TCW241
Ethernet I/O module
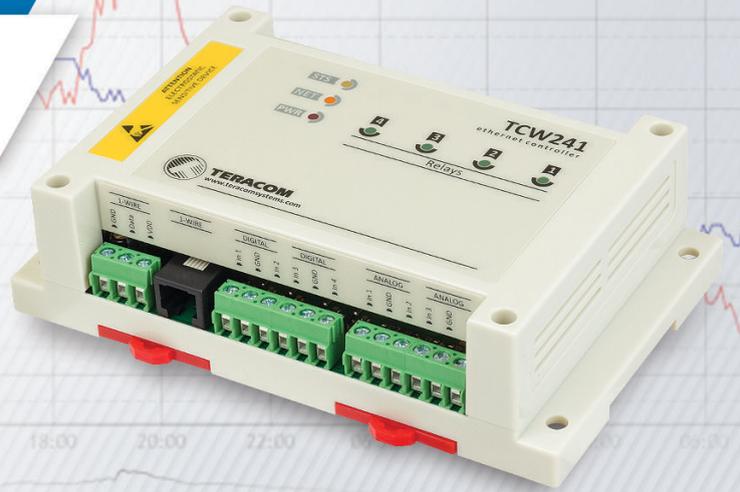
Overview

TCW241 is an Ethernet I/O module. It provides four digital „dry contact" inputs and four analog 0-60V inputs, with 10-bit resolution. The controller supports up to 8 TERACOM 1-Wire sensors for temperature, humidity, carbon dioxide, 0/20mA, AC/DC current, etc.

The Ethernet I/O module has 4 relays with normally open and normally closed contacts.

TCW241has real-time clock (RTC) with time server synchronization (NTP) for advanced relay schedule.

The relays of Ethernet I/O module can be activated either remotely or locally. So-called remote activation includes WEB interface or M2M protocols – MODBUS TCP/IP, SNMP, and HTTP API.

The local activation is possible from schedule, status of a single parameter or by custom made functions. The custom made functions can include up to four parameters.

Applications

- **Server room monitoring** - The device can monitor AC power supply, smoke concentration, door opening, battery voltage, room temperature, and control the cooling system.
- **M2M systems** - The device can send periodically information to a dedicated server and execute its commands.
- **Scheduled control** - The device can be used for one-time or repetitive (weekly) tasks to turn on/off relays at previous set times.
- **Environmental monitoring** – The device can monitor temperature, humidity, barometric pressure, CO_2 etc.
- **HVAC systems** – with 4 relays, schedule, and custom made functions the device is the right choice for climate control.

Interfaces

100 Mbit Ethernet	4x Digital Inputs	0-60V 4x Analog Inputs	4x Relay Outputs	1-Wire 8x 1-Wire Sensors

Basic features

- WEB server for simple configuration and control;
- Multiplier and offset for analog inputs and some sensors;
- MODBUS TCP/IP support;
- SNMP v2 support with trap alerts;
- SMTP with SSL/TLS for e-mail alerts;

- HTTP Post service with API commands;
- XML/JSON status report files;
- Dynamic DNS support;
- Scheduled control;
- Custom functions.

Short specification

Supply voltage, VDC	10 - 32
Maximum current (with all relays ON), mA	350 @ 12VDC
Weight, g	230
Dimensions, mm	145 x 90 x 40
Operating temperature range, °C	-20 to + 55
Operating relative humidity range, %RH	5 to 85 (non-condensing)
Supply voltage for 1-Wire bus (VDD), VDC	5.0 ± 0.3
Maximum output current for 1-Wire bus (VDD), A	0.2
Analog inputs range, VDC	0 to 60
Analog inputs resolution, VDC	0.01
Analog inputs accuracy, %	± 1
Maximum switchable relay current, A	3
Maximum switchable relay voltage, VAC/VDC	30/24

Typical application
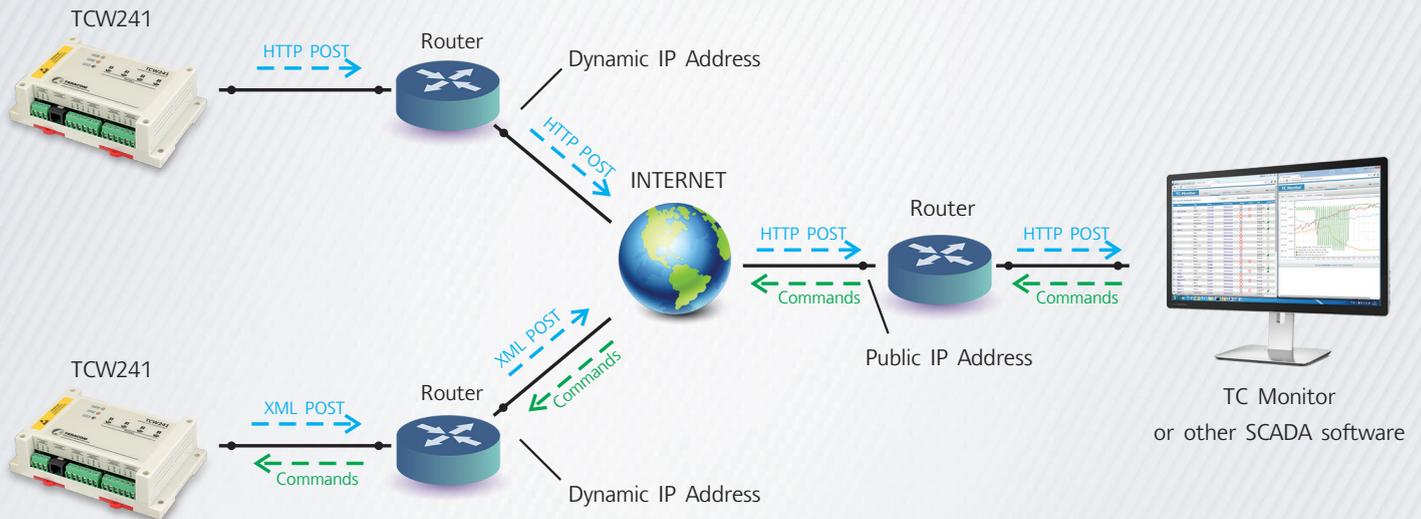
Supported sensors and detectors

Temperature   **Humidity**   **Barometric pressure**   **CO₂**   **AC/DC current**   **Detectors with relay output**

Software

- TC Monitor
- TCW Control for Android
- TCW Control for iOS
- Third party software applications