

Modicon TM5

High-Performance and Safe IP20 Modular I/O System Transmitter and receiver modules

Presentation

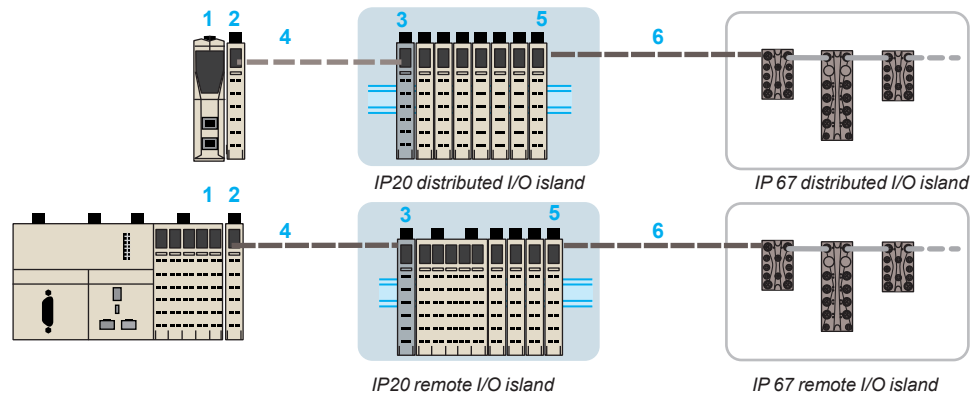
Transmitter and receiver modules are used to create remote and distributed I/O islands via the TM5 expansion bus. This makes it possible to:

- Adapt the architecture as close as possible to the machine topology, and reduce wiring costs by minimizing the distance between the I/O modules and the sensors/preactuators
- Take full advantage of the TM5 expansion bus exchange performance, and save the cost of a fieldbus connection

Remote I/O modules are needed to:

- Increase the number of distributed I/O with a network interface module (Ethernet, Sercos, or CANopen) beyond 100 m/328 ft (1)
- Increase the number of remote I/O with a logic controller beyond 100 m/328 ft (1)

They are used to exchange incoming and outgoing data from the I/O expansion modules, and to maintain data exchange performance.



- The **TM5SBET1** transmitter module (2) operates with the **TM5SBER2** receiver module (3) to transmit data between IP20 I/O islands. The transmitter (2) and receiver (3) modules are physically connected via the **TCSXCNNXN100** remote I/O cable (4).

- The **TM5SBET7** transmitter module (5) transmits data from an IP20 island to an IP67 island (1) via a TM7 expansion bus (6).

The maximum distance between two islands is 100 m (328 ft) and the maximum total distance is 2,500 m (8,202 ft).

Each remote I/O module comprises three parts to be ordered separately:

- A remote electronic module, either transmitter or receiver
- A bus base
- A terminal block

These modules can be mechanically assembled before mounting on a symmetrical rail.

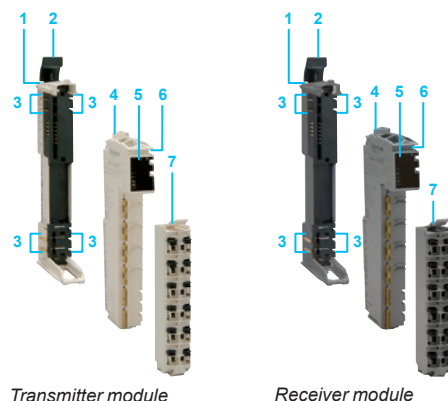
They offer the following advantages:

- Removable connector
- Spring terminals that can be used for quick, tool-free connection of the sensors and preactuators (the quality of the spring terminals avoids the need for periodic retightening)

Transmitter and receiver module compatibility

	TM5SBET1, TM5SBER2
Local and remote I/O	■ Modicon M258 logic controller ■ Modicon LMC058 motion controller
Distributed I/O	■ Ethernet network interface module ■ CANopen bus interface module ■ Sercos bus interface module

Description



Transmitter and receiver modules comprise:

- 1 A bus base
- 2 A mechanical clip for locking onto a symmetrical rail
- 3 A bus expansion connection on each side of the base to provide the link with the adjacent controller or module
- 4 A remote I/O electronic module, either transmitter or receiver
- 5 An LED display block for the module channels and diagnostics
- 6 A slot for the plain text cover holder (label holder)
- 7 A removable spring terminal block with locking clip and slots for colored ID markers

(1) Modicon TM7, please refer to catalog ref. [DIA3ED2140405EN](#)

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High-Performance and Safe IP20 Modular I/O System
Transmitter and receiver modules



References

Description	Characteristics	Reference	Weight kg/lb
Transmitter module	Electronic module for data transmission between IP 20 I/O islands	TM5SBET1	0.025/ 0.055
	Electronic module for data transmission between IP 20 I/O islands and IP67 I/O islands Includes the power supply for the TM7 expansion blocks (1)	TM5SBET7	
Receiver module	Data reception electronic module Power distribution module for electronic modules and the TM5 bus, 24 V $\overline{\text{DC}}$ power supply	TM5SBER2	
Remote I/O connection cable	Bus expansion by linking transmitter and receiver modules Length: 100 m (328 ft)	TCSXCNNXNX100	8.800/ 19.401
Bus bases	For TM5SBET1 and TM5SBET7 transmitter modules	TM5ACBM11	0.020/ 0.044
	For TM5SBET1 and TM5SBET7 transmitter modules, with address setting	TM5ACBM15	0.020/ 0.044
	For TM5SBER2 receiver module	TM5ACBM01R	0.020/ 0.044
	For TM5SBER2 receiver module, with address setting	TM5ACBM05R	0.020/ 0.044
Terminal blocks	For TM5SBET1 transmitter module 6 spring terminals	TM5ACTB06	0.016/ 0.035
	For TM5SBET1 and TM5SBET7 transmitter modules 12 spring terminals	TM5ACTB12	0.020/ 0.044
	For TM5SBER2 receiver module 12 spring terminals	TM5ACTB12PS	0.020/ 0.044

Accessories

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(1) Modicon TM7, please refer to catalog ref. [DIA3ED2140405EN](#)