REALTECH Controls
Technology Powered Solutions ®

Overview

Approximate Image only

The DLC-4 Industrial IoT Controller provides a secure and reliable controller/monitoring system for mission critical industrial equipment and sensors over the Internet. The DLC-4 can seamlessly connect to RealTech Controls reliable web servers for access to data and configuration on a 24/7 schedule. The controllers are programmable for custom alarms and simple control and safety signals to alert operators to events in real time.

The DLC-4 incorporates 4 x analog inputs, 4 x digital inputs, and 4 x relay control / alarm outputs. Connectivity is provided via Ethernet, WiFi, Bluetooth, USB, Data Logging capability, and a built-in Web Server as standard. Options for I/O expansion modules as well as a cell connection are available. The controller is also DIN rail mount for ease of installation.

Features

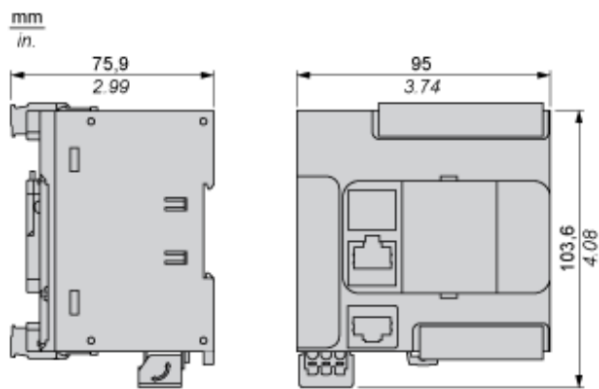|	
WiFi Connectivity o Control and Data Logging o 2.4 GHz 802.11b/g/n o 20 MHz and 40MHz Bandwidth Support o 1T1R Mode for up to 150 Mbps o Wi-Fi Multimedia o TX/RX A-MPDU, TX/RX A-MSDU o Immediate Block ACK o Fragmentation and Defragmentation o Automatic Beacon Monitoring (Hardware TSF) o Support for Infrastructure BSS in Station, SoftAP or Station + SoftAP Modes o 802.11mc FTM	**Ethernet** o Control and Data Logging o Plug and play intelligent easy setup o 10BaseT/100BaseTX Ethernet PHY o TCP/IP, UDP, IPv4, ICMP, ARP, IGMP, and PPoE o Autonegotiation (Full and Half-Duplex) o 8 Independent Sockets Simultaneously o Wake on LAN over UDP
USB 2.0 Flash Drive Support o Extended Data Logging o Can Host Other USB Devices with Software Upgrade o Supports COTS Flash Thumb USB Drives o Manual push-button data log feature	**Bluetooth Connectivity** o Control and Data Logging o Bluetooth LE, Bluetooth 5, Bluetooth Mesh o High Power TX Mode (+20dBm) o 125 Kbps, 500 Kbps, 1 Mbps, 2Mbps o Co-Existence with WiFi using Same Antenna
Rugged Hardware Design o Industrial Environment o Fan-less Enclosure o DIN Rail and Through Hole Mounting o Extended Temperature Range	**Extended Industrial Grade Isolation** o Per Channel Analog 4-20mA RX Loop Galvanic Isolation o Galvanically Isolated Digital I/O o Isolated +24Vdc Power Supply
On-board Web Server, with Remote Option	**Optional LTE Cat-M1 Cellular Support**

Specifications

(Some specifications subject to change)

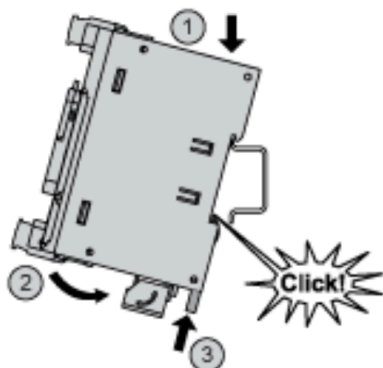| Physical	
Operating Temperature Range	−40 to 85°C (-40 to 185°F)
Mounting	DIN rail, and through hole mount
Size	TBD
Weight	TBD
Enclosure Material	TBD
Enclosure Flame Rating	TBD
Power	
DC Voltage Input	+9VDC to +32VDC (+24VDC Nominal)
Current Maximum	1.5A (USB + Ethernet + WiFi + All Relays)
Real-Time Clock	32.768 KHz Crystal Based Sync to Network Time Protocol (NTP)
Network	
	Ethernet 10/100 Base-T
	2.4 GHz 802.11 b/g/n WiFi
	Bluetooth 5 and Bluetooth LE
	Optional: Cellular Cat-M1 LTE
LED Indicators	Power On, Network Linked, Network Activity
Logging	128 MBytes Internal Nonvolatile Flash (Circular Buffering)
	Optional USB Flash Thumb Drive
	Optional IoT Logging to Secure Web Server
Connectors	
DC Power In	2-Pin Screw-In Terminal Block (Rising Cage Clamp) (18-30 AWG)
USB Flash Drive	USB 2.0 Type A Host Connector (5V, 500mA)
Digital Output Channel	2-Pin Screw-In Terminal Block (Rising Cage Clamp) (18-30 AWG)
Digital Input Channel	2-Pin Screw-In Terminal Block (Rising Cage Clamp) (18-30 AWG)
4-20ma Analog Input Channel	2-Pin Screw-In Terminal Block (Rising Cage Clamp) (18-30 AWG)
Analog Inputs	
Number of Channels	4
Channel Isolation	2500V (Channel to Channel, Channel to System)
Resolution	12-Bit SAR
Type	Differential Isolated 4-20mA
Logging Rate	Up to 100 Hz
Digital Inputs	
Number of Channels	4
Isolation	3750V (Digital Inputs to System)
Type	Open Collector Style (Normally Open)
Voltage	+5V
Short Circuit Output Current	5mA Max
ESD Protection	IEC 61000-4-2 Contact Discharge: 8KV
	IEC 61000-4-2 Air Discharge: 15KV
Transient Protection	RC Clamp, Schmidt Trigger, and Software Filtering

Digital Outputs	
Number of Channels	4
Isolation	3750V (Digital Inputs to System)
Type	Mechanical Relay (Dry Contact) SPST-NO, Non-Latching
DC Contact Rating	30 Vdc @ 3A
AC Contact Rating	277 Vac @ 5A
Contact Resistance	100mΩ
Dielectric Strength Between Contacts	750 Vrms for 1 min
Dielectric Strength Contact to Coil	4 KVrms for 1 min
Surge Withstand Voltage	10KV (JEC-212-1981)
Maximum Switching Rate	10 ms
Expected Life	Min 5E6 OPE (180 times/min)
Certifications	IEC/EN60335-1, IEC/EN60079-15, UL/C-UL E43028, VDE 40014384, CSA, CQC10002048611
Manual Input	1 x Push button data log start/stop feature

Dimensions

Physical:

Din rail installation:

Through hole mounting: