

APPLICATIONS

- AHU — Air Handling Units
- MZN — Multi-zone AHU
- CHW — Chillers, Cooling Towers
- HHW — Boilers
- PMP — Pumps
- EF— Exhaust Fans
- FCU — Fan Coil Units
- HPU — Heat Pump Units
- RTU — Roof Top Units
- VAV — VAV and VVT Terminal Equipment
- NRG —Energy Shedding, manager
- BTU —Energy (BTU) Calculator
- IRR —Irrigation
- CMP — Air Compressor
- CMPZN — Compressed Air Zones—Point of use
- LTG— Lighting and much more, see website for details

OVERVIEW

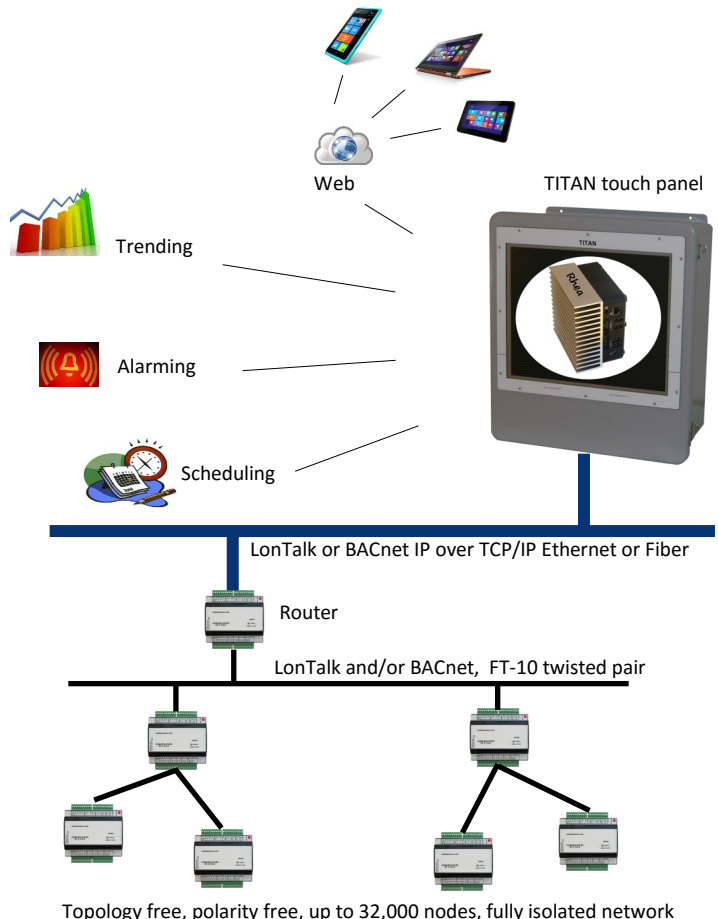
The Q1 Series are microprocessor based configurable and programmable controllers designed to control, optimize and improve energy efficiency of variety of equipment. All controller features are adjustable with DeviceEditor (part of NetworkManager) software that is free to our customers. The Q1 uses FT-10 transceiver for best in its class networking over twisted pair of wires. FT-10 networks are polarity and topology free. The network utilizes open standard LonTalk and BACnet/IP protocols for interoperability and ease of data exchange.

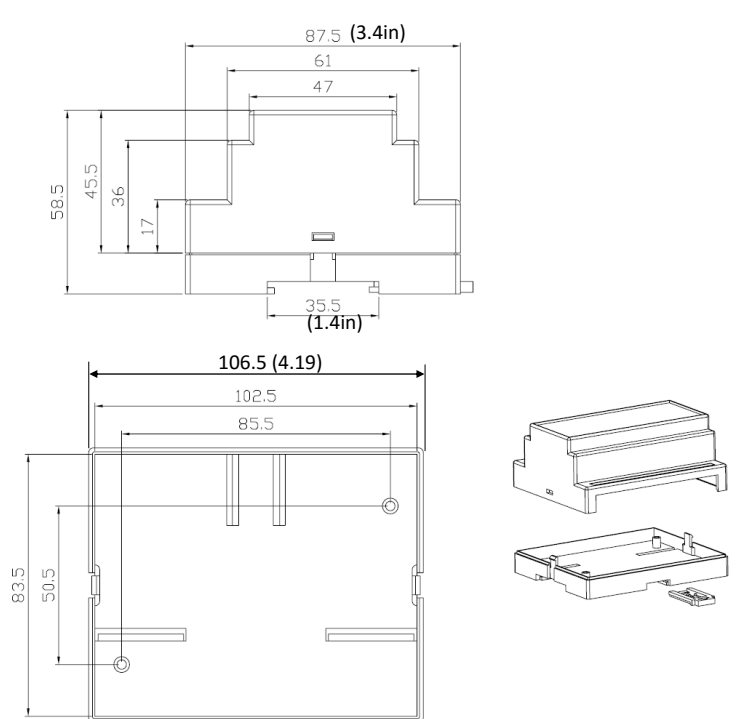



Q1 features 10 PID loops that are either used by software applications, or when available, are exposed as generic PID for free use with spare I/O.

Q1 supports variety of sensors including thermistors Type II (recommended), and Type III, and custom thermistor array. 4-20mA sensors are well supported with on-board 20VDC output. All sensors types are software configurable.



HW Part Number: Q1-2.0.2.0



| I/O CONFIGURATION | | MECHANICAL | |
|---|--|--|-------------------------------|
| NOTE: No Hardware Jumpers required to configure I/O | | Hardware | |
| 2 x Analog Inputs | The first two inputs accept resistive signals only. | Processor | FT-5000, 8bits, 80MHZ |
| Resistive | Thermistor 10KΩ Type II and Type III (Type II is recommended) | Memory | 48k application memory |
| | Potentiometer with custom scaling | Transceiver | FTT-10; 78kbps |
| | Dry contact | Indicators | Multicolor LED, power, status |
| 0 x Universal Inputs | All inputs have 12 bit resolution | Comm Ports | RJ11, LON, TTL |
| Resistive | Same as above | Power | |
| Voltage | 0-10V DC | Supply Voltage | 24VAC; 50/60Hz; Class II |
| Current | 0-20mA DC | Max | 30VA |
| 2 x Digital Outputs | | Typical | 6VA plus peripherals |
| | Triac rated at 1A @ 24V AC w/ external power supply | Fuse | 1.85A auto-resettable |
| 0 x Analog | 20mA max at 30°C, 8bit resolution | Enclosure | |
| | 0 or 10VDC Digital / Binary | Material | ABS |
| | 0-10V DC adjustable , linear | Color | Black |
| STATUS LIGHTS | | Installation | 35mm DIN |
| LED | | Connectors | Removable (Green) |
| Device status GREEN | Pulsing green = Normal Off = No power or other fault | Environment | |
| Service pin GREEN | OFF = Normal, running ON = No application | Temperature | 0°-70°C (32°-158°F) |
| AGENCY APPROVALS | | Humidity | 0-90% non-condensing |
| Safety Certifications | UL916 Energy Management Equipment CSA C22.2#205 Issue 1983/06/01 (R2009) Signal Equipment standard | Storage | -20°- 70°C (-4° - 158°F) |
| WARRANTY | |  | |
| Standard 2-year warranty. | | | |
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