

Manufacturer:
Ingersoll Rand

Issue : 1
Valid From : 12-12-2018

QX Series Torque Multiplier

Product Description

The QX Series Torque Multiplier is a cordless electronic torque tool designed for tightening torque-critical threaded fasteners. There are models to cover torque capacities of 200 Nm to 2000 Nm. All models are equipped with a data logger with USB download capability, with select models capable of wireless download.

USB only Models are:

QXC2PT200NPS12 – Range 40 – 200 Nm

QXC2PT500NPS12 – Range 100 – 500 Nm

QXC2PT1000NPS12 – Range 200 – 1000 Nm

QXC2PT1350NPS12 – Range 270 – 1350 Nm

QXC2PT2000NPS12 – Range 400 – 2000 Nm

Variants with Wireless Communications

QXX2PT200NPS12 – Range 40 – 200 Nm

QXX2PT500NPS12 – Range 100 – 500 Nm

QXX2PT1000NPS12 – Range 200 – 1000 Nm

QXX2PT1350NPS12 – Range 270 – 1350 Nm

QXX2PT2000NPS12 – Range 400 – 2000 Nm

Product Image



Scope of Acceptance

Full Acceptance granted to the use of this product in line with the conditions and limitations defined on this certificate for the QX Series group of tools shown below:

QXC2PT200NPS12 – Range 40 – 200 Nm

QXX2PT200NPS12 – Range 40 – 200 Nm (Wireless Communications)

QXC2PT500NPS12 – Range 100 – 500 Nm

QXX2PT500NPS12 – Range 100 – 500 Nm (Wireless Communications)

QXC2PT1000NPS12 – Range 200 – 1000 Nm

QXX2PT1000NPS12 – Range 200 – 1000 Nm (Wireless Communications)

QXC2PT1350NPS12 – Range 270 – 1350 Nm

QXX2PT1350NPS12 – Range 270 – 1350 Nm (Wireless Communications)

QXC2PT2000NPS12 – Range 400 – 2000 Nm

QXX2PT2000NPS12 – Range 400 – 2000 Nm (Wireless Communications)

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Reviewed by:

Authorised by:



Tom Riley
Product Acceptance Coordinator



Malcolm Miles
Professional Head of Plant

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Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section. Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Manufacturer

- 1) See Terms and Conditions, Section 2 – Manufacturer at the end of this document

User

- 1) Equipment Operator(s) shall ensure that equipment is operated and maintained in accordance with the Original Equipment Manufacturer's instructions (OEM). All maintenance is to be conducted by the OEM and/or by suitably competent delegated maintainers.
- 2) Equipment Operator(s) shall ensure that all staff required to use the equipment are suitable trained and competent in accordance with OEM and industry training requirements.
- 3) This product is only to be used in accordance with:
 - A compliant Safe System of Work
 - A work package plan, WARA/TRCS or company equivalent document
 - NR/L2/RMVP/0200, Infrastructure Plant Manual
- 4) Prior to operation the user is responsible for conducting all pre-use checks as defined within the Operators manual. If a defect is discovered before or during use the product must be immediately removed from service, labelled 'Do Not Use' and returned to the supplier.
- 5) Not to be used in live 3rd or 4th rail areas.
- 6) Only the products below are authorised by this certificate:
 - QXC2PT200NPS12 – Range 40 – 200 Nm
 - QXX2PT200NPS12 – Range 40 – 200 Nm (Wireless Communications)
 - QXC2PT500NPS12 – Range 100 – 500 Nm
 - QXX2PT500NPS12 – Range 100 – 500 Nm (Wireless Communications)
 - QXC2PT1000NPS12 – Range 200 – 1000 Nm
 - QXX2PT1000NPS12 – Range 200 – 1000 Nm (Wireless Communications)
 - QXC2PT1350NPS12 – Range 270 – 1350 Nm
 - QXX2PT1350NPS12 – Range 270 – 1350 Nm (Wireless Communications)
 - QXC2PT2000NPS12 – Range 400 – 2000 Nm
 - QXX2PT2000NPS12 – Range 400 – 2000 Nm (Wireless Communications)
- 7) Appropriate PPE must be worn at all time whilst the equipment is being operated.
- 8) Inform Network Rail Product Acceptance Team in writing of a change to the product configuration (or to the actual product or its application).
- 9) Comply with the certificate conditions. If a condition is not understood guidance must be sought from the Network Rail Product Acceptance Team.
- 10) Equipment weights:
 - QXC2PT200NPS12 – Range 40 – 200 Nm = 4.3kg
 - QXX2PT200NPS12 – Range 40 – 200 Nm (Wireless Communications) = 4.3kg
 - QXC2PT500NPS12 – Range 100 – 500 Nm = 4.3kg
 - QXX2PT500NPS12 – Range 100 – 500 Nm (Wireless Communications) = 4.3kg
 - QXC2PT1000NPS12 – Range 200 – 1000 Nm = 6.1kg
 - QXX2PT1000NPS12 – Range 200 – 1000 Nm (Wireless Communications) = 6.1kg
 - QXC2PT1350NPS12 – Range 270 – 1350 Nm = 6.1kg
 - QXX2PT1350NPS12 – Range 270 – 1350 Nm (Wireless Communications) = 6.1kg
 - QXC2PT2000NPS12 – Range 400 – 2000 Nm = 7.5kg
 - QXX2PT2000NPS12 – Range 400 – 2000 Nm (Wireless Communications) = 7.5kg
- 11) Noise is ≤ 70 dB(A)

