

Six Component Load Transducer PY6

Product Details and Specifications

The PY6 is a simple-setup load transducer with origins in measuring loads in lower limb prostheses. Because it is well suited for static and dynamic purposes, the PY6 is commonly used for measuring forces in shafts and in industrial applications. Essentially the PY6 can be utilized in any situation requiring measurement of forces and torques around a linear axis.



PY6 with adapter plates

Design

Solid construction using high strength aluminum and strain gage technology yields a sensitive, reliable, and durable load transducer with a high natural frequency. Internal 16-bit digital signal acquisition and conditioning makes calibration matrices obsolete. For outputs, you then have the choice of four external amplifiers: digital (AM6500), analog (AM6501, AM6504), or digital and analog (AM6800). The digital output can be directly plugged into your PC's USB port making signal conversion unnecessary. The analog signal outputs allow you to use conventional acquisition techniques. These amplifiers can be either fixed gain or adjustable gain. The PY6 plus an amplifier creates a complete force measurement system.

Unique Features

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| <ul style="list-style-type: none"> > Six component load transducer | <ul style="list-style-type: none"> > Adaptor plates are easy to attach the PY6 transducer | <ul style="list-style-type: none"> > Lightweight |
| <ul style="list-style-type: none"> > Available in three standard load ranges (50 lb, 500 lb, 1000 lb) | <ul style="list-style-type: none"> > Optional adaptor plates are available upon request | <ul style="list-style-type: none"> > Custom load ranges |

Customization

If none of our standard models meet your requirements, years of experience and a willingness to solve any challenge gives Bertec the edge in custom designing a solution for you. We can construct plates of any size for any load capacity, and most can be made waterproof. At Bertec, our aim is to provide the variety that you want with the quality you deserve.

Parameter	50 lb load range	500 lb load range	1000 lb load range
Diameter*, in(mm)	2.85 (72)	2.85 (72)	2.85 (72)
Height*, in (mm)	2.50 (64)	2.50 (64)	2.50 (64)
Mass**, lb (kg)	1.50 (0.68)	1.50 (0.68)	1.50 (0.68)
Fx, Fy Load Capacity, lb (N)	25 (125)	250 (1250)	500 (2500)
Fz Load Capacity, lb (N)	50 (250)	500 (2500)	1000 (5000)
Mx, My Capacity, lb•in (N•m)	50 (6)	500 (60)	1000 (120)
Mz Capacity, lb•in (N•m)	25 (3)	250 (30)	500 (60)
Natural Frequency, Hz	≥ 2500	≥ 2500	≥ 2500
Overload Capacity, %	50	50	50
Linearity, %FSO	+/- 0.2	+/- 0.2	+/- 0.2
Hysteresis, %FSO	+/- 0.2	+/- 0.2	+/- 0.2
Operating Temperature, °F (°C)	32-122 (0-50)	32-122 (0-50)	32-122 (0-50)

* Not including adaptor plates

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Bertec Corporation
6171 Huntley Road, Suite J
Columbus, OH 43229 U.S.A.

t + 1 614 543-8099
f + 1 614 430-5425
www.bertecbalance.com