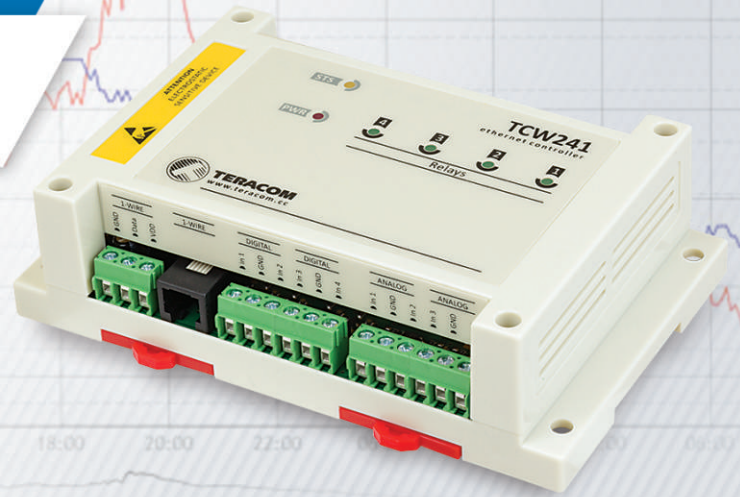# TCW241
Ethernet I/O module

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 close contacts.

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

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 scheduler, status of 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 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 its 4 relays, scheduler and custom made functions the device is right choice for climate control.

Interfaces

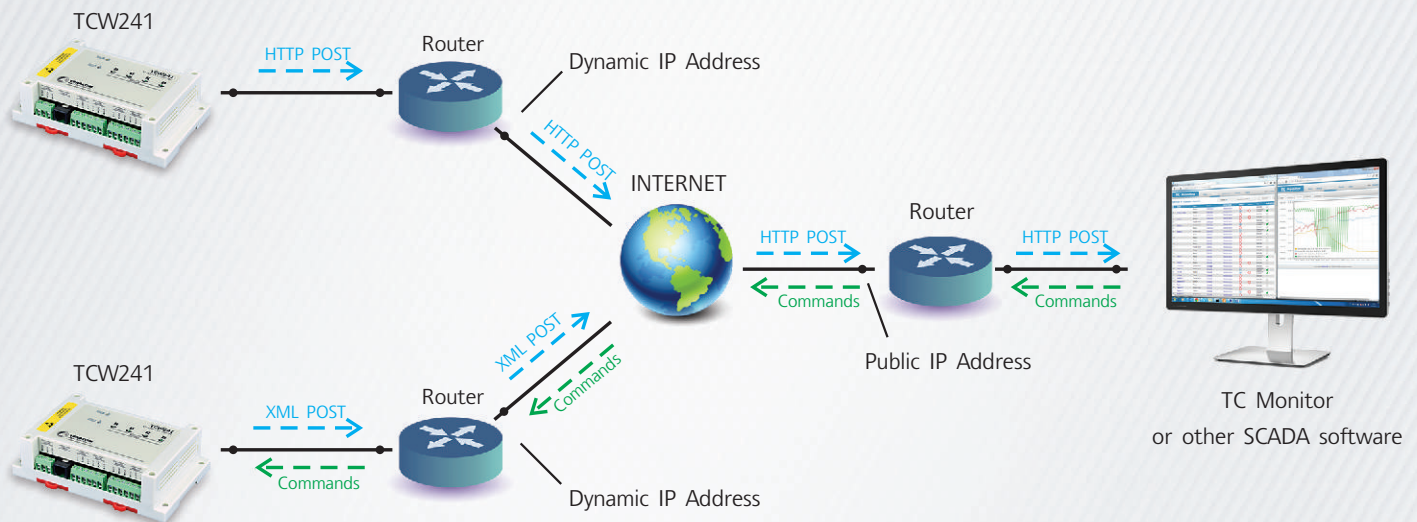| 100 Mbit Ethernet	4x Digital Inputs	0-60V 4x Analog Inputs	4x Relay Outputs	1-Wire 8x 1-Wire Sensors

Basic features

- WEB server for simple configuration and control;
- Multiplier and offset for analog inputs and some sensors;
- MODBUS/TCP support;
- SNMP v2 support with trap alert;
- SMTP support for e-mail alert
- HTTP Post service with API commands;
- XML/JSON status report files;
- NTP protocol support for time synchronization;
- Scheduled control;
- Custom functions.

www.teracom.cc

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, °C	-20 to + 55
Maximum humidity, %RH	70
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	42/60

Typical application

TCW241

HTTP POST

Router

Dynamic IP Address

HTTP POST

INTERNET

HTTP POST   Commands

Router

Public IP Address

HTTP POST   Commands

TC Monitor
or other SCADA software

TCW241

XML POST   Commands

Router

XML POST   Commands

Dynamic IP Address

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