control solutions

TERACOM

PRODUCT CATALOG

Ethernet modules

Cellular modules

Sensors and detectors

Software and apps

www.teracomsystems.com

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

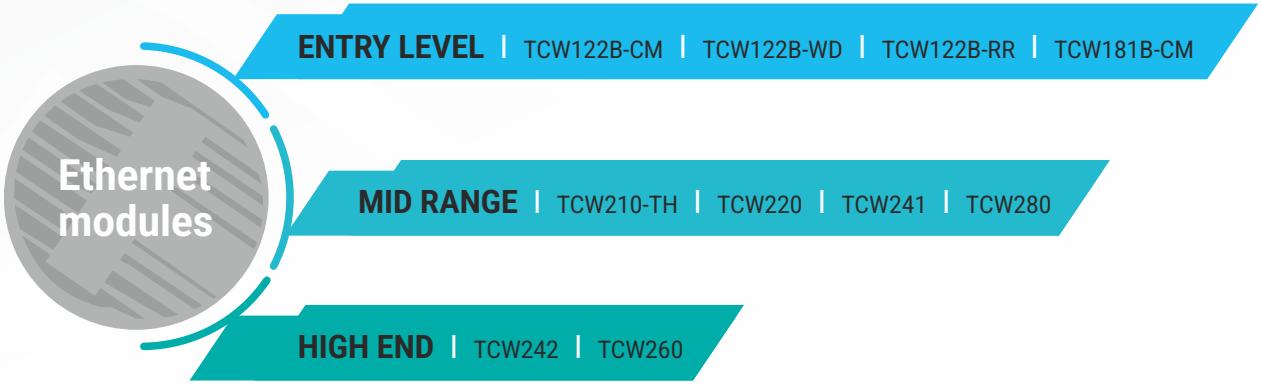
The Entry Level series (e.g., TCW122B and TCW181B models) is based on 8-bit microcontrollers and supports 10Mbit Ethernet connectivity. These devices are ideal for basic monitoring and automation tasks. While lacking TLS encryption or built-in data logging, they support key M2M protocols for system integration. 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

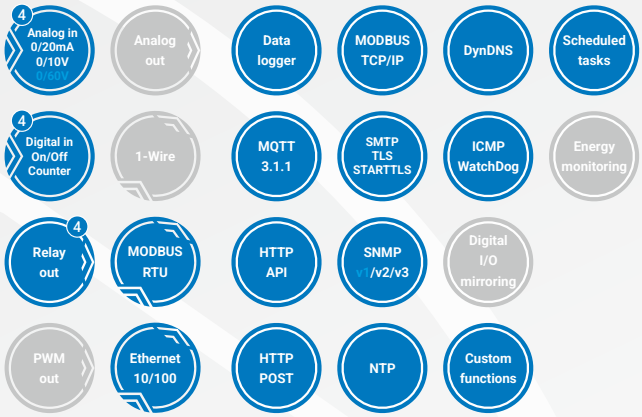
The Mid Range devices (e.g., TCW210-TH, TCW220, TCW241, TCW280) use a 32-bit platform and offer 10/100Mbit Ethernet connectivity. They are designed for more demanding applications, with support for a wider set of M2M protocols such as MODBUS TCP/IP, SNMP, MQTT, and HTTP APIs. Some models also offer data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

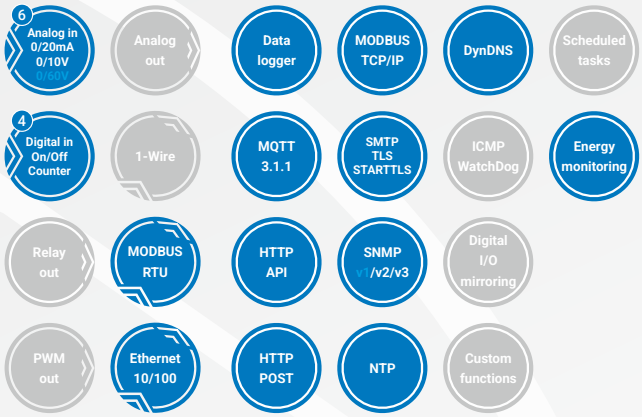
- Remote monitoring of wind turbines and renewable energy systems.
- Electrical parameter monitoring in industrial systems using AWS IoT or equivalent cloud platforms.
- Alarm and status reporting for production or utility assets.
- Process control and logging in remote automation infrastructure.

Compatible Sensors

- Precision temperature sensor TST300.
- MODBUS RTU relay output module TDO340.
- Humidity and temperature sensor TSH300.
- CO_2 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, ±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.
- CO_2 , presure, and T/H sensor TSM400-4-CPTH.
- AC voltage sensor TSV300.
- AC voltage detector TSV101.

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

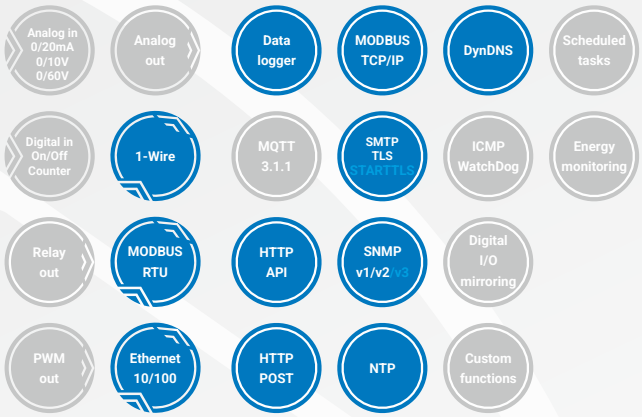
TCW242 and **TCW260** are a top-of-the-line industrial IoT modules designed to meet the demanding monitoring and control needs of industrial applications.

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

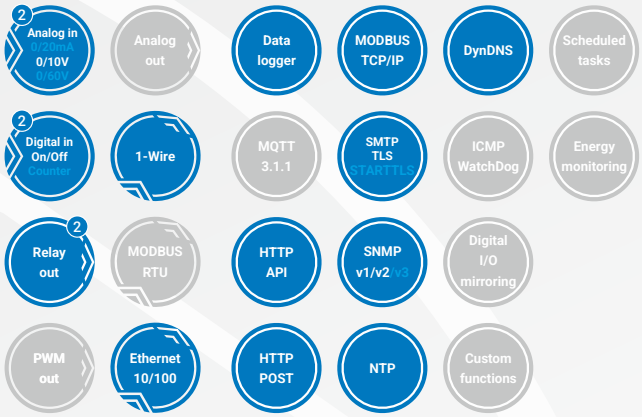
- Temperature and humidity monitoring for food and beverage storage facilities.
- Environmental monitoring in data centers and telecom facilities.
- Temperature data logging for industrial processes.
- Temperature and humidity monitoring in small office and home office environments.

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 MODBS 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, CO_2, 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

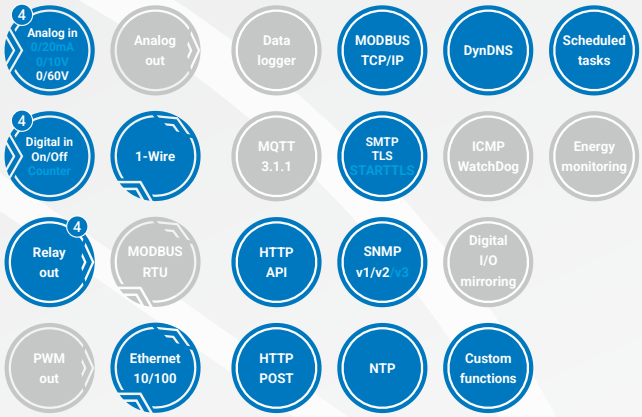
- Environmental monitoring in server and network rooms.
- Temperature and humidity supervision for IT infrastructure.
- Door, flood, and AC voltage absence detection in telecom and equipment enclosures.
- Logging and alerting for temperature-sensitive storage areas.

Compatible Sensors

- Temperature sensor TST103.
- Smoke detector TSS8030R.
- Humidity and temperature sensor TSH206.
- CO_2 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, ±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

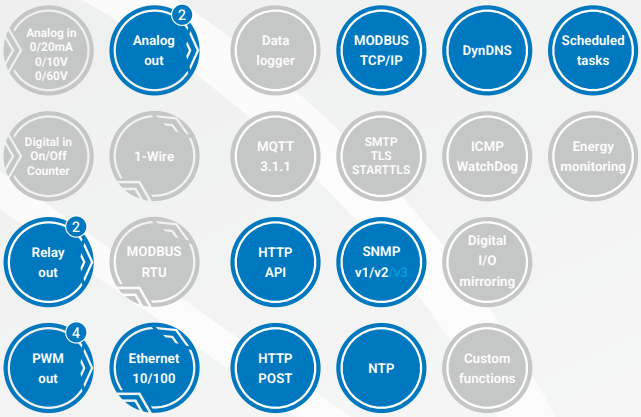
- Equipment monitoring and control in industrial automation systems.
- Remote supervision of control panels and utility enclosures.
- Temperature and humidity monitoring with alert generation.
- Basic process control using user-defined logic and relay outputs.

Compatible Sensors

- Ambient light sensor TSL200.
- Temperature Pt100 senor TST200.
- Humidity and temperature sensor TSH206.
- Humidity and temperature sensor TSH202.
- CO_2 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.

IThe 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.

www.teracomsystems.com/ethernet/analog-output-module-tcw280

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	✓	✓	✓	✓

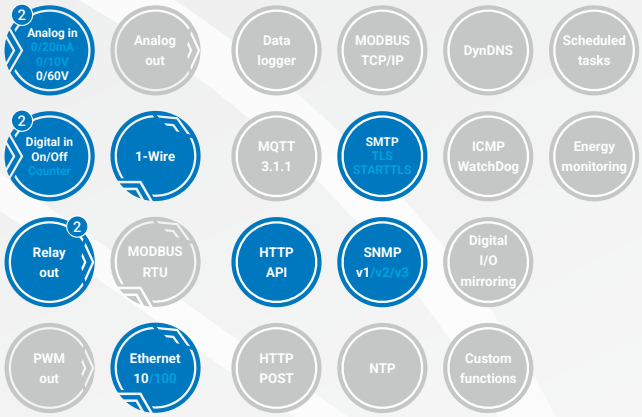
Peripherals

	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	✗	✗	✓	✗

TCW122B-CM Remote I/O module



Overview

TCW122B-CM is a compact Ethernet controller from Teracom's Entry-level product line, tailored for remote monitoring and protection of server rooms, telecom sites, and other small-scale installations. It provides an affordable and reliable solution for tracking key environmental and electrical conditions..

The device includes digital and analog inputs for alarm monitoring, and a 1-Wire interface for connecting up to two Teracom sensors, dedicated to temperature and humidity measurement. Communication and configuration are done via a standard web browser, with support for SNMP and HTTP API protocols for seamless system integration.

TCW122B-CM is ideal for detecting overtemperature, power failures, or unauthorized access in IT environments. Alarm states can trigger relay activation or email notifications, helping maintain operational continuity with minimal user intervention.

Features

- Provides web-based configuration with password protection.
- Offers Ethernet connectivity at 10 Mbps.
- Supports up to two 1-Wire temperature and humidity sensors.
- Supports SNMP v1 protocol.
- Sends SNMP traps for remote alerts.
- Sends email notifications on alarm conditions (no TLS support).
- Provides HTTP API for remote integration and control.
- Allows firmware updates via a standard web browser.
- Allows pulse activation of relays.
- Supports port change for the WEB interface.
- Compatible with TC Monitor and TCW Control software.
- Features a rugged DIN-rail or wall-mountable enclosure.

