



Teracom offers Ethernet-based remote monitoring devices designed for both stand-alone operation and integration into SCADA systems. All devices feature a web-based graphical user interface (GUI) and support at least one M2M protocol, ensuring flexibility and ease of use.

User-friendly Web interface

Our devices are designed for hassle-free operation—no additional software is required. Configuration, remote monitoring, and control are performed directly through a standard web browser (Chrome, Firefox, Edge, Opera, etc.), making setup and management simple and intuitive.

Quality & reliability

All Teracom devices are built for long-term reliability and come with a 3-year warranty.



Entry Level – basic Ethernet modules

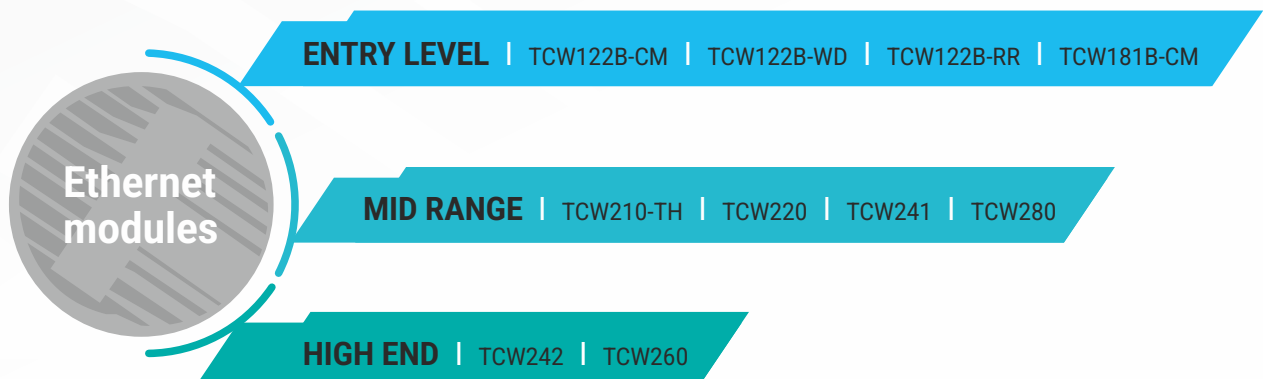
The Entry Level series (e.g., TCW122B and TCW181B models) is based on 8-bit microcontrollers and supports 10Mbit Ethernet connectivity. These devices are ideal for basic monitoring and automation tasks. While lacking TLS encryption or built-in data logging, they support key M2M protocols for system integration. With careful configuration, Entry Level models are suitable for small to mid-sized home and industrial automation projects, especially in server rooms and data centers.

Mid Range – enhanced monitoring & control

The Mid Range devices (e.g., TCW210-TH, TCW220, TCW241, TCW280) use a 32-bit platform and offer 10/100Mbit Ethernet connectivity. They are designed for more demanding applications, with support for a wider set of M2M protocols such as MODBUS TCP/IP, SNMP, MQTT, and HTTP APIs. Some models also offer data logging and basic security features, making them ideal for mid-complexity monitoring and automation systems.

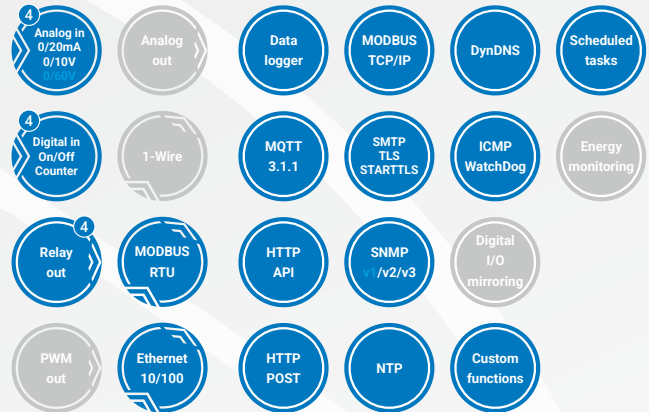
High End – performance & security-focused solutions

The High End models (TCW242, TCW260) combine high performance with advanced security. Built on a 32-bit architecture, they support full TLS encryption for SMTP, client-server communication via HTTP POST, and data logging with visualization. With built-in MQTT support, High End models can be easily integrated into cloud platforms like Amazon IoT, enabling secure and scalable remote monitoring applications. These devices are the optimal choice for mission-critical applications requiring both reliability and data protection.





