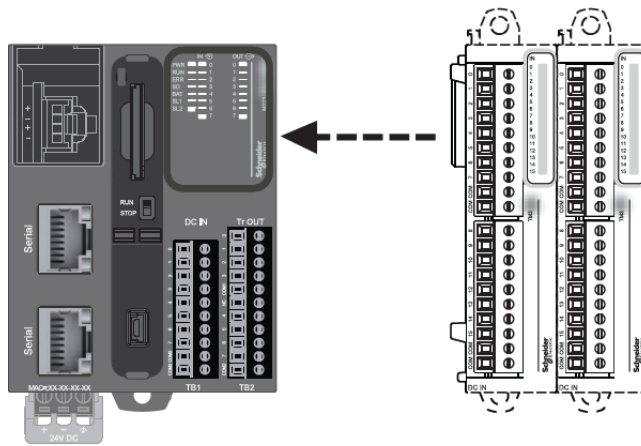


Expansion

I/O Modules

I/O modules can be added to the M221 controller to expand its capabilities.



There are two types of module that can be added.

TM2 modules are existing modules for Twido that can be used and allow the M221 to be compatible with Twido applications. This makes upgrading from the Twido to M221 simple especially when coupled with the Twido to M221 application conversion that is part of the SoMachine Basic software.

TM3 modules are a new range specifically designed for the M2xx range of Logic Controllers to take advantage of the extended I/O expansion bus. They offer new capabilities that are not available to the Twido.

Expansion (cont.)

TM2 Digital Modules

TM2 Digital modules offer a range of I/O configurations with 8, 16 or 32 inputs, 8, 16 or 32 outputs and a mixture of input and outputs. As with the M221, the outputs can be either transistor or relay.

They come with removable screw, spring contact or MIL connectors, the last of which is used for the high density 32 I/O modules.

These modules are compatible with the Twido controller.

TM2 Analog Modules

TM2 Analog modules offer a range of I/O configurations with 2, 4 or 8 inputs, 1 or 2 outputs and a mixture of input and outputs. The inputs are designed for a range of field devices including thermocouples, NTC probes and PT100/PT1000. The outputs are configurable for either 0-10V DC or 4-20mA.

All come with removable screw terminal blocks except the PT100/PT1000 modules which are fitted with a RJ11 connector.

These modules are compatible with the Twido controller.

TM3 Digital Modules

TM3 Digital modules offer a range of I/O configurations with 8, 16 or 32 inputs, 8, 16 or 32 outputs and a mixture of input and outputs. As with the M221, the outputs can be either transistor or relay.

They come with removable screw or HE10 connector which are either an option on the 16 I/O modules or required for the high density 32 I/O modules.

TM3 Analog Modules

TM3 Analog modules offer a range of analog inputs and outputs. They can be 2,4,or 8 input or 2 or 4 output. There is also a 4 input 2 output module for greater flexibility. Both inputs and outputs can be either voltage or current.

The TM3T modules also allow temperature input and can be 4 or 8 input. There is also a 2 input 1 output module that can be used for temperature inputs.

Expansion (cont.)

TM3 Expert Modules

There are two standard modules and four safety modules currently in the TM3 expert range.

The Tesys module allows connection to up to four Tesys motor starters and the transmitter receiver module allows the M221 I/O to be expanded even further by adding another 7 I/O modules. Only one transmitter receiver module can be used by a single M221.

The safety modules offer single function or dual function for CAT3 (SIL2) or CAT4 (SIL3).

Total I/O

Up to seven I/O modules can be added to the M221. These can be TM2 or TM3 modules or a mixture of both.

If one of the attached modules is a TM3 expansion module then another seven modules can be added. The M221 can control up to 144 I/O in total.



Note:

There is a limit on the number of relay outputs due to the power supplied by the CPU. See the data sheets for the individual CPUs for more information..
