

**Stainless Steel
Combined Torque And Axial Force**

DBBSS/TSF

AXIAL TORSION SENSOR



- Capacities from 1kN/10Nm to 250kN/2500Nm
- Sealed to IP65
- Low Profile and Very Compact
- Low Deflection
- Minimal crosstalk
- Robust Construction
- 3 YEAR WARRANTY

Options Available

Non-Standard ranges available on request

Dual 4-core screened cable, one for each axis

CHARACTERISTICS	DBBSS/TSF	UNITS
Rated Capacities:	1/10; 2.5/25; 5/50; 10/100; 25/250; 25/500; 50/500; 100/1000; 250/2500	KN/Nm
Sensitivity Range:	1.5mV/V to 3.0mV/V (see note below)	mV/V
Non-Linearity:	Axial Force <0.05 Torsional Force <0.10	±% of Rated Output
Repeatability:	Axial Force <0.03 Torsional Force <0.05	±% of Rated Output
Zero Balance:	1	±% of Rated Output
Temperature Range Operating:	-20 to +80	°C
Compensated:	0 to +70	°C
Temperature Effect On Output:	<0.005	±% of Applied Load/ °C
On Zero:	<0.030	±% of Rated Output/ °C
Safe Overload:	150	% of Rated Capacity
Ultimate Overload:	400	% of Rated Capacity
Excitation Recommended:	10	Volts AC or DC
Maximum:	15	Volts AC or DC
Input Impedance:	400 nominal	Ohms
Output Impedance:	350 nominal	Ohms
Insulation Impedance:	>500	Megaohms
Construction:	Stainless Steel	
Environmental Protection:	IP65	
Electrical Connection:	6-pin bayonet lock connector + mating connector with two cable options from the mating connector	

Transducer Specialists...

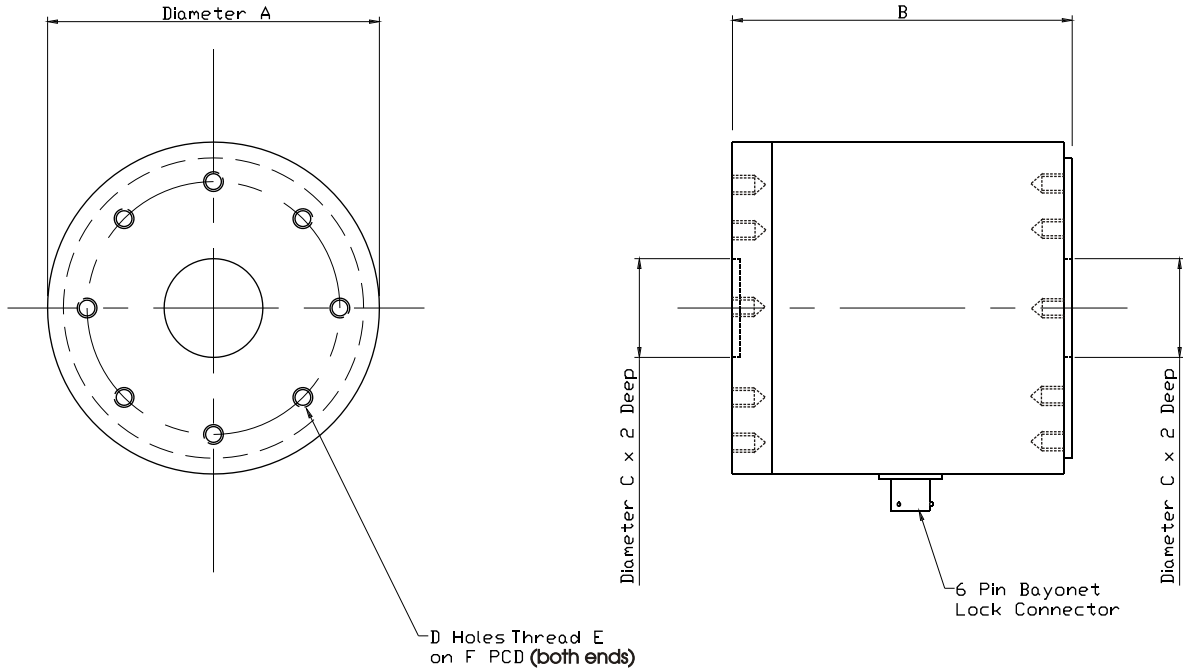
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SPECIFICATION



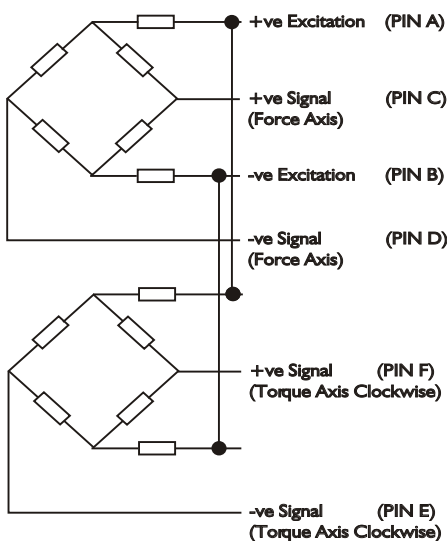
All dimensions in mm

Note

The sensitivity can vary between the limits stated depending upon the aspect ratio between the two axis. This is to limit the level of crosstalk between axis.

Range (kN/Nm)	ØA	B	ØC	D	E	ØF
1/10, 2.5/25, 5/50	84	86	25/H7	8	M5x7DP	64
10/100, 25/250, 25/500	86	120	25/H7	6	M8x12DP	60
50/500, 100/1000	135	125	30/H7	12	M10x15DP	100
250/2500	230	200	35/H7	12	M16x24DP	190

Wiring Schematic Diagram



Wiring Diagram – 6 Core Cable	Wiring Diagram – 2x 4 Core Cable
<i>Force/Torque Axes</i>	<i>Force Axis</i>
Red: + Excitation	Red: + Excitation
Blue: - Excitation	Black: - Excitation
Green: + Signal (Force Axis)	Green: + Signal
Yellow: - Signal (Force Axis)	Yellow: - Signal
Black: + Signal (Torque Axis)	
White: - Signal (Torque Axis)	<i>Torque Axis</i>
	Red: + Excitation
	Black: - Excitation
	Green: + Signal
	Yellow: - Signal

