Strain Gages & Load Cells

Micro Sensor Technology

SHOWA MEASURING INSTRUMENTS INC.

Tokyo Japan

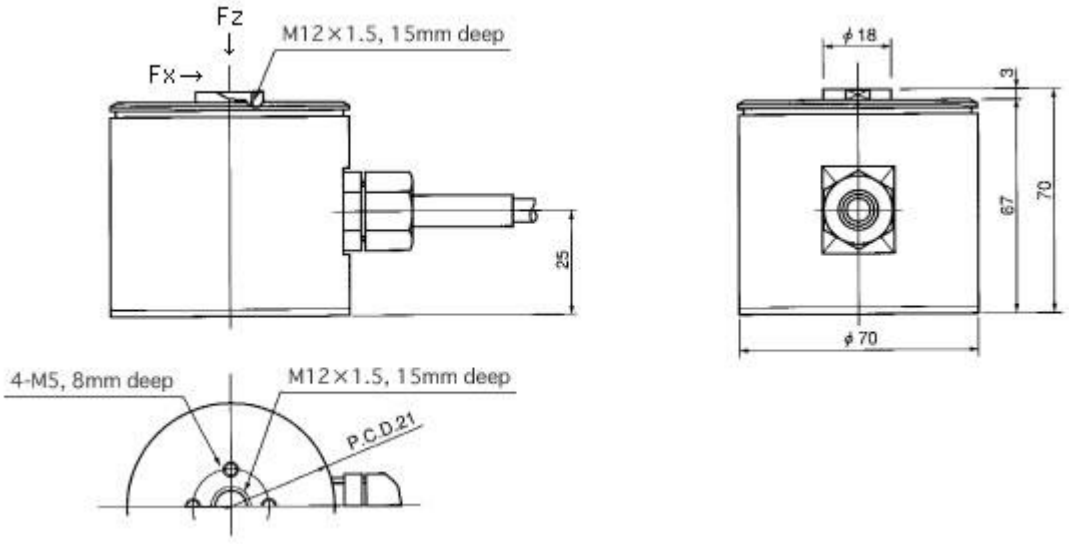
"MD2" / High accuracy 2-Component Load Cell

Features

- High accuracy (Accuracy class to be 0.025%). 2-component load cell consisting of Fx and Fz.
- Excellent in crosstalk (within 1%) and in load leaving off coefficient.
- Built-in mechanical device (consisting of a balancing mechanism for pressure variations) hardly receiving any effects from atmospheric pressures.
- Can offer special versions providing top and bottom flanges for installation (note that a pressure balancing device cannot be afforded on this special version).
- Applications: For measurement of friction coefficient, for scratching test and so on.

Related products : *6-Component force sensor*

Appearance Dimensions



Model and Capacity / Dimension / etc. (unit : mm)

Model	Fx	Fz	Weight
MD2-50N	50N	50N	0.6kg
MD2-100N	100N	100N	0.6kg
MD2-200N	200N	200N	0.6kg
MD2-500N	500N	500N	0.6kg

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- * The weight indicated in the tables of this data sheet does not include the weight of cables.
- *** The load leaving off coefficient**:
- 1. Fx: The maximum load leaving off range: 20 mm maximum from the end surface of the loading screw. The load leaving off coefficient: Within 0.2%/cm
- 2. Fz: The maximum load leaving off range: 50 mm in diameter maximum from the center of the loading screw. The load leaving off coefficient: Within 0.2%/cm.

Specifications

Safe Overload	150%RC
Rated Output	1mV/V±1%
Nonlinearity	0.025%RO
Hysteresis	0.02%RO
Repeatability	0.02%RO
Excitation Voltage	12V (or less)
Safe Excitation Voltage	20V (or less)
Input Rsistance	350Ω
Output Rsistance	350Ω
Compensated Temp.Range	-10 to 60℃
Safe Temp.Range	-30 to 80℃
Temp.Effect on Zero	0.003%RO/℃
Temp.Effect on Output	0.002%/℃
Crosstalk	within 1%RO（Between respective components）
Cable	Φ 6mm-8wire shielded cable, length : 2m

- * Can meet the requirements for changing the length of cables and for mounting the connectors (NDIS Standard) on the cables.
- * Contact us directly regarding low cost versions, and for the top and bottom flanges mounting versions (but without pressure balancing devices).