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- 12) HAVS Data: Vibration magnitude <math><2.5\text{m/s}^2</math>
- 13) IP Rating of 30 - Equipment should not be used in adverse wet weather conditions.

Product Configuration

System or Complete Assembly

Part No.	Description	Catalogue No.
QXC2PT200NPS12	QX Series Torque Multiplier – Range 40 – 200 Nm	0089/000014
QXX2PT200NPS12	QX Series Torque Multiplier – Range 40 – 200 Nm (Wireless Communications)	0089/000015
QXC2PT500NPS12	QX Series Torque Multiplier – Range 100 – 500 Nm	0089/000016
QXX2PT500NPS12	QX Series Torque Multiplier – Range 100 – 500 Nm (Wireless Communications)	0089/000017
QXC2PT1000NPS12	QX Series Torque Multiplier – Range 200 – 1000 Nm	0089/000018
QXX2PT1000NPS12	QX Series Torque Multiplier – Range 200 – 1000 Nm (Wireless Communications)	0089/000019
QXC2PT1350NPS12	QX Series Torque Multiplier – Range 270 – 1350 Nm	0089/000020
QXX2PT1350NPS12	QX Series Torque Multiplier – Range 270 – 1350 Nm (Wireless Communications)	0089/000021
QXC2PT2000NPS12	QX Series Torque Multiplier – Range 400 – 2000 Nm	0089/000022
QXX2PT2000NPS12	QX Series Torque Multiplier – Range 400 – 2000 Nm (Wireless Communications)	0089/000023
VPI-QXHCASEASM	Hard Plastic Peli Case	0089/000024

Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
-----	DFMEA Process for QX_5	-----	Sep 2018	1
HK12070528	EMC Verification Summary	1	Jul 2012	1
QSR-482	ISO9001:2008 Certificate of Registration	-----	Mar 2010	1
-----	QXM and Norbar Gearboxes	-----	-----	1
-----	Statement of Training	-----	13 Aug 2018	1
-----	Sound and Vib Testing – QXM	-----	19 Nov 2018	1

Manuals and Training Materials

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
VP1-Si-NSP	Torque Multiplier Reaction Bar Safety, Operating Instructions and Parts List	2	Aug 2016	1
IRTR-QXAM	Maintenance Manual QX Series Cordless Precision Fastening Tools	1.4	-----	1
47104286	Cordless Screwdriver and Nutrunner Product Information	9	Jun 2015	1

Certificate of Acceptance

PA05/06998

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Certificate History

Issue	Date	Issue History
1	12/12/2018	First accepted for use

Contact Details

Manufacturer

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Applicant

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General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Product Acceptance, the Professional Head or nominated delegate. Any alterations made by a other persons will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Product Acceptance:
 - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
 - b. Of any intended change to the accepted product; changes include:
 - i. a change to the product configuration (to the actual product or its application);
 - ii. a variation to or addition of manufacturing locations or processes;
 - iii. a change in the name or ownership of the manufacturing company;
 - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Product Acceptance or National Supply Chain (NSC) at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to Network Rail Product Acceptance.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Product Acceptance.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Product Acceptance.
- 4) Inform Network Rail Product Acceptance in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

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Railways and Other Guided Systems (ROGS) Regulations

- 1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations
- 2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:

- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

- 3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.
- 4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

5) Supply Chain Arrangements

- 1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.
- 2) Products may be purchased by Network Rail or its agents, suppliers or contractors.
- 3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers.