

Compact Telecontrol System

TM 1703 mic

Simple, clever automation

Power Transmission and Distribution

SIEMENS

With the growing pressure on costs in virtually all processes, there is increasing need to also automate smaller stations in order to make better and yet more reliable use of existing equipment. Modern, high-performance automation systems allow the integration of smaller stations to provide universal and reliable management of complex processes.

Economical and flexible: TM 1703 mic

Compact performance: TM 1703 mic

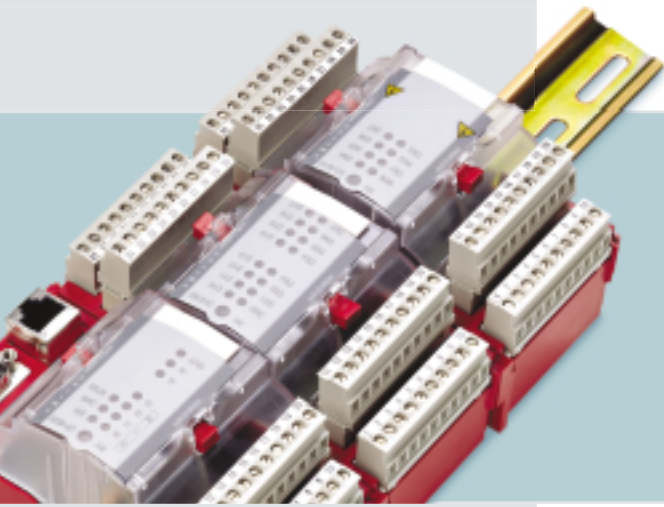
TM 1703 mic (Terminal Module for microcontrol) is a low-cost, modular, telecontrol substation and belongs to the proven SAT 1703 automation family. The devices consist of a master control element and various I/O modules and are designed for DIN rail mounting. The master control element serves for the interfacing and supplying of the I/O modules and provides a telecommunications interface in accordance with IEC 60870-5-101 for dial-up or multi-point traffic. Alternatively LAN/WAN communication can be used, according to IEC 60870-5-106 over TCP/IP.

Integrated Web server for simple engineering

We placed great importance on keeping the engineering process as simple as possible. The master control element has an integrated web server for configuration, diagnostics and testing, so that no special tools or additional licenses are needed. The tool is already integrated in TM 1703 mic and is operated with a standard Web browser.

Plug & Play for servicing and commissioning

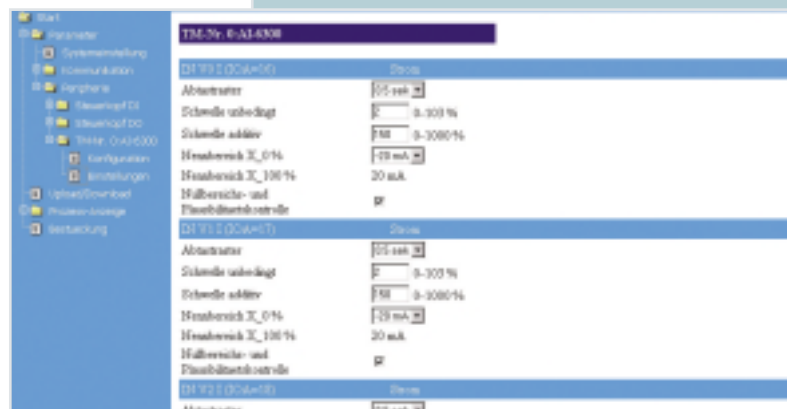
The configuration parameters in TM 1703 mic are already stored on an SIM card of the kind used in mobile phones. When commissioning or servicing, the configuration is simply transferred to the new device when the SIM card is inserted. Additional advantages of the SIM card are that all data is always available locally and there is no possibility of accidentally loading incorrect parameters (for example from a PC). Configuration is also possible with an offline tool without destination system hardware and can be carried out very simply at any desk. The fully written SIM card transfers the complete configuration into TM 1703 mic. A Web browser is the only requirement for any changes or local tests. Alternatively, the engineering process can also be carried out with the SAT Toolbox II.



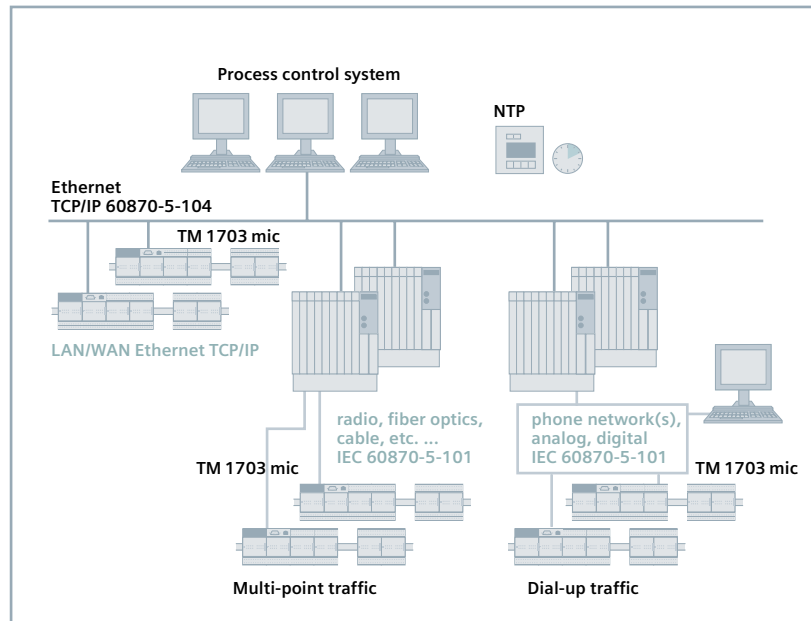
TM 1703 mic:

