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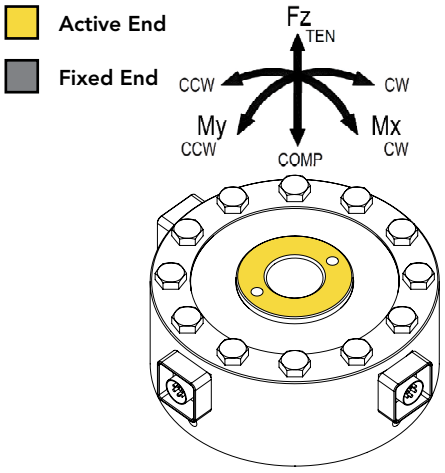
MODEL MTA505

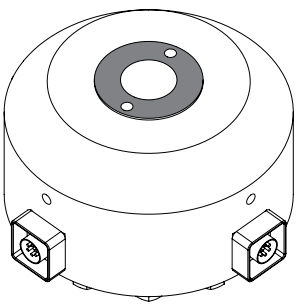
Low Profile Thrust and Moment Load Cell



FEATURES

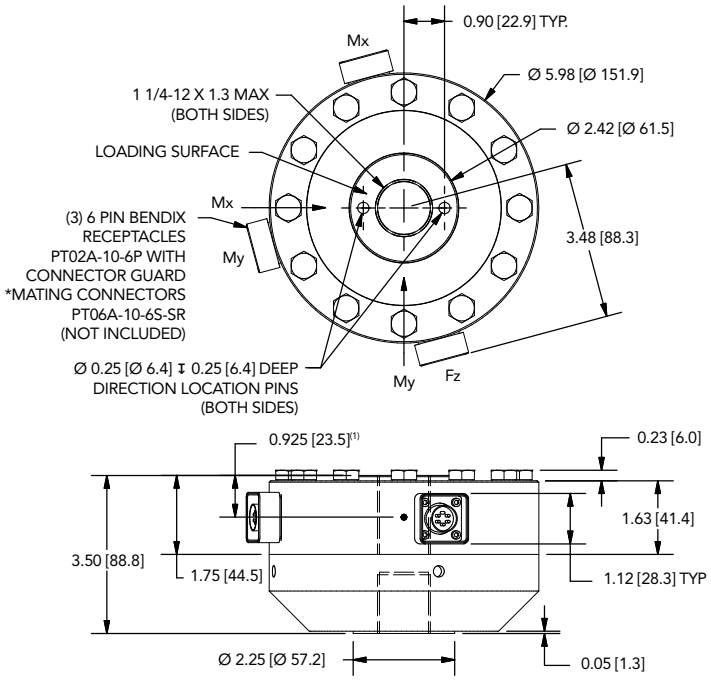
- Used for quantification of test stand misalignment
- Used for measurement of wind tunnel model aerodynamics
- Can Measure Force via Moment Arms





SPECIFICATIONS	
PERFORMANCE	
Nonlinearity (Mx, My)	±0.5% of RO
Nonlinearity (Fz)	±0.2% of RO
Cross Talk	±2% of RO or Less
ELECTRICAL	
Rated Output (RO)	See chart on next page
Excitation (VDC or VAC)	18 max
Bridge Resistance	350 Ohm nom
Insulation Resistance	≥500 MOhm @ 50 VDC
Connection	(3) 6 pin BENDIX receptacle (PT02E-10-6P)
Connector Code	CC1
MECHANICAL	
Weight (approximate)	20 lb (9.3 kg)
Safe Overload	150% of RO
Material (flexure)	17-4 PH stainless-steel
IP Rating	IP65
TEMPERATURE	
Operating Temperature	-65 to 200°F (-54 to 93°C)
Compensated Temperature	60 to 160°F (15 to 72°C)
Temperature Shift Zero	±0.01% of RO/°F (0.018% of RO/°C)
Temperature Shift Span	±0.01% of Load/°F (0.018% of Load/°C)
CALIBRATION	
Calibration Test Excitation	10 VDC
Calibration (standard)	5-pt Compression, CW
Calibration (available)	5-pt Tension, CCW
Shunt Calibration Value	43.575 kOhm (10000 lb) 301 (2000 in-lb) 30 kOhm (25000 lb) 60.4 (10000 in-lb)

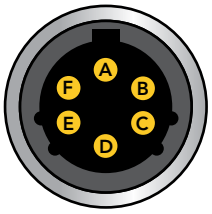
DIMENSIONS inches [mm]



(1) Mx/My Moment Reference Point

BENDIX 6-PIN (CC1)

PIN	COLOR	DESCRIPTION
A	Red	+ Excitation
B	Black	– Excitation
C	Green	+ Signal
D	White	– Signal
E	Orange	+ Sense
F	Blue	– Sense



Sensor Receptacle View

CAPACITIES

ITEM #	lb (Fz)	in-lb (Mx, My)	Deflection (in) (Fz only)	Natural Frequency (Hz) (Fz only)	Rated Output (mV/V) (Fz)	Rated Output (mV/V) (Mx, My)
FSH02453	10000	2000	0.001	7100	2.5	0.5
FSH02727	25000	10000	0.002	7100	4	2

Drawing Number: FI1288-E

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