



QX Series™

QX
SERIES
PRECISION FASTENING SYSTEMS



REAL TOOLS FOR REAL WORK.™

Take Total Control

Taking total control of your fastening process doesn't have to be complicated. Our comprehensive QX Series™ family of fastening systems deliver simple, flexible and capable solutions for all of your assembly requirements. No matter the industry or application, you can count on Ingersoll Rand as a trusted partner to help you get the job done right.



QX Series™
Precision
Screwdriver

INSIGHTqcx™
Cordless Controller



QX Series™ Angle Wrenches



QX Series™ Multiplier
1,000 Nm Pistol

ETS* product



Simple

- Save on selection, training and installation costs
- Multi-function display module for quick setup and feedback
- Compact, lightweight and ergonomically balanced so the operator can work without restraints
- The intuitive INSIGHT Connect app will help you stay productive and mobile on the plant floor



Flexible

- Custom solutions available
- Provides up to eight fully programmable configurations on a single tool, reducing costs and workspace clutter
- Fast and intuitive programming makes the tool easily adaptable to any needed changes on your assembly line
- Cordless and portable, allowing for effortless movement around your facility



Capable

- At the heart of every tool is the closed-loop transducer control that delivers precise torque and accurate, traceable results
- Durable designs, lower cost of ownership
- Available in a variety of configurations, including pistol grip, angle wrench, multiplier and ETS*
- Wireless communication option enables flexible line integration, remote monitoring and simple system programming across a plant-wide network
- Manage cycle data, control the process, receive system status alerts and implement configuration adjustments in real time using Ethernet, Fieldbus and digital I/O

Icon identifiers

Compatibility Reference



USB compatible



Insight Connect App



Wireless



ICS

* Ergonomic Tightening System

QX Series™ Features



Patented transducer control provides traceable results



USB port for convenient programming and data transfer



Stores cycle data for up to 1,200 rundowns



Precision planetary gears for greater reliability



Multiple drive choices
1/4" quick-change, 1/4" square drive,
3/8" square drive, and 1/2" square drive
options available



Super bright LED headlight with programmable on and off times. (Not available on the QX Series™ angle wrench)



Durable DC brushless motor tested beyond a million cycles



Optional wireless communications for process control and data collection



High strength, impact resistant lens guards against damage



Non-contacting patented trigger and reverse switch for maximum durability



Ergonomic design, comfortable, lightweight and balanced



Digital signal processor monitors torque, angle and motor current while communicating end-of-run data



Optional backlit display offers quick setup and remarkable visual feedback



Simple



Flexible



Capable



Lithium ion battery provides maximum run time and portability

How to Select the Right Tool

When it comes to fastening, non-transducerized tools don't stand a chance. The QX Series™ line of products give you closed-loop control of your fastening process. Each and every tool allows for programmable tightening strategies to deliver higher quality fastened joints and a level of control that is unmatched by other solutions. The diversity of the QX Series™ lineup offers a simple, flexible and capable solution for any fastening need.

FEATURES

	 QXN	 QXC	 QXX
Total control of torque, speed and degrees of rotation	✓	✓	✓
One tightening configuration that is programmed via USB using the INSIGHT Connect app	✓		
Eight tightening configurations available, giving it the ability to consolidate the number of tools		✓	✓
Programming capability via USB using ICS software	✓	✓	✓
Optional ETS (Ergonomic Tightening System) to reduce torque reaction experienced by operator	✓	✓	✓
Ability to program a multi-step tightening configuration	✓	✓	✓
Multi-color visual status indicators for operator feedback	✓	✓	✓
INSIGHT Connect app	✓	✓	✓
Display shows actual achieved torque or angle value		✓	✓
Programming capability using onboard keypad and display		✓	✓
QXM Torque Multiplier (optional) models		✓	✓
Ability to integrate with line control systems for error proofing and data collection			✓
Compatible with standard accessories like light stack, socket tray, bar code scanner, etc			✓
Allows remote access and programming via plant Ethernet network using ICS software			✓

QXN Cordless Tools

QXN offers superior transducerized control and operator feedback in a way that is easy to use and simple to setup. This unique series features one tightening configuration that can be programmed via USB using the INSIGHT Connect app.



Features

- Transducerized for precise torque measurement
- Closed-loop control of torque, speed and degrees of rotation
- Programmable preventative maintenance alarms
- Maintenance indicator for troubleshooting and diagnostics
- One tightening configuration
- Simple to program via USB using the INSIGHT Connect app
- 1200 cycles of data storage – accessible via the INSIGHT Connect app
- Transducerized for precise torque measurement
- Visual operator feedback using green, yellow and red lights



See page 9 for more information
Download the Insight Connect APP for free

QXC Cordless Tools

The versatile QXC features eight tightening configurations, giving it the ability to consolidate the number of tools needed in your bag or at your bench. This series also enhances the feedback provided from the tool by displaying the measured torque or angle result to the operator.



Eight in One

Features

- Transducerized for precise torque measurement
- Closed-loop control of torque, speed and degrees of rotation
- Programmable preventative maintenance alarms
- Maintenance indicator for troubleshooting and diagnostics
- Flexibility to utilize the same tool on multiple applications
- Visual torque validation on display
- Program eight configurations into one tool
- Simple to program options using the INSIGHT Connect app or back of tool programming
- 1200 cycles of data storage – accessible via ICS software
- Visual operator feedback using green, yellow and red lights



See page 9 for more information
Download the Insight Connect APP for free

QXX Cordless Tools

The easy to use QXX has the unique ability to integrate with line control systems for error proofing and data collection. The series also allows remote monitoring and integration with standard fastening system accessories.