TCW242 Industrial IoT module



Overview

TCW242 is a member of Teracom's High-end product line, developed for demanding industrial IoT applications. It combines Ethernet connectivity, flexible I/O options, and a secure web-based interface for real-time monitoring and control. With support for SNMP, HTTP API, MQTT, and MODBUS TCP/IP protocols, TCW242 integrates easily with SCADA systems and cloud platforms.

Its robust design and versatile functionality make it suitable for remote equipment management, process automation, and data logging across a wide range of industrial environments.

The device supports up to 24 user-defined alarms with five trigger states, as well as logic rules and scheduling, enabling autonomous operation based on predefined conditions. Thanks to its DIN-rail mountable enclosure and wide temperature range, TCW242 is ideal for installation in control panels and harsh field locations.

Features

- Provides web-based configuration with password protection.
- Provides Ethernet connectivity at 10/100 Mbps with automatic cable detection.
- Monitors up to 24 input and sensor channels.
- Supports up to 24 independent alarm conditions.
- Supports SNMP v2 and v3 protocols; enables SNMP traps.
- Supports scheduled relay output control.
- Supports custom logical functions.
- Enables secure email transmission via TLS 1.0, TLS 1.1, and TLS 1.2 support.
- Provides HTTP API for remote integration and control.
- Supports Dynamic DNS services.
- Enables backup and restore for quick device configuration replication.
- Sends periodic HTTP/HTTPS POST requests with XML/JSON status data.
- Supports MODBUS TCP/IP protocol.
- Supports MQTT 3.1.1 protocol.
- Allows firmware updates via a standard web browser.
- Features a rugged DIN-rail or wall-mountable enclosure.

Key Specifications

- Power Supply: 10-28 VDC, 0.35 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 145 x 90 x 40 mm.
- Weight: 200 g.
- Enclosure: DIN rail mountable.
- Warranty: 3 years.
- Digital Inputs: 4 dry contact, non-isolated, max 5.5 VDC.
- Analog Inputs: 4 single-ended, non-isolated, 0-10 V or 0-20 mA, 12-bit resolution, ±1% accuracy.
- Relay Outputs: 4 SPDT (NO/NC), rated 3 A @ 24 VDC/30 VAC.
- RS-485 Interface: Non-isolated, supports up to 24 Modbus RTU registers.
- Data Logging: Up to 70000 records.

Applications

- Remote monitoring of wind turbines and renewable energy systems.
- Electrical parameter monitoring in industrial systems using AWS IoT or equivalent cloud platforms.
- Alarm and status reporting for production or utility assets.
- Process control and logging in remote automation infrastructure.

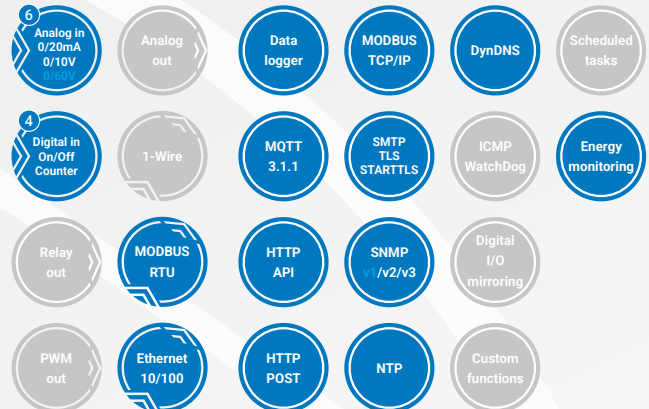
Compatible Sensors

- Precision temperature sensor [TST300](#).
- MODBUS RTU relay output module [TDO340](#).
- Humidity and temperature sensor [TSH300](#).
- CO₂ and pressure sensor [TSM400-4-CP](#).
- MODBUS RTU S0 pulse counter [TDI340](#).
- AC voltage detector [TSV101](#).

www.teracomsystems.com/ethernet/industrial-iot-module-tcw242



TCW260 Energy monitoring module



Overview

TCW260 is a member of TeraCom's High-end product line, developed for precise energy monitoring and industrial integration. It features galvanically isolated digital and analog inputs, along with an RS-485 interface for MODBUS RTU communication. The four digital inputs are S0-compatible, allowing direct connection to energy meters with pulse outputs.

