Square Six Axis Load Cell

Models TR6D-C-20K and TR6D-C-40K

- Measures three perpendicular forces
- Measures three moments
- Environmentally protected
- Temperature compensated
- Rugged stainless steel construction
- Weatherproof connectors



Description

Michigan Scientific's TR6D-C-20K and TR6D-C-40K Square Six Axis Load Cells are designed for applications that require both force and moment measurements. These rugged transducers are ideally suited for both field data acquisition and laboratory testing. The transducers have identical top and bottom mounting surfaces and bolt patterns, and can be easily adapted to an unlimited variety of applications.

The TR6D-C-20K titanium material and TR6D-C-40K high grade stainless steel material, in addition to weatherproof sealing, combine to provide excellent resistance to corrosion and environmental conditions. Temperature compensation of the transducers ensures stable output throughout a wide temperature range.

Specifications

	TR6D-C-20K	TR6D-C-40K				
Maximum Force Capacity (Fx, Fy, Fz)	20,000 lbf (89 kN)	40,000 lbf (178 kN)				
Maximum Moment Capacity (Mx, My, Mz)	3,350 lbf · ft (4.5 kN · m)	7,000 lbf · ft (9.5 kN · m)				
Weight	9.5 lb (4.3 kg)	16.5 lb (7.5 kg)				
Full Scale Output	1.5 mV/V nominal, Fx, Fy, Fz, 5.0 mV/V nominal, Mx, My, 1.75 mV/V nominal, Mz					
Sensor	6 four-arm strain gauge bridges					
Nonlinearity	Forces \leq 0.5 % of full scale for X and Y axes; \leq 1.5 % of full scale for Z axis Moments \leq 0.5 % of full scale for all channels					
Hysteresis	≤ 0.5 % of full scale output					
Temperature Range, Usable	-40 °F to 300 °F (-40 °C to 149 °C)					
Excitation Voltage, Maximum	10 Vdc or Vac rms					
Standard Cable Length	10 ft (3.05 m) shielded, open-ended leads					

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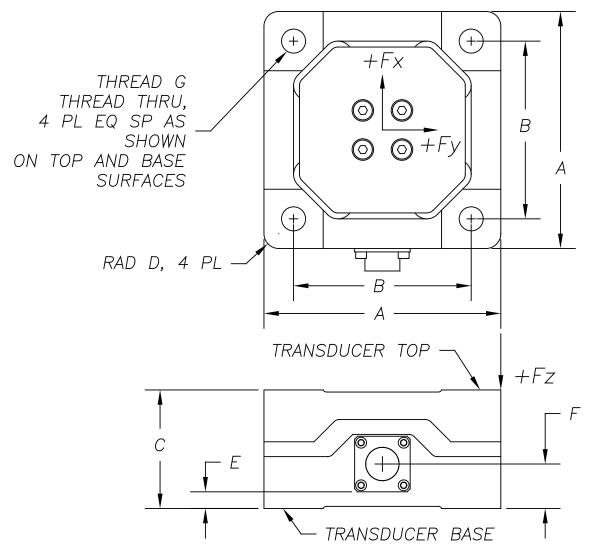
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Square Six Axis Load Cell

TR6D-C-40K Configuration



Model	Α	В	С	D	E	F	THRD G
TR6D-C-40K	6.000 in (152.40 mm)	4.500 in (114.30 mm)	3.000 in (76.20 mm)	0.375 in (9.53 mm)	0.656 in (16.66 mm)	1.125 in (28.58 mm)	(M20 x 2.5)
TR6D-C-20K	6.000 in (152.40 mm)	4.500 in (114.30 mm)	3.000 in (76.20 mm)	0.375 in (9.53 mm)	0.656 in (16.66 mm)	1.125 in (28.58 mm)	(M20 x 2.5)

Dimensions are inch (mm); all tolerances are ± 0.005 in [± 0.13 mm], unless specified otherwise. Positive outputs result when the transducer top is displaced relative to the transducer base, in the directions indicated.

Ordering Options

Individual bridge connectors and optional cable length may be specified by the customer. Contact Michigan Scientific for information on transducer applications and mounting.

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