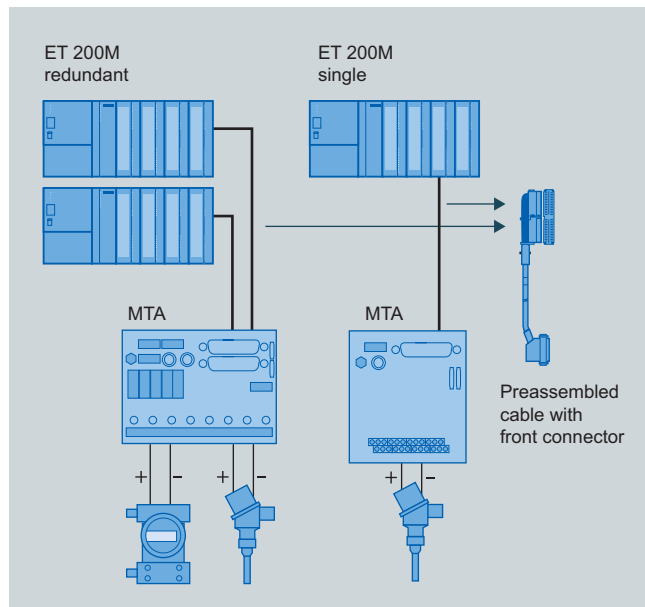


Process I/O

Terminal modules

MTA terminal modules

Overview



MTA terminal modules (Marshaled Termination Assemblies) can be used to connect field devices, sensors and actuators to the I/O modules of the ET 200M remote I/O stations simply, rapidly and reliably. They can be used to significantly reduce the costs and required work for cabling and commissioning, and prevent wiring errors.

The individual MTA terminal modules are each tailored to specific I/O modules from the ET 200M range (see design for assignment table). MTA versions are available for standard I/O modules as well as for redundant and safety-related I/O modules.

The MTA terminal modules are connected to the I/O modules using 3 m or 8 m long preassembled cables.

Design

- MTA terminal modules in versions for standard, redundant and safety-related I/O modules of the ET 200M distributed I/O system
- Redundant 24 V DC supply
- Power monitor board for diagnostics of the redundant power supply (can be ordered as option)
- 3 or 8 m long preassembled cables for connecting MTA terminal module and ET 200M module, in each case with:
 - 50/25-contact Sub-D socket or 25-contact Sub-D plug, for connection to MTA terminal
 - 40/20-pole Siemens front connector, female version, for connection to ET 200M module
- Screw terminals for the 1:1 connection of field devices, sensors and actuators
- Protection of channels frequently by fuse and LED display
- Test and release as SIMATIC PCS 7 system component with corresponding approvals (FM, UL, CE, ATEX, TÜV)

Product overview with information on combinable ET 200M modules and connection cables

MTA type	Input/output area.	Order no. of MTA and accessories	Order No. of ET 200M module	Order No. of connecting cable	I/O redundancy
8 channels, AI	1 ... 5 V; ± 5 V; ± 10 V; 0 ... 20 mA; 4 ... 20 mA; ± 20 mA	6ES7 650-1AA51-2XX0	6ES7 331-7NF00-0AB0 (from product version 5)	6ES7 922-3BD00-0AS0 (3 m) 6ES7 922-3BJ00-0AS0 (8 m)	yes
8 channels, AO	0 ... 20 mA; 4 ... 20 mA	6ES7 650-1AB51-2XX0	6ES7 332-5HF00-0AB0 (from product version 3)	6ES7 922-3BD00-0AS0 (3 m) 6ES7 922-3BJ00-0AS0 (8 m)	yes
8 channels, AI HART	0 ... 20 mA (without use of HART) 4 ... 20 mA (with/without use of HART)	6ES7 650-1AA61-2XX0	6ES7 331-7TF01-0AB0	6ES7 922-3BD01-0AM0 (3 m) 6ES7 922-3BJ01-0AM0 (8 m)	yes
8 channels, AO HART	0 ... 20 mA (with/without use of HART) 4 ... 20 mA (with/without use of HART)	6ES7 650-1AB61-2XX0	6ES7 332-8TF01-0AB0	6ES7 922-3BD01-0AM0 (3 m) 6ES7 922-3BJ01-0AM0 (8 m)	yes
8 channels, AI TC	Thermocouple types B, C, N, E, R, S, J, L, T, K, U	6ES7 650-1AF51-2XX0	6ES7 331-7PF10-0AB0 (from product version 4) or 6ES7 331-7PF11-0AB0	6ES7 922-3BD00-0AS0 (3 m) 6ES7 922-3BJ00-0AS0 (8 m)	No
8 channels, AI RTD	Resistance thermometers Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni200, Ni500, Ni1000, Cu10	6ES7 650-1AG51-2XX0	6ES7 331-7PF00-0AB0 (from product version 8) or 6ES7 331-7PF01-0AB0	6ES7 922-3BD00-0AS0 (3 m) 6ES7 922-3BJ00-0AS0 (8 m)	No
16 channels, DO	24 V DC, 0.5 A	6ES7 650-1AD10-2XX0	6ES7 322-8BH01-0AB0	6ES7 922-3BD00-0AT0 (3 m) 6ES7 922-3BJ00-0AT0 (8 m)	yes

