

Square Three Axis Load Cell

Model TR3D-D-*

- 50,000 lb and 100,000 lb capacity
- Measures forces in three perpendicular directions
- Environmentally protected
- Temperature compensated
- Rugged stainless steel construction
- Weatherproof connector



Description

Michigan Scientific's *TR3D-D-** Square Three Axis Load Cells are designed for applications that require force measurements in three perpendicular directions. With 50,000 lb and 100,000 lb capacities, 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 a variety of applications.

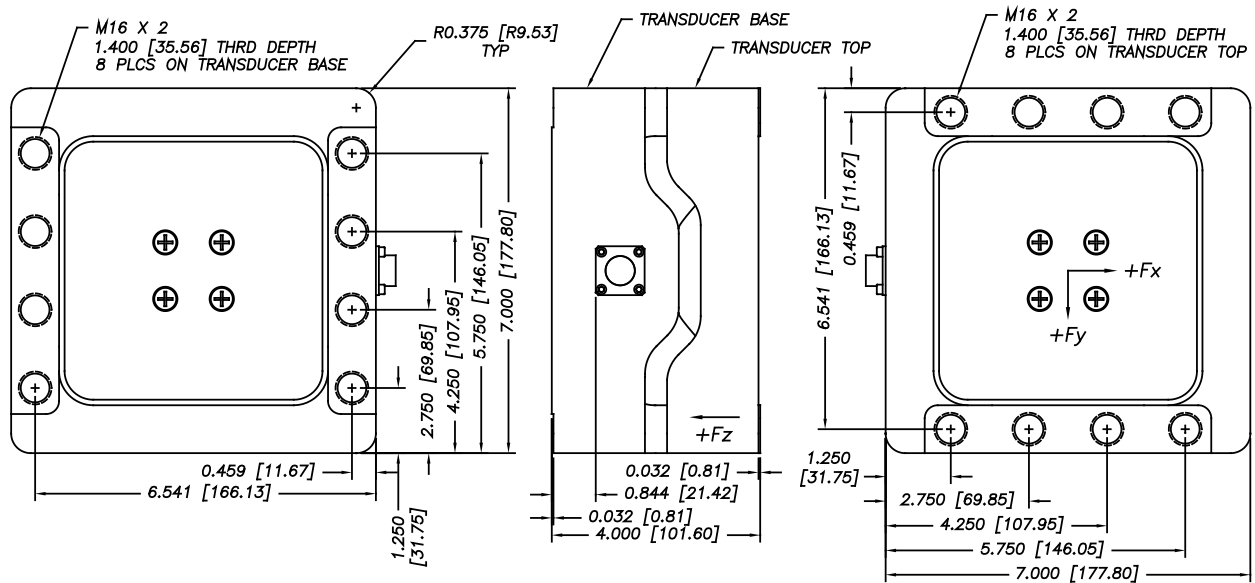
High grade stainless steel material, in addition to weatherproof sealing, combine to provide excellent resistance to corrosion and environmental conditions. Temperature compensation of the transducers ensures stable output throughout a wide temperature range.

Specifications

	TR3D-D-50K	TR3D-D-100K
Maximum Load Capacity (per channel)	50,000 lbs (222 kN)	100,000 lbs (444 kN)
Maximum Moment Capacity (per channel)	14,000 lb-ft (19.0 kN.m)	15,000 lb-ft (20.3 kN.m)
Weight	38.5 lbs (17.5 kg)	
Full Scale Output	1.50 mV/V, nominal, all channels	1.25 mV/V, nominal, all channels
Sensor	3 Four-arm strain gage bridges	
Nonlinearity	≤ 1% of full scale for X and Y axes < 2% of full scale for Z axis	
Hysteresis	< 0.5% of full scale output	
Temperature Range, Compensated	75°F to 200°F (24°C to 93°C)	
Temperature Effect on Zero	<0.2% full scale	
Temperature Range, Useable	-40°F to 300°F (-40°C to 149°C)	
Excitation Voltage, Maximum	10V DC or AC rms	
Standard Cable Length	10 ft (3.05 m) shielded, open-ended leads	

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TR3D-D-100K Configuration



NOTES:

- 1) FOR CLARITY, SOME HIDDEN LINES AND TRANSDUCER GEOMETRY NOT SHOWN.
- 2) DIMENSIONS ARE INCH [MM]; TOLERANCES ± 0.005 [0.127]
- 3) POSITIVE OUTPUTS RESULTS WHEN THE TRANSDUCER TOP IS DISPLACED RELATIVE TO THE TRANSDUCER BASE IN THE DIRECTIONS INDICATED.

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TR3D-D-*
07/27/11

Ordering Options

Connectors and optional cable length may be specified by the customer.

Contact Michigan Scientific for information on transducer applications and mounting.