Control Unit

Teta MOD Control 1

Product code: PW-108-A

Innovations

Reliability

Cost efficiency

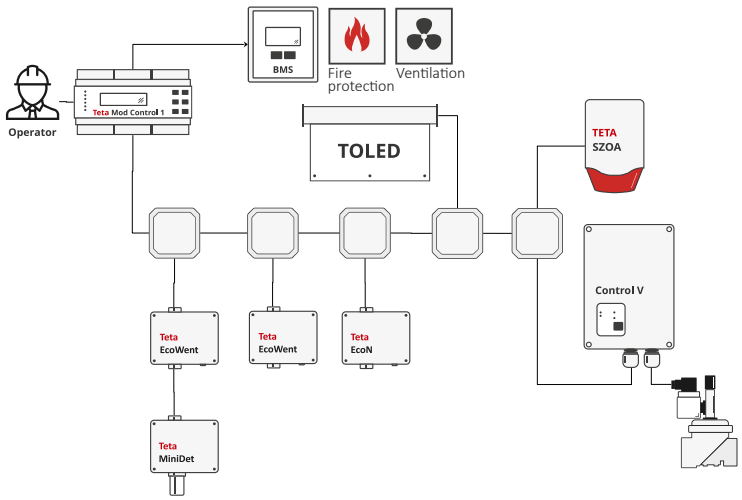
Information about the product

Control Unit Module Teta MOD Control 1 is a device designed as a part of the Gas Safety Systems Teta Gas. The module uses the Digital Data Transmission – Teta Bus to enable both power supply and addressable communication with field gas detectors by means of merely a single pair of wires. Teta MOD Control 1 is responsible for communication with Teta gas detectors, processing field signals, indication of the system status for the operator as well as overall control of the system operation

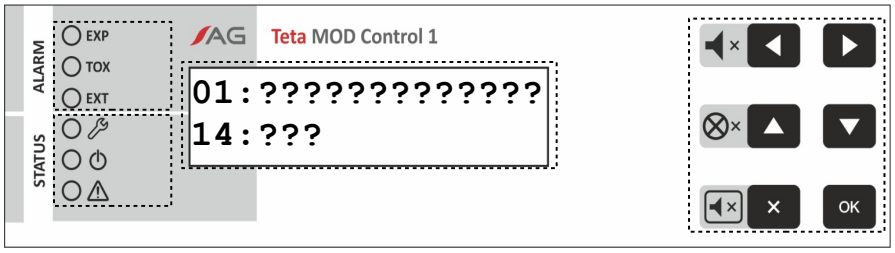
Key advantages of the module:

- Support for up to 50 devices connected directly to the Teta Bus port.
- Support for up to 8 valve drivers.
- Support for up to 12 signaling devices (optical and acoustic signaling devices or warning boards).
- 6 relay outputs.
- 2 binary inputs.
- Independent control outputs for flammable and toxic gases
- Identification of the hazard point - in the event of a gas leak on the site, the control unit allows the staff to check the location of the hazard.

Location and role of the device in Gas Safety System

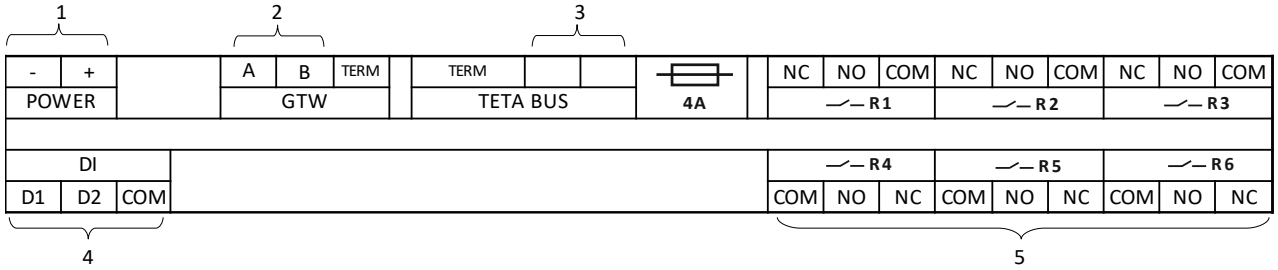


User interface



Upon having the Teta MOD Control 1 module booted up the displays the main screen with the system view. The screen contains key information about the system, such as the number of detectors included into the system with their statuses as well as the status of the control unit, history of events and status of signal devices. The interface is operated by means of a keypad – the detailed description is provided in the User Manual.