Key Specifications

- Power Supply: 10-14 VDC, 0.2 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 109 x 82 x 32 mm.
- Enclosure: DIN rail mountable (with optional mounting kit) or wall-mountable.
- Warranty: 3 years.
- Digital Inputs: 2 dry contact, non-isolated, max 5.5 VDC.
- Analog Inputs: 2 single-ended, non-isolated, 0-60 V, 10-bit resolution.
- Relay Outputs: 2 SPDT (NO/NC), rated 3 A @ 24 VDC/30 VAC.
- 1-Wire Power Supply Output Voltage: 5.3 ± 0.2 VDC.
- 1-Wire Power Supply Output Current: 0.2 A.
- Data Logging: Not supported.

Applications

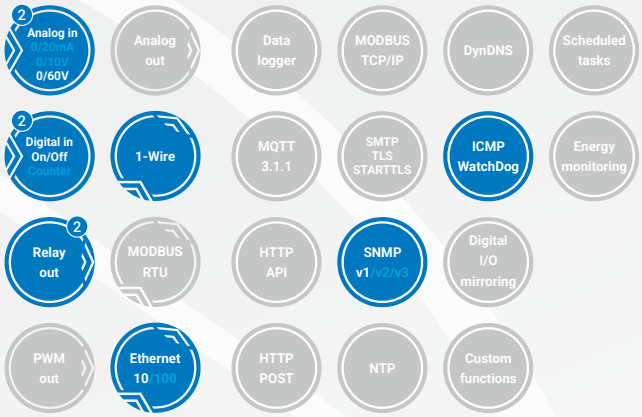
- Temperature and humidity tracking in server and network rooms.
- Detection of AC power supply loss through AC voltage detector.
- Door status supervision via dry contact sensors.
- Relay-based restart of communication equipment after lockup.

Compatible Sensors

- Temperature sensor TST100.
- Humidity and temperature sensor TSH202.
- Smoke detector TSS8030R.
- Temperature sensor TST100S.
- Humidity and temperature sensor TSH202B.
- AC voltage detector TSV101.

www.teracomsystems.com/ethernet/remote-io-module-tcw122b-cm

TCW122B-WD IP watchdog monitoring module



Overview

TCW122B-WD is a compact Ethernet monitoring device designed to improve uptime and reliability in server rooms, telecom sites, and remote installations. Its primary function is to monitor the availability of up to two IP addresses and automatically restart unresponsive devices through relay outputs, acting as an intelligent IP watchdog.

Alongside the watchdog functionality, the device supports two analog inputs, two digital inputs, and a 1-Wire interface for temperature and humidity sensors. Monitoring and configuration are performed via a standard web browser, with alarm notifications delivered through email or SNMP traps.

With simple logic control, flexible relay triggering, and secure access, TCW122B-WD helps prevent prolonged downtime, overheating, or unauthorized access. Integration with IoT monitoring systems is straightforward thanks to built-in support for HTTP API and SNMP.

Features

- Performs two independent IP watchdog functions.
- Supports both incoming and outgoing ICMP ping.
- Provides web-based configuration with password protection.
- Offers Ethernet connectivity at 10 Mbps.
- Supports up to two 1-Wire temperature and humidity sensors.
- Supports SNMP v1 protocol.
- Supports MAC filtering.
- Supports VLAN tagging for network segmentation.
- Sends SNMP traps for remote alerts.
- Allows firmware updates via a standard web browser.
- Supports port change for the WEB interface.
- Features a rugged DIN-rail or wall-mountable enclosure.

Key Specifications

- Power Supply: 10-14 VDC, 0.2 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 109 x 82 x 32 mm.
- Enclosure: DIN rail mountable (with optional mounting kit) or wall-mountable.
- Warranty: 3 years.
- Digital Inputs: 2 dry contact, non-isolated, max 5.5 VDC.
- Analog Inputs: 2 single-ended, non-isolated, 0-60V, 10-bit resolution.
- Relay Outputs: 2 SPDT (NO/NC), rated 3 A @ 24 VDC/30 VAC.
- 1-Wire Power Supply Output Voltage: 5.3 ± 0.2 VDC.
- 1-Wire Power Supply Output Current: 0.2 A.
- Outgoing Ping Interval: 1-253 seconds.

Applications

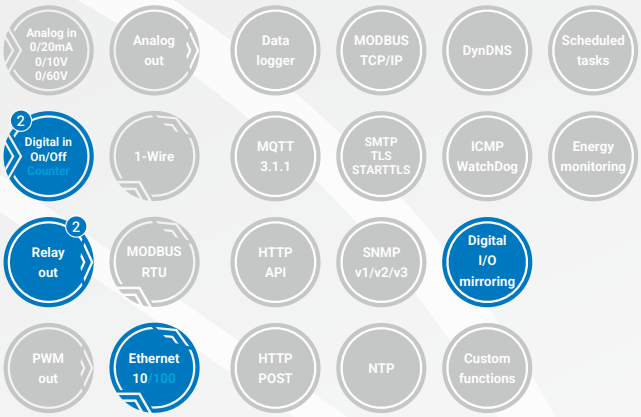
- Automatic reboot of routers and modems when network connectivity is lost.
- Temperature and humidity monitoring in server rooms using 1-Wire sensors.
- Detection of power supply loss or drop.
- Door or panel status supervision through dry contact inputs.

Compatible Sensors

- Humidity and temperature sensor TSH202.
- Smoke detector TSS8030R.
- Humidity and temperature sensor TSH206.
- Temperature sensor TST100.
- Temperature sensor TST103.
- AC voltage detector TSV101.

www.teracomsystems.com/ethernet/ip-watchdog-monitoring-module-tcw122b-wd

TCW122B-RR Digital I/O mirroring module



Overview

TCW122B-RR is a compact Ethernet module from Teracom's Entry-level product line, designed for real-time digital I/O mirroring over IP networks. It operates in pairs, replicating the state of digital inputs from one device to the relay outputs of another, enabling fast and reliable remote signaling without the need for a central controller.

The module features two digital inputs and two relay outputs, with all communication handled over Ethernet using a simple peer-to-peer protocol. Configuration is performed through a standard web interface. TCW122B-RR is ideal for applications that require remote interlock, failover activation, or redundant digital signal extension across sites.

Its simplicity, reliability, and low latency make it well-suited for use in building automation, utility facilities, industrial control, and access systems.

Features

- Mirrors digital input states between two devices over Ethernet.
- Supports both One-to-One and One-to-Many mirroring modes.
- Operates in peer-to-peer mode without external control logic.
- Provides encrypted communication protocol for secure data transfer.
- Provides indication for active communication session.
- Allows firmware updates via a standard web browser.
- Allows configuration of relay output state on communication loss.
- Provides web-based configuration with password protection.
- Offers Ethernet connectivity at 10 Mbps.
- Supports port change for the WEB interface.
- Features a rugged DIN-rail or wall-mountable enclosure.

Key Specifications

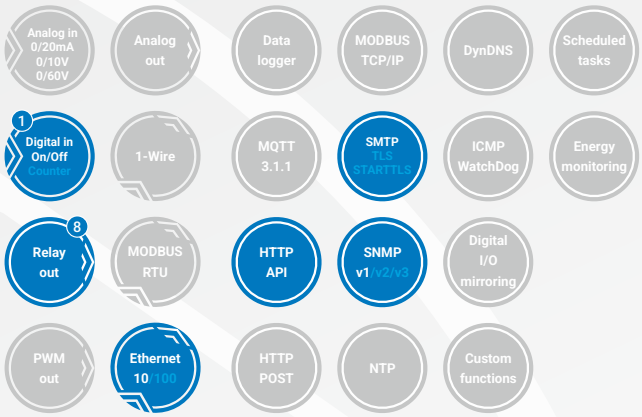
- Power Supply: 10-14 VDC, 0.2 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 10 to 80 %RH (non-condensing).
- Dimensions: 109 x 82 x 32 mm.
- Weight: 110 g.
- Digital Inputs: 2 dry contact, non-isolated, max 5.5 VDC.
- Relay Outputs: 2 SPDT (NO/NC), rated 3 A @ 24 VDC/30 VAC.
- Enclosure: DIN rail mountable (with optional mounting kit) or wall-mountable.
- Warranty: 3 years.

Applications

- Digital signal extension between control panels in separate buildings.
- Remote status indication of contact inputs (e.g. door, switch, pressure sensor).
- Redundant activation of equipment across different network locations.
- Failover signaling or backup system triggering in automation setups.

www.teracomsystems.com/ethernet/remote-relay-control-tcw122b-rr

TCW181B-CM Ethernet digital I/O module



Overview

TCW181B-CM is a compact digital I/O module from Teracom's Entry-level product line, designed for Ethernet-based remote control and status monitoring. With eight relay outputs and a single digital input, it enables simple yet effective remote switching and supervision in various industrial and building automation scenarios.

The device provides secure web-based access for configuration and manual control, as well as support for SNMP v1, SNMP traps, and HTTP API for system integration. Alarm conditions can trigger automated relay actions and notifications via email or SNMP.

TCW181B-CM is ideal for remote switching of equipment, centralized control panels, or as an extension node in networked monitoring systems.

Features

- Provides web-based configuration with password protection
- Offers Ethernet connectivity at 10 Mbps.
- Supports SNMP v1 protocol.
- Sends SNMP traps for remote alerts.
- Sends email notifications on alarm conditions (no TLS support).
- Offers HTTP API for remote integration and automation.
- Compatible with TC Monitor and TCW Control software.
- Allows firmware updates via a standard web browser.
- Features a rugged DIN-rail or wall-mountable enclosure.

Key Specifications

- Power Supply: 10-14 VDC, 0.37 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: 205 g.
- Digital Inputs: 1 dry contact, non-isolated, max 5.5 VDC.
- Relay Outputs: 8 SPDT (NO/NC), rated 3 A @ 24 VDC/30 VAC.
- Enclosure: DIN rail mountable or wall-mountable.
- Warranty: 3 years.

Applications

- Remote switching of HVAC, lighting, or access control systems.
- Centralized control of power relays in electrical panels.
- Automated restart of equipment or network devices via relay control.
- Alarm-based relay activation triggered by digital input state.

www.teracomsystems.com/ethernet/digital-io-module-tcw181b-cm

Main features

	TCW122B-CM	TCW122B-WD	TCW122B-RR	TCW181B-CM
Operating voltage range	10-14VDC	10-14VDC	10-14VDC	10-14VDC
Operating temperature range	-20 to 55° C	-20 to 55° C	-20 to 55° C	-20 to 55° C
Dimensions	109 x 82 x 32 mm	109 x 82 x 32 mm	109 x 82 x 32 mm	115 x 90 x 40 mm
Chipset	8 bit	8 bit	8 bit	8 bit
Ethernet connectivity	10 Mbit/s	10 Mbit/s	10 Mbit/s	10 Mbit/s
DIN rail mountable	✓*	✓*	✓*	✓
3-year extended warranty period	✓	✓	✓	✓

* with optional mounting kit

Peripherals

	TCW122B-CM	TCW122B-WD	TCW122B-RR	TCW181B-CM
10 Mbit Ethernet connectivity	✓	✓	✓	✓
Analog inputs	2	2	0	0
Digital inputs	2	2	2	1
Relay outputs (NO/NC)	2	2	2	8
1-wire interface	✓	✓	✗	✗
5VDC power supply over 1-wire interface	✓	✓	✗	✗
Galvanically isolation	✗	✗	✗	✗

Services

	TCW122B-CM	TCW122B-WD	TCW122B-RR	TCW181B-CM
HTTP API	✓	✓	✗	✓
SNMP v1	✓	✓	✗	✓
SNMP trap alerts	✓	✓	✗	✓
SMTP (no TLS support)	✓	✗	✗	✓
Digital I/O mirroring	✗	✗	✓	✗
IP Watchdog	✗	✓	✗	✗

Our cellular remote monitoring controllers are designed to operate over mobile networks, utilizing GPRS, 3G, and 4G LTE as their primary means of wireless communication. These devices provide a flexible and reliable solution for remote monitoring in locations where Ethernet (LAN) connectivity is unavailable or impractical.

Easy setup & Web-based configuration

All controllers feature a built-in web server, allowing users to configure and manage the device via a standard web browser (Chrome, Firefox, Edge, Opera, etc.)—eliminating the need for specialized software.

Reliable & long-lasting performance

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

KEY POINTS

Seamless M2M integration

Our cellular controllers support Machine-to-Machine (M2M) communication, enabling smooth integration with other systems through HTTP Post with XML/JSON status files, HTTP API commands and MQTT.

Even without a public static IP address, these controllers can transmit data and execute remote control functions efficiently.

Enhanced security & real-time alerts

To ensure secure communication, all devices support TLS-encrypted email alerts, keeping users informed of important status changes or alarms. Notifications can be sent via email with TLS encryption and SMS messages for immediate alerts.

Remote control via SMS commands

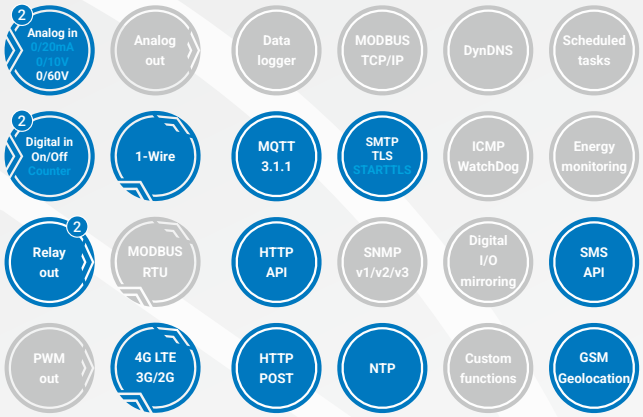
For added flexibility, our devices allow users to send commands via SMS, providing a simple yet powerful way to control and configure settings remotely.

Versatile input options for various applications

Equipped with standard analog and digital inputs, our controllers can monitor – DC voltages (via analog inputs) and Dry contacts (via digital inputs).

This makes them ideal for a wide range of applications, including remote monitoring of mobile network equipment, environmental monitoring in vehicles, temperature and humidity tracking in pharmaceutical & food storage facilities, etc.

TCG120-4 4G LTE wireless I/O module



Overview

TCG120-4 is a wireless I/O module designed for remote monitoring and control in areas without Ethernet access. It supports 4G LTE, 3G, and 2G networks, ensuring reliable data transmission across diverse mobile infrastructures. With built-in digital and analog inputs, relay outputs, and a 1-Wire interface, it enables flexible integration with sensors and field equipment.

The module supports autonomous operation, where relays are controlled by user-defined alarm conditions, eliminating the need for constant remote supervision. For remote communication, TCG120-4 provides both HTTP API and MQTT protocols, allowing seamless integration with SCADA systems, IoT platforms, or custom cloud solutions.

Configuration is easy through a web browser via USB during initial setup, or remotely via SMS or HTTP API commands. Periodic status updates in XML or JSON format ensure full visibility, while MQTT offers efficient messaging even over low-bandwidth networks.

Features

- Supports 4G LTE, 3G, and 2G (GPRS/EDGE) networks.
- Remote configuration via SMS, HTTP API, or USB.
- SMS API.
- Periodic HTTP/HTTPS POST with XML/JSON data.
- MQTT protocol support (v3.1.1) for publish/subscribe communication.
- AWS IoT ready – supports integration with Amazon Web Services for cloud-based monitoring and control.
- Sends SMS alert to up to 5 recipients.
- TLS-secured email (SMTP) support.
- Sends email alerts to up to 5 recipients.
- GSM-based geolocation support (approximate position).
- Firmware updates via USB.
- Firmware update Over-the-air .
- Autonomous operation based on input and sensor alarm conditions.

Key Specifications

- Power Supply: 10-28 VDC, 0.24 A @ 12 VDC.
- Operating Temperature range: -20 to +55 °C.
- Operating Humidity range: 5 to 85 %RH (non-condensing).
- Dimensions: 109 x 65 x 32 mm.
- Weight: 152 g.
- Enclosure: DIN rail mountable (with optional mounting kit).
- Warranty: 3 years.
- Digital Inputs: 2 dry contact, non-isolated, max 5.5 VDC.
- Analog Inputs: 2 single-ended, non-isolated, 0-60 V, 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: Not supported.

Applications

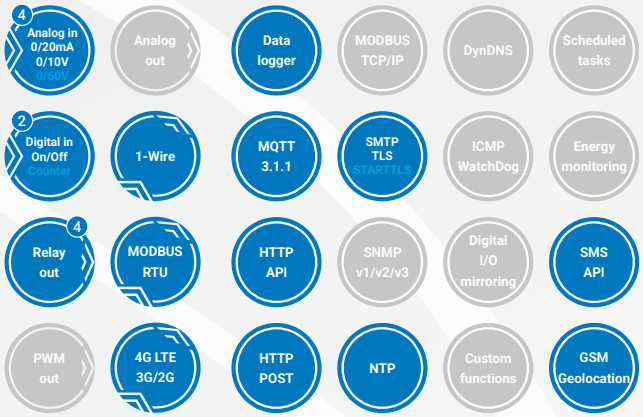
- Remote monitoring and automation of infrastructure in locations without Ethernet.
- SMS and email-based alerting for utility and telecom equipment.
- Environmental parameter tracking at off-grid agriculture and water pump stations.
- GSM geolocation and remote monitoring of refrigerated display cases, freezers, and cold storage units.

Compatible Sensors

- Temperature sensor TST103.
- Smoke detector TSS8030R.
- Humidity and temperature sensor TSH206.
- CO_2 and pressure sensor TSM400-1-CP.
- Door sensor TSD800.
- AC voltage detector TSV101.

www.teracomsystems.com/cellular/4g-lte-wireless-io-module-tcg120-4

TCG140-4 4G LTE universal IO module



Overview

TCG140-4 is a 4G LTE universal I/O module designed for remote monitoring and control in industrial and environmental applications. It supports multi-band cellular connectivity across 4G, 3G, and 2G networks, making it ideal for locations lacking Ethernet access. The device combines digital and analog inputs, relay outputs, and interfaces for 1-Wire and MODBUS RTU sensors.

With support for MQTT and HTTP(S) API, TCG140-4 integrates seamlessly into SCADA and IoT platforms. It can operate autonomously, logging data internally and executing relay actions based on preconfigured thresholds. Remote access is available via browser, SMS, or API, with firmware updates over USB or mobile network.

The device features a rugged metal enclosure, ensuring secure installation in industrial control panels. Its versatile connectivity and dependable local automation make it a practical choice for modern field deployments

Features

- Ensures wide-area coverage with 4G LTE and fallback to 3G/2G.
- Supports MQTT and HTTP(S) API for seamless IoT integration.
- Operates independently with local relay control based on alarms.
- Logs data periodically or on events using the internal memory.
- Sends status updates in XML, JSON, or CSV format.
- Works with 1-Wire and MODBUS RTU sensors.
- Delivers SMS and email alerts on alarm conditions.
- Secures email communication using TLS encryption.
- Provides GSM-based geolocation for mobile asset tracking.
- Enables remote configuration via SMS, HTTP API, or USB.
- Performs firmware updates over-the-air or via USB.
- Protects internal electronics with a robust metal enclosure.
- Installs easily on DIN rails using an optional mounting kit.
- Publishes and subscribes to MQTT topics for cloud interaction.
- Converts analog input values with configurable scaling and units.
- Operates reliably on IPv4 networks with IMS-based SMS support.

Key Specifications

- Power Supply: 10-28 VDC, 0.37 A @ 12 VDC.
- Operating Temperature range: -20 to +55°C.
- Operating Humidity range: 5 to 85%RH (non-condensing).
- Dimensions: 158 x 119 x 34 mm.
- Weight: 470 g.
- Enclosure: DIN rail mountable (with optional mounting kit).
- Warranty: 3 years;
- Digital Inputs: 2 dry contact, non-isolated, max 5.5 VDC.
- Analog Inputs: 4 single-ended, non-isolated, 0-10 V or 0-24 mA, 10-bit resolution, ±1% accuracy;
- Relay Outputs: 4 SPDT (NO/NC), rated 3 A @ 24 VDC/30 VAC.
- 1-Wire and RS-485 Power Supply Output Voltage: 5.0 ± 0.3 VDC.
- 1-Wire and RS-485 Power Supply Output Current: 0.2 A.
- Data Logging: Up to 70000 records.

Applications

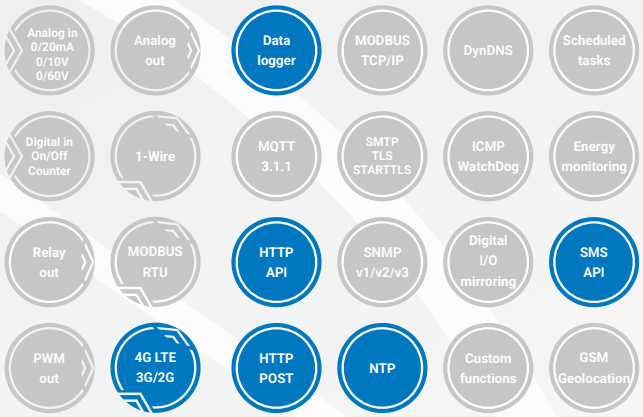
- GSM Geolocation, monitoring, and logging of mobile assets such as refrigerators and freezers.
- Remote relay operation and control in irrigation and lighting systems.
- Standalone data logging and remote monitoring in food and pharmaceutical storage.
- Environmental monitoring in agriculture and greenhouse automation.

Compatible Sensors

- Precision temperature sensor TST300.
- MODBUS RTU relay output module TDI340.
- Humidity and temperature sensor TSH300.
- CO_2 and pressure sensor TSM400-1-CP.
- Door sensor TSD800.
- AC voltage detector TSV101.

www.teracomsystems.com/cellular/4g-lte-universal-io-module-tcg140-4

TCG210-4 4G Parcel temperature and humidity logger



Overview

TCG210-4 is a battery-powered 4G parcel temperature and humidity logger with fallback support for 2G communication. The device is compatible with HTTP/HTTPS API protocols, making it suitable for modern IoT applications. It periodically sends HTTP/HTTPS POST requests to a remote server, containing a status file in JSON format and the most recent logged data in CSV format.

