IQWrench2 *Opta*

Intelligent digital torque wrench



Key Features

- ✔ Torque Range 0.5 to 1500Nm
- ✔ Point of load insensitive
- ✔ Class leading accurate torque and angle measurement technology
- ✔ Automatic detection of fastener "move-on" for reduced operator influence
- ✔ Interchangeable head attachments with automatic digital identification and calibration adjustment
- ✔ High visibility and tactile feedback to the user
- ✔ Robust construction designed for the production environment
- ✔ Ergonomic design, sized for optimal operator experience
- ✔ Multiple communication protocol options via wireless
- ✔ Integral barcode reader option available
- ✔ DIN, Fixed Head and SR versions available

Product Overview

Building on the success of the IQWrench Opta, the IQWrench2 Opta combines all of the features of a high specification digital torque wrench with a data collection system in one ergonomic, versatile and incredibly powerful package.

Significant improvements to the highly sophisticated software ensure that the IQWrench2 Opta provides the world-class performance and reliability that Crane products are renowned for. This software can be upgraded at any time, increasing flexibility. The IQWrench2 Opta can be configured to fulfil the customer's needs from a basic tool to an advanced data collection system incorporating RF data transfer and barcode scanning.

The rugged construction of this powerful torque tool ensures this wrench stands up to the demands of today's harsh production environments.

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- ✔ Based on the proven success of the IQWrench Opta
- ✔ An integral part of the Crane family of products
- ✔ Easy read icon based display
- ✔ Visual, physical and audible alarms
- ✔ Battery life of the IQWrench2 Opta in typical usage is 16 hours
- ✔ Compatible with most standard interchangeable heads
- ✔ Vibrating handle - gives clear indication of fastener status
- ✔ Easy recording and storage of critical data:
  - ✔ User
  - ✔ Time
  - ✔ Results
  - ✔ Process



ID Heads

Not only is the selection of quick release interchangeable heads simple and convenient with the IQWrench2 Opta, it is also robust and accurate. The use of available automatic digital ID heads, to adjust the calibration and compensate for changes in length, ensures a highly accurate reading every time. ID heads can also be used for automatic Job selection which minimises the input required by the operator. The Crane auto ID system can be fitted to standard DIN heads and offers up to 999 unique IDs.

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RF

RF on board the IQWrench2 Opta operates at a user programmable frequency of 868/915MHz according to the country of installation. The system has a working range of up to 10m and features a fully internal antenna for maximum durability. The robust wireless protocol allows for up to 5 wrenches to communicate simultaneously with a single base station receiver.

The RF function can be used in a number of configurations to allow:

- ✔ Simple data transfer from the wrench to PC/PLC
- ✔ Integration into the OMS system to collect production data against multiple Jobs
- ✔ Remote selection of Jobs
- ✔ Integration into 3rd party systems
- ✔ Transfer of a Job to the wrench





Barcode Scanning

The IQWrench2 Opta features an optional barcode reader which is capable of scanning all major 1D barcode formats. The barcode reader is conveniently located on the underside of the wrench to allow best access for scanning. Ideal for a production environment.

As a fully integrated function of the software, barcodes can be utilised in a number of ways:

- ✔ Scan product/part identifiers to select the corresponding Job or Round
- ✔ Select user details to log in and store against torque and angle data
- ✔ Enter comments and references to store torque and angle data

IQWrench2 *Opta* Technical Specification

Physical measurements	Bi-directional torque (clockwise calibration unless otherwise requested), auto sense or right and left hand torque (and angle value)
Measurement units	Nm, Ncm, kgfcm, kgfm, ozin, lbin, lbft (depends on span)
Measurement modes	Track, Peak (Auto-reset), Angle, Yield, Audit, MoveOn
Measurement parameters	Torque & angle threshold (can be as low as 1% of rating); Upper/Lower Specification Limits (USL can be up to 100% of nominal rating); Additional Upper/Lower Control Limits
Cycle status indication	Bar graph giving real time visual representation of torque or angle Arrow icon in display, tri-colour LED (front & back of unit) and acoustic buzzer indicating torque status - HI/OK/LO
Data storage	200 reading memory of both parameter values with time and date stamp (in Quick Store) User selectable autostore/store prompt Up to 50,000 readings in job store mode Up to 50 graphs
Print modes	Via communication software Single reading or page mode with header, including serial number and recalibration date via RS232 to serial printer or RS232 terminal emulators
Printer compatibility	Via RS232 output: 40/80 columns
PC compatibility	Via communication software
Operating languages	English, German, French, Spanish, Italian, Swedish, Czech, Portuguese, Turkish
Calibration reminder	Visible indication of wrench calibration due date
Construction	Shaft material: Steel Housing: Aluminium Overload capacity: 125% rated torque Square drives fitted with pin and spring socket retainer DIN sockets with quick release function
Display	Backlit graphic LCD display with backlight auto off to save power
Keypad	Easy clean membrane keypad with 6 function keys
Auto zero	Auto zero on entering measurement mode. Display indication of excessive zero offset
Power/battery	Li polymer battery – High capacity with 16 hours typical usage from 4 hours charge
Power management	User selectable Auto Power Off: 1, 2, 5, 10, 20, 30, 40 minutes; 1, 2, 4, 8 hours; never Battery charge status bar
Input/output ports	Optional wireless communication (RF) Battery charge: Via charging/programming cradle
Zero stability	< ± 0.1% FSD/°C
Static accuracy	± 0.5% FSD
Operating environment	Temperature: +5˚C to +40˚C Ingress Protection rating: IP40. Can be used outdoors
Angle measurement	+/- 1%
Warranty	12 months parts and labour against faulty workmanship or materials

