# Force Plate FP4060-10

Product Details and Specifications

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.
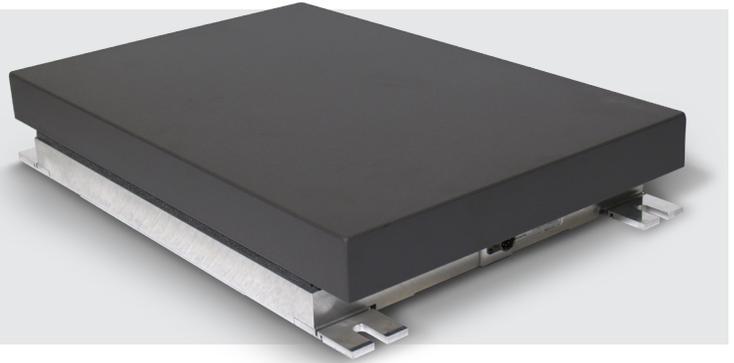
Design

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 four 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 digital data acquisition software.

Unique Features

> Superb resolution with 0% cross-talk -- best on the market

> Documented, superior accuracy, with no drift

> Both top-mount and foot-mount options available

> Available in a standard load range of 5,000 N, 10,000 N and other custom load ranges

> No signal interference from outside sources with 100% digital encoding

> Strongest industry warranty -- 7 years on hardware and electronics!

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.

Model Designation	FP4060-10-1000	FP4060-10-2000	FP4060-10-4000
Width, mm (in)	400 (15.75)	400 (15.75)	400 (15.75)
Length, mm (in)	600 (23.62)	600 (23.62)	600 (23.62)
Height, mm (in)	100 (3.94)	100 (3.94)	100 (3.94)
Mass, kg (lb)	30 (66)	30 (66)	30 (66)
Max. Load Fz, N (lb)	5,000 (1,100)	10,000 (2,200)	20,000 (4,400)
Max Load Fx, Fy, N (lb)	2,500 (550)	5,000 (1,100)	10,000 (2,200)
Max. Load Mx, N·m (in·lb)	1,500 (13,300)	3,000 (26,600)	6,000 (53,200)
Max. Load My, N·m (in·lb)	1,000 (8,900)	2,000 (17,800)	4,000 (35,600)
Max. Load Mz, N·m (in·lb)	750 (6,600)	1,500 (13,200)	3,000 (26,400)
Natural Frequency Fz (Hz)	430	430	430
Natural Frequency Fx, Fy (Hz)	580	580	580
Static Resolution* Fz, N (lb)	±0.5 (0.11)	±1 (0.22)	±2 (0.44)
Resolution** Fz, N/LSB (lb/LSB)	0.09 (0.02)	0.19 (0.04)	0.37 (0.08)
Linearity, %FSO†	0.2	0.2	0.2

* *Static Resolution is the peak-to-peak noise amplitude of the static signal.*

** *Resolution is given in terms of the sensitivity of the internal digitization and indicates the amount of signal produced (in N or lb) per LSB (least significant bit) of digitized signal.*

† *FSO : Full Scale Output*

Mounting Locations, mm (in)

Foot Mount ‡ :
A = 24 (0.94), B = 29 (1.13)
C = 552 (21.74), D = 343 (13.50)

Top Mount ‡ :
A = 110 (4.33), B = 67 (2.64)
C = 380 (14.97), D = 266 (10.47)
L = 600 (23.62), W = 400 (15.75)

‡ Foot Mount version require four M8x1.25 bolts and flat washers if they are used with a Bertec Mounting Plate. For the Top Mounting option four spring loaded M8 bolts are an integral part of the force plate.

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