The device supports configuration of up to 24 monitoring channels, combining data from local inputs and MODBUS RTU registers. Channels can be set as instantaneous or cumulative (e.g., current, energy, volume), with real-time digital and graphical visualization via a standard web browser. Up to 24 independent alarms can be defined, each with four trigger categories and graphical feedback.

With support for SNMP, HTTP API, and MODBUS TCP protocols, TCW260 ensures seamless Ethernet-based integration into SCADA and energy management systems.

Features

- Provides web-based configuration with password protection.
- Enables Ethernet connectivity at 10/100 Mbps with automatic cable detection.
- Supports up to 24 configurable monitoring channels.
- Enables cumulative channel measurements.
- Supports up to 24 independent alarms with five trigger categories.
- Supports SNMP v2 and v3 protocols; enables SNMP traps.
- Ensures S0 pulse interface compatibility (EN62053-31).
- Enables secure email transmission via TLS 1.0, 1.1, and 1.2.
- Provides HTTP API for remote access and integration.
- Supports Dynamic DNS services.
- Enables backup and restore for fast device configuration replication.
- Sends periodic HTTP/HTTPS POST requests with XML/JSON status files.
- Supports MODBUS TCP/IP protocol.
- Supports MQTT 3.1.1 protocol.
- Allows remote firmware updates via a standard web browser.
- Features durable DIN-rail or wall-mountable enclosure.

Key Specifications

- Power Supply: 10-28 VDC, 0.22 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 145 x 90 x 40 mm.
- Weight: 200 g.
- Enclosure: DIN rail mountable.
- Warranty: 3 years.
- Digital Inputs: 4 ON/OFF or S0 pulse counter, isolated, max 5.5VDC, 1ms sampling rate.
- Analog Inputs: 6 single-ended, isolated, 0-10 V or 0-20 mA, 12-bit resolution, $\pm 1\%$ accuracy.
- RS-485 Interface: Isolated, supports up to 24 Modbus RTU registers.
- Data Logging: Up to 70000 records.

Applications

- Energy monitoring and targeting in industrial facilities.
- Water and gas usage monitoring in building and utility systems.
- Load profile tracking for consumption analysis and reporting.
- Remote monitoring of renewable energy power plants.

Compatible Sensors

- 2-channel thermocouple module **TST320**.
- MODBUS RTU S0 pulse counter **TDI340**.
- Humidity and temperature sensor **TSH300**.
- CO₂, pressure, and T/H sensor **TSM400-4-CPTH**.
- AC voltage sensor **TSV300**.
- AC voltage detector **TSV101**.

www.teracomsystems.com/ethernet/energy-monitoring-module-tcw260



TCW242 and **TCW260** are a top-of-the-line industrial IoT modules designed to meet the demanding monitoring and control needs of industrial applications.



Main features

	TCW242	TCW260
Operating voltage range	10-28VDC	10-28VDC
Operating temperature range	-20 to 55° C	-20 to 55° C
Compact dimensions	145 x 90 x 40 mm	145 x 90 x 40 mm
Powerful 240MHz 32-bit chipset	✓	✓
100 Mb Ethernet connectivity with Auto-MDIX	✓	✓
DIN rail mountable	✓	✓
3-year extended warranty period	✓	✓

Peripherals

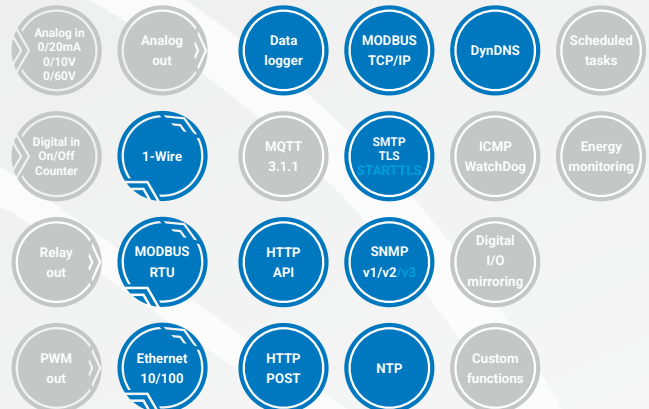
	TCW242	TCW260
100 Mb Ethernet connectivity with Auto-MDIX	✓	✓
Analog inputs configurable 0-10V or 0-20mA	4	6
Digital inputs, SO-pulse interface compatible	4	4
Relay outputs with NC and NO contacts	4	✗
RS485 interface with MODBUS RTU support	✓	✓
RJ45 and screw terminals for RS485 interface	✓	✓
Power supply over RJ45 for sensors	✓	✓
Galvanic isolation for analog and digital interfaces (1000 VDC functional)	✗	✓