The logger operates on a built-in non-rechargeable Lithium-thionyl chloride (Li-$SOCl_2$) battery, ensuring long-term autonomous operation. Thanks to advanced low-power techniques, the device can run for several months without maintenance. The lithium content per cell is less than 2 g, making the battery fully compliant with IATA Dangerous Goods Regulations (DGR), UN 3091, Packing Instruction 970, Section II — allowing safe air transportation.

The primary application of the TCG210-4 is the monitoring of temperature and humidity in sensitive parcel shipments containing pharmaceuticals, food, and other perishable goods. It can also be used as a standard data logger in warehouses, greenhouses, and other environments requiring reliable climate monitoring.

Features

- Global Connectivity – 4G LTE Cat.1 with 2G fallback.
- Long Battery Life – months of autonomous operation.
- Smart Power Management – optimized energy consumption.
- Easy Configuration – via Wi-Fi, SMS, or HTTP API.
- Real-Time Alerts – SMS notifications to up to 5 users.
- Built-in Sensors – accurate temperature & humidity monitoring.
- Large Memory – up to 70,000 records.
- IoT Ready – JSON data via HTTP/HTTPS.
- Data Export – automatic CSV upload.
- Remote Control – full management via HTTP API.
- OTA Updates – firmware updates over Wi-Fi or LTE.
- Compact Design – lightweight and easy to deploy.
- Air Transport Safe – compliant with IATA regulations

Key Specifications

- Dimensions: 163 x 63 x 42 mm.
- Weight: 180g (without battery).
- Operating Temperature range: -20 to +60°C.
- Operating Humidity range: 10 to 90%RH (non-condensing).
- Ingress protection: IP54.
- Data Logging: Up to 70000 records.
- Battery (not included),Type: ER26500 Non-rechargeable Lithium-thionyl chloride (Li-$SOCl_2$), Voltage: 3.6 V, Capacity: 6000 mAh.
- Typical current consumption: 0.140 A @ 3.6 VDC.
- Sleep mode current: 6 µA .
- Cellular interface, Standards: LTE-FDD, EDGE, GPRS.
- SIM card: Micro.
- Warranty: 3 years.

Applications

- Pharmaceutical and food parcels - Continuous monitoring of temperature and humidity during transportation of medicines, vaccines, and perishable food products.
- Cold chain logistics - Reliable temperature and humidity tracking throughout the delivery process to ensure product integrity.
- Air cargo shipments - Fully compliant with IATA regulations, making it ideal for monitoring small parcel shipments transported by air.

www.teracomsystems.com/cellular/4g-parcel-th-logger-tcg210-4

Sensors and detectors play a crucial role in remote monitoring and control systems, converting environmental parameters into electrical signals. These signals are then processed by Ethernet or cellular remote monitoring devices for real-time data collection and automation.

All Teracom sensors feature firmware update capability via the working interface, ensuring continuous improvements and long-term reliability.

In addition, all sensors are backed by a 3-year warranty.

KEY POINTS

1-Wire interface – compact & efficient

Developed and patented by Dallas Semiconductor, the 1-Wire interface is widely used due to its addressability, allowing multiple sensors to be connected on a single bus. This enables monitoring of several parameters simultaneously with just one controller.

While 1-Wire is best suited for short-distance communication, it remains popular for home and office automation. With the right system design, it can also be adapted for industrial applications.

Detectors – simple & effective status monitoring

Unlike sensors, detectors provide binary status outputs (ON/OFF) for monitored parameters. Our detectors feature relay or open collector outputs, making them compatible with controller digital inputs in “dry contact” mode. Depending on the application, detectors can be self-powered or passively powered from the monitored side.

RS-485 interface – robust & industrial-ready

RS-485, also known as EIA-485, is jointly published by the Telecommunications Industry Association and Electronic Industries Alliance (TIA/EIA). Similar to 1-Wire, RS-485 allows multiple sensors to operate in parallel on the same bus. However, it offers higher noise resistance and supports long-distance communication, making it ideal for industrial environments.

Both 1-Wire and RS-485 have specific installation requirements. To ensure long-term stability and reliable performance, we strongly recommend carefully reviewing the sensor documentation before deployment.

For detailed specifications and integration guidelines, refer to the product documentation.

TST100 IP65 temperature sensor

1-Wire

Temperature

Overview

TST100 is a 1-Wire temperature sensor designed for reliable and accurate environmental monitoring. Its compact and robust design allows indoor and outdoor use, making it suitable for various industrial and commercial applications.

The sensor incorporates a fully calibrated digital output, ensuring precise and consistent readings. Its unique 64-bit serial code enables multiple sensors to operate on a single 1-Wire bus, providing scalable monitoring solutions.TST100 is ideal for integration with remote monitoring systems, offering dependable performance and straightforward installation.

Its flat aluminum head ensures good thermal contact and fast response time in dynamic conditions.

Key Specifications

- Operating temperature range: −40 to +85 °C / −40 to +185 °F.
- Accuracy (@−10 to +85 °C): ±0.5 °C / ±0.9 °F.
- Accuracy (@−40 to −10 °C): ±2.0 °C / ±3.6 °F.
- Ingress protection: IP65.
- Warranty: 3 years.
- Supply voltage range: 3.0–5.5 VDC.
- Current consumption: max. 1.5 mA.
- Head dimensions: 8 × 8 × 23 mm.
- Cable length: 1 meter.

Applications

- Temperature monitoring in server rooms and network cabinets.
- Surface or wall-mounted sensing.
- Temperature tracking in building automation systems.
- Climate control feedback for HVAC installations.

www.teracomsystems.com/sensors/1-wire-temperature-sensor-tst100

TST100s IP65 temperature sensor

1-Wire

Temperature

Overview

TST100S is a 1-Wire temperature sensor built for precise and dependable environmental measurement. With a rugged and space-saving form factor, it is suitable for both indoor and outdoor installations across industrial and commercial environments.

The sensor delivers fully calibrated digital output for consistent accuracy. Each unit features a unique 64-bit serial number, allowing multiple sensors to share a single 1-Wire network - ideal for scalable and flexible systems.

The cylindrical stainless steel probe ensures excellent durability and thermal conductivity, making it ideal for immersion, contact, or ambient temperature measurement in demanding environments.

Key Specifications

- Operating temperature range: −40 to +85 °C / −40 to +185 °F.
- Accuracy (−10 to +85 °C): ±0.5 °C / ±0.9 °F.
- Accuracy (−40 to −10 °C): ±2.0 °C / ±3.6 °F.
- Ingress protection: IP65.
- Warranty: 3 years.
- Supply voltage range: 3.0–5.5 VDC.
- Current consumption: max. 1.5 mA.
- Head dimensions: Ø6 × 30 mm.
- Warranty: 3 years.

Applications

- Server room and data centers temperature monitoring.
- Temperature monitoring inside buildings or machinery.
- Heating, ventilation and air conditioning (HVAC) systems.
- Process monitoring and control systems.

www.teracomsystems.com/sensors/1-wire-temperature-sensor-tst100s

TST103 Temperature sensor

1-Wire

Temperature

Overview

TST103 is a 1-Wire temperature sensor designed for accurate indoor monitoring in IT and industrial environments. It is housed in a compact plastic enclosure with a dedicated mounting detail, allowing easy installation on flat surfaces or 19-inch server racks.

The sensor features a factory-calibrated digital output, ensuring precise and reliable temperature readings. It is equipped with two RJ12 connectors for quick daisy-chain connection of multiple sensors on a single 1-Wire bus. Each unit features a unique 64-bit serial number for seamless identification in multi-sensor setups.

TST103 offers a discreet and practical solution for real-time temperature monitoring, supporting early detection of thermal anomalies and helping maintain optimal environmental conditions.

Key Specifications

- Operating temperature range: –40 to +85 °C / –40 to +185 °F.
- Accuracy (@–10 to +85 °C): ±0.5 °C / ±0.9 °F.
- Accuracy (@–40 to –10 °C): ±2.0 °C / ±3.6 °F.
- Operating humidity range: 5 to 85 %RH (non-condensing).
- Ingress protection: IP20.
- Supply voltage range: 3.0–5.5 VDC.
- Current consumption: max. 1.5 mA.
- Connectors: two RJ12 ports.
- Warranty: 3 years.

Applications

- Temperature monitoring in server rooms and network equipment racks;
- Indoor climate monitoring in offices, labs, or equipment rooms;
- Integration in BMS for temperature tracking.

www.teracomsystems.com/sensors/digital-temperature-sensor-tst103

TST200 Pt100 temperature sensor

1-Wire

Temperature

Overview

TST200 is a high-accuracy 1-Wire transmitter for Pt100 temperature sensors, designed for industrial and scientific applications requiring extended temperature measurement range and precision. It enables reliable temperature monitoring from –200 to +850°C (–328 to +1560°F) when connected to compatible Teracom controllers.

The device integrates a 24-bit analog-to-digital converter with digital signal processing, ensuring stable and drift-free performance across long-term deployments. It supports 3-wire or 4-wire Pt100 sensor connections.

Equipped with two RJ12 connectors, TST200 allows straightforward daisy-chaining on the 1-Wire bus, simplifying multi-point temperature sensing in demanding environments.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 5 to 85 %RH (non-condensing).
- Measurement range: –200 to +850 °C / –328 to +1560 °F.
- Accuracy: 0.2 °C ± 0.05 % of reading.
- Resolution: 24-bit.
- Ingress protection: IP20.
- Supply voltage range: 3.5–5.5 VDC.
- Current consumption: max. 6.0 mA.
- Connectors: two RJ12 ports.
- Warranty: 3 years.

Applications

- Temperature monitoring in industrial processes and automation systems.
- Cryogenic storage and laboratory environment supervision.
- Furnace and high-temperature equipment regulation.

www.teracomsystems.com/sensors/1-wire-pt100-transmitter-tst200

TST300 Temperature sensor

MODBUS RTU

Temperature

Overview

TST300 is a high-precision temperature sensor with an RS-485 interface, designed for accurate environmental monitoring in IT, industrial, and building management systems. Its compact plastic enclosure allows easy installation on flat surfaces or 19-inch server racks.

The sensor provides a factory-calibrated digital output with high accuracy and low drift. It supports MODBUS RTU communication and includes two RJ45 connectors for quick daisy-chain wiring in multi-sensor RS-485 networks. Each unit features a unique identifier, enabling easy addressing and system integration.

TST300 offers a reliable solution for continuous temperature monitoring, ideal for temperature-sensitive environments where

Key Specifications

- Operating temperature range: -20 to 60 °C / −4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ +20 to +60 °C): ±0.13 °C / ±0.23 °F.
- Accuracy (@ −20 to +20 °C): ±0.25 °C / ±0.45 °F.
- Ingress protection: IP20.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 7 mA @ 5 VDC.
- Dimensions: 85 x 35.1 x 23.5mm.
- Connectors: two RJ45 ports.
- Warranty: 3 years.

Applications

- Precision temperature monitoring in industrial control systems.
- Environmental control in pharmaceutical or food storage.
- Integration in MODBUS-based building management systems.
- Precision monitoring in laboratory and industrial facilities.

www.teracomsystems.com/sensors/rs485-precision-temperature-sensor-tst300

TST320 MODBUS RTU thermocouple module

MODBUS RTU

Temperature

Overview

TST320 is a 2-channel thermocouple module with RS-485 interface, designed for accurate temperature monitoring in industrial environments. It supports type J, T, and K (−200°C to +1372°C / −328°F to +2501°F) thermocouples and uses the MODBUS RTU protocol for easy integration with controllers and SCADA systems.