MTA terminal modules

MTA type	Input/output area.	Order no. of MTA and accessories	Order No. of ET 200M module	Order No. of connecting cable	I/O redundancy
6 channels F-AI HART (safety-related)	0 ... 20 mA (standard mode); 4 ... 20 mA (standard and safety modes)	6ES7 650-1AH61-5XX0 and 2 x 6ES7 650-1BD51-0XX0	6ES7 336-1HE00-0AB0 (from product version 6)	6ES7 922-3BD00-0AS0 (3 m) 6ES7 922-3BJ00-0AS0 (8 m)	yes
	0 ... 20 mA (without use of HART); 4 ... 20 mA (with/without use of HART)	6ES7 650-1AH61-5XX0	6ES7 336-4GE00-0AB0 (from product version 2)	6ES7 922-3BD00-0AU0 (3 m) 6ES7 922-3BJ00-0AU0 (8 m)	yes
16 channels, DI	24 V DC	6ES7 650-1AC11-3XX0	6ES7 321-7BH01-0AB0 (from product version 2)	6ES7 922-3BD01-0AM0 (3 m) 6ES7 922-3BJ01-0AM0 (8 m)	yes
24 channels F-DI (safety-related)	24 V DC	6ES7 650-1AK11-7XX0	6ES7 326-1BK00-0AB0, 6ES7 326-1BK01-0AB0 or 6ES7 326-1BK02-0AB0	6ES7 922-3BD00-0AS0 (3 m) 6ES7 922-3BJ00-0AS0 (8 m)	yes
10 channels F-DO (safety-related)	24 V DC, 2 A	6ES7 650-1AL11-6XX0	6ES7 326-2BF01-0AB0 (from product version 2) or 6ES7 326-2BF10-0AB0	6ES7 922-3BD00-0AN0 (3 m) 6ES7 922-3BJ00-0AN0 (8 m)	yes
16 channels DO relay	120 ... 230 V AC, 5 A; 24 V DC, 5 A	6ES7 650-1AM30-3XX0	6ES7 322-8BH01-0AB0	6ES7 922-3BD00-0AS0 (3 m) 6ES7 922-3BJ00-0AS0 (8 m)	yes
10 channels F DO relays (safety-related)	120 ... 230 V AC, 5 A; 24 V DC, 5 A	6ES7 650-1AM31-6XX0	6ES7 326-2BF01-0AB0 (from product version 2) or 6ES7 326-2BF10-0AB0	6ES7 922-3BD00-0AS0 (3 m) 6ES7 922-3BJ00-0AS0 (8 m)	yes

Selection and Ordering data

Order No.

MTA terminal modules for SIMATIC PCS 7

MTA AI terminal module, 8-channel

Terminal module for connection of field devices/sensors to a single or two redundant ET 200M analog input modules 6ES7 331-7NF00-0AB0

Input range: 1 ... 5 V; ± 5 V; ± 10 V and 0/4 ... 20 mA; ± 20 mA

6ES7 650-1AA51-2XX0

MTA AO terminal module, 8-channel

Terminal module for connection of field devices/actuators to a single or two redundant ET 200M analog output modules 6ES7 332-5HF00-0AB0

Output range: 0/4 ... 20 mA

6ES7 650-1AB51-2XX0

MTA AI HART terminal module, 8-channel

Terminal module for connection of field devices/sensors to a single or two redundant ET 200M analog input modules 6ES7 331-7TF01-0AB0

Input range: 0 ... 20 mA (without use of HART), 4 ... 20 mA (with/without use of HART)

6ES7 650-1AA61-2XX0

MTA AO HART terminal module, 8-channel

Terminal module for connection of field devices/actuators to a single or two redundant ET 200M analog output modules 6ES7 332-8TF01-0AB0

Output range: 0 ... 20 mA (with/without use of HART), 4 ... 20 mA (with/without use of HART)

6ES7 650-1AB61-2XX0 B)

Selection and Ordering data

Order No.

MTA AI TC terminal module, 8-channel

Terminal module for connection of field devices/sensors to a single ET 200M analog input module 6ES7 331-7PF10-0AB0 or 6ES7 331-7PF11-0AB0

Input range: Thermocouple types B, C, N, E, R, S, J, L, T, K, U

6ES7 650-1AF51-2XX0 B)

MTA AI RTD terminal module, 8-channel

Terminal module for connection of field devices/sensors to a single ET 200M analog input module 6ES7 331-7PF00-0AB0 or 6ES7 331-7PF01-0AB0

Measuring range: Resistance thermometers Pt100, Pt200, Pt500, Pt1000, Ni100, Ni120, Ni200, Ni500, Ni1000, Cu10

6ES7 650-1AG51-2XX0

MTA DO terminal module, 16-channel

Terminal module for connection of field devices/actuators to a single or two redundant ET 200M the digital output modules 6ES7 322-8BH01-0AB0

Output range: 24 V DC, 0.5 A

6ES7 650-1AD10-2XX0

B) Subject to export regulations: AL: N, ECCN: EAR99H