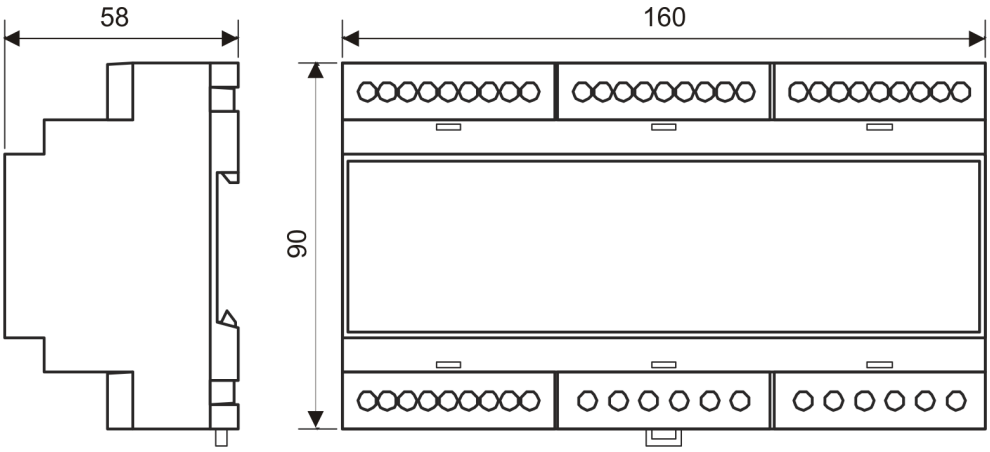
Electrical interface



No.	Name	Pin	Description
1	POWER		Device power port
		-	Negative. Both „GND" terminals are internally connected
		+	Positive. Both „GND" terminals are internally connected
2	GTW		Communication port (currently inactive)
		A	Signal line
		B	Signal line
3	TETA BUS		System communication port. Used to connect devices of the Teta series.
			Power supply and control line for detectors of the Teta s eries
			Power supply and control line for detectors of the Teta s eries

No.	Name	Pin	Description
4	DI		Binary inputs
		D1	External alarm input 1
		D2	External alarm input 2
		COM	Common terminal
5	R1 – R6		Relays output
		COM	Common terminal of relay
		NO	Normally open contact of relay
		NC	Normally close contact of relay

Dimension



Technical specification

Power supply • Voltage V_{CC} • Power P_{CC}	 15 – 50 V⎓ 2.5 W
Environment • Ambient temperatures • Humidity • Pressure • pH	 0 – 50 °C 10 – 90% long term 0 – 99% short term 1013 ± 10% hPa 5.5 – 7
IP	IP20
Digital input parameters (binar, DI) • R_{IN} • Inactive (not negated) • Active (not negated) • Other	 10 kΩ 0 – 1 V 10 – 50 V Signal type: DC (any polarisation), AC (50 Hz) Any polarization > 1s
Digital output parameters • Relay	 Floating contacts, NO/NC AC1[2]: 230 V ~ / 3 A DC1: 230 V ⎓ / 0.25 A DC1: 24 V ⎓ / 3 A Not protected against overloading

Digital communication parameters • TETA BUS port • Communication protocol • GTW port • Electric standard • Communication protocol	 Teta Bus RS- 485 Modbus ASCII / RTU, 4800 – 115200 b/s, no parity / even parity/ odd parity, number of bits 7/8 (only for Modbus ASCII)
Integrated signalling equipment (visual)	LCD alphanumerical display 2 x 16 LED indicator
Integrated signalling equipment (audible)	70 dB 1 m distance
Protection class	III
Cable glands (cable diameter range)	0.08 – 2.5 mm^2 (cable lugs 2 x 1 mm^2 or 2 x 0.75 mm^2 should be used for double wires)
Enclosure material	Self-extinguishing PPO
Weight	0.4 kg
Mounting	On DIN-35 / TS35

Product marking

Product code	Device
PW-108-A	Teta MOD Control 1 Control Unit Module

→ Detailed schematic diagrams in editable format

Device configuration

Product code	Device	Description
PW-108-A	Teta MOD Control 1 Control Unit Module	Teta MOD Control 1 Control Unit Module – mounting on DIN-35 / TS35
PW-086-Control1-S	Teta MOD Control 1-S Control Unit Module	Teta MOD Control 1 Control Unit Module built into the switchgear for wall mounting, IP65. Dimension: 432x290.5x160 mm (width x high x depth)
PW-086-Control1-S24	Teta MOD Control 1-S24 Control Unit Module	Teta MOD Control 1 Control Unit Module with power supply **230/24V 60W**, built into the switchgear for wall mounting, IP65. Dimension: 432x290.5x160 mm (width x high x depth)
PW-086-Control1-S48-60	Teta MOD Control 1-S48-60 Control Unit Module	Teta MOD Control 1 Control Unit Module with power supply **230/48V 60W**, built into the switchgear for wall mounting, IP65. Dimension: 432x290.5x160 mm (width x high x depth)
PW-086-Control1-S48-100	Teta MOD Control 1-S48-100 Control Unit Module	Teta MOD Control 1 Control Unit Module with power supply **230/48V 100W**, built into the switchgear for wall mounting, IP65. Dimension: 432x290.5x160 mm (width x high x depth)
PW-086-Control1-S48-150	Teta MOD Control 1-S48-150 Control Unit Module	Teta MOD Control 1 Control Unit Module with power supply **230/48V 150W**, built into the switchgear for wall mounting, IP65. Dimension: 432x290.5x160 mm (width x high x depth)
PW-086-Control1-S48-240	Teta MOD Control 1-S48-240 Control Unit Module	Teta MOD Control 1 Control Unit Module with power supply **230/48V 240W**, built into the switchgear for wall mounting, IP65. Dimension: 295 x 458 x 129mm (width x high x depth)
PW-086-Control1-S-UP300	Teta MOD Control 1-S-UP300 Control Unit Module	Teta MOD Control 1 Control Unit Module with **24 / 48V 300W** voltage converter. For systems with battery backup, built into the switchgear for wall mounting, IP65. Dimension: 295 x 458 x 129mm (width x high x depth)