



TCI-2

Lineside controller for assembly torque wrench management.

The TCI-2 lineside tool controller allows the user to connect and manage up to 5 digital torque wrenches for use in assembly and production applications. Both WrenchStar Multi and IQWrench3 torque wrenches can be connected to the TCI-2 at the push of a button.

Unlike traditional tool controllers, the TCI-2 does not need to be located close to the tools it is managing. It also acts as a guaranteed communication point for the end-users MES (Manufacturing Execution System) software.

The TCI-2 can be connected anywhere on a network and if a connected wrench should go offline or out of range, the controller will ensure that the MES will always have an end point to communicate with.

Setting up the wrench with individual jobs or sequences on the TCI-2 is simple. Torque results and readings are communicated back to the TCI-2 which can be viewed on a PC or web page browser. The TCI-2 also has a web status page that allows the user to monitor all wrench connections and operations currently underway.

Key Features

- Controls both WrenchStar Multi and IQWrench3 digital torque wrenches from Crane
- TCI-2 enables communication with users system
- Communication methods include: Open Protocol, MQTTS, XML and CIFS file transfer
- Commands sent to the network via Ethernet or via selectable WiFi; 5Ghz or 2.4Ghz
- Connected via an IP address and a port number
- Can connect to up to 5 wrenches simultaneously
- LED status of connection to the host and wrenches
- Easy Job/Pre-sets configured via a Web Browser
- HTTP content serve via HTTPS encrypted connection
- Connected wrench autonomy with no data loss

Ideal for production and component assembly applications, utilising Crane's innovative digital torque wrenches.

- The MES (master system) will always have an end point of communication if a wrench goes offline (e.g. powered off, low battery or out of range).
- If a wrench goes offline, the TCI-2 has access to data such as when it was last online, the battery level, RSSI and the last 5000 results and 1000 traces recorded on each wrench.
- Real-time IOT dashboard showing the current state of all devices connected and disconnected from the TCI-2.
- The TCI-2 can communicate using MQTT, Open Protocol and many other protocols facilitating Industry 4.0 compliance.



Product Code	Range
TC3AB-0000-CRXXR5	TCI-2 with Power Supply

Technical Specification

Operating Temp Range:	+5 to +40°C.
Storage Temp Range:	-20 to +50°C.
Humidity:	10-75% non-condensing.
IP Rating:	IP40 (indoor use only).
Job Storage:	5000 per tool (FIFO)
Power:	12VDC 3A Power Supply (24V option available)
Ethernet:	RJ45 Socket
Serial:	9-way D-type RS232 socket for serial connection to PC in standalone mode
USB:	4 x USB 2.0 Accessory Ports
RF:	2.4GHz RF module for torque wrench comms Low power 0dBm and uses worldwide ISM band (2400MHz)
WiFi/Bluetooth:	2.4GHz, 5.0GHz IEEE 802.11 b/g/n/ac wireless; Bluetooth 5.0, BLE
Accessory Ports:	Fieldbus module port (optional)
Dimensions:	246mm (w) x 215mm (h) x 73mm (d)
LEDs:	Power status indicator Activity LED Host (Comms are good, absent or incorrect) Wrench (informs if wrench is paired, in range or has a Job loaded)
I/O:	8 inputs and 8 outputs. 12 / 24V internal voltage supply for external devices (e.g. I/O lightstack, button). Switched ground control
Construction:	Steel enclosure

Curatas Wrench Control

The TCI-2 controller can form part of a stand-alone workstation on an assembly line. The controller connects our WrenchStar Multi digital torque wrenches to our Curatas Wrench Control visual guidance software, allowing users to follow assembly steps on a screen and select the correct wrench for each fastening in the process.

The TCI-2 also communicates the results and data collected by the wrenches and Curatas, back to the manufacturers MES system.



For pricing or further technical info about the TCI-2 please visit www.crane-electronics.com or email us at sales@crane-electronics.com.



Locations

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