

TLS Rotary Torque Transducer

Non-contacting in-line rotary torque transducer with bearings.

The TLS series of rotary torque transducers provide accurate torque measurement at speeds of up to 15,000 rpm.

The TLS is a non-foot mounted version with the same capacities and options as the TLSM, which comes with a foot-mounting.

The TLS range is utilised in a number of applications including research and development, process measurement and control, tool engineering and special mechanical engineering. Special versions are also available on request.

The TLS series is available in a variety of sizes ranging from 0.1Nm up to 20,000Nm.

For pricing, availability or further technical information about the TLS series, contact us via our website at www.crane-electronics.com or get in touch via email at sales@crane-electronics.com.

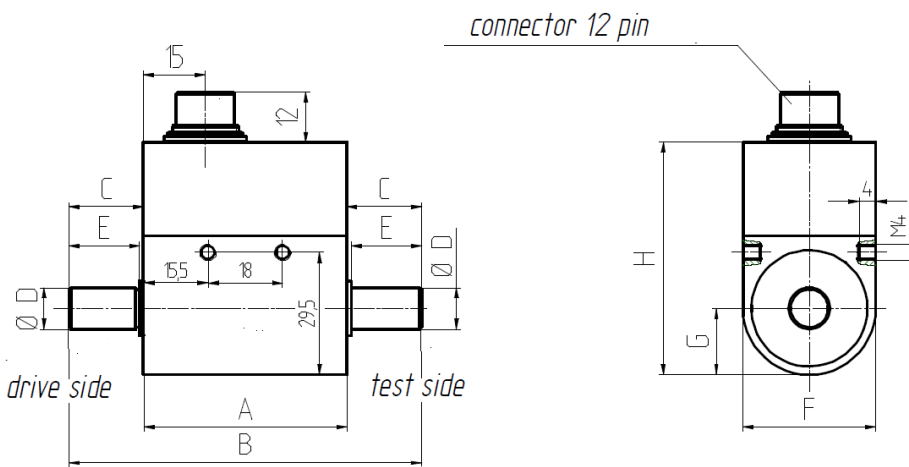
Technical Specification

Accuracy Class:	0.1%
Operating Temp:	0 to +60°C
Optional Accuracy Class:	0.2% (upto 1kNm)
Zero Shift:	< ±0.01%/°C
Full Scale Analogue Output:	0±5V
Supply Voltage:	12 to 28VDC
Analogue Output Option:	0±10V
Supply Current:	<60mA
Repeatability (class 0.1):	±0.02% fs
Overload Capacity:	150% fs
Repeatability (class 0.2):	±0.04% fs
Protection:	IP50
Span Shift:	<±0.01%/°C

Model Size	Rated Torque (Nm)	Max Speed	Springrate (Nm/rad)	Model Size	Rated Torque (Nm)	Max Speed	Sprigrade (Nm/rad)
01	0.1	15000	1.8 x 10*1	50	50	15000	8.5 x 10*3
02	0.2	15000	1.8 x 10*1	100	100	12000	8.5 x 10*3
05	0.5	15000	1.2 x 10*2	200	200	10000	6.7 x 10*4
1	1.0	15000	1.2 x 10*2	500	500	10000	7.1 x 10*4
2	2.0	15000	3.6 x 10*2	1000	1000	8000	3.1 x 10*5
5	5.0	15000	4.0 x 10*2	2000	2000	5500	7.2 x 10*5
10	10	15000	9.3 x 10*2	5000	5000	5500	8.0 x 10*5
15	15	15000	9.3 x 10*2	10000	10000	5000	3.1 x 10*6
20	20	15000	4.5 x 10*3	20000	20000	5000	3.7 x 10*6
30	30	15000	4.5 x 10*3				

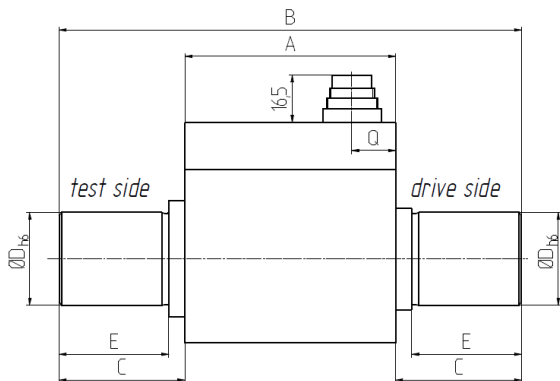
Dimensions

TLS Models 0.1 to 15 (Optional metric keyways are to BS4235 and DIN6885/1)



