

Number of digital inputs and/or outputs	2 Channels	4 Channels	6 Channels	8 Channels	12 Channels	8 Inputs / 4 Outputs
Connections	Removable spring terminal block	Removable spring terminal block	Removable spring terminal block	Removable spring terminal block	Removable spring terminal block	Removable spring terminal block
24 VDC Sink/Source Inputs	TM5SDI2D	TM5SDI4D	TM5SDI6D	-	TM5SDI12D	-
100-240 VAC Inputs	TM5SDI2A	TM5SDI4A	-	-	-	-
100-120 VAC Inputs	-	-	TM5SDI6U	-	-	-
0.5A Source Transistor Outputs	TM5SDO2T	TM5SDO4T	TM5SDO6T	-	TM5SDO12T	-
2A Source Transistor Outputs	-	TM5SDO4TA	-	TM5SDO8TA	-	-
30VDC/230VAC Relay Outputs + 5A Relay	TM5SDO2R	TM5SDO4R	-	-	-	-
24 VDC sink/source Inputs + 0,5A Relay Outputs	-	-	-	-	-	TM5SDM12DT

Analog expansion modules

Number of inputs and/or outputs	2 Inputs	4 Inputs	6 Inputs	2 Outputs	4 Outputs
Connections	Removable spring terminal block	Removable spring terminal block	Removable spring terminal block	Removable spring terminal block	Removable spring terminal block
±10V/0-20mA/4-20mA Inputs - 12 Bits	TM5SAI2L	TM5SAI4L	-	-	-
±10V/0-20mA/4-20mA Inputs - 16 Bits	TM5SAI2H	TM5SAI4H	-	-	-
±10V/0-20mA Outputs - 12 Bits	-	-	-	TM5SAO2L	TM5SAO4L
±10V/0-20mA Outputs - 16 Bits	-	-	-	TM5SAO2H	TM5SAO4H
J/K/S/N Thermo-couple Inputs-16 bits	TM5SAI2TH	-	TM5SAI6TH	-	-
PT100/1000 Inputs - 16 bits	TM5SAI2PH	TM5SAI4PH	-	-	-

Communication PCI modules

Serial link	1 (RS232)	1 (RS485)	-
Profibus DP	-	-	1 (Slave)
References	TM5PCRS2	TM5PCRS4	TM5PCDPS

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