IQWrench2 *Opta* Comparison Chart

Function	Basic	Basic + Angle	Advanced	Advanced + Angle	Production	Production + Angle
Measurement Modes						
Track torque mode	✔	✔	✔	✔	✔	✔
Peak torque mode	✔	✔	✔	✔	✔	✔
Peak + Angle as secondary parameter		✔		✔		
Basic audit mode	✔	✔	✔	✔	✔	✔
Enhanced audit mode				Option		Option
Yield mode				✔		✔
Data Storage & Transfer						
Store and view up to 200 date and time stamped readings (with/without prompt)	✔	✔	✔	✔		
Download/printout up to 200 date and time stamped readings with setup parameters and wrench serial number.	✔	✔	✔	✔		
Statistical Analysis						
Basic statistical analysis	✔	✔				
Advanced statistical analysis			✔	✔	✔	✔
Assignable Torque Characteristics						
Set up torque characteristics from PC			✔	✔	✔	✔
Predefined Jobs with target torque			✔	✔	✔	✔
Predefined Jobs with angle as a second parameter				✔		✔
Organise Jobs into Rounds for scheduling			✔	✔	✔	✔
Definable number of Subgroups within Job			✔	✔	✔	✔
Definable number of readings within Subgroup			✔	✔	✔	✔
Other Functionality						
Password security with user lists			✔	✔	✔	✔
Job, Subgroup and reference comment			✔	✔	✔	✔
Store and upload graphs of multiple traces of torque (+ angle)			✔	✔	✔	✔
Future proof - upgradeable with new software			✔	✔	✔	✔
Data traceable to user and wrench			✔	✔	✔	✔
Date and time stamped readings	✔	✔	✔	✔	✔	✔
Programmable adaptor length			✔	✔	✔	✔
Auto tool ID			✔	✔	✔	✔

Weights and Dimensions

		TORQUE RANGE			LENGTH *		WEIGHT	
Size	**Head**	**Nm**	**lbft**	**Drive**	**mms**	**inches**	**gms**	**lbs**
10/25	Fixed or Din	1-25	0.74-7.4	1/4"	313	12.32	890	1.96
10/25	Din	1-25	1.8-18.4	1/4"	368	14.49	960	2.12
75	Din	7.5-75	5.5-55.3	3/8"	382	15.04	1030	2.27
180	Din	18-180	13.2-132.7	1/2"	600	23.62	1546	3.41
340	Din	34-340	25-250.6	1/2"	775	30.51	2012	4.44
600	Din	60-600	44.2-442.5	3/4"	1100	43.31	3500	10.36
750	Fixed	75-750	55.2-552.7	3/4"	1165	45.87	5600	12.35
1500	Fixed	150-1500	110.5-1105	1"	1908	75.12	10900	24.03

*** Overall length**

Accessories List

✔ IQWrench2 Opta Charging Cradle	IQW2S-0000-CRCCXX
✔ IQWrench2 Opta Programming Cradle (USB)	IQW2S-0000-CRCPUX
✔ IQWrench2 Opta Power Supply	IQW2S-0000-CRPXXX
✔ USB Cable	090260
✔ RS232 Cable	090184
✔ RF Receiver – 2 volt free relay outputs (UK/EUR version)	IQRX4-0000-NET
✔ RF Receiver – 2 volt free relay outputs (US version)	IQRX5-0000-NET
✔ RF Receiver – 10 volt free relay outputs (UK/EUR version)	IQRX6-0000-NET
✔ RF Receiver – 10 volt free relay outputs (US version)	IQRX7-0000-NET
✔ Carry case and foams (Suitable to carry 10, 25 and 75Nm only)	IQW2S-0000-CRCFXX

Shipping List

- ✔ Cradle with charger & mains lead (Charging cradle with Basic and Production, Programming cradle with Advanced)
- ✔ Calibration certificate
- ✔ User manual & quickstart guide
- ✔ USB cable (only with programming software)
- ✔ Communications software