Eight in One



Features

- Transducerized for precise torque measurement
- Closed-loop control of torque, speed and degrees of rotation
- Programmable preventative maintenance alarms
- Maintenance indicator for troubleshooting and diagnostics
- Flexibility to utilize the same tool on multiple applications
- Visual torque validation on display
- Program eight configurations into one tool
- Simple to program options using ICS software and USB cable or back of tool programming
- Visual operator feedback using display screen and green and red lights
- Full integration into plant-wide Ethernet network, for increased connectivity
- Remote access and integrated data collection capability
- Use of PCM enables transmission of tightening data and line control integration via Ethernet, Fieldbus or I/O



See page 9 for more information
Download the Insight Connect APP for free

QX Series™ ETS Cordless Tools



Ergonomic Tightening System

All the capability of the QX platform, without the torque reaction

Reducing the torque reaction in your fastening process doesn't have to be complicated. Control and ergonomics, not compromise – that is what the QX ETS* is all about. The QX ETS* offers all the capabilities found in the QX Series™ platform, without the torque reaction.

Features

- Ergonomically enhanced motor control algorithm significantly reduces the average force experienced by the operator during the tightening process
- Red tool highlights provide clear indication of ETS* tool identity vs standard QX tool
- Continuously blue light above keypad provides operator assurance that ETS* is ACTIVE
- QXN, QXC and QXX versions available



Simple



Flexible



Capable

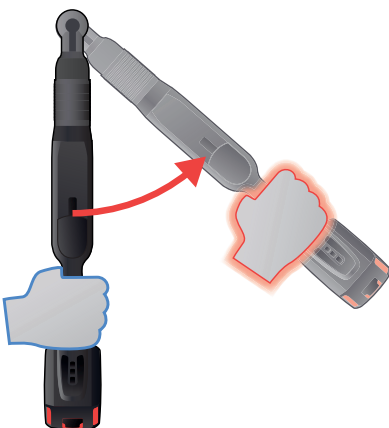


USB compatible



Insight Connect App

ETS non active



ETS active



Simple Setup

In addition to standard direct drive mode, each tool configuration can be independently programmed to utilize one of the three available ETS* modes, simplifying setup:

Ergonomic Mode, with the lowest energy pulses, is ideal for hard joints or when arm, wrist or tool angles are most difficult.

Performance Mode, with medium energy pulses, is the best all-purpose mode.

Productivity Mode, with the highest energy pulses, is the fastest mode. Ideal for soft joints or when high production rates are required.

Standard QX Direct Drive Mode, when disable the ETS* Mode, this tools can be used as a QX standard drive mode.

* Ergonomic Tightening System

INSIGHT™ Connect App



The INSIGHT™ Connect app will help you stay productive, mobile and in control of your fastening process. It programs any QXN, QXC, QXX tool without the need for additional technical training, special software or a laptop computer. Working from a smartphone or tablet, operators can use the app to quickly program the torque and angle control configurations on these closed-loop, transducerized tools.

Once installed, the INSIGHT™ Connect app can operate offline, so it functions in large facilities or other locations where Internet signal loss may be a problem, reducing downtime and maximizing ease of use. You can quickly perform key tasks with your mobile device, including:

Simple

- Common Setting & General Tool Setup
- Multiple Language Support
- Retrieve Cycle Log and Share via Email
- Audit Logs
- Error Codes with Description

Flexible

- Program All Standard QX Platform Tool
- Clone- Back Up and Restore
- Save and Load Configurations
- Firmware Update

Capable

- Program Torque, Angle, Speed
- Multiple Configurations (Upto 32)
- Multiple Step Programming
- End of Run (EOR) data on App
- Calibration and Cp/Cpk



QXM Cordless Torque Multiplier

The innovative QX Series™ Cordless Torque Multiplier will reduce your fastening time and cost, while ensuring repeatable accuracy for all torque-critical joints. Designed with a premium gearbox and an efficient, time-tested closed-loop transducer, the Torque Multiplier is world-class in quality, control and programmable configurations to maximize your productivity.

Features

- Maintenance indicator for troubleshooting and diagnostics
- A multi-function display module allowing for quick setup and feedback on every QX Series™ tool
- User-programmable parameters such as torque, angle and batch count reduce the number of tools needed when multiple applications are required
- Simple programming methods make the tool easily adaptable for various applications
- Pistol and angle configurations available



USB compatible

Wireless



Torque Range up to 2000 Nm

For QXM Cordless Torque Multiplier reaction arms selection, please refer to Page 19

Customize for Specialty Applications

QX Pistol Special Head Adapter

The QX Pistol Special Head Adapter is the perfect solution to simply increase the flexibility of your QX pistol screwdriver. Using this adapter leverages the closed-loop capability of the QX tool to the most unique applications. The adapter helps manufacturers meet the requirements of applications where restricted access requires a custom head to reach the fastener. Common applications requiring a special head adapter, include assembling aircraft wings or installing door hinges on cars and trucks.



SIMPLE
Ready made and easy to install



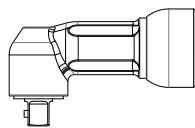
FLEXIBLE
Use your QX pistol grip tool for unique applications



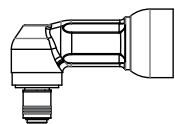
CAPABLE
Employ closed-loop control capabilities on specialty applications



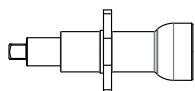
TK-VP1-550-S6
Standard 3/8" Square Drive Anglehead



TK-VP1-550-Q4
Standard 1/4" QC Drive Anglehead



TK-VP1-58
Standard 3/8" Square Drive Inline Floating Spindle with Flange Mount

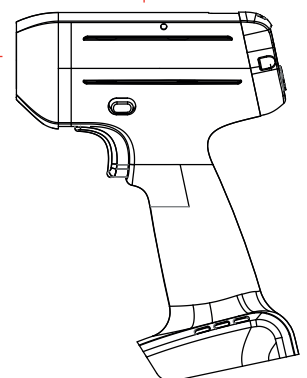


Custom Attachment
Employ closed-loop control capabilities on specialty applications.

VP1-K40
Special Head Adapter

Thrust washer
Lock spacer

Any non-multiplier pistol grip QX tool



A Cordless Network for Unlimited Productivity

INSIGHTqcx™ Controller



When trying to achieve simple manufacturing goals in a complex manufacturing world, understanding the fastening process doesn't have to be complicated. The new Ingersoll Rand® INSIGHTqcx™ is different, by design. This cordless controller is designed to be easy to use and integrate, while providing a common platform to meet your assembly requirements worldwide.



SIMPLE

**EXPERTISE
NOT
REQUIRED**



FLEXIBLE

**EASILY
IMPLEMENT
CHANGE**



CAPABLE

**MEET YOUR
REQUIREMENTS**

**WHAT DOES
THIS MEAN
TO ME?**

- Save on selection, training and installation costs
- Reduce errors and downtime
- Remove user dependencies

- Reduce line rebalancing costs
- Easy line integration
- Remove device dependency

- Get the job right, every time
- Assurance via traceability
- Optimize your productivity

**HOW DOES
INGERSOLL RAND
PROVIDE VALUE?**

- Intuitive, visual programming interface
- Plug and play accessories and protocols
- Integrated backup and recovery
- Bundled controller options

- Web based programming use any operating system via any browser
- Meets current industry communication needs
- Integrated logic controls
- Easy hardware and software upgrades
- Onboard wireless energy scan

- Touch screen interface
- Industry leading cycle data storage
- Robust audit and system logs
- Advanced tightening strategies and features
- Onboard diagnostics
- Integrated statistical process controls

Simply Insightful

The controller's web-based software eliminates device dependencies and enables full programming capability with any device that can run an internet browser, including smart phones, tablets or computers. The INSIGHTqcx™ controller is easy to integrate with the manufacturing line, provides flexible logic controls for job sequencing and helps reduce line rebalancing costs through a simple and intuitive user interface.

INSIGHTqcx™ Cordless Controller Features

Integrated wall mount

Configure up to 32 Psets

SSD card

Whiteboard & QR code

Holds 50,000 records

Integrated carrying handle

Power indicator

7-in full color touch screen

System indicators

- Factory connection
- Wireless connection
- Link status
- Fault detected

Ethernet ports 10/100/1000

USB 2.0 ports (4)

Fieldbus card slot

- Ethernet IP
- Profinet
- Profibus
- Devicenet
- Others

SIMPLE **FLEXIBLE** **CAPABLE**

INSIGHTqcx™ Cordless Controller Models

The INSIGHTqcx™ Controller is 100% compatible with our QXX tools. With the INSIGHTqcx™, the controller can store 50K tightening records and 50K tightening traces– which will let users understand all facts of the tightening process – torque, angle, time and date.

Model	Display	Fieldbus Options					Mes Options			
		Ethernet I/P	ProfiNET	ProfiBUS	DeviceNET	CC-Link	IR Ethernet EOR	Open Protocol	PFCS	Nissan Serial EOR
QCXD11	YES						•			
QCXD11-F	YES	•	•				•			
QCXD11-M	YES						•	•	•	•
QCXD11-FM	YES	•	•				•	•	•	•
QCXD12-F	YES	•	•	•			•			
QCXD12-FM	YES	•	•	•			•	•	•	•
QCXD13-F	YES	•	•		•		•			
QCXD13-FM	YES	•	•		•		•	•	•	•
QCXD15-F	YES	•	•			•	•			
QCXD15-FM	YES	•	•			•	•	•	•	•
QCXM11	NO						•			
QCXM11-F	NO	•	•				•			
QCXM11-M	NO						•	•	•	•
QCXM11-FM	NO	•	•				•	•	•	•
QCXM12-F	NO	•	•	•			•			
QCXM12-FM	NO	•	•	•			•	•	•	•
QCXM13-F	NO	•	•		•		•			
QCXM13-FM	NO	•	•		•		•	•	•	•
QCXM15-F	NO	•	•			•	•			
QCXM15-FM	NO	•	•			•	•	•	•	•

QX Series™ Process Communication Module (PCM)

Power Cord	EU and UK cable	IC-PCM-2-EU
Tool Connections	Wireless tool connections (compatible with QXX)	Up to 10
Software	ICS Connect software	•
Power Supply	100-240V AC input, 5V DC output	•
Communication	Ethernet to ICS	•
Fieldbus Options	Ethernet/IP, DeviceNet, Interbus-S, Profibus, Modbus-TCP	•
Protocols	Open Protocol, Ethernet EOR, Serial EOR	•
Printers/Devices	Serial RS232, bar code, label printing	•
I/O	8 inputs/8 outputs, with behavior assignable through ICS software, operates at 24V DC	•
I/O Power Supply	100-240V AC input, 24V DC output	•
Indicators	Power ON, System Ready, Wireless Activity, Ethernet Activity	•
Ambient Operating Conditions	0-50°C, 20/90% non-condensing humidity	•
Enclosure	IP52 mounted in upright vertical position	•
System Weight	1.4 kg	•
Overall Dimensions	291 mm x 103 mm x 210 mm	•

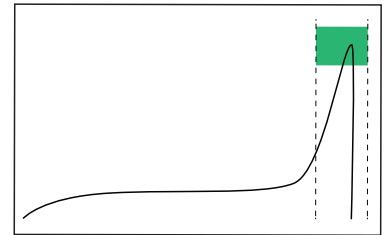


Process Communication Module
IC-PCM-2-EU

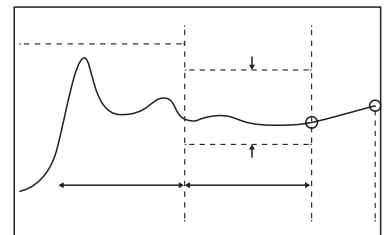
INSIGHTqcx™ Cordless Controller Capabilities

Software Capability									
	Standard	F	M	FM		Standard	F	M	FM
Embedded Software	•	•	•	•	Factory Reset	•	•	•	•
Home Screen	•	•	•	•	Network System Discovery	•	•	•	•
JOB Setup	•	•	•	•	License Update	•	•	•	•
PSET Setup	•	•	•	•	License Activate	•	•	•	•
Multiple Tightening Strategies	•	•	•	•	Date & Time Settings	•	•	•	•
Quick Programming	•	•	•	•	System Initialization	•	•	•	•
Advanced Programming	•	•	•	•	IP Address Settings	•	•	•	•
Cycle Results	•	•	•	•	Digital IO Settings	•	•	•	•
JOB Results	•	•	•	•	EOR Data Out	•	•	•	•
Audit Log	•	•	•	•	Barcode	•	•	•	•
Event Log	•	•	•	•	User Management	•	•	•	•
System Diagnostics	•	•	•	•	System Logs	•	•	•	•
Tool Diagnostics	•	•	•	•	Fieldbus Diagnostics	•	•	•	•
Digital IO Diagnostics	•	•	•	•	Fieldbus Settings	•	•	•	•
Statistics Settings	•	•	•	•	Ethernet IP	•	•	•	•
Statistics Summary	•	•	•	•	ProfiNet	•	•	•	•
Statistics Alarm Settings	•	•	•	•	ProfiBus	•	•	•	•
Statistics Alarm Summary	•	•	•	•	DeviceNet	•	•	•	•
Backup and Restore	•	•	•	•	MES Protocols Settings	•	•	•	•
Firmware Update	•	•	•	•	Open Protocol	•	•	•	•
Preventative Maintenance Alarms	•	•	•	•	ToolsNet	•	•	•	•
Tool Calibration	•	•	•	•	VW XML 2.1	•	•	•	•

Torque/Angle Control



Prevailing Torque



Statistical Process Control	
Statistic Status	Description
Mean	Statistical average - used to derive the central tendency of the tightening data of a particular PSET
Capability	Calculated as $(6 * \sigma / \text{Mean}) * 100$ on a particular PSET
Pass %	Indicates the % of the cycles that have a cycle result of PASS from the sample population of a particular PSET
Fail %	Indicates the % of the cycles that have a cycle result of FAIL from the sample population of a particular PSET
Mean Shift	Calculated as: $\text{MEAN Result Value} - \text{TARGET Result Value}$ for a particular PSET
Range	Calculated as: $\text{MAX Result Value} - \text{MIN Result Value}$ of a particular PSET.
Standard Deviation (σ)	The calculated standard deviation (σ) of the Result Value of a particular PSET.
PP	Process Performance, calculated as: $(\text{USL} - \text{LSL}) / (6 * \sigma)$
CAM	Calculated as: $(\text{USL} - \text{USL}) / (6 * (W / d * S))$
PPK	Process Performance Index, Calculated as: $\text{MIN} ((\text{MEAN} - \text{LSL}) / (3 * \sigma)) \text{ OR } (\text{USL} - \text{MEAN}) / (3 * \sigma)$

INSIGHTqcx™ Cordless Controller Specification

Hardware		Features	
Weight (Kg)		2.5	
Volume (dm3)		7.5	
Colour Touchscreen		7 inch	
Ethernet Port (10/100)		1	
Ethernet Port (10/100/1K)		1	
USB 2.0 Ports		4	
Boot Time (seconds)		40	
Voltage / Current Requirement		24V / 2A	
IP Rating (mounted vertically)		IP52	
Software			
PC Software		Not Required	
PC License		Not Required	
Number of JOBS		256	
Number of PSETs (per JOB)		32	
Number of Steps (per PSET)		8	
Logic Rules for JOB Sequencing		Y	
Barcode function: USB, Serial, Ethernet		Y	
Manual Barcode Entry Option		Y	
Tube nut Controls (Configurable modes)		Y	
Number of Configurable User Logins		Unlimited	
Quick Programming Mode		Y	
Advanced Programming Mode		Y	
Unrestricted programming function from controller screen		Y	
Unrestricted remote programming from any device via any authorized browser		Y	
Embedded, Context-Specific Help *		Y	
Email Statistics Alarms Direct From Controller**		N	
Email Preventative Maintenance Alarms Direct from Controller		N	
Multi-language Support		Y	
Onboard Tool Diagnostics		Y (when connected via USB)	
Wireless Energy Scan		Y	
Easy Pairing		Y	
Onboard Data Storage			
Removeable SSD Hard Drive that stores ALL settings and data		Y	
Complete controller settings and data recovery through SSD swap		Y	
Tightening Results		50,000	
Tightening Curve		50,000	
Tightening curve displayed on Home screen of controller		Y	
Audit Log		50,000	
Event Log		50,000	
System Log		50,000	
Full Backup and Restore Function (USB or from computer/Tablet)		Y	
Connectivity			
Fieldbus Options		Ethernet IP, ProfiNet , ProfiBus, DeviceNet	
MES Protocol Options		Open Protocol, Ford Open, PFCS, Toolsnet*** 3.2 & 8.0 , VW XML 2.0/ 2.1, IR Ethernet EOR, TOHO,	
Supported Languages			
English, French, German, Italian, Spanish, Czech, Russian, Portuguese, Polish, Simplified Chinese			

* Available from June 2020

** Requires proper authorization and network settings by plant IT Administrator for each controller

*** No Trace Transfer

System Accessories

We offer a wide range of accessories that offer ease of use and flexibility to meet your specific application needs. QX Precision Fastening Systems are compatible with a variety of plug and play accessories to maximize productivity for your manufacturing line.

Accessories for Any Application

- Battery chargers
- Battery packs
- Boots
- Bit selector trays
- Socket selector trays
- Suspension bales
- Auxiliary handles
- Selector tray cables
- Torque testers
- Spring balancers
- Socket kits

Batteries

All QX Series™ IQV20 tools are compatible with both the BL2022 and BL2012 batteries. The BL2022 is optimum for longer use applications while the BL2012 is ideal for tighter spaces and reduced weight. The QX Series™ IQV40 high torque tools utilize the BL4011 40V battery for increased torque and runtime.

IQV40 Series 40V, 2.5Ah
Battery Charger
BC1161-EU



IQV40 Series 40V, 2.5Ah
Lithium Ion Battery Pack
BL4011

IQV20 Series 20V
Battery Charger
BC1121-EU



IQV20 Series 20V, 5.0Ah
Lithium Ion Battery Pack
BL2022

IQV20 Series 20V, 2.5Ah
Lithium Ion Battery Pack
BL2012

Accessories



Bit Selector Tray
IC-BIT-8



Socket Tray
QC-SKTR



Selector Tray Cables
IC-10PIN-6M for IC-Socket-4
IC-19PIN-5M for IC-Bit-8



Light Tower
QC-TL-4



DIO Box
QC-DIO-8CH



Auxiliary Handle
VP1-A48



Pistol Tool Suspension
Bale VP1-365



Bar Code Scanners
QC-BC-SCAN-WL
QC-BC-SCAN-1
QC-BC-SCAN-2

QX Pistol Protective Boots

Boot Color	Open Back	Closed Back
Red	VP1-BOOT	VP1-BOOT-NP
Orange	VP1-OR-BOOT	VP1-OR-BOOT-NP
Yellow	VP1-YL-BOOT	VP1-YL-BOOT-NP
Green	VP1-GN-BOOT	VP1-GN-BOOT-NP
Blue	VP1-BL-BOOT	VP1-BL-BOOT-NP
Black	VP1-BK-BOOT	VP1-BK-BOOT-NP
White	VP1-WT-BOOT	VP1-WT-BOOT-NP



2.5Ah BL2012
Battery Boot



5.0Ah BL2010
Battery Boot



VP1-Boot-NP
Protective cover with closed back



Angle head sleeve

Model	CCN	Tool Compatibility
Model extended boot		
VA1-R18-170	47526045001	05P
VA1-R25-170	47526046001	10P, 15P
GAA2-170	80199557	18P, 20P
GAA4-170	80199052	27P, 30P, 35P
GAA5-170	80199656	40P, 80P
Model Angle head sleeve		
GEA40-170	80095847	18P, 20P
GEA40-171	80095888	27P, 30P, 35P
GEA40-172	80095409	40P, 80P