Services

	TCW242	TCW260
The highest secure SNMPv3 support	✓	✓
Secured HTTPS Post support	✓	✓
TLS/STARTSL secured SMTP support	✓	✓
MQTT 3.1.1 protocol support	✓	✓
NTP support	✓	✓
DynDNS support	✓	✓
Internal data logger	✓	✓
Time-based relay scheduling	✓	✗
Logic-based relay control	✓	✗
Energy totalizer	✗	✓



TCW210-TH Temperature and humidity data logger



Overview

TCW210-TH is a compact temperature and humidity data logger with Ethernet connectivity, designed for monitoring ambient conditions in industrial, commercial, and laboratory environments. It provides real-time access to measured temperature, relative humidity, and calculated dew point through a standard web browser, with no need for additional software. The built-in interface offers graphical visualization, easy configuration, and password-protected access.

All monitored parameters are stored in internal FLASH memory using a circular buffer. Logging can be triggered at fixed intervals or on alarm conditions, with capacity for at least 36 days at a 1-minute interval. When memory is full, the oldest data is automatically overwritten, ensuring continuous availability of a complete log. Data can be downloaded locally or uploaded to a remote server via HTTP Post. The log cannot be manually cleared, ensuring data integrity. TCW210-TH is a reliable and autonomous solution for long-term monitoring.

Features

- Provides web-based configuration and password-protected access.
- Provides Ethernet connectivity at 10/100 Mbps with automatic cable detection.
- Integrates temperature and humidity data logging.
- Supports 1-Wire and MODBUS RTU sensor communication.
- Supports SNMP v1 and v2 protocols, including SNMP traps.
- Supports MODBUS TCP/IP protocol.
- Supports secure email transmission via TLS 1.0, 1.1, and 1.2.
- Supports NTP (Network Time Protocol) synchronization.
- Provides HTTP API for remote interaction and integration.
- Supports dynamic DNS services including DynDNS, No-IP, and DNS-O-Matic.
- Enables backup/restore for fast device settings replication.
- Sends periodic HTTP/HTTPS POST requests with XML/JSON status files.
- Supports integration with ThingSpeak cloud service.
- Allows remote firmware updates via a standard web browser.
- Features durable wall-mountable enclosure.
- Integrates seamlessly with TC Monitor software.

Key Specifications

- Power Supply: 10–28 VDC, 0.17 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 130 x 70 x 30 mm.
- Weight: 140 g.
- Enclosure: Wall-mountable.
- Warranty: 3 years.
- 1-Wire Interface: Non-isolated, supports up to 8 sensors.
- RS-485 Interface: Non-isolated; supports up to 8 MODBUS RTU sensors.
- 1-Wire/RS-485 Power Supply Output Voltage: 5.0 ± 0.3 VDC.
- 1-Wire/RS-485 Power Supply Output Current: 0.2 A.
- Data Logging: Up to 70000 records.
- Minimum Logging Interval: 10 seconds.

Applications

- Temperature and humidity monitoring for food and beverage storage facilities.
- Environmental monitoring in data centers and telecom facilities.
- Temperature data logging for industrial processes.
- Temperature and humidity monitoring in small office and home office environments.

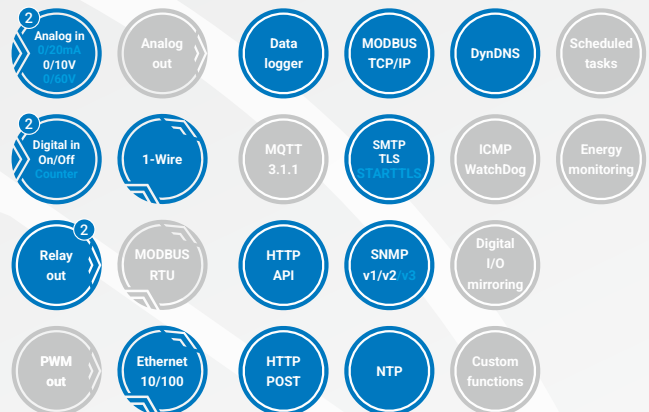
Compatible Sensors

- Precision temperature sensor [TST300](#).
- 1-Wire temperature sensor [TST103](#).
- 1-Wire Pt100 transmitter [TST200](#).
- 1-Wire humidity and temperature sensor [TSH206](#).
- Humidity and temperature sensor [TSH300](#).
- Third party MODBUS RTU humidity and temperature sensors.

