

## TLQ/TLQA - Square Drive Torque Transducers

### Product Overview

The TLQ and TLQA Torque Transducers provide accurate and cost-effective 'in-line' rotary Torque measurement with a square drive input and output. The TLQ series incorporate silver slip rings and silver-graphite brush-gear for strain gauge bridge power and signal transmission.

The TLQ series of Transducers have a high accuracy of 0.1% of full scale. A range of digital readouts and amplifiers are also available for these units.

#### System Specifications:

Accuracy class:	0.1%	Bridge resistance:	350 ohms
Sensitivity (1 Nm):	0.5 mV/V	Nominal Temp:	-10 to +60°C
Sensitivity – other ratings:	1 mV/V	Overload Capacity:	150% fs
Repeatability:	±0.05% fs	Durability of Brushes:	5 x 10 <sup>7</sup> rev.
Excitation voltage:	2 to 12V	Protection:	IP50

### Industrial Measurements

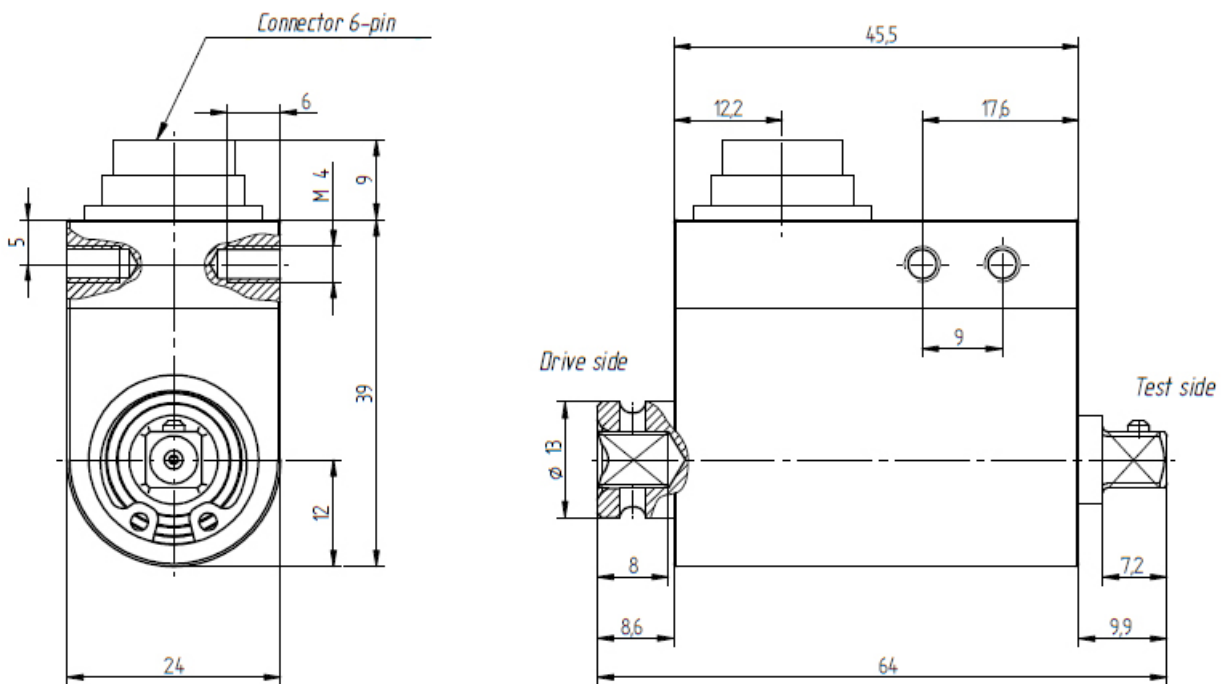
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Model TLQ	Rated Torque (Nm)	Square Size	Max Speed (rpm)	Torsional Stiffness (Nm/rad)	Limit Thrust Load (N)	Limit Shear Force (N)
1	1	¼"	2000	2.1 x 10 <sup>2</sup>	200	3.7
2	2	¼"	2000	2.1 x 10 <sup>2</sup>	200	3.7
5	5	¼"	2000	5.5 x 10 <sup>2</sup>	350	9.5
12	12	¼"	2000	6,9 x 10 <sup>2</sup>	420	12.5
25	25	3/8"	1500	4.7 x 10 <sup>3</sup>	1100	50
63	63	3/8"	1500	1.1 x 10 <sup>4</sup>	1900	120
100	100	½"	1500	1.8 x 10 <sup>4</sup>	2500	170
160	160	½"	1500	1,9 x 10 <sup>4</sup>	2700	180
200	200	½"	1500	1.9 x 10 <sup>4</sup>	2700	180
500	500	¾"	1000	1.1 x 10 <sup>5</sup>	7000	450
1000	1000	1"	1000	1,2 x 10 <sup>5</sup>	8000	500
2000	2000	1 1/2"	500	3.9 x 10 <sup>5</sup>	17000	950
5000	5000	1 1/2"	500	4.7 x 10 <sup>5</sup>	23000	1450

