

Force Plates / BMS464508

BMS464508

OPTIMA™ – Biomechanics Measurement Series (BMS)

Previous MN: OR6-OP



The BMS464508 (previously OR6-7) is an industry “standard size” force plate for adult and pediatric gait studies and is used in hundreds of labs around the world. Popularized for gait analysis, this multi-axis mounted force platform can be used for most anything from adult or adolescent human balance testing, to canine gait applications.

High sensitivity, low crosstalk, excellent repeatability and long-term stability make this platform an ideal candidate for research and clinical studies. For more flexibility with your installation, ask about AMTI's [Modular Rail System](#).

Standard or High Frequency

The BMS464508 is available in either a Standard Frequency or High Frequency model. High Frequency models can be beneficial for highly dynamic applications or scenarios with increased environmental vibrations.

System Information

All of AMTI's Optima series force platform systems ship standard with the force plate, an Optima amplifier, a 30-foot force plate-to-amplifier cable, and the necessary mounting equipment.



OPT-SC (Optima) Amplifier

Top-of-the-line signal conditioner
Pairs exclusively with Optima force plates
USB 2.0 digital or analog outputs

Force Plate Cable

30 ft. standard length
Connects amplifier to force plate

Multi-Axis Mounted Force Platform | Standard Size Force Plate | BMS464508

Data transfer and power supply



Mounting Kit



1 pair of mounting rails
Epoxy and dispenser
Installation fixtures and instructions



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Specifications & Details

Review detailed force plate specifications and model versions below.

General Specifications

Dimensions	464 x 508 x 82.5 mm
Temperature Range	-18°C to 50°C
Channels	Fx, Fy, Fz, Mx, My, Mz
Excitation	10 V maximum
Fx, Fy, Fz Hysteresis	±0.2% full scale output
COP Accuracy*	Less than 0.5 mm*
Mounting Hardware	Recommended
Sensing Elements	Strain gage bridge
Amplifier	Included (OPT-SC)
Outputs	Digital (USB) or Analog
Multi-Axis Mounted Force Platform Standard Size Force Plate BMS464508	
Crosstalk*	±0.2% of applied load*
Measurement Accuracy*	±0.5% of applied load*



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*Typical Value: Minimum applied load of 50 lb

Capacities and Sensitivities

The table below provides a comparison of the available capacity models for this force plate

Units

Model Name Suffix (Fz, lb)	1000	2000	4000
Fx, Fy Capacity (N)	2225	4450	8900
Fz Capacity (N)	4450	8900	17800
Mx Capacity (Nm)	1130	2260	4520
My Capacity (Nm)	1130	2260	4520
Mz Capacity (Nm)	570	1130	2260
Fx, Fy Sensitivity ($\mu\text{V/V-N}$)	0.67	0.34	0.17
Fz Sensitivity ($\mu\text{V/V-N}$)	0.17	0.08	0.04
Mx Sensitivity ($\mu\text{V/V-Nm}$)	1.59	0.80	0.40
My Sensitivity ($\mu\text{V/V-Nm}$)	1.59	0.80	0.40
Mz Sensitivity ($\mu\text{V/V-Nm}$)	3.36	1.68	0.84

Frequency Models

This force plate is available in a standard and High Frequency (HF) model.

Units



Model Name Suffix (Fz, lb)	1000		2000		4000
Frequency Version	Standard	High (HF)	Standard	High (HF)	Standard
Fx, Fy Natural Frequency (Hz)	280	400	360	550	
Fz Natural Frequency (Hz)	460	1000	500	1000	
Top Plate Material	Solid Aluminum	Composite	Solid Aluminum	Composite	Solid Aluminum
Weight (kg)	28	18	28	18	28

Specifications subject to change without notice.

Technical Drawings

