

Key Features

- Peak or track torque measurement on integrated display
- Point of load insensitive
- HI/OK/LO audible and visual status indication
- 100 reading memory
- 1/4" hex female drive

Product Overview

The DTS ScrewMaster is a simple to use, point of load insensitive, transducerised screwdriver with an integrated digital display.

The DTS ScrewMaster features two measurement modes for displaying either peak or real time torque. Upper and lower limits can be set in peak mode enabling an audible signal and an LED to indicate HI, OK or LO fastener status.

The transducer element of the DTS ScrewMaster is directly in line with the hex drive, thus making the measurement completely independent of the point of load. The display housing is supplied with a convenient neckstrap and is connected to the wrench by a curly cable.

For traceability up to 100 date and time stamped readings are stored and can be downloaded to a printer or PC for archiving or further processing of data.

Specifications

Functional Attributes

Integrated display	Complete system – no need for separate readout
Interchangeable attachments	Equipped with a 1/4" female hexagonal drive – compatible with a wide range of tool bits (selection supplied – see shipping list below).
Physical measurements	Bi-directional torque (clockwise calibration unless otherwise requested)
Measurement units	Nm, Ncm, kgfcm, kgfm, ozfin, lbfin, lbfft
Measurement modes	Track – real time torque Peak (Auto-reset) – display and capture of highest torque value during the cycle; direction determined by threshold setting; value overwritten when new cycle started (i.e. threshold torque exceeded) Peak (Manual-reset) – display of highest absolute torque value since last manual reset; no discrimination between + or – torque direction.

Measurement parameters	Threshold torque; Upper/Lower Specification Limits (USL can be up to 110% of nominal rating)
Cycle status indication	Tri-colour LED indicating HI/OK/LO torque status
Data storage	100 reading non-volatile memory of torque value only
Print modes	Single reading or page mode with header including serial number and recalibration date via RS232
PC compatibility	Single reading or page mode with header including serial number and recalibration date via RS232