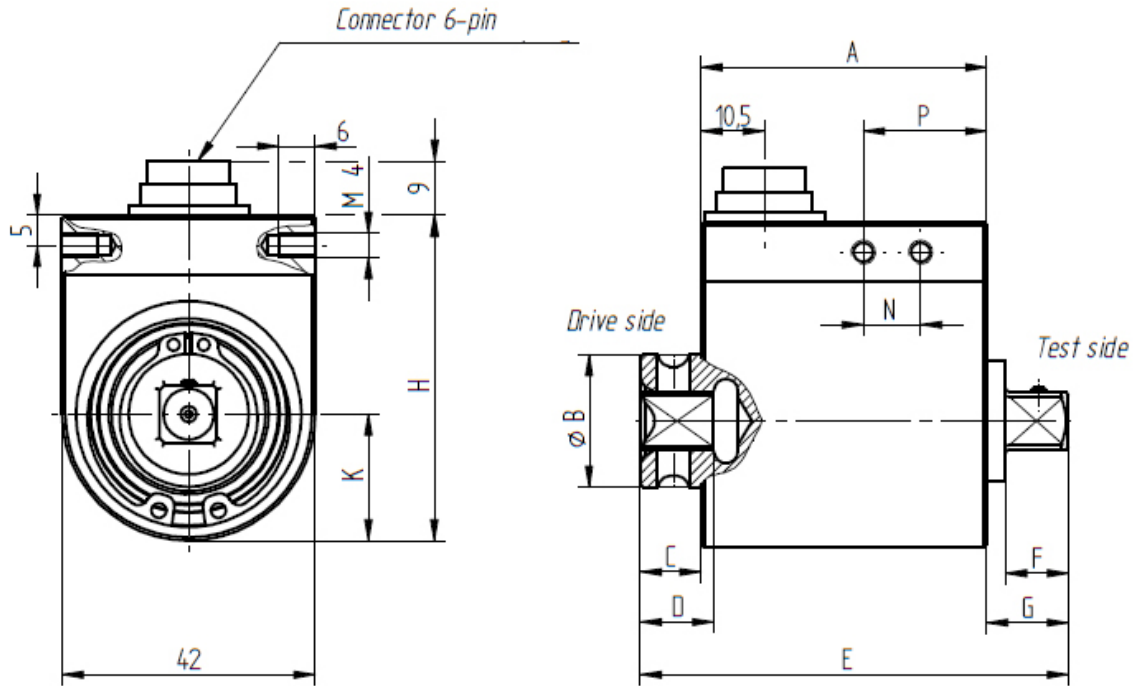
Limit axial thrust and shear force are for unsupported shaft.

