The M221 Logic Controller

M221 Controllers   The M221 Logic Controller is a small controller containing on-board I/O. It has serial and USB connectors and an Ethernet option. A SD card slot allows data transfer and a Run/Stop switch is fitted for program control. The unit also has two 0-10V analog inputs.

Power supply for all M221 Brick Controllers is by 24VDC connected at the bottom of the unit. The standard M221 Logic Controller can be powered by either 24VDC or 100-240VAC.

Capabilities   The M221 Logic Controller has many features that differentiate it from other controllers on the market. These include:
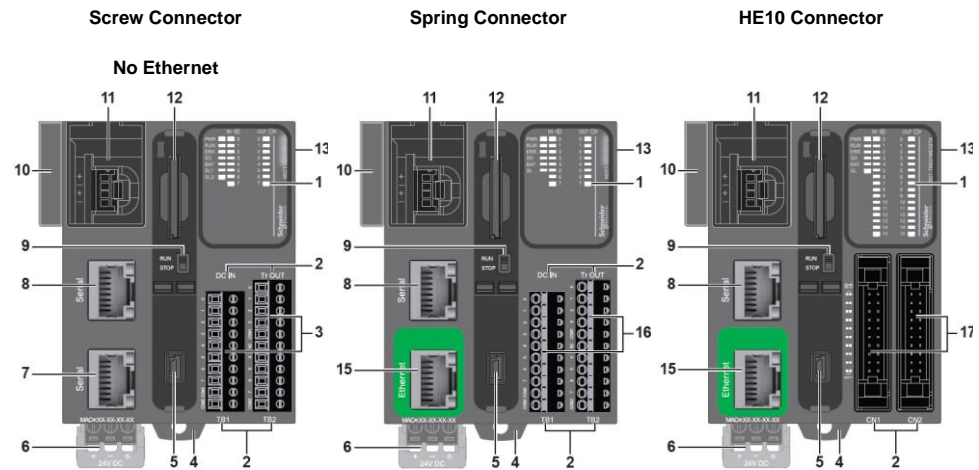
- ➢ Small size - 70mm with 32 I/O
- ➢ 5K instructions per millisecond
- ➢ High speed counters and pulse output
- ➢ SD card for data transfer
- ➢ On-line modification
- ➢ Real Time Clock
- ➢ .csv export/import of object names and descriptions
- ➢ Program via USB or Ethernet (where fitted)
- ➢ Serial port for Modbus or ASCII communication
- ➢ Two built-in analog inputs

These features mean that the M221 is highly flexible for most small applications. It is also easily configurable using SoMachine Basic.

The M221 Logic Controller (cont.)

Features of the M221

The appearance of the M221 Logic Controller will depend on the connector type and whether it has an Ethernet port. Three of the configurations are shown below.
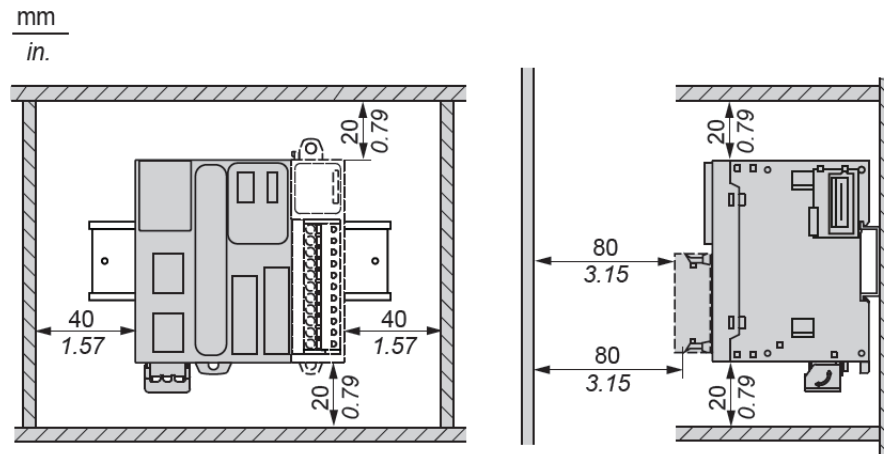
Screw Connector

No Ethernet

Spring Connector

HE10 Connector

1	System LEDs	10	Analog input cover
2	I/O label information	11	2 analog inputs
3	I/O removable screw terminals	12	SD card port
4	Clip lock for 35mm DIN rail	13	TM3 bus connector
5	USB mini-B programming port	14	Plastic cover
6	24V DC power supply	15	Ethernet port
7	Serial line port 2	16	I/O removable spring terminals
8	Serial line port 1	17	I/O HE10 terminals
9	Run/Stop switch		

The pictures and table above shows the M221 Book Controller but the M221 Logic Controller shares the same basic features.

The M221 Logic Controller (cont.)

Panel Mounting   The M221 should be mounted on a horizontal 35mm DIN or top-hat rail with at
least 20mm spacing above and below and at least 40mm spacing on either side.
There should be at least 80mm spacing between the front of the M221 Logic
controller and the panel door.

The plug-in connectors and removable I/O terminal blocks mean that the M221 can
be removed and replaced easily without having to remove individual cables.