www.teracomsystems.com/ethernet/temperature-humidity-data-logger-tcw210



TCW220 Ethernet data logger



Overview

TCW220 is a compact Ethernet data logger, purpose-built for monitoring and protection of server rooms, communication equipment, and temperature-sensitive environments. It combines precise sensor input, alarm triggering, and local logging to ensure continuous visibility of key conditions.

The device features two digital and two analog inputs, as well as support for 1-Wire sensors for temperature, humidity, CO₂, pressure, and more. Monitoring can be done via standard web browser, while alerts can be delivered through email or SNMP trap. With flexible alarm logic and secure access, TCW220 helps prevent overheating, flooding, or unauthorized access in IT and telecom infrastructure.

Data logging is handled internally in a circular buffer, allowing continuous recording without user intervention. Integration with SCADA or network monitoring systems is possible through HTTP API and SNMP, ensuring that TCW220 fits easily into existing IT environments.

Features

- Provides web-based configuration with password protection.
- Provides Ethernet connectivity at 10/100 Mbps with automatic cable detection.
- Supports up to 8 1-Wire sensors.
- Supports SNMP v1 and v2 protocols including SNMP traps.
- Enables secure email transmission via TLS 1.0, TLS 1.1, and TLS 1.2 support.
- Provides HTTP API for remote integration and control.
- Supports Dynamic DNS services for remote access.
- Enables backup and restore for quick device configuration replication.
- Sends periodic HTTP/HTTPS POST requests with XML/JSON status data.
- Supports MODBUS TCP/IP protocol.
- Logs data internally in a circular buffer (up to 36 days at 1-minute intervals).
- Allows firmware updates via a standard web browser.
- Features a rugged DIN-rail or wall-mountable enclosure.

Key Specifications

- Power Supply: 10-28 VDC, 0.1 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 115 x 90 x 40 mm.
- Weight: 110 g.
- Enclosure: DIN rail mountable.
- Warranty: 3 years.
- Digital Inputs: 2 dry contact, non-isolated, max 5.5 VDC.
- Analog Inputs: 2 single-ended, non-isolated, 0-10V, 10-bit resolution, ±1% accuracy.
- Relay Outputs: 2 SPDT (NO/NC), rated 3 A @ 24 VDC/30 VAC.
- 1-Wire Power Supply Output Voltage: 5.0 ± 0.3 VDC.
- 1-Wire Power Supply Output Current: 0.2 A.
- Data Logging: Up to 70000 records.

Applications

- Environmental monitoring in server and network rooms.
- Temperature and humidity supervision for IT infrastructure.
- Door, flood, and AC voltage absence detection in telecom and equipment enclosures.
- Logging and alerting for temperature-sensitive storage areas.

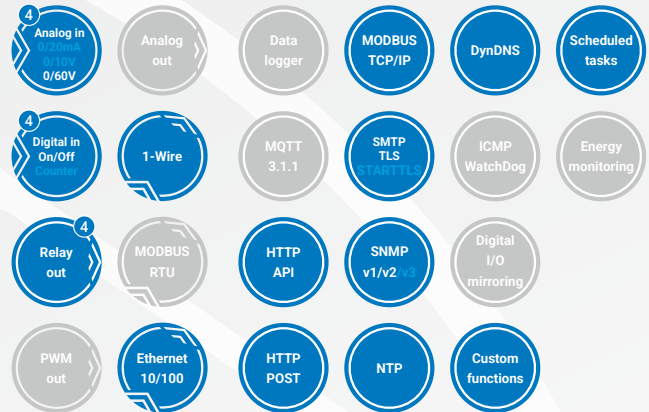
Compatible Sensors

- Temperature sensor [TST103](#).
- Smoke detector [TSS8030R](#).
- Humidity and temperature sensor [TSH206](#).
- CO₂ and pressure sensor [TSM400-1-CP](#).
- Door sensor [TSD800](#).
- AC voltage detector [TSV101](#).

www.teracomsystems.com/ethernet/ethernet-data-logger-tcw220



TCW241 Ethernet IO module



Overview

TCW241 is a multifunctional Ethernet I/O module from Teracom's Mid-range product line, designed for general-purpose industrial monitoring and automation tasks. It combines analog and digital inputs with relay outputs and 1-Wire sensor support, enabling flexible control and integration in a wide range of applications.