Specification QX Series™



mm



rpm



kg



mm



mm



V



in



Communication

QXN Cordless Tools

QX Series™ Cordless Precision Screwdriver								
QXN2PT04PQ4	0.8–4	1,500	0.91	215.4	20.3–26.0	20V	1/4"	Via USB Cable
QXN2PT04PS4	0.8–4	1,500	0.91	208.3	20.3–26.0	20V	1/4"	Via USB Cable
QXN2PT04PS6	0.8–4	1,500	0.91	212.0	20.3–26.0	20V	3/8"	Via USB Cable
QXN2PT08PQ4	1.6–8	1,150	0.91	215.4	20.3–26.0	20V	1/4"	Via USB Cable
QXN2PT08PS4	1.6–8	1,150	0.91	208.3	20.3–26.0	20V	1/4"	Via USB Cable
QXN2PT08PS6	1.6–8	1,150	0.91	212.0	20.3–26.0	20V	3/8"	Via USB Cable
QXN2PT12PQ4	2.4–12	750	0.91	215.4	20.3–26.0	20V	1/4"	Via USB Cable
QXN2PT12PS4	2.4–12	750	0.91	208.3	20.3–26.0	20V	1/4"	Via USB Cable
QXN2PT12PS6	2.4–12	750	0.91	212.0	20.3–26.0	20V	3/8"	Via USB Cable
QXN2PT18PQ4	3.6–18	500	0.91	215.4	20.3–26.0	20V	1/4"	Via USB Cable
QXN2PT18PS6	3.6–18	500	0.91	212.0	20.3–26.0	20V	3/8"	Via USB Cable
QX Series™ Angle Wrench								
QXN2AT05PQ4	1.0–5	1,213	1.14	552	9.2	20V	1/4"	Via USB Cable
QXN2AT10PS6	2.0–10	936	1.18	525	12.5	20V	3/8"	Via USB Cable
QXN2AT15PS6	3.0–15	600	1.18	525	12.5	20V	3/8"	Via USB Cable
QXN2AT18PQ4	3.6–18	500	1.27	542	13	20V	1/4"	Via USB Cable
QXN2AT18PS6	3.6–18	500	1.27	542	13	20V	3/8"	Via USB Cable
QXN2AT27PS6	5.4–27	330	1.68	552	17	20V	3/8"	Via USB Cable
QX Series™ High Torque Angle Wrench								
QXN5AT20PS06	4.0–20	1,045	2.04	577.7	13.1	40V	3/8"	Via USB Cable
QXN5AT30PS06	6.0–30	775	2.18	581.8	17.2	40V	3/8"	Via USB Cable
QXN5AT30PS08	6.0–30	775	2.18	581.8	17.2	40V	1/2"	Via USB Cable
QXN5AT35PS06	7.0–35	640	2.18	581.8	17.2	40V	3/8"	Via USB Cable
QXN5AT35PS08	7.0–35	640	2.18	581.8	17.2	40V	1/2"	Via USB Cable
QXN5AT40PS08	8.0–40	545	2.27	586.1	21.6	40V	1/2"	Via USB Cable
QXN5AT80PS08	12.0–80	375	2.27	586.1	21.6	40V	1/2"	Via USB Cable

QXC Cordless Tools

QX Series™ Cordless Precision Screwdriver								
QXC2PT04PQ4	0.8–4	1,500	0.91	215.4	20.3–26.0	20V	1/4"	Via USB Cable
QXC2PT04PS4	0.8–4	1,500	0.91	208.3	20.3–26.0	20V	1/4"	Via USB Cable
QXC2PT04PS6	0.8–4	1,500	0.91	212.0	20.3–26.0	20V	3/8"	Via USB Cable
QXC2PT08PQ4	1.6–8	1,150	0.91	215.4	20.3–26.0	20V	1/4"	Via USB Cable
QXC2PT08PS4	1.6–8	1,150	0.91	208.3	20.3–26.0	20V	1/4"	Via USB Cable
QXC2PT08PS6	1.6–8	1,150	0.91	212.0	20.3–26.0	20V	3/8"	Via USB Cable
QXC2PT12PQ4	2.4–12	750	0.91	215.4	20.3–26.0	20V	1/4"	Via USB Cable
QXC2PT12PS4	2.4–12	750	0.91	208.3	20.3–26.0	20V	1/4"	Via USB Cable
QXC2PT12PS6	2.4–12	750	0.91	212.0	20.3–26.0	20V	3/8"	Via USB Cable
QXC2PT18PQ4	3.6–18	500	0.91	215.4	20.3–26.0	20V	1/4"	Via USB Cable
QXC2PT18PS6	3.6–18	500	0.91	212.0	20.3–26.0	20V	3/8"	Via USB Cable
QX Series™ Angle Wrench								
QXC2AT05PQ4	1.0–5	1,213	1.14	552	9.2	20V	1/4"	Via USB Cable
QXC2AT10PS6	2.0–10	936	1.18	525	12.5	20V	3/8"	Via USB Cable
QXC2AT15PS6	3.0–15	600	1.18	525	12.5	20V	3/8"	Via USB Cable
QXC2AT18PQ4	3.6–18	500	1.27	542	13	20V	1/4"	Via USB Cable
QXC2AT18PS6	3.6–18	500	1.27	542	13	20V	3/8"	Via USB Cable
QXC2AT27PS6	5.4–27	330	1.68	552	17	20V	3/8"	Via USB Cable
QX Series™ High Torque Angle Wrench								
QXC5AT20PS06	4.0–20	1,045	2.04	577.7	13.1	40V	3/8"	Via USB Cable
QXC5AT30PS06	6.0–30	775	2.18	581.8	17.2	40V	3/8"	Via USB Cable
QXC5AT30PS08	6.0–30	775	2.18	581.8	17.2	40V	1/2"	Via USB Cable
QXC5AT35PS06	7.0–35	640	2.18	581.8	17.2	40V	3/8"	Via USB Cable
QXC5AT35PS08	7.0–35	640	2.18	581.8	17.2	40V	1/2"	Via USB Cable
QXC5AT40PS08	8.0–40	545	2.27	586.1	21.6	40V	1/2"	Via USB Cable
QXC5AT80PS08	12.0–80	375	2.27	586.1	21.6	40V	1/2"	Via USB Cable

