

# Miniature 6-component Force Transducer

# 6DM

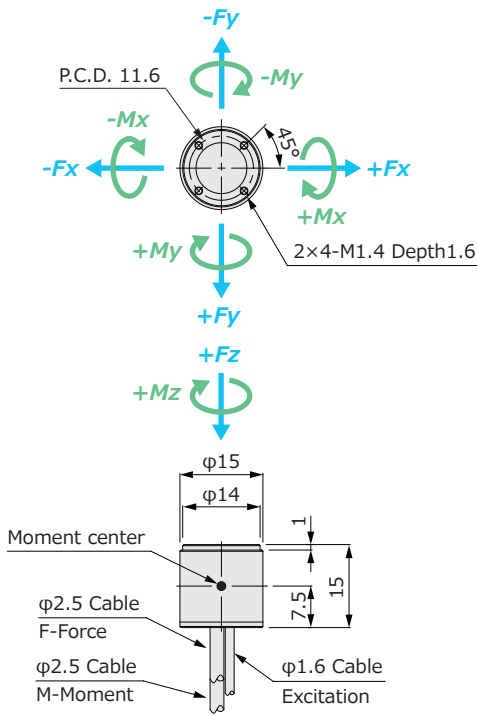
- Capacities :  $F_x, F_y, F_z : 50N$   
 $M_x, M_y, M_z : 0.2N \cdot m$

- Miniature
- Custom made available
- 6-component measure**

Enables simultaneous measurement of 3 components of force ( $F_x, F_y, F_z$ ) in 3 axial directions orthogonal to the transducer and 3 moments ( $M_x, M_y, M_z$ ) around the axes.



## Outline dimensions (mm)



### Custom made available

- Rated capacity
- Outline

## Specifications

Rated capacity	$F_x, F_y : 50N$ $F_z : 50N$ $M_x, M_y, M_z : 0.2N \cdot m$
Rated output (approx.)	$F_x, F_y : 0.7mV/V$ $F_z : 0.15mV/V$ $M_x, M_y : 0.2mV/V$ $M_z : 0.2mV/V$
Zero balance	$\pm 10\%R.O.$
Nonlinearity	$\pm 0.5\%R.O.$
Hysteresis	$\pm 0.5\%R.O.$
Interference ※	$\pm 3\%R.O.$
Excitation, recommended	2V
Excitation, maximum	3V
Input impedance (approx.)	$60\Omega \sim 150\Omega$
Output impedance (approx.)	$120\Omega \sim 500\Omega$
Insulation resistance	$> 1000M\Omega$ (B/E DC50V)
Temperature range, compensated	$0^\circ C \sim +60^\circ C$
Temperature range, safe	$-10^\circ C \sim +70^\circ C$
Temperature effect on zero	$\pm 0.05\%R.O./^\circ C$
Temperature effect on output	$\pm 0.05\%LOAD/^\circ C$
Maximum safe overload	120%R.C.
Ultimate overload	150%R.C.
Cable type	$\phi 1.6 - \phi 2.5$ , 4-wire, PVC, braid shield
Cable length	1m
Construction	Aluminum
Weight (approx.)	5g

※. The interference is interference compensated value.  
Note) Please connect to Dynamic strain amplifier.

## Cable color code

Item ( $\phi 1.6$ )	Color	Item ( $\phi 2.5$ )	Color
Excitation + /F	Red	$F_x \cdot M_x$ : Output +	Red
Excitation - /F	White	$F_x \cdot M_x$ : Output -	White
Excitation + /M	Green	$F_y \cdot M_y$ : Output +	Green
Excitation - /M	Blue	$F_y \cdot M_y$ : Output -	Blue
Shield		$F_z \cdot M_z$ : Output +	Yellow
		$F_z \cdot M_z$ : Output -	Black
		Shield	