



Measurement Excellence™

BERTEC CORPORATION

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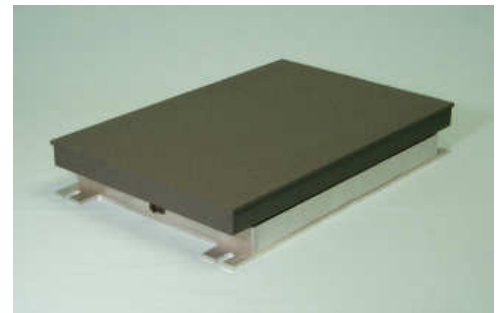
FP 4060 - 10

Applications

Bertec Corporation's line of force plates are ruggedly designed to meet any application. The 4060 series is well suited for gait, balance, sports, ergonomic, static, and dynamic analysis. The 4060-10 model is commonly used for clinical and research gait analysis and is capable of handling high impact forces. Strain gage technology, state-of-the-art electronics, innovative mechanical designs, and quality manufacturing have created superior force plates suitable for any clinical or research use.

Design

Each force plate consists of precision-engineered, strain gaged load transducers that precisely measure six components: three orthogonal forces and the moments about each axis. Each plate contains a built-in, 16-bit digital gain amplifier and signal conditioning unit, which make the use of calibration matrices obsolete. You then have the choice of three external amplifiers: digital (AM6500), analog (AM6501, AM6504), or digital and analog (AM6800). This system allows the use of long output cables without any signal degradation. The digital output can be directly plugged into your PC's USB port. Simple installation and a minimum amount of setup time result from this plug and play technology. For the analog output, you have the choice of either six individual BNC type outputs or seven individual bare wire outputs (custom output cables available per request). A software package is offered to enable quick data collection without the hassle of writing your own software. Bertec also has software libraries and device drivers available upon request for researchers who want to develop their own data acquisition software.



Unique Features

The 4060-10 model comes with a composite top made of an aluminum and honeycomb structure. This creates a lightweight plate that will withstand years of use. It is available in three standard load ranges (1000 lb, 2000 lb, 4000 lb.) and custom load ranges. The use of a mounting plate is recommended with this model. Thoughtful electronic design internally corrects for crosstalk, so the output is a true reading. Excellent resolution and high natural frequency is standard with Bertec force plates.

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. For example, the 4060-NC is a non-conductive model specially designed for use in environments requiring measurement of magnetic fields.

At Bertec, our aim is to provide the variety that you want with the quality you deserve.
See the back for specific technical specifications.



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BERTEC 4060-10

Parameter	10 - 1000 Specifications				10 - 2000 Specifications				10 - 4000 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
Width (x)	15.75	in	400	mm	15.75	in	400	mm	15.75	in	400	mm
Length (y)	23.62	in	600	mm	23.62	in	600	mm	23.62	in	600	mm
Height	3.94	in	100	mm	3.94	in	100	mm	3.94	in	100	mm
Mass	51	lb	23	kg	51	lb	23	kg	51	lb	23	kg
Fx, Fy Load Capacity *	500	lb	2500	N	1000	lb	5000	N	2000	lb	10000	N
Fz Load Capacity	1000	lb	5000	N	2000	lb	10000	N	4000	lb	20000	N
Fx, Fy Overload Capacity (50%FSO)	750	lb	3750	N	1500	lb	7500	N	3000	lb	15000	N
Fz Overload Capacity (50%FSO)	1500	lb	7500	N	3000	lb	15000	N	6000	lb	30000	N
Mx Capacity	11500	lb-in	1500	N-m	23620	lb-in	3000	N-m	47240	lb-in	6000	N-m
My Capacity	7500	lb-in	1000	N-m	15750	lb-in	2000	N-m	31500	lb-in	4000	N-m
Mz Capacity	5500	lb-in	750	N-m	11810	lb-in	1500	N-m	23620	lb-in	3000	N-m
Mx Overload Capacity	17500	lb-in	2250	N-m	35000	lb-in	4500	N-m	70500	lb-in	9000	N-m
My Overload Capacity	11500	lb-in	1500	N-m	23500	lb-in	3000	N-m	47000	lb-in	6000	N-m
Mz Overload Capacity	8500	lb-in	1125	N-m	17500	lb-in	2250	N-m	35000	lb-in	4500	N-m
Fx, Fy Natural Frequency	580	Hz	580	Hz	580	Hz	580	Hz	580	Hz	580	Hz
Fz Natural Frequency	600	Hz	600	Hz	600	Hz	600	Hz	600	Hz	600	Hz
Fx, Fy Sensitivity	0.10	lb/mv	0.44	N/mv	0.20	lb/mv	0.89	N/mv	0.40	lb/mv	1.78	N/mv
Fz Sensitivity	0.20	lb/mv	0.89	N/mv	0.40	lb/mv	1.78	N/mv	0.80	lb/mv	3.56	N/mv
Mx Sensitivity	2.36	lb-in/mv	0.27	N-m/mv	4.72	lb-in/mv	0.53	N-m/mv	9.45	lb-in/mv	1.07	N-m/mv
My Sensitivity	1.58	lb-in/mv	0.18	N-m/mv	3.15	lb-in/mv	0.36	N-m/mv	6.30	lb-in/mv	0.71	N-m/mv
Mz Sensitivity	1.18	lb-in/mv	0.13	N-m/mv	2.36	lb-in/mv	0.27	N-m/mv	4.72	lb-in/mv	0.53	N-m/mv
Crosstalk Fx -- Fy	0	% (**)	0	% (**)	0	% (**)	0	% (**)	0	% (**)	0	% (**)
Crosstalk Fx, Fy -- Fz	0	% (**)	0	% (**)	0	% (**)	0	% (**)	0	% (**)	0	% (**)
Crosstalk Fz -- Fx, Fy	0	% (**)	0	% (**)	0	% (**)	0	% (**)	0	% (**)	0	% (**)
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
Center of Pressure Error - CoPx, CoPy	+/- 0.04	in	+/- 1.0	mm	+/- 0.04	in	+/- 1.0	mm	+/- 0.04	in	+/- 1.0	mm

(*) Load Capacity is customizable, (**) Crosstalk is internally corrected

The **tops** are composed of **aluminum** and a **honeycomb structure** making a lightweight plate.

The 4060-10 **handles high impact forces** at a **reasonable cost**.

Bertec force plates have **no Crosstalk**, which results in **true readings**

All Bertec plates have **excellent Resolution**.

The 4060-10 model has **higher Natural Frequency** than the 4060-08 series.