It supports user-defined logical functions, relay control, and alarm conditions, all configurable through a secure web interface. The device can operate autonomously in basic monitoring and control scenarios without external logic or supervisory systems.

TCW241 communicates via Ethernet using SNMP, HTTP API, and Modbus TCP/IP protocols, ensuring compatibility with SCADA systems, cloud platforms, or industrial software. With DIN-rail mounting and extended temperature tolerance, it fits well in electrical panels and distributed control setups.

Features

- Provides web-based configuration and password-protected access.
- Provides Ethernet connectivity at 10/100 Mbps with automatic cable detection.
- Supports up to 8 1-Wire sensors.
- Supports SNMP v1 and v2 protocols including SNMP traps.
- Enables secure email transmission via TLS 1.0, TLS 1.1, and TLS 1.2 support.
- Provides HTTP API for remote integration and control.
- Supports Dynamic DNS services for remote access.
- Enables backup and restore for quick device configuration replication.
- Sends periodic HTTP/HTTPS POST requests with XML/JSON status data.
- Supports MODBUS TCP/IP protocol.
- Enables scheduled relay control via internal scheduler.
- Allows custom logical functions using input conditions and schedules.
- Allows firmware updates via a standard web browser.
- Features a rugged DIN-rail or wall-mountable enclosure.

Key Specifications

- Power Supply: 10-28 VDC, 0.13 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 145 x 90 x 40 mm.
- Weight: 200 g.
- Enclosure: DIN rail mountable.
- Warranty: 3 years.
- Digital Inputs: 4 dry contact, non-isolated, max 5.5 VDC.
- Analog Inputs: 4 single-ended, non-isolated, 0-60 V, 10-bit resolution, $\pm 1\%$ accuracy.
- Relay Outputs: 4 SPDT (NO/NC), rated 3 A @ 24 VDC/30 VAC.
- 1-Wire Power Supply Output Voltage: 5.0 ± 0.3 VDC.
- 1-Wire Power Supply Output Current: 0.2 A.
- Data Logging: Not supported.

Applications

- Equipment monitoring and control in industrial automation systems.
- Remote supervision of control panels and utility enclosures.
- Temperature and humidity monitoring with alert generation.
- Basic process control using user-defined logic and relay outputs.

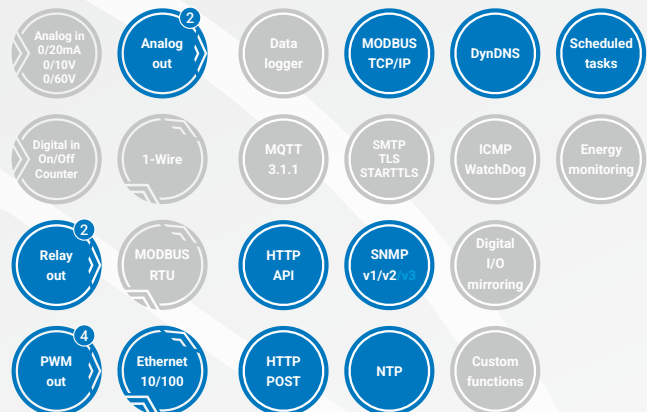
Compatible Sensors

- Ambient light sensor [TSL200](#).
- Temperature Pt100 sensor [TST200](#).
- Humidity and temperature sensor [TSH206](#).
- Humidity and temperature sensor [TSH202](#).
- CO₂ and pressure sensor [TSM400-1-CP](#).
- 1-Wire analog input module [TSA202](#).

www.teracomsystems.com/ethernet/ethernet-io-module-tcw241



TCW280 Analog output module



Overview

TCW280 is an Ethernet output module from TeraCom's Mid-range product line, designed for industrial and building automation tasks that require voltage or current loop signal control, digital actuation, and remote switching. It delivers reliable and precise output functionality over Ethernet, suitable for HVAC regulation, process control, and energy-efficient system management.

The device supports a mix of analog, relay, and transistorized outputs, which can operate manually, on schedule, or based on user-defined logic. PWM control and ON/OFF modes are available for digital outputs, providing further flexibility in controlling external devices.

