

SIX COMPONENT LOAD TRANSDUCER PY6

Product Details and Specifications



Applications

Bertec Corporation has decades of experience in designing and manufacturing load sensing systems. 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.

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

The PY6 model is available in three standard load ranges (50 lb, 500 lb, 1000 lb.) and custom load ranges. Optional adaptor plates are available upon request. These plates offer a convenient solution to attaching the PY6 transducer to the measurement environment.

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 customize all load transducer models to fit your needs – load ranges, size, and even waterproofing.



PY6 with adaptor plates

At Bertec, our aim is to provide the variety that you want with the quality you deserve.

See the back for specific technical specifications.



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

(*) Not including adaptor plates, (**) Including adaptor plates.



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