

User Instructions

Industry Standard (IS) Stationary Torque Transducer

MAN 873 : Issue 2
Crane Electronics Ltd

CE MARKING

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Declares that this IS Stationary Torque Transducer has been assessed and complies with the requirements of the relevant CE Directives when used with Crane Electronics Ltd Readout Devices.

SUMMARY

Crane's stationary transducers are the quality choice for the testing of all continuous drive, impulse and hand torque tools in the workshop and production line-side environment.

Stationary transducers are used off the production line in workshop or line-side test stations. Combined with joint kits that represent the production joint condition, the stationary transducers form an effective off line test for verification of assembly tool performance.

Each Industry Standard Stationary Transducer is calibrated such that exactly 2mV/V output is produced at the rate torque. Marked on each is the torque value required to be entered into a readout device employing the principle of shunt calibration and having the recommended value of 43,575 ohms. For readouts not using the principle of shunt calibration, the nominal ratings should be entered into the instrument.

A Crane UTA version is also available enabling Plug and Play operation with Crane readout devices.

OPERATION

Select a suitable size of Stationary Transducer that is appropriate to the maximum torque rating of the tool to be used. A suitably sized transducer top joint kit should also be selected, configured to the required joint conditions (see user instructions for transducer top joint kits) and fitted to the female square drive of the stationary transducer.

Connect the transducer to the readout, select an appropriate operating mode then operate the tool in the normal way. In the interests of accuracy it is essential to maintain the correct alignment between the Stationary Transducer, joint kit and power tool. When using stationary transducers with a tool and reaction bar the effective radial position of the reaction point should not be less than the figures given in Table 1. Failure to observe this requirement and also the maximum torque rating, may cause irreversible damage to the Stationary Transducer.

NOTICE

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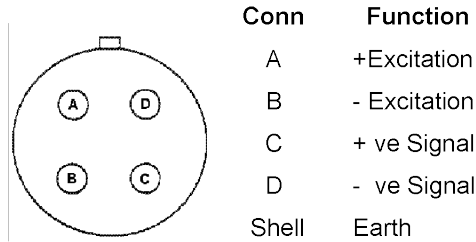
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SPECIFICATIONS

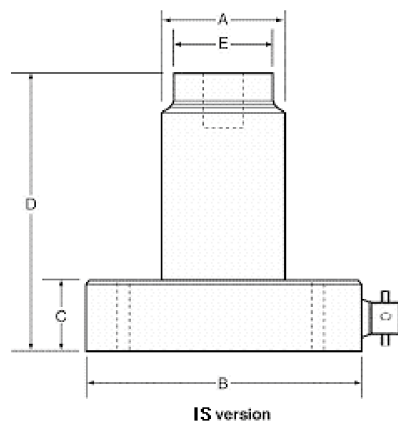
Transducer type	I.S.: 'Industry Standard' version. Bridge resistance: 350 Ohms. Sensitivity: 2mV/V
Construction	Steel housing Overload capacity: 125% rated torque Square drives to ANSI B107-4 - 1982; BS4006 - 1992; DIN 3121 - 1987
Connections	I.S. version: output connector to MIL-C 26482 / BS 9522 F00 17; shell size 8-4P.
Zero stability	<± 0.1% of FSD/°C
Static accuracy	±0.25% FSD
Operating Environment	Temperature: 5 - 40°C (-10 to 60°C with reduced specification) Humidity: 10 - 75% non-condensing Ingress Protection rating: IP40
Warranty	12 months parts and labour against faulty workmanship or materials
Calibration	All torque equipment should be re-calibrated every 12 months.

Dimensions & Weights



Compatible with BS 9522 - F0017 4 Pole Cable Mounting socket. Shell Size 8.

Drive Size	Nominal Torque		Min. Radial Position of reaction bar at Max. Torque
	(Nm)	Imperial (ftlbf)	
¼"	11.3	100 inlbf	100mm
¼"	28.25	250 inlbf	100mm
⅜"	67.8	50	150mm
⅜"	135.6	100	180mm
½"	271.2	200	180mm
¾"	542	400	240mm
¾"	1017	750	240mm
1"	1695	1250	350mm



Dimensions in mm						
Drive Size	A	B	C	D	E	Weight (Kg)
¼"	54	100	25	76.5	16	1.38
⅜"	54	100	25	86	24	1.44
½"	54	100	25	95	30	1.51
¾"	50	100	25	112	44	1.81
1"	59	100	25	124	53	2.16