The module includes cold junction compensation and internal processing for stable, precise readings. Both channels are independently configurable, allowing flexible use in ovens, furnaces, and HVAC systems.

With a compact DIN-rail mountable enclosure and wide temperature tolerance, TST320 provides a reliable solution for remote high-temperature monitoring and control.

Key Specifications

- Operating temperature range: -20 to 60°C / −4 to +140°F.
- Operating humidity range: 5 to 95 %RH (non-condensing).
- Supported thermocouple types: J, T, K.
- Number of channels: 2 (independently configurable).
- Accuracy: 0.2 °C ± 0.05 % of reading.
- ADC resolution: 24-bit.
- Ingress protection: IP40 (connections IP20).
- Supply voltage range: 5–28 VDC.
- Current consumption: max. 15 mA @ 12 VDC.
- Warranty: 3 years.

Applications

- Temperature monitoring in manufacturing processes.
- Kilns, ovens, and industrial heating equipment monitoring.
- Remote temperature sensing in harsh environments.
- Food processing and storage temperature logging.

www.teracomsystems.com/sensors/2-channel-thermocouple-module-with-modbus-rtu-interface

TSH202 Humidity and temperature sensor

1-Wire
Temperature
Humidity

Overview

TSH202 is a 1-Wire temperature and humidity sensor designed for accurate and stable monitoring in indoor or protected environments. It integrates a factory-calibrated digital element that ensures reliable long-term measurements with minimal drift.

Its compact design with a fixed 1-meter cable allows flexible placement in cabinets, ducting, or embedded systems. The sensor supports seamless integration with 1-Wire-enabled controllers for HVAC, automation, and energy monitoring applications.

TSH202 offers a discreet and robust solution for reliable climate data collection in tight or space-restricted installations

Key Specifications

- Operating temperature range: -20 to 60°C / –4 to +140°F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ –10°C to +60 °C): ±3.0 %RH.
- Accuracy (@ –10°C to +60 °C): ±0.4 °C / ±0.72 °F.
- Ingress protection: IP00.
- Supply voltage range: 4.0–5.5 VDC.
- Current consumption: 5 mA @ 5 VDC.
- Dimensions: 45 x 16 x 10 mm.
- Cable length: 1 meter.
- Warranty: 3 years.

Applications

- Temperature and humidity monitoring in buses and public transport cabins.
- Environmental control in truck cargo compartments.
- HVAC regulation in commercial and office buildings.

www.teracomsystems.com/sensors/1-wire-humidity-temperature-sensor-tsh202

TSH202B Humidity and temperature sensor

1-Wire
Temperature
Humidity

Overview

TSH202B is a 1-Wire temperature and humidity sensor enclosed in a low-profile plastic housing, designed for wall or panel-mounted indoor applications. It features a factory-calibrated digital sensor for accurate and consistent data across a wide range of conditions.

Its enclosed structure offers added mechanical protection and simplifies installation in server rooms, offices, and control panels. The sensor connects via flying leads, providing flexibility for different wiring configurations.

TSH202B is ideal for fixed-location climate monitoring where reliability, easy setup, and compact form factor are essential.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ –10°C to +60 °C): ±3.0 %RH.
- Accuracy (@ –10°C to +60 °C): ±0.4 °C / ±0.72 °F.
- Ingress protection: IP00.
- Supply voltage range: 4.0–5.5 VDC.
- Current consumption: 5 mA @ 5 VDC.
- Dimensions: 62 x 28 x 16 mm.
- Cable length: 1 meter.
- Warranty: 3 years.

Applications

- Climate condition monitoring in buses, trains, and trams.
- Room-level HVAC control in industrial facilities.
- Tracking temperature and humidity in refrigerated truck units.
- Furnace and high-temperature equipment regulation.

www.teracomsystems.com/sensors/compact-humidity-temperature-sensor-tsh202b

TSH231 Waterproof 1-Wire humidity and temperature sensor

1-Wire
Temperature
Humidity

Overview

TSH231 is a waterproof temperature and humidity sensor with a 1-Wire interface.

The sensor integrates basic elements plus signal processing and provides a fully calibrated digital output. A unique capacitive element is used for measuring relative humidity while the temperature is measured by a bandgap element. Both elements are seamlessly coupled to a 12-bit analog to digital converter. This results in superior signal quality.

The digital sensor is mounted in an IP65-rated enclosure. This provides protection against dust and water spays. A cable gland and screwless terminal block allows easy cable installation.

Key Specifications

- Operating temperature range: -20 to 60 °C / −4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ −10 to +60 °C): ±0.4 °C / ±32.9 °F.
- Accuracy (@ 20 to 80 %RH): ±3.0 %RH.
- Ingress protection: IP54.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 5 mA @ 5 VDC.
- Dimensions: 68 x 105 x 35 mm.
- Connectors: screwless terminal block.
- Warranty: 3 years.

Applications

- Fleet management systems.
- Climate monitoring in agricultural environments.
- Humidity and temperature logging for telco facilities.
- Server room and data centers humidity and temperature monitoring .

www.teracomsystems.com/sensors/waterproof-temperature-and-humidity-sensor-tsh231

TSM400-1-TH Humidity and temperature sensor

1-Wire
Temperature
Humidity

Overview

The TSM400-1-TH is a temperature and humidity sensor designed for indoor applications using the 1-Wire digital interface. It combines a precision capacitive humidity element and a bandgap temperature sensor, integrated with a 12-bit analog-to-digital converter for accurate digital output.

Housed in a low-profile, ventilated plastic enclosure, the sensor is optimized for wall mounting in areas where appearance and airflow are equally important. Its modern and discreet design makes it particularly suitable for use in office buildings, public institutions, and other indoor commercial environments. Each sensor includes a unique 64-bit serial number, allowing multiple devices to coexist on the same 1-Wire network.

Key Specifications

- Operating temperature range: -20 to 60 °C / −4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ −10 to +60°C): ±0.4 °C / ±32.9 °F.
- Accuracy (@ 20 to 80 %RH): ±3.0 %RH.
- Ingress protection: IP20.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 10 mA @ 5 VDC.
- Dimensions: 81 x 81 x 30 mm.
- Connectors: screwless terminal block.
- Warranty: 3 years.

Applications

- Indoor climate monitoring in office buildings.
- Environmental control in hospitals, clinics, and waiting areas.
- Temperature and humidity tracking in classrooms and educational facilities.

www.teracomsystems.com/sensors/1-wire-temperature-and-humidity-sensor-tsm400-1-th

TSH206 Humidity and temperature sensor

1-Wire

Temperature

Humidity

Overview

TST103 is a digital temperature sensor with a 1-Wire interface. It is an excellent solution for temperature monitoring and control.

It focuses on applications that require precise temperature monitoring – server rooms, offices, drug and food stores, etc. It is also suitable for smart office applications, as well as for data loggers and thermostats.

TST103 communicates with controllers over a 1-Wire bus. Each sensor has a unique 64-bit serial code, which allows multi-sensors support over the same 1-Wire bus. The digital temperature sensor utilizes two RJ11 connectors for an easy daisy chain wiring.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ –10 to +60°C): ±0.4 °C / ±32.9 °F.
- Accuracy (@ 20 to 80 %RH): ±3.0 %RH.
- Ingress protection: IP20.
- Supply voltage range: 4.0–5.5 VDC.
- Current consumption: 5 mA @ 5 VDC.
- Dimensions: 85 x 35.1 x 23.5 mm.
- Connectors: 2 x RJ45.
- Warranty: 3 years.

Applications

- Environmental monitoring in telecommunications facilities.
- Temperature and humidity control in server rooms.
- Climate supervision in laboratories and R&D environments.
- Indoor monitoring for energy-efficient building automation.

www.teracomsystems.com/sensors/digital-humidity-temperature-sensor-tsh206

TSH300 Humidity and temperature sensor

MODBUS RTU
Temperature
Humidity

Overview

The TSH300 is a digital humidity and temperature sensor designed for indoor environmental monitoring. It communicates via RS-485 using the MODBUS RTU protocol and provides accurate readings through a capacitive humidity sensor and a bandgap temperature sensor, internally processed with 12-bit resolution.

The device is housed in a compact, ventilated plastic enclosure, suitable for wall mounting in technical and commercial spaces. It features two RJ45 connectors for straightforward daisy-chain wiring in MODBUS RTU networks, allowing quick integration into multi-device systems.

Factory calibration ensures stable and reliable performance without the need for field adjustment.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ –10 to +60°C): ±0.4 °C / ±32.9 °F.
- Accuracy (@ 20 to 80 %RH): ±3.0 %RH.
- Ingress protection: IP20.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 5 mA @ 5 VDC.
- Dimensions: 85 x 35.1 x 23.5 mm.
- Connectors: 2 x RJ45.
- Warranty: 3 years.

Applications

- Environmental monitoring in telecommunications facilities.
- Temperature and humidity control in server rooms.
- Climate supervision in laboratories and R&D environments.
- Indoor monitoring for energy-efficient building automation.

www.teracomsystems.com/sensors/rs-485-humidity-and-temperature-sensor-tsh300

TSH331 IP54 Modbus RTU temperature and humidity sensor

MODBUS RTU
Temperature
Humidity

Overview

TSH331 is an IP54 temperature and humidity sensor with an RS-485 interface. It supports the Modbus RTU protocol. The temperature and humidity sensor integrates core sensing elements with signal processing and provides a fully calibrated digital output. A unique capacitive element is used to measure relative humidity, while temperature is measured using a band gap sensor. Both sensors are seamlessly coupled to a 12-bit analog-to-digital converter, resulting in superior signal quality. A cable gland with locknut and a screwless terminal block allow easy cable installation.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ –10 to +60°C): ±0.4 °C / ±32.9 °F.
- Accuracy (@ 20 to 80 %RH): ±3.0 %RH.
- Ingress protection: IP54.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 5 mA @ 5 VDC.
- Dimensions: 68 x 105 x 35 mm.
- Connectors: screwless terminal block.
- Warranty: 3 years.

Applications

- Fleet management systems.
- Environmental monitoring in semi-outdoor industrial facilities.
- Humidity and temperature logging for telco facilities.
- Server room and data centers humidity and temperature.

www.teracomsystems.com/sensors/ip54-temperature-and-humidity-sensor-tsh331

TSM400-4-TH Temperature and humidity sensor

MODBUS RTU
Temperature
Humidity

Overview

The TSM400-4-TH is a digital temperature and humidity sensor designed for indoor environments, communicating over RS-485 with MODBUS RTU protocol. It integrates a high-precision capacitive humidity sensor and a bandgap temperature sensor, supported by a 12-bit ADC for reliable and accurate measurements.

The sensor is housed in a slim and ventilated plastic enclosure suitable for flush mounting in standard wall boxes (68 mm diameter, 61 mm screw spacing). Its discreet and modern design makes it ideal for use in offices, educational institutions, and other public spaces.

The device also features a communication status LED and configurable interface parameters via MODBUS commands.

Key Specifications

- Operating temperature range: -20 to 60 °C / −4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Accuracy (@ −10 to +60°C): ±0.4 °C / ±32.9 °F.
- Accuracy (@ 20 to 80 %RH): ±3.0 %RH.
- Ingress protection: IP20.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 10 mA @ 5 VDC.
- Dimensions: 81 x 81 x 30 mm.
- Connectors: screwless terminal block.
- Warranty: 3 years.