With Modbus TCP/IP, SNMP, HTTP API, and scheduled HTTP POST capabilities, TCW280 integrates easily into SCADA platforms and custom automation systems. Its web interface enables intuitive configuration of output behaviors, alarm responses, and network communication settings without additional software.

Features

- Provides web-based configuration and password-protected access.
- Provides Ethernet connectivity at 10/100 Mbps with automatic cable detection.
- Enables PWM and ON/OFF operation for open-drain isolated digital outputs.
- Supports relay switching for remote or automated control.
- Allows output management based on schedules or user-defined logic.
- Supports SNMP v1 and v2 protocols including SNMP traps.
- Provides HTTP API for remote integration and control.
- Supports Dynamic DNS services for remote access.
- Enables backup and restore for quick device configuration replication.
- Sends periodic HTTP/HTTPS POST requests with XML/JSON status data.
- Supports MODBUS TCP/IP protocol.
- Synchronizes time using NTP protocol.
- Allows firmware updates via a standard web browser.
- Features a rugged DIN-rail or wall-mountable enclosure.

Key Specifications

- Power Supply: 10-28 VDC, 0.22 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 115 x 90 x 40 mm.
- Weight: 170 g.
- Enclosure: DIN rail mountable.
- Warranty: 3 years.
- Digital Outputs: 4 ON/OFF or PWM, isolated, Maximum drain voltage: 24 VDC, Maximum drain current: 0.3 A.
- PWM Resolution: 10-bit.
- Analog Outputs: 2 single-ended, isolated, 0-10 V or 0-24 mA, 12-bit resolution, ±1% accuracy.
- Relay Outputs: 2 SPDT (NO/NC), rated 0.5 A @ 24 VDC/30 VAC.

Applications

- Analog output control in HVAC systems for valve and damper positioning.
- Lighting automation using PWM or ON/OFF transistorized outputs.
- Scheduled or logic-based equipment activation via relay control.
- Remote signal generation for industrial process regulation.



The **TCW210-TH**, **TCW220**, **TCW241** and **TCW280** are part of Teracom's Mid-range product line, offering reliable Ethernet-based solutions for targeted monitoring and control tasks. With a variety of input and output configurations, these modules are suitable for applications such as temperature and humidity logging, equipment supervision, automation, and analog signal generation. Their compact design, secure web interface, and protocol support ensure seamless integration in industrial and IT environments.



Main features

	TCW210-TH	TCW220	TCW241	TCW280
Operating voltage range	10-28VDC	10-28VDC	10-28VDC	10-28VDC
Operating temperature range	-20 to 55° C	-20 to 55° C	-20 to 55° C	-20 to 55° C
Dimensions	130 x 70 x 30 mm	115 x 90 x 40 mm	145 x 90 x 40 mm	115 x 90 x 40 mm
Chipset	32 bit	32 bit	32 bit	32 bit
Ethernet connectivity	10/100 Mbit/s	10/100 Mbit/s	10/100 Mbit/s	10/100 Mbit/s
DIN rail mountable	✗	✓	✓	✓
3-year extended warranty period	✓	✓	✓	✓

Peripherals

	TCW210-TH	TCW220	TCW241	TCW280
Digital inputs	✗	2	4	✗
Analog inputs	✗	2	4	✗
Relay outputs (NO/NC)	✗	2	4	2
1-Wire interface	✓	✓	✓	✗
5VDC power supply over 1-Wire interface	✓	✓	✓	✗
RS-485 interface	✓	✗	✗	✗
Isolation	✗	✗	✗	✓
Analog outputs	✗	✗	✗	2
Digital outputs (open drain)	✗	✗	✗	4

Services

	TCW210-TH	TCW220	TCW241	TCW280
MODBUS TCP/IP	✓	✓	✓	✓
HTTP API	✓	✓	✓	✓
SNMP v1 and v2	✓	✓	✓	✓
NTP	✓	✓	✓	✓
Periodic HTTP/HTTPS POST	✓	✓	✓	✓
SMTP with TLS support	✓	✓	✓	✗
ThingSpeak cloud service	✓	✗	✗	✗
Dynamic DNS	✓	✓	✓	✓
Data logger	✓	✓	✗	✗
Schedule	✗	✗	✓	✓
Custom functions	✗	✗	✓	✗