Physical Attributes

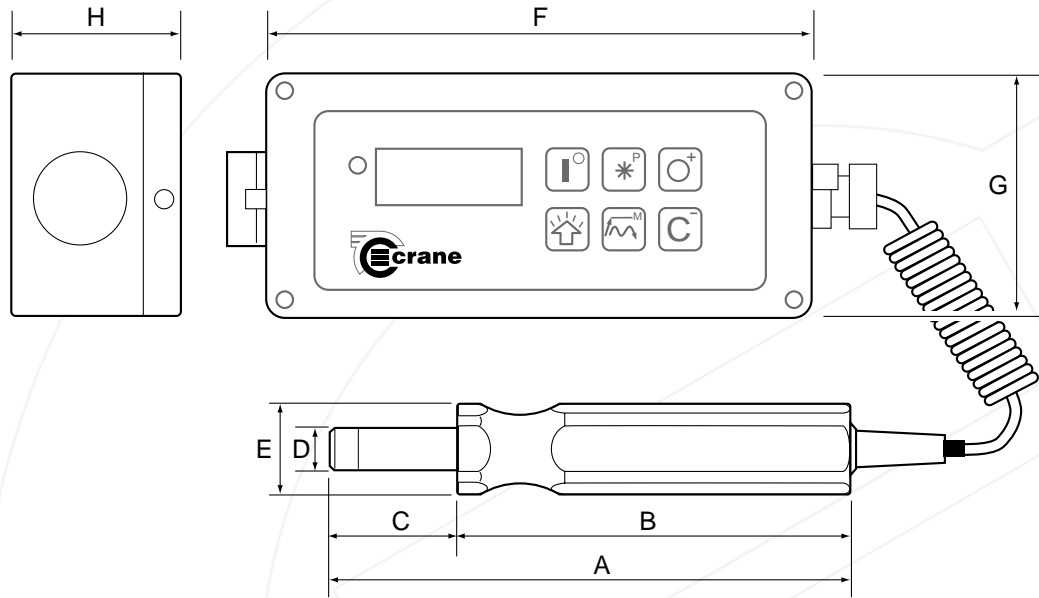
Calibration	<p>Issued with calibration certificate traceable to National and International Standards. Standard Crane calibration: 10 points; single direction (clockwise unless otherwise requested); 10% to 100% of nominal torque.</p> <p>Bi-direction Crane calibration: 10 points; each direction; from 10% to 100% of nominal torque</p> <p>UKAS calibration: calibration to ISO 26789</p> <p>Recalibration is recommended every 12 months.</p> <p>The calibration due date is stored in memory and is included in the RS232 output header.</p>
Construction	<p>Point of load insensitive – transducer element in line with socket drive</p> <p>Aluminium body.</p> <p>Shaft material: stainless steel</p> <p>Overload capacity: 125% rated torque</p> <p>1/4" female hexagonal drive</p> <p>Separate display housing connected by curly cable</p>
Display	3 1/2 digit LCD display; 10mm characters; incorporating additional mode and status symbols
Keypad	Membrane keypad with 6 function keys
Auto zero	Auto zero on power-up. Display indication of excessive zero offset.
Power	Standard Alkaline Manganese (supplied) type 'C' cells; typ. 100 hours usage
Power management	User selectable auto power off: 1, 2, 5, 10 minutes
Input/output ports	<p>Serial output: RS232C; user programmable baud rates and protocols</p> <p>Analogue output: $\pm 1V$ dc at rated torque.</p> <p>Battery charge: NiCad batteries only, via external port without removing from unit</p>
Printer compatibility	RS232 output baud rate: 300; 600; 1200; 2400; 4800; 9600. Stop bits: 1; 2. Parity: odd; even; none
Zero stability	$< \pm 0.1\%$ FSD/ $^{\circ}C$
Static accuracy	$\pm 0.5\%$ FSD
Operating environment	<p>Temperature: 5 – 40$^{\circ}C$ (0 – 50$^{\circ}C$ with reduced specification)</p> <p>Humidity: 10 – 75% non-condensing</p> <p>Ingress Protection rating: IP40 (except connector). Designed for indoor use only.</p>
Warranty	12 months parts and labour against faulty workmanship or materials
Shipping list	<p>DTS ScrewMaster unit</p> <p>Tool bits: Phillips no.2; Pozidrive no.2; Slot head; 1/4" square drive.</p> <p>Blow moulded storage case</p> <p>Calibration certificate</p> <p>User manual</p>

DTS ScrewMaster

Digital torque screwdriver



Dimensions & weights



Dimensions in mm										
Drive	Torque Capacity	A	B	C	D	E	F	G	H	Weight (grams)
1/4" AF	2Nm	146	115	31	11.6	25.3	175	80	58	350
1/4" AF	5Nm	146	115	31	11.6	34.7	175	80	58	450

Order Codes

Order Code	Drive	Nominal torque	
		Nm	Imperial (inlbf)
DTS ScrewMaster			
DTS-485-0-0	1/4" Hex	1	8.9
DTS-486-0-0	1/4" Hex	5	44

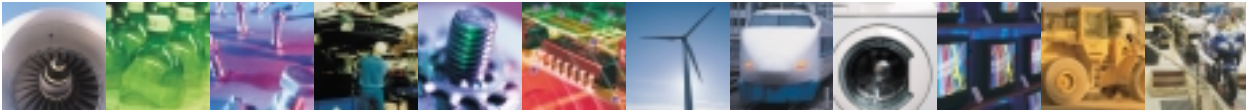
Accessories List

Item	Description	Order code
Hexagonal tool bits	Various – contact CEL for further details	
DTS RS232 to printer cable	Connection cable for printer	727-1500
DTS RS232 to PC cable	Connection cable for PC	CBL-729-0-0-0-0

Calibration service

Crane Electronics Ltd operates a calibration laboratory accredited by UKAS, the UK Accreditation Service. All Crane products are issued with a calibration certificate traceable to National and International Standards. It is recommended that torque instrumentation is recalibrated at least every 12 months.

Crane Electronics Ltd operates a policy of continuous product development and improvement, and so technical specifications may change without notice. Please clarify with Crane or your distributor that you are referring to the latest technical data sheet.



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The force in torque management

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