Applications

- Indoor climate monitoring in office buildings.
- Environmental control in schools and universities.
- Temperature and humidity tracking in museums and libraries.
- Integration into Building Management Systems (BMS).

www.teracomsystems.com/sensors/modbus-humidity-and-temperature-sensor-tsm400-4-th

TSM400-4-CPTH CO_2,pressure, temperature and humidity sensor

Overview

MODBUS RTU
CO_2
Temperature
Pressure
Humidity

The TSM400-4-CPTH is a compact multi-sensor for indoor environmental monitoring, capable of measuring carbon dioxide (CO_2), relative humidity, ambient temperature, and barometric pressure. Communication is via RS-485 using the MODBUS RTU protocol.

The CO_2 sensor is based on advanced non-dispersive infrared (NDIR) technology with automatic self-calibration to ensure long-term accuracy. The humidity, temperature, and pressure sensors are factory-calibrated and require no recalibration during their lifetime.

Its discreet wall-mount enclosure makes it ideal for use in public and commercial buildings where both functionality and aesthetics are important.

Key Specifications

- Operating temperature range: -20 to 60 °C / −4 to +140 °F.
- Operating humidity range: 10 to 90%RH (non-condensing).
- CO2 measurement range: 400 to 5000 ppm.
- Pressure measurement range: 10 to 1200 hPa.
- Accuracy (@ −10 to +60°C): ±0.4 °C / ±32.9 °F.
- Accuracy (20 to 80 %RH): ±3.0 %RH.
- Accuracy CO2: ± (40 ppm + 5%).
- Accuracy pressure (25 °C, 750 hPa): ±1.5 hPa.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 25 mA @ 5 VDC (Peak: 150 mA @ 5VDC).

Applications

- CO_2 level supervision in restaurants, meeting rooms, and shared indoor spaces.
- Indoor air quality monitoring in office buildings.
- Smart HVAC and ventilation control systems.

www.teracomsystems.com/sensors/co2-humidity-and-temperature-multi-sensor-tsm400-4-cpth

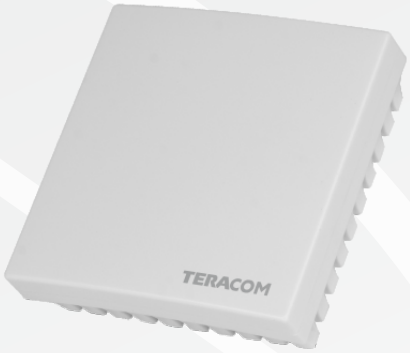
TSM400-4-CP CO_2 and pressure sensor

MODBUS RTU
CO_2
Pressure

Overview

The TSM400-4-CP is a dual-parameter sensor designed to measure carbon dioxide (CO_2) concentration and barometric pressure in indoor environments. It communicates over RS-485 using the MODBUS RTU protocol and is ideal for integration into smart building and ventilation control systems.

The CO_2 sensing element is based on advanced non-dispersive infrared (NDIR) technology with automatic self-calibration for long-term stability and accuracy. The barometric pressure sensor is factory-calibrated and maintenance-free. The device is housed in a slim plastic enclosure designed for flush wall mounting in standard 68 mm electrical boxes, making it suitable for use in commercial and public indoor spaces where discreet appearance is important.



Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 5 to 95 %RH (non-condensing).
- CO2 measurement range: 400 to 5000 ppm.
- Pressure measurement range: 10 to 1200 hPa.
- Accuracy CO2: ± (40 ppm + 5%).
- Accuracy pressure (@ 25 °C, 750 hPa): ±1.5 hPa.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 25 mA @ 5 VDC (Peak: 150 mA @ 5VDC).
- Ingress protection: IP20.
- Connectors: screwless terminal block.

Applications

- CO_2-based demand-controlled ventilation in office buildings.
- Indoor air quality monitoring in conference rooms.
- Pressure trend tracking in laboratories and controlled environments.

www.teracomsystems.com/sensors/modbus-co2-and-pressure-sensor-tsm400-4-cp

TSM400-1-CP CO_2 and pressure sensor

1-Wire
CO_2
Pressure

Overview

The TSM400-1-CP is a compact sensor designed to monitor carbon dioxide (CO_2) levels and barometric pressure in indoor environments. It operates over the 1-Wire digital interface, providing reliable data for applications that require efficient, low-complexity connectivity.

The sensor employs non-dispersive infrared (NDIR) technology for CO_2 measurement, with automatic background calibration to ensure consistent long-term performance. The barometric pressure sensor is factory-calibrated and designed for maintenance-free operation.

Its enclosure supports flush mounting in standard wall boxes (68 mm), blending easily into office and public interior spaces.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 5 to 95 %RH (non-condensing).
- CO2 measurement range: 400 to 5000 ppm.
- Pressure measurement range: 10 to 1200 hPa.
- Accuracy CO2: ± (40 ppm + 5%).
- Accuracy pressure (@ 25 °C, 750 hPa): ±1.5 hPa.
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 25 mA @ 5 VDC (Peak: 150 mA @ 5VDC).
- Ingress protection: IP20.
- Connectors: screwless terminal block.

Applications

- CO_2 level monitoring in smart ventilation systems.
- Indoor pressure reference in environmental monitoring setups.
- Air quality supervision in classrooms, offices, and meeting spaces.

www.teracomsystems.com/sensors/1-wire-carbon-dioxide-sensor-tsm400-1-cp

TSP200 Barometric pressure sensor

1-Wire

Pressure

Overview

The TSP200 is a digital barometric pressure sensor that communicates via the 1-Wire interface. It uses a piezo-resistive MEMS sensing element combined with an integrated ASIC for precise analog-to-digital conversion and temperature compensation. This architecture ensures accurate, linear, and stable pressure readings over time.

The sensor offers high resolution and low power consumption, making it suitable for continuous environmental monitoring in energy-sensitive applications. Its compact enclosure with IP30 protection is designed for indoor use.

The TSP200 includes dual RJ12 connectors, allowing easy daisy-chain installation in multi-sensor systems.

Key Specifications

- Operating temperature range: -20 to 70 °C / –4 to +158 °F.
- Operating humidity range: 0 to 85 %RH (non-condensing).
- Pressure measurement range: 300 to 1100 hPa.
- Accuracy (@ 25 °C, 950 to 1050 hPa): ±1 hPa.
- Ingress protection: IP20.
- Supply voltage range: 4.0–5.5 VDC.
- Current consumption: 2 mA @ 5VDC.
- Connectors: two RJ12 ports.
- Dimensions: 85 x 35.1 x 23.5 mm.
- Warranty: 3 years.

Applications

- Atmospheric pressure monitoring in greenhouses and nurseries.
- Barometric reference in laboratory and calibration environments.

www.teracomsystems.com/sensors/1-wire-barometric-pressure-sensor-tsp200

TSL200 Ambient light sensor

1-Wire

Ambient light

Overview

The TSL200 is a digital ambient light sensor with 1-Wire communication, designed for indoor applications requiring accurate illumination monitoring. It measures visible light levels up to 83,000 lux with a spectral response closely matching that of the human eye. The sensor features strong infrared rejection and automatic range adjustment, enabling high accuracy under both low and high light conditions.

The compact enclosure provides IP30 protection, making the device suitable for installation in protected indoor spaces. Dual RJ12 connectors allow easy integration into 1-Wire networks using standard cabling. Each unit has a unique 64-bit serial number for multi-device compatibility

Key Specifications

- Operating temperature range: 0 to 40°C / 32 to +104°F.
- Operating humidity range: 5 to 95% (non-condensing).
- Illuminance measurement range: 0 to 83000 lux.
- Accuracy: ±5%.
- Optical field of view: ±45°.
- Supply voltage range: 4.5–5.5 VDC.
- Current consumption: 4 mA @ 5 VDC.
- Connectors: two RJ12 ports.
- Dimensions: 85 x 35.1 x 23.5 mm.
- Ingress protection: IP20.

Applications

- Ambient light monitoring for lighting control systems.
- Smart office automation.
- Indoor brightness tracking for energy efficiency.
- Integration into Building Management Systems (BMS).

www.teracomsystems.com/sensors/1-wire-ambient-light-sensor-tsl200

TDI340 S0 pulse counter

MODBUS RTU

Pulse counter

Overview

The TDI340 is a pulse counter designed for monitoring consumption from electricity, water, gas, and heat meters with S0 outputs. It offers four independent channels, each supporting high-resolution counting with configurable edge detection and input filtering for reliable operation in various environments.

All values are stored in non-volatile memory, ensuring no data is lost in case of power failure. In addition to raw pulse counts, the device allows calculation of physical values such as energy or volume, which can be read directly through the system.

Its compact design and reliable signal processing make the TDI340 suitable for integration into metering panels, automation systems, and building energy management applications.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Digital inputs modes: ON/OFF and COUNTER (S0 compatible).
- Digital inputs isolation: Functional, 1000 VDC;.
- Maximum counter value: 4 294 967 295.
- Supply voltage range: 5.0–30 VDC.
- Current consumption: 50 mA @ 5 VDC.
- Connectors: screwless pluggable for 28 to 16 (AWG).
- Ingress protection: IP40 (connections IP20).
- Warranty: 3 years.

Applications

- Utility metering for electricity, water, gas, and heat.
- Energy monitoring in industrial and commercial buildings.
- Pulse data acquisition in automation and control systems.
- Integration into Energy Management Systems (EMS).

www.teracomsystems.com/sensors/s0-pulse-counter-modbus-rtu-tdi340

TDO340 Relay output module

MODBUS RTU

Relay output

Overview

The TDO340 is a four-channel relay output module suitable for remote control of electrical loads in automation and monitoring systems. It allows flexible configuration of each output, enabling integration with lighting, ventilation, security, or general-purpose switching.

Relay states are stored in non-volatile memory to ensure recovery after power interruptions. Status feedback is available for all channels, supporting real-time supervision and diagnostics within the control system.

Compact and robust, the module is designed for reliable operation in distributed installations. It offers straightforward integration into energy, industrial, and building automation environments.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Relay max. switching current: 3 A.
- Relay max. switching voltage: 250 VAC / 30 VDC.
- Isolation: 4000 Vrms coil to contact.
- Supply voltage range: 5.0–28 VDC.
- Current consumption: 130 mA @ 5 VDC.
- Connectors: screwless pluggable.
- Ingress protection: IP40 (connections IP20).
- Warranty: 3 years.

Applications

- Remote switching of lighting, HVAC, and power circuits.
- Control of auxiliary equipment in industrial systems.
- Automated load management in energy-efficient buildings.
- Integration with Building Management Systems (BMS).

www.teracomsystems.com/sensors/modbus-rtu-relay-output-module-tdo340

TSA200 Galvanic isolated current loop transmitter

1-Wire

Current loop

Overview

The TSA200 is a single-channel analog input module for reading 4–20 mA current loop signals from industrial transmitters. It features galvanic isolation between the input and the communication interface, ensuring safe operation and improved noise immunity in demanding environments.

Designed for compatibility with a wide range of sensors, the module is suitable for monitoring process variables such as temperature, pressure, and flow. Internal calibration ensures consistent signal conversion without the need for external adjustments.

Compact and easy to integrate, the TSA200 is ideal for connecting analog measurement devices to 1-Wire monitoring systems in industrial and building automation.

Key Specifications

- Operating temperature range: 0 to 40 °C / 32 to +104 °F.
- Operating humidity range: 0 to 85 %RH (non-condensing).
- Input DC current range: 0 to 20 mA.
- Accuracy: ±2%.
- Isolation voltage: 1000 VDC.
- Supply voltage range: 4.5–5.5 VDC.
- Current consumption: 68 mA @ 5 VDC.
- Connectors: two RJ12 ports.
- Dimensions: 85 x 35.1 x 23.5 mm.
- Ingress protection: IP20.

Applications

- Signal acquisition from 4–20 mA industrial transmitters.
- Electrically isolated analog input in control systems.
- Process monitoring in automation and energy management.
- Integration of curren loop devices into 1-Wire infrastructure.

www.teracomsystems.com/sensors/1-wire-current-loop-transmitter-tsa200

TSV200-60i Galvanic isolated voltage sensor

1-Wire

Voltage

Overview

The TSV200 is a single-channel analog input module designed to measure DC voltage signals in the 0–60 V range. It features galvanic isolation between the input and the communication interface, ensuring safe and interference-resistant operation in industrial environments.

The device is suitable for reading voltage levels from external sensors, battery systems, and power supplies. Built-in calibration ensures consistent performance without the need for manual adjustment during installation or operation.

Compact and easy to deploy, the TSV200 provides a reliable way to integrate voltage-based measurements into 1-Wire monitoring systems used in industrial, energy, and building automation.

Key Specifications

- Operating temperature range: 0 to 40 °C / 32 to +104 °F.
- Operating humidity range: 0 to 85 %RH (non-condensing).
- Input DC voltage range: 0 to 60 VDC.
- Accuracy: ±2%.
- Isolation voltage: 1000 VDC.
- Supply voltage range: 4.5–5.5 VDC.
- Current consumption: 68 mA @ 5 VDC.
- Connectors: two RJ12 ports.
- Dimensions: 85 x 35.1 x 23.5 mm.
- Ingress protection: IP20.

Applications

- Voltage monitoring in battery systems and power supplies.
- Electrically isolated analog input for industrial monitoring.
- DC voltage signal acquisition in control and automation.
- Integration of voltage-based sensors into 1-Wire systems.

www.teracomsystems.com/sensors/1-wire-voltage-sensor-tsv200

TSA202 Analog input module with galvanic isolation

1-Wire
Voltage
Current loop

Overview

The TSA202 is a dual-channel analog input module with galvanic isolation, designed for high-precision signal measurement in automation and monitoring systems. Each channel supports two selectable input modes: 0–10 V and 0–20 mA, allowing flexible connection to a wide range of analog sensors.

Equipped with a 16-bit ADC, the module delivers excellent resolution and measurement stability. Factory calibration ensures long-term accuracy without the need for manual adjustments in the field.

Thanks to its dual-mode input capability, galvanic isolation, and reliable signal processing, the TSA202 is ideal for precise analog data acquisition in industrial, energy, and building management applications

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Current loop mode range: 0-20 mA.
- Voltage mode range: 0-10 VDC.
- Accuracy: ±1%, 16-bit ADC conversion.
- Supply voltage range: 4.5–5.5 VDC.
- Current consumption: 25 mA @ 5 VDC.
- Connectors: screwless pluggable.
- Functional isolation: 1000 VDC.
- Ingress protection: IP20.

Applications

- Precise measurement of pressure, flow, or temperature via analog transducers.
- High-resolution analog input in industrial process monitoring.
- Accurate analog signal acquisition in automation systems.

www.teracomsystems.com/sensors/1-wire-analog-input-module-tsa202

TSA202-60 60V analog input module with galvanic isolation

1-Wire
Voltage

Overview

The TSA202-60 is a dual-channel analog input module with galvanic isolation, designed for precise monitoring of DC voltage signals up to 60 V. Both channels operate in 0–60 V input mode, making the device suitable for applications requiring direct connection to high-voltage analog sources.

A 16-bit analog-to-digital converter ensures excellent resolution and accuracy across the full voltage range. The factory-calibrated design provides long-term measurement stability without the need for external adjustments.

With robust isolation and reliable high-voltage handling, the TSA202-60 is ideal for safe and accurate analog data acquisition in industrial monitoring, power systems, and automation networks.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Input voltage range: 0-60 VDC.
- Accuracy: ±1%, 16-bit ADC conversion.
- Functional isolation: 1000 VDC.
- Supply voltage range: 4.5–5.5 VDC.
- Current consumption: 25 mA @ 5 VDC.
- Connectors: screwless pluggable.
- Ingress protection: IP20.
- Warranty: 3 years.

Applications

- Precise voltage monitoring in DC power systems.
- Safe integration of 0–60 V signals in measurement networks.
- High-voltage analog signal acquisition in industrial environments.

www.teracomsystems.com/sensors/1-wire-60v-input-module-tsa202-60

TSC201 10A current sensor

1-Wire

Current

Overview

The TSC201 is a compact current sensor for AC and DC applications, designed to measure currents up to 10 A. It is intended for use with external current transformers that provide a 10 A secondary output, allowing indirect measurement of much higher primary currents.

A built-in 16-bit ADC delivers high-resolution readings, while galvanic isolation between the input and communication interface ensures electrical safety and reliable performance in noisy environments. The device is factory calibrated, requiring no user adjustment and simplifying installation.

Housed in a DIN rail-mountable enclosure, the TSC201 is suitable for integration into electrical panels, making it a practical choice for current monitoring in industrial, energy, and automation systems.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90 %RH (non-condensing).
- Input AC current range: 0.1-10 A.
- Input DC current range: ± (0.1-10) A.
- Accuracy: ±1%, 16-bit ADC conversion.
- Supply voltage range: 4–5.5 VDC.
- Current consumption: 30 mA @ 5 VDC.
- Connectors: screwless pluggable.
- Maximum working voltage for basic isolation: 277 VAC.
- Ingress protection: IP40 (connectors IP20).

Applications

- Load monitoring in energy management systems.
- Indirect current measurement with external CTs.
- AC/DC diagnostics in control and automation setups.
- Electrical load profiling in distribution panels.

www.teracomsystems.com/sensors/1-wire-isolated-current-sensor-tsc201

TSV300 AC voltage transducer

MODBUS RTU

Voltage

Overview

he TSV300 is a high-accuracy AC and DC voltage transducer designed for true RMS measurement and versatile system integration. It supports both 50 Hz and 60 Hz networks, as well as DC voltages, covering a wide range of monitoring scenarios across industrial and utility applications.

Equipped with a 24-bit converter, the transducer achieves excellent resolution and accuracy better than 0.5%. Its robust 1500 Vrms isolation ensures safe operation even in demanding environments, while high input impedance minimizes signal interference during measurements.

With support for MODBUS RTU communication, the TSV300 delivers readings in both 16-bit integer and 32-bit floating-point formats.

Key Specifications

- Operating temperature range: -20 to 60 °C / –4 to +140 °F.
- Operating humidity range: 10 to 90% (non-condensing).
- Input voltage range: 0-264 VAC or ±(0-370) VDC.
- Input frequency: 0 to 60 Hz.
- Accuracy: ±0.5 %, 24-bit ADC conversion.
- Supply voltage range: 5–28 VDC.
- Current consumption: 15 mA @ 12 VDC.
- Connectors: screwless pluggable.
- Maximum working isolation voltage: 1500 Vrms.
- Ingress protection: IP40 (connectors IP20).

Applications

- True RMS voltage monitoring in industrial and utility networks.
- AC and DC measurement in energy diagnostics and control.
- Electrical safety monitoring in high-voltage equipment.
- Grid voltage tracking for automation and SCADA systems.

www.teracomsystems.com/sensors/ac-voltage-transducer-modbus-rtu-tsv300

TSV101 AC voltage detector

Overview

The TSV101 is a high-reliability AC voltage detector with optoisolated open collector output, designed to indicate the presence or absence of line voltage. It supports two input ranges – 85–250 VAC and 170–250 VAC – selectable via external wiring.

Constructed entirely from electronic components, the device avoids mechanical wear and ensures long-term durability. Galvanic isolation between the monitored AC line and the digital output enhances operational safety, while the self-powered design simplifies installation by eliminating the need for an external power supply.

DIN rail mounting and open collector output compatibility make the TSV101 easy to integrate into monitoring and automation systems.

Voltage presence

Key Specifications

- Operating temperature range: 0 to 40 °C / 32 to +104 °F.
- Operating humidity range: 0 to 85 %RH (non-condensing).
- Operating voltage range: 0 to 250 VAC.
- Detection levels: 85 VAC or 170 VAC.
- AC voltage connectors: screwless pluggable.
- Output connector: screw terminal.
- Ingress protection: IP40 (connectors IP20).
- Dimensions: 85 x 35.1 x 23.5 mm.
- Warranty: 3 years.

Applications

- Line voltage detection in UPS and backup power systems.
- Monitoring power supply presence in control panels.
- Voltage presence feedback in automated switching systems.
- Safe AC voltage sensing in industrial monitoring setups.

www.teracomsystems.com/sensors/ac-voltage-detector-tsv101

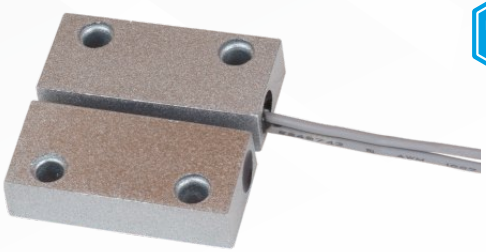
TSD800 Magnetic door sensor

Overview

The TSD800 is a magnetic contact sensor designed for monitoring the open or closed status of doors and windows. Its rugged construction and screw-mount design ensure reliable operation on both metal and wooden surfaces in residential, commercial, and industrial settings.

The sensor features a relay output compatible with digital inputs in dry contact mode. Its wide sensing gap and IP65-rated enclosure provide reliable performance in harsh or dusty environments.

TSD800 is ideal for use in access monitoring, security systems, and HVAC-related automation, offering a simple yet effective solution for detecting door or window status.



Magnetic door

Key Specifications

- Max switching voltage: 30 VDC.
- Max switching current: 0.2 A.
- Ingress protection: IP65.
- Housing: Zink alloy.
- Contact: Closed when both parts are close to each other.

Applications

- Monitoring of cabinet or enclosure doors in industrial systems.
- Open-door detection for HVAC interlock control.
- Status monitoring of electrical panels in automation setups.
- Equipment access tracking in server rooms or technical areas.

www.teracomsystems.com/sensors/magnetic-door-sensor-tsd800

TSF400-0 Water leak detector

Overview

The TSF400-0 is a waterproof water-leak detector designed for early detection of unwanted water presence in technical and industrial environments.

It is suitable for installation on floors, in drainage trays, or inside equipment enclosures where water ingress must be detected quickly and reliably.

The detector provides an N-channel open-drain digital output, allowing straightforward integration with PLCs, controllers, and building automation systems.

The TSF400-0 is intended for continuous operation in applications where reliable water-leak detection is required to protect equipment and infrastructure.

Water leak

Key Specifications

- Operating temperature range: 0 to 50 °C / 32 to 122 °F.
- Operating humidity range: 0 to 90 %RH (non-condensing).
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 5 mA @ 12 VDC.
- Ingress protection: IP65.
- Output type: N-channel open-drain, active-LOW.
- Maximum output rating: 30VDC / 100mA.
- Cable length: 3 meter.
- Dimensions: 88 x 17 x 46 mm.
- Warranty: 3 years.

Applications

- Data centers, server rooms, and telecom infrastructure.
- UPS rooms and battery backup systems.
- Building Management Systems (BMS).
- Industrial control cabinets.

www.teracomsystems.com/sensors/water-leak-detector-with-digital-output-tsf400-0/

TSF400-4 Modbus water leak detector

MODBUS RTU

Water leak

Overview

The TSF400-4 is a waterproof water-leak detector with Modbus RTU communication, designed for early detection of unwanted water presence in technical and industrial environments.

It is suitable for installation on floors, in drainage trays, or inside equipment enclosures where water ingress must be detected quickly and reliably.

The device allows straightforward integration with PLCs, controllers, and building automation systems for remote monitoring.

The TSF400-4 is intended for continuous operation in applications where reliable water-leak

Key Specifications

- Operating temperature range: 0 to 50 °C / 32 to 122 °F.
- Operating humidity range: 0 to 90 %RH (non-condensing).
- Supply voltage range: 4.5–26 VDC.
- Current consumption: 5 mA @ 12 VDC.
- Ingress protection: IP65.
- Cable length: 3 meter.
- Dimensions: 88 x 17 x 46 mm.
- Warranty: 3 years.

Applications

- Data centers, server rooms, and telecom infrastructure.
- UPS rooms and battery backup systems.
- Building Management Systems (BMS).
- Industrial control cabinets.

www.teracomsystems.com/sensors/modbus-water-leak-detector-tsf400-4/

TSS8030R Smoke detector

Overview

The TSS8030R is a smoke detector designed for early fire detection based on a fixed smoke concentration threshold. It uses an optical sensing principle, where smoke particles entering the chamber cause infrared light scattering, reliably triggering the detection process.

A built-in microprocessor applies an advanced algorithm for self-compensation, maintaining long-term stability even in dusty environments. The sensor is factory calibrated and features a relay output, suitable for use with digital inputs in dry contact mode.

With its compact housing and low power consumption, the TSS8030R is ideal for installation in equipment rooms, technical enclosures, and industrial facilities.

Smoke

Key Specifications

- Operating temperature range: -10 to 55 °C / 14 to +131 °F.
- Operating humidity range: 30 to 96 %RH (non-condensing).
- Smoke sensitivity: complies with EN 54-7:2000+ A1:2002.
- Protected area: circle with diameter 15 m.
- Supply voltage range: 10–30 VDC.
- Current consumption: 18 mA @ 10 VDC.
- Connectors: screw terminals.
- Warranty: 3 years.

Applications

- Fire detection in server and network equipment rooms.
- Smoke monitoring in industrial automation enclosures.
- Early warning in electrical distribution cabinets.
- Smoke detection in controlled industrial spaces.

www.teracomsystems.com/sensors/smoke-detector-tss8030r

At the heart of every modern electronic system lies its software — the true engine that drives functionality, intelligence, and adaptability.

Whether in a compact monitoring setup or a large-scale industrial deployment, data acquisition software transforms raw sensor input into structured, actionable insight. It enables real-time monitoring, smart diagnostics, and efficient management, seamlessly connecting field-level data to decision-making systems.

From sensor to screen — powerful software makes it all come together.

Modern monitoring isn't just about collecting data; it's about seeing the full picture in real time and reacting with confidence. That's where our software steps in — designed not just to work, but to make your work easier.

Built for small and medium-scale systems, our SCADA solutions prioritize clarity, responsiveness, and seamless integration with our hardware. You don't need to worry about compatibility or setup headaches — everything is optimized to just work, straight out of the box.

While our hardware supports a wide range of M2M and third-party platforms, choosing a unified system means better efficiency and one-stop support. And if you're building something simpler — from a single-site HVAC system to small equipment monitoring — we've got lightweight tools that make automation feel effortless.

We believe software should help, not get in your way. That's why we build everything with a clear rule in mind: if you need the manual, we've missed the point.

TC Monitor

Overview

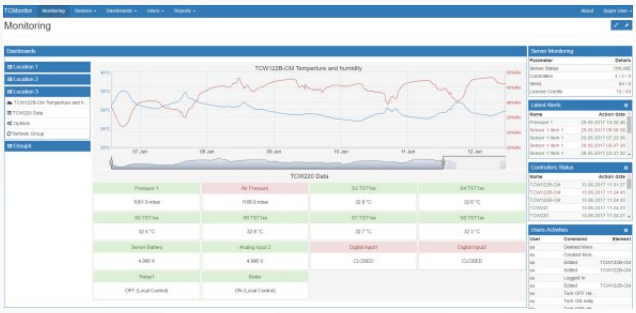
TC Monitor is a web-based software platform for remote monitoring and control of Teracom cellular and Ethernet devices. From the Ethernet range, it supports TCW122B-CM, TCW181B-CM, TCW210-TH, TCW220, TCW241, TCW242 and TCW260 models, enabling seamless integration with sensors, digital and analog inputs, and relay outputs across multiple locations.

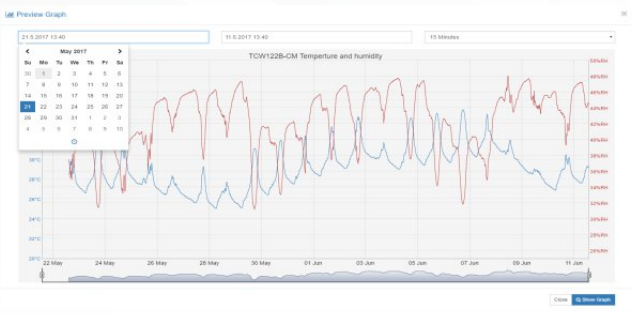
The software provides centralized access through a modern, browser-based interface that works across operating systems. Devices can operate in both server and client modes, allowing flexible system architecture for distributed setups. Real-time data is visualized through customizable dashboards for clear, intuitive monitoring.

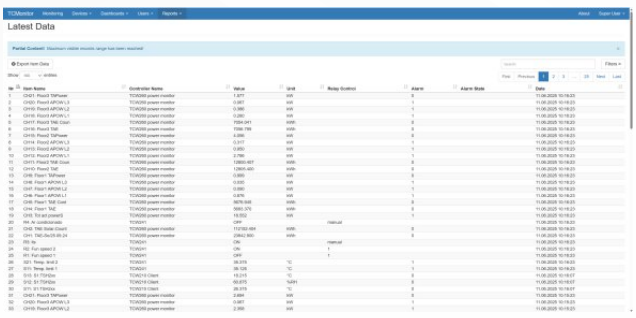
TC Monitor includes user account management with configurable access rights and supports a free license option with a limited number of monitored items. It's the ideal choice for scalable monitoring in industrial, commercial, or infrastructure applications.

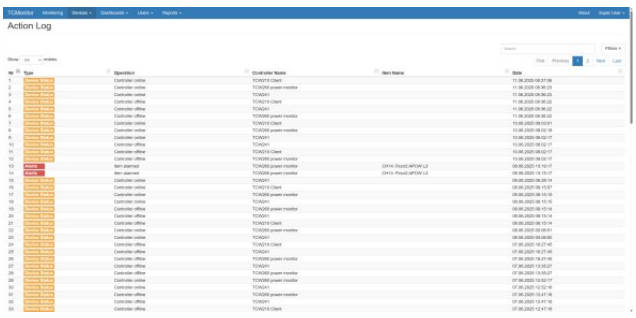
Features

- Web-based interface for remote access and configuration.
- User-friendly dashboards for data and status visualization.
- Graphical and data dashboards, status indicators.
- Flexible user account and access rights management.
- Command execution for devices in both client and server mode.
- Log of sent commands with status tracking.
- Data logging with export to .CSV format.
- Device grouping by location, type, or project.
- Centralized monitoring of distributed Ethernet and cellular devices.
- Multi-user operation with individual privileges.
- Device communication health monitoring.
- Web interface port configuration.
- Database maintenance and backup tools.
- Compatible with most modern desktop and mobile browsers.
- Free version available for up to 10 monitored items.









www.teracomsystems.com/download/tc-monitor

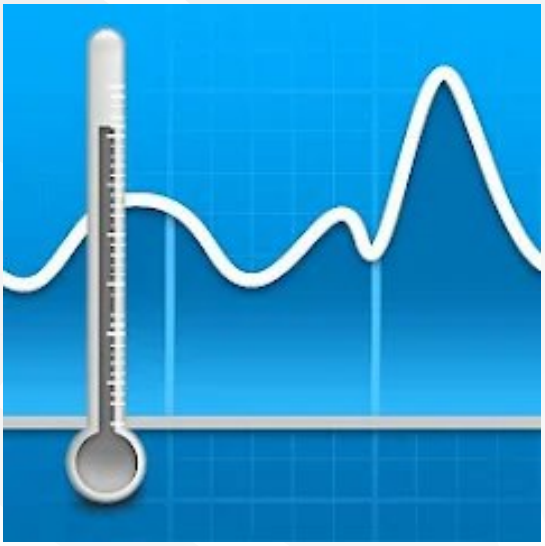
TCW Control

Overview

TCW Control is a mobile application designed for real-time monitoring and control of Teracom Ethernet controllers. By entering the controller's IP address and HTTP port, users can view sensor data and manage outputs directly from their smartphone.

The app offers a quick and user-friendly interface for accessing key parameters such as temperature, humidity, analog values, and digital inputs. It also supports relay control and allows adding custom descriptions for each monitored point.

TCW Control is ideal for remote access to home automation, HVAC systems, and environment monitoring setups using TCW-series devices.



Features

- Real-time display of sensor values.
- Monitoring of analog and dry contact inputs.
- Remote relay output control.
- Support for multiple TCW devices.
- Custom naming for monitored parameters.

apps.apple.com/bg/app/tcw-control/id909213142

play.google.com/store/apps/details?id=cc.teracom.app.android

TCW Discoverer

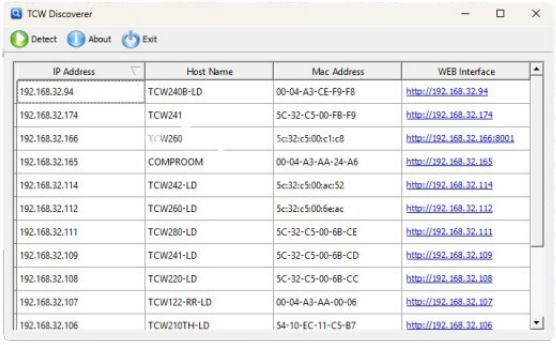
Overview

TCW Discoverer for Windows is a free utility that helps you quickly locate Teracom Ethernet controllers within the local network.

It scans the LAN and displays all detected TCW devices along with their IP addresses, MAC addresses, and firmware versions.

The tool simplifies the initial setup process by eliminating the need to manually search for devices or guess network settings. With just one click, you can open the web interface of any detected controller for configuration or monitoring.

TCW Discoverer is especially useful during installation, troubleshooting, or maintenance, ensuring fast and efficient device access even in complex network environments.



Features

- Detects TCW Ethernet controllers on the local network.
- Displays IP address, MAC address, and device model.
- Shows firmware version for each detected controller.
- Enables quick access to each device's web interface.
- No installation required – runs as a standalone executable.

www.teracomsystems.com/download/tcw-discoverer-free-utility-finds-tcw-controllers-local-network-ios

www.teracomsystems.com/download/tcw-discoverer-free-utility-finds-tcw-controllers-local-network-win

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