The **advantages** at a glance

- TM 1703 mic is a universal system suitable for electricity distribution stations, hydro-electric power stations, pipelines, gas distribution stations, railway power supplies and tunnels, and for building protection and alarm sensors
- Simple configuration by means of integrated Web browser with no special tools or licenses, configuration, diagnostics and testing via integrated Web server
- Alternatively engineering is also possible with the SAT Toolbox II.
- Simple application programs
- Plug & Play with SIM card for data storage when commissioning and servicing: no tools needed for changing modules; offline- and duplication tool for SIM card.
- Direct connection of process cables
- 35 mm DIN rail mounting
- Communication via IEC 60870-5-101/104
 - Multi-point traffic:
 - analog or digital radio
 - telecommunications cable
 - DLC modem (Distribution Line Carrier)
 - Dial-up traffic:
 - analog telephone networks
 - ISDN
 - GSM
 - TETRA (TERrestrial Trunked Radio)
 - LAN/WAN:
 - Ethernet TCP/IP
 - IEC 60870-5-104



TM 1703 mic can be operated optionally in multi-point or dial-up traffic, or via LAN/WAN networks. Transmission conforms to IEC 60870-5-101 or IEC 60870-5-104.



Typical applications of TM 1703 mic

Multi-point traffic

For transmission in multi-point traffic, external data transmission equipment can be connected via the V.28 interface. In this way it is possible, for example, to use power lines for communication by means of DLC modems.

Dial-up traffic

A wide range of connection-oriented transmission media (analog, ISDN, GSM, TETRA) is supported as standard for dial-up traffic as well.

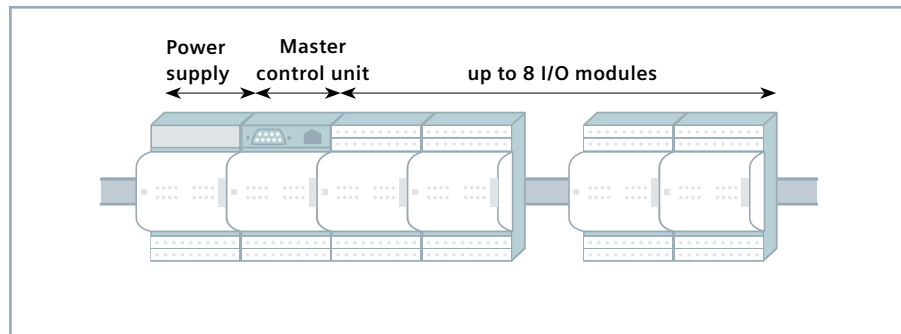
LAN/WAN

IEC 60870-5-104-compliant transmission based on Ethernet TCP/IP is used for communication via LAN/WAN networks. Configuration, diagnostics and testing are possible from any access point to the network including remote locations.

TM 1703 mic: The **system** in detail

Functions of the master control element:

- Central processing functions
- Saving the parameters on SIM card
- Interfacing and supplying of the I/O modules
- Telecommunication or LAN/WAN interface
- 6 binary inputs
- 2 relay outputs
- Watchdog output



Technical data

	Type designation	Interface	Communication	Power supply	I/O modules
Master control elements	CP-6020	V.28	Dial-up or multi-point traffic	external with PS-6620	max. 8
	CP-6040	Ethernet	LAN/WAN	external with PS-6620	max. 8
I/O modules	DI-6100	Binary input 2 x 8, 24–60 VDC			
	DI-6101	Binary input 2 x 8, 110–220 VDC			
	DI-6102	Binary input 2 x 8, 24–60 VDC 1 ms			
	DI-6103	Binary input 2 x 8, 110/220 VDC 1 ms			
	DO-6200	Binary output transistor 2 x 8, 24–60 VDC			
	DO-6212	Binary output relay 1 x 8, 24–220 VDC, 230 VAC			
	AI-6300	Analog input 2 x 2, ±20 mA/±10 mA/±10 V			
	AI-6307	Analog input 2 x 2, ±5 mA			
	AI-6310	Analog input 2 x 2 Pt100			
	AO-6380	Analog output 4 x ±20 mA/±10 mA/±10 V			
Supply voltage	PS-6620	Supply voltage 24–60 VDC			
	PS-6630	Supply voltage 24–60 VDC EMC+			
	PS-6632	Supply voltage 110–220 VDC EMC+			
Ambient conditions	–25 ... +70 °C				
Dimensions	67 x 127 x 72 (W x H x D) per module				

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The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

Subject to change without prior notice.

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