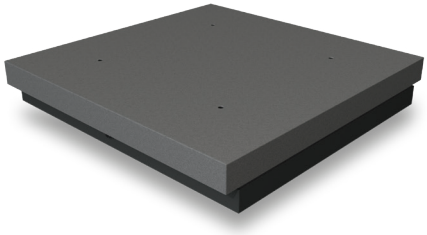
Force Plate FP9090-15-TM
Product Details and Specifications

Bertec's FP9090-15-TM model is widely used for analysis of gait, balance, jump, running and many other movements. Strain gage technology, state-of-the-art electronics, innovative mechanical design, and quality manufacturing have created superior force plates suitable for a variety of applications.



Design

Each force plate consists of precision-engineered, strain gage 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, analog, or digital and analog in one. This system allows the use of long output cables (up to 100m) 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). Digital acquire is offered to enable quick data collection. Bertec offers an SDK solution for researchers who want to develop and use their own software.

Unique Features

- 1000 Hz sampling frequency
- Superb resolution with minimized crosstalk
- Documented, superior accuracy, with minimal drift
- Top-mount
- Available in load ranges of 5,000 N, 10,000 N, and 20,000 N
- No signal interference from out-side sources with 100% digital encoding
- Strongest industry warranty: seven years on hardware and electronics!

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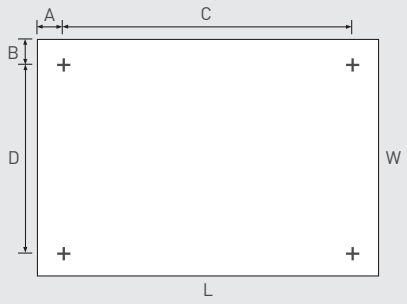
Model Designation -4000 models are available upon inquiry	**FP9090-15-TM-1000**	**FP9090-15-TM-2000**
Width, mm (in)	900 (35.44)	900 (35.44)
Length, mm (in)	900 (35.44)	900 (35.44)
Height, mm (in)	150 (5.9)	150 (5.9)
Mass, kg (lb)	65 (143)	65 (143)
Max. Load Fz, N (lb)	5,000 (1,100)	10,000 (2,200)
Max Load Fx, Fy, N (lb)	2,500 (550)	5,000 (1,100)
Max. Load Mx, N·m (in·lb)	2,250 (19,900)	4,500 (39,800)
Max. Load My, N·m (in·lb)	2,250 (19,900)	4,500 (39,800)
Max. Load Mz, N·m (in·lb)	1,125 (9,950)	2,250 (19,900)
Natural Frequency Fx, Hz	230	230
Natural Frequency Fy, Hz	210	210
Natural Frequency Fz, Hz	360	360
Static Resolution* Fz, N	± .4	± .4
Resolution** Fz, N/LSB	0.2	0.4
Linearity, %FSO†	0.2	0.2
Fz Accuracy Error, %AL††	0.2	0.2
COP Accuracy Error, mm	0.8	0.8
Shear Force Accuracy Error, %AL††	0.2	0.2
Shear Crosstalk, %AL††	0.1	0.1
Vertical Crosstalk, %AL††	0.1	0.1

* 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

†† AL: Applied Load; for Shear Crosstalk the Applied Load is an Fz load, for Vertical Crosstalk the Applied Load is a shear load



Mounting Locations, mm (in)

Top Mount ‡:
A = 203 (8.00), B = 203 (8.00)
C = 494 (19.44), D = 494 (19.44)
L = 900 (35.44), W = 900 (35.44)

‡ Thread for mounting locations is M8-1.25.