Specification QX Series™



mm



rpm



kg



mm



mm



V



in



Communication

QXX Cordless Tools

QX Series™ Cordless Precision Screwdriver

QXX2PT04PQ4	0.8–4	1,500	0.91	215.4	26.0	20V	1/4"	Wireless enabled + USB
QXX2PT04PS4	0.8–4	1,500	0.91	208.3	26.0	20V	1/4"	Wireless enabled + USB
QXX2PT04PS6	0.8–4	1,500	0.91	212.0	26.0	20V	3/8"	Wireless enabled + USB
QXX2PT08PQ4	1.6–8	1,150	0.91	215.4	26.0	20V	1/4"	Wireless enabled + USB
QXX2PT048S4	1.6–8	1,150	0.91	208.3	26.0	20V	1/4"	Wireless enabled + USB
QXX2PT08PS6	1.6–8	1,150	0.91	212.0	26.0	20V	3/8"	Wireless enabled + USB
QXX2PT12PQ4	2.4–12	750	0.91	215.4	26.0	20V	1/4"	Wireless enabled + USB
QXX2PT12PS4	2.4–12	750	0.91	208.3	26.0	20V	1/4"	Wireless enabled + USB
QXX2PT12PS6	2.4–12	750	0.91	212.0	26.0	20V	3/8"	Wireless enabled + USB
QXX2PT18PQ4	3.6–18	500	0.91	215.4	26.0	20V	1/4"	Wireless enabled + USB
QXX2PT18PS6	3.6–18	500	0.91	212.0	26.0	20V	3/8"	Wireless enabled + USB

QX Series™ Angle Wrench

QXX2AT05PQ4	1.0–5	1,213	1.14	552	9.2	20V	1/4"	Wireless enabled + USB
QXX2AT10PS6	2.0–10	936	1.18	525	12.5	20V	3/8"	Wireless enabled + USB
QXX2AT15PS6	3.0–15	600	1.18	525	12.5	20V	3/8"	Wireless enabled + USB
QXX2AT18PQ4	3.6–18	500	1.27	542	13	20V	1/4"	Wireless enabled + USB
QXX2AT18PS6	3.6–18	500	1.27	542	13	20V	3/8"	Wireless enabled + USB
QXX2AT27PS6	5.4–27	330	1.68	552	17	20V	3/8"	Wireless enabled + USB

QX Series™ High Torque Angle Wrench

QXX5AT20PS06	4.0–20	1,045	2.04	577.7	13.1	40V	3/8"	Wireless enabled + USB
QXX5AT30PS06	6.0–30	775	2.18	581.8	17.2	40V	3/8"	Wireless enabled + USB
QXX5AT30PS08	6.0–30	775	2.18	581.8	17.2	40V	1/2"	Wireless enabled + USB
QXX5AT35PS06	7.0–35	640	2.18	581.8	17.2	40V	3/8"	Wireless enabled + USB
QXX5AT35PS08	7.0–35	640	2.18	581.8	17.2	40V	1/2"	Wireless enabled + USB
QXX5AT40PS08	8.0–40	545	2.27	586.1	21.6	40V	1/2"	Wireless enabled + USB
QXX5AT80PS08	12.0–80	375	2.27	586.1	21.6	40V	1/2"	Wireless enabled + USB

QXM Cordless Torque Multiplier

QX Series™ Pistol

QXC2PT200NPS12	40–200	45	3.62	373	56	20V	3/4"	Via USB Cable
QXC2PT500NPS12	100–500	18	3.62	373	56	20V	3/4"	Via USB Cable
QXC2PT1000NPS12	200–1,000	9	5.44	419	80	20V	3/4"	Via USB Cable
QXC2PT1350NPS16	270–1,350	7	5.44	419	80	20V	1"	Via USB Cable
QXC2PT2000NPS16	400–2,000	5	6.80	452	80	20V	1"	Via USB Cable
QXX2PT200NPS12	40–200	45	3.62	373	56	20V	3/4"	Wireless enabled + USB
QXX2PT500NPS12	100–500	18	3.62	373	56	20V	3/4"	Wireless enabled + USB
QXX2PT1000NPS12	200–1,000	9	5.44	419	80	20V	3/4"	Wireless enabled + USB
QXX2PT1350NPS16	270–1,350	7	5.44	419	80	20V	1"	Wireless enabled + USB
QXX2PT2000NPS16	400–2,000	5	6.80	452	80	20V	1"	Wireless enabled + USB

QX Series™ Pistol Kit*

QXC2P200S12K2	40–200	45	3.62	373	56	20V	3/4"	Via USB Cable
QXC2P500S12K2	100–500	18	3.62	373	56	20V	3/4"	Via USB Cable
QXC2P1000S12K2	200–1,000	9	5.44	419	80	20V	3/4"	Via USB Cable
QXC2P1350S16K2	270–1,350	7	5.44	419	80	20V	1"	Via USB Cable
QXC2P2000S16K2	400–2,000	5	6.80	452	80	20V	1"	Via USB Cable
QXX2P200PS12K2	40–200	45	3.62	373	56	20V	3/4"	Wireless enabled + USB
QXX2P500PS12K2	100–500	18	3.62	373	56	20V	3/4"	Wireless enabled + USB
QXX2P1000PS12K2	200–1,000	9	5.44	419	80	20V	3/4"	Wireless enabled + USB
QXX2P1350PS16K2	270–1,350	7	5.44	419	80	20V	1"	Wireless enabled + USB
QXX2P2000PS16K2	400–2,000	5	6.80	452	80	20V	1"	Wireless enabled + USB

QX Series™ Angle Wrench*

QXX5A45T0180PS12	16–180	110	4.25	560	150	40V	3/4"	Wireless enabled + USB
QXX5A45T0270PS12	54–270	77	4.25	560	150	40V	3/4"	Wireless enabled + USB
QXX2A52T0396PS12	79–395	21	3.54	535	175	20V	3/4"	Wireless enabled + USB
QXX2A52T0594PS12	119–594	14	4.06	535	175	20V	3/4"	Wireless enabled + USB
QXX5A52T0880PS12	180–880	23	4.60	560	175	40V	3/4"	Wireless enabled + USB
QXX5A72T1080PS16	216–1,080	19	5.97	575	195	40V	1"	Wireless enabled + USB
QXX5A72T1620PS16	324–1,620	13	5.97	575	195	40V	1"	Wireless enabled + USB