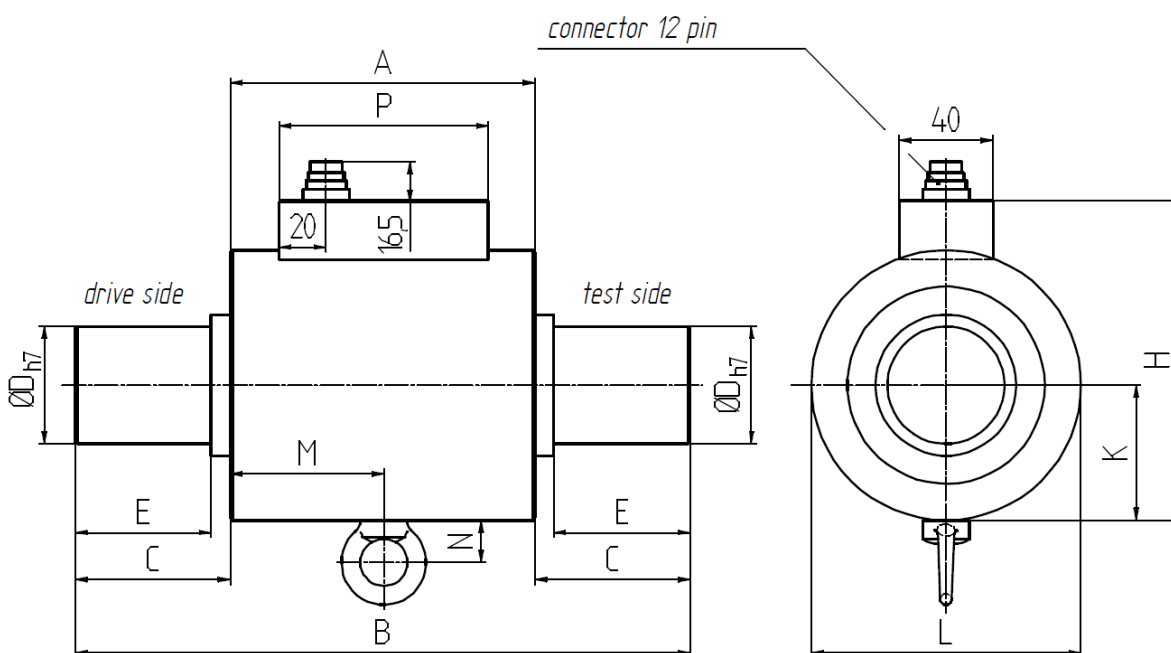
Model Size	A	B	C	D	E	F	G	H
0.1/0.2/0.5/1/2/5	49	85	18	8 g6	17	32	16	56
10/15	49	85	18	10 g6	17	32	16	56

TLS Models 20 to 500 (Optional metric keyways are to BS4235 and DIN6885/1)



Model Size	A	B	C	D	E	H	K	L	M	N	P	Q
20/30	71.5	111.5	20	18 h6	18	59	20	40	5	41.5	15	12
50/100	71.5	147.5	38	18 h6	36	59	20	40	5	41.5	15	12
200/500	72.5	159.5	43.5	32 h6	38	76	29	58	6	29.5	22	15

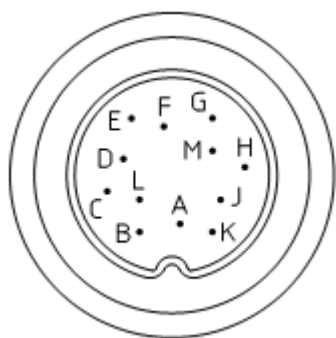
TLS Models 1000 to 20000 (Optional metric keyways are to BS4235 and DIN6885/1)



Model Size	A	B	C	D	E	H	K	L	M	N	P
1000	130	262	66	50 h7	58	136	57.5	115	65.5	18	89
2000 / 5000	135	377	121	70 h7	110	161	69.5	139	67.5	18	89
10000 / 20000	190	470	140	110 h7	120	233	105	208	95	18	89

All dimensions are in mm. Details may change without notice.

Wiring Details



PIN	Designation		
A	GND (Option)	G	Angle (Option)
B	Angle B TTL (Option)	H	Signal 2 (Option)
C	Torque output ±5V hi (Optional ±10V)	J	RS485 B
D	Torque output Com (0V)	K	Calibration - Off 0 to 2V On 3.5 to 30V
E	0V PSU	L	RS485 A
F	+24V dc (PSU)	M	Cable Screen



Locations

UK - Watling Drive, Hinckley, Leicestershire LE10 3EY, UK
 USA - 1260 11th Street West, Milan, Illinois 61264, USA
 Germany - Im Rank 5, 73655 Plüderhausen, Germany