## Dimensions

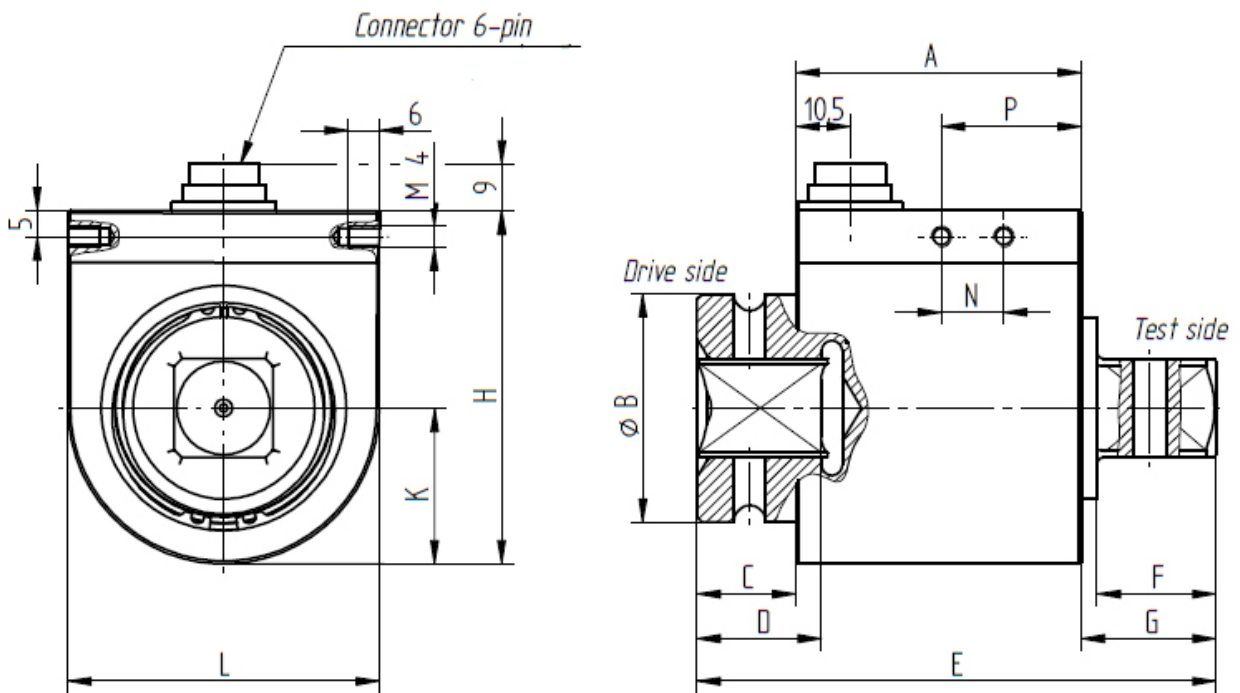


Measuring Range (Nm)	Square Size
1	¼"
2	¼"
5	¼"
12	¼"

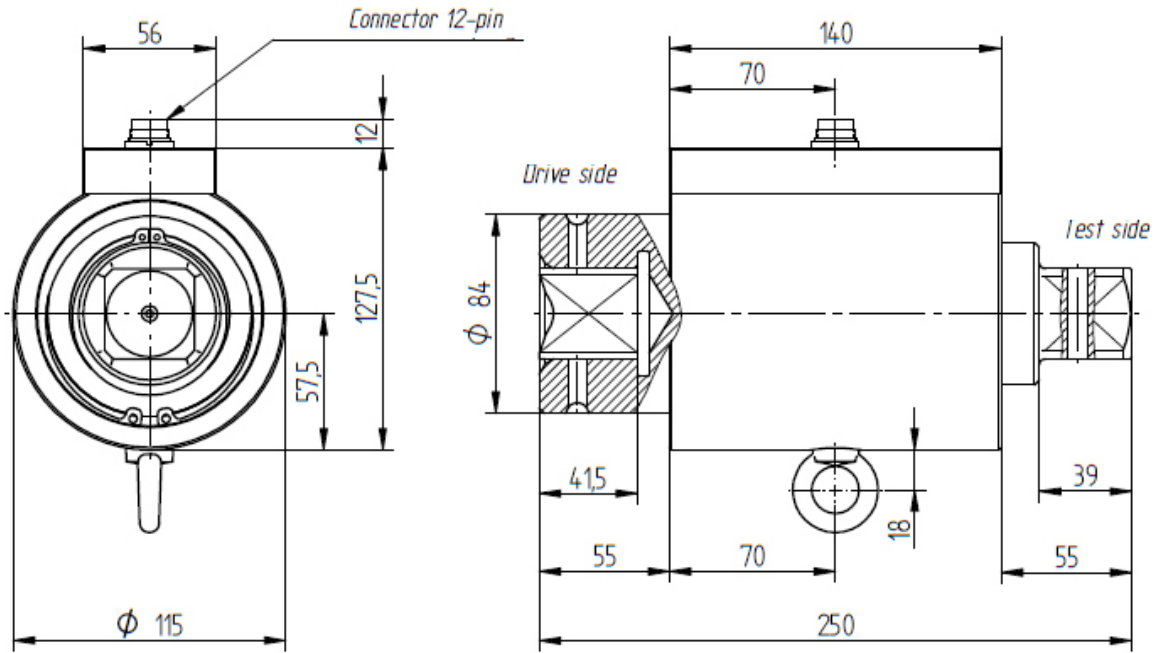




Measuring Range (Nm)	Square Size	A	B	C	D	E	F	G	H	K	L	N	P
25 / 63	3/8"	47.7	22	10.1	12.2	71	10.4	13.5	54	21	42	9.5	20.5
100 / 160 / 200	1/2"	47.4	29.8	10.7	15	76	15.1	17.9	54	21	42	9.5	20.5



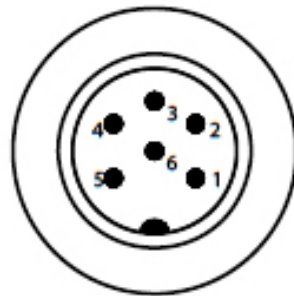
Measuring Range (Nm)	Square Size	A	B	C	D	E	F	G	H	K	L	N	P
500	3/4"	55	44	19	24	100	22.9	26	68	30	60	12	27
1000	1"	55	54	33	27	132	27.4	44	68	30	60	12	27



Measuring Range (Nm)	Square Size
2000	1 ½"
5000	1 ½"

## Wiring Details

PIN	Designation
1	Excitation (-)
2	Excitation (+)
3	Shield
4	Signal (+)
5	Signal (GND)
6	Control signal (option)



For more information about the TLQ range or for a quote, call +44 (0) 1332 810 240 or email [sales@indmeas.co.uk](mailto:sales@indmeas.co.uk).

# Providing custom torque solutions

## Industrial Measurements

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