Specification QX Series™



Nm



rpm



kg



mm



mm



V



in



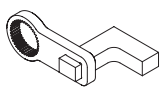
Communication

QX ETS Cordless Tools (Ergonomic Tightening System)

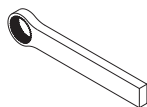
QXN Cordless Precision Screwdriver								
QXN2PT08ES6	1.6-8	1,150	0.91	203	26	20V Li-ion	3/8" Square	Via USB Cable
QXN2PT08EQ4	1.6-8	1,150	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Via USB Cable
QXN2PT12ES6	2.4-12	750	0.91	203	26	20V Li-ion	3/8" Square	Via USB Cable
QXN2PT12EQ4	2.4-12	750	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Via USB Cable
QXN2PT18ES6	3.6-18	500	0.91	203	26	20V Li-ion	3/8" Square	Via USB Cable
QXN2PT18EQ4	3.6-18	500	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Via USB Cable
QXN2PT24ES6	4.8-24	500	0.91	212	26	20V Li-ion	3/8" Square	Via USB Cable
QXN Cordless Angle Wrench								
QXN2AT27ES6	5.4-27	330	1.68	552	17.2	20V Li-ion	3/8" Square	Via USB Cable
QXN Cordless High Torque Angle Wrench								
QXN5AT40ES08	8.0-40	545	2.27	586.1	21.6	40V Li-ion	1/2" Square	Via USB Cable
QXN5AT80ES08	12.0-80	375	2.27	586.1	21.6	40V Li-ion	1/2" Square	Via USB Cable
QXC Cordless Precision Screwdriver								
QXC2PT08ES6	1.6-8	1,150	0.91	203	26	20V Li-ion	3/8" Square	Via USB Cable
QXC2PT08EQ4	1.6-8	1,150	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Via USB Cable
QXC2PT12ES6	2.4-12	750	0.91	203	26	20V Li-ion	3/8" Square	Via USB Cable
QXC2PT12EQ4	2.4-12	750	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Via USB Cable
QXC2PT18ES6	3.6-18	500	0.91	203	26	20V Li-ion	3/8" Square	Via USB Cable
QXC2PT18EQ4	3.6-18	500	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Via USB Cable
QXC2PT24ES6	4.8-24	500	0.91	212	26	20V Li-ion	3/8" Square	Via USB Cable
QXC Cordless Angle Wrench								
QXC2AT27ES6	5.4-27	330	1.68	552	17.2	20V Li-ion	3/8" Square	Via USB Cable
QXC Cordless High Torque Angle Wrench								
QXC5AT40ES08	8.0-40	545	2.27	586.1	21.6	40V Li-ion	1/2" Square	Via USB Cable
QXC5AT80ES08	12.0-80	375	2.27	586.1	21.6	40V Li-ion	1/2" Square	Via USB Cable
QXX Cordless Precision Screwdriver								
QXX2PT08ES6	1.6-8	1,150	0.91	203	26	20V Li-ion	3/8" Square	Wireless Enabled + USB
QXX2PT08EQ4	1.6-8	1,150	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Wireless Enabled + USB
QXX2PT12ES6	2.4-12	750	0.91	203	26	20V Li-ion	3/8" Square	Wireless Enabled + USB
QXX2PT12EQ4	2.4-12	750	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Wireless Enabled + USB
QXX2PT18ES6	3.6-18	500	0.91	203	26	20V Li-ion	3/8" Square	Wireless Enabled + USB
QXX2PT18EQ4	3.6-18	500	0.91	206.5	26	20V Li-ion	1/4" Quick Change	Wireless Enabled + USB
QXX2PT24ES6	4.8-24	500	0.91	212	26	20V Li-ion	3/8" Square	Wireless Enabled + USB
QXX Cordless Angle Wrench								
QXX2AT27ES6	5.4-27	330	1.68	552	17.2	20V Li-ion	3/8" Square	Wireless Enabled + USB
QXX Cordless High Torque Angle Wrench								
QXX5AT40ES08	8.0-40	545	2.27	586.1	21.6	40V Li-ion	1/2" Square	Wireless Enabled + USB
QXX5AT80ES08	12.0-80	375	2.27	586.1	21.6	40V Li-ion	1/2" Square	Wireless Enabled + USB

QX Multiplier Reaction Arms

Ingersoll Rand offers the following variety of reaction arms for different applications. Reaction arms are available in both 52 mm and 72 mm spline drives, depending on the size of the gearbox.



Cranked, 45 or 90 degrees



Straight, aluminum or steel (multiple lengths available)

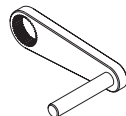
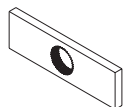
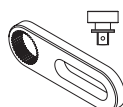


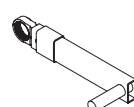
Plate and pin (multiple lengths available)



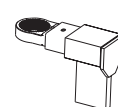
Double-sided



Sliding slave kit (multiple lengths available)



Sliding peg and yoke assembly (multiple lengths available)



Sliding yoke, paddle and yoke assembly (multiple lengths available)



Blank welding ring



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