

HPS400600

Force Platform

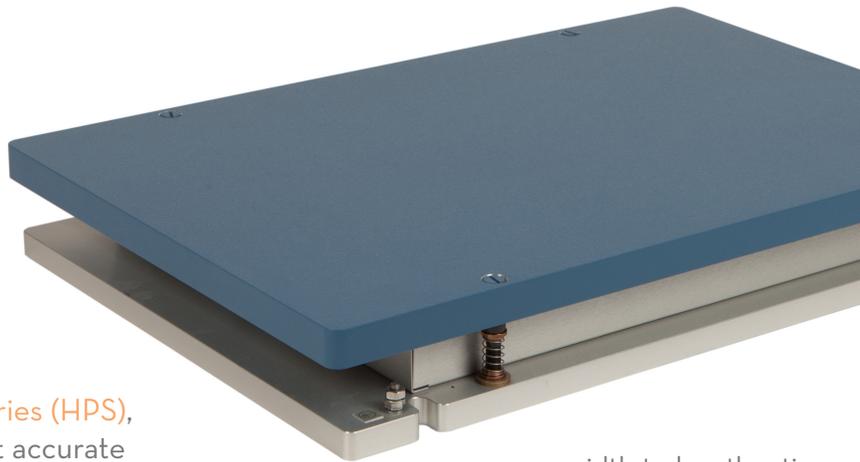
OPTIMA™ Biomechanics Measurement Series (BMS)

System Components:

Force plate, Optima external amplifier, 9m (30ft) transducer cable, and mounting kit

As part of AMTI's **Optima High Performance Series (HPS)**, the HPS400600 is the most advanced and most accurate force platform system available. Period.

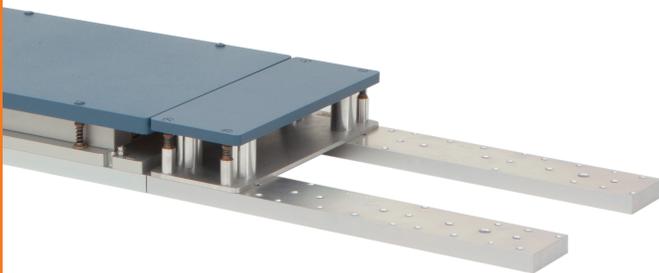
This versatile 40 x 60 cm force plate supports a wide range of activities, including gait, balance, and sports applications. It offers an ideal 2:3 width-to-length ratio, well-suited to accommodate various stride lengths in human gait analysis.



2:3 width-to-length ratio,
ideal for human gait analysis



Features through-top
mounting access



Modular Rail System (MRS) and Filler Plates
enable easy reconfiguration of force plates
and future lab growth

HPS400600 SPECIFICATIONS

Dimensions (W x L x H)	400 x 600 x 82.5 mm (15.75" x 23.6" x 3.25")
Available Models	Standard or High Frequency (HF)
Weight (Standard or HF)	Standard Model: 28 kg (62 lb) High Frequency: 18 kg (40 lb)
Sensing Elements	Strain gauge bridge
Channels	Fx, Fy, Fz, Mx, My, Mz
Top Plate Material	Aluminum or Composite (HF)
Temperature Range	-17 to 52°C (0°F to 125°F)
Analog Output	6 Channels
Digital Output	USB (with OPTIMA amplifier)
Crosstalk*	±0.05% of applied load
Fx, Fy, Fz Hysteresis	< 0.5% full scale output
COP Accuracy*	< 0.2 mm (0.008 in.)
Measurement Accuracy*	±0.1% of applied load

*Typical Value: Minimum applied load 50 lb.
Site and installation requirements available upon request.



The only force platform systems
that conform to the ASTM F3109-23
technological standard for performance
verification of multi-axis force plates.



HPS400600

Standard Model

AVAILABLE MODELS		
MODEL	HPS400600-1K	HPS400600-2K
Fz Capacity	4450 N (1000 lbs)	8900 N (2000 lbs)
Fx, Fy Capacity	2225 N	4450 N
Mx Capacity	1330 Nm	2670 Nm
My Capacity	890 Nm	1790 Nm
Mz Capacity	670 Nm	1330 Nm
Fx, Fy Sensitivity	0.67 $\mu\text{V}/\text{VN}$	0.34 $\mu\text{V}/\text{VN}$
Fz Sensitivity	0.17 $\mu\text{V}/\text{VN}$	0.08 $\mu\text{V}/\text{VN}$
Mx Sensitivity	1.40 $\mu\text{V}/\text{VNm}$	0.70 $\mu\text{V}/\text{VNm}$
My Sensitivity	1.78 $\mu\text{V}/\text{VNm}$	0.89 $\mu\text{V}/\text{VNm}$
Mz Sensitivity	3.27 $\mu\text{V}/\text{VNm}$	1.63 $\mu\text{V}/\text{VNm}$
Fx, Fy Natural Frequency*	310 Hz	370 Hz
Fz Natural Frequency*	370 Hz	380 Hz

*Natural Frequency specs shown for Standard Model (Solid Top). HF Model specs on following page.
See Specifications & Details on website for complete English Units.



Heart of the OPTIMA system.

With its advanced features, the OPTIMA (OPT-SC) signal conditioner allows for simple setup, increased accuracy, and the option for direct digital integration.



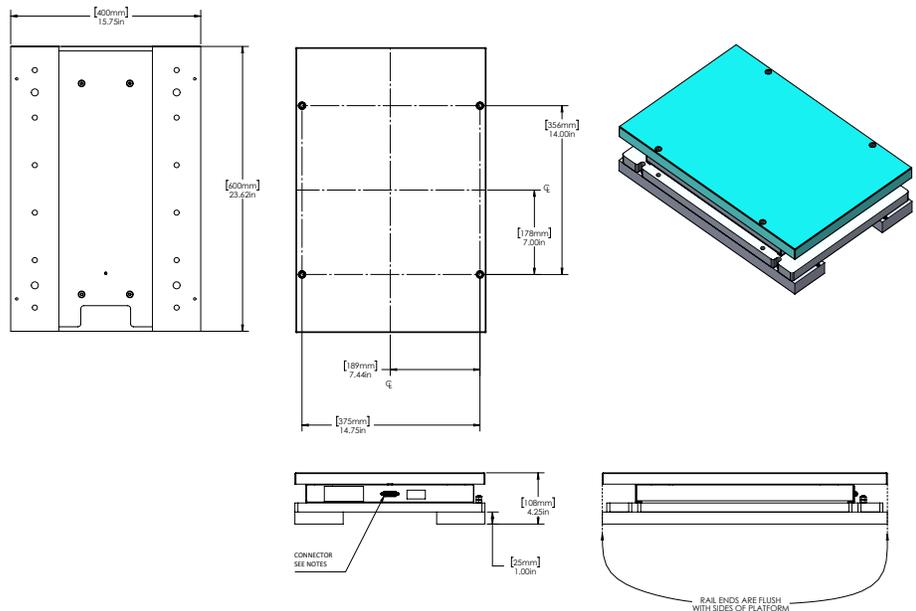
176 Waltham Street, Watertown, MA 02472 USA

+1-617-926-6700 | sales@amtmail.com | www.amti.biz



ISO 9001:2015 certified
ISO 13485:2016 certified
ISO 17025:2017 accredited

©2025 Specifications subject to change without notice.
OPTIMA BMS/HPS SPEC SHEETS Rev 1



HPS400600HF

High Frequency Model

AVAILABLE MODELS		
MODEL	HPS400600HF-1K	HPS400600HF-2K
Fz Capacity	4450 N (1000 lbs)	8900 N (2000 lbs)
Fx, Fy Capacity	2225 N	4450 N
Mx Capacity	1330 Nm	2670 Nm
My Capacity	890 Nm	1790 Nm
Mz Capacity	670 Nm	1330 Nm
Fx, Fy Sensitivity	0.67 $\mu\text{V}/\text{VN}$	0.34 $\mu\text{V}/\text{VN}$
Fz Sensitivity	0.17 $\mu\text{V}/\text{VN}$	0.08 $\mu\text{V}/\text{VN}$
Mx Sensitivity	1.40 $\mu\text{V}/\text{VNm}$	0.70 $\mu\text{V}/\text{VNm}$
My Sensitivity	1.78 $\mu\text{V}/\text{VNm}$	0.89 $\mu\text{V}/\text{VNm}$
Mz Sensitivity	3.27 $\mu\text{V}/\text{VNm}$	1.63 $\mu\text{V}/\text{VNm}$
Fx, Fy Natural Frequency*	480 Hz	570 Hz
Fz Natural Frequency*	720 Hz	730 Hz

*Natural Frequency specifications shown for High Frequency (HF) Model (Composite Top).
See Specifications & Details on website for complete English Units.



Heart of the OPTIMA system.

With its advanced features, the OPTIMA (OPT-SC) signal conditioner allows for simple setup, increased accuracy, and the option for direct digital integration.



176 Waltham Street, Watertown, MA 02472 USA

+1-617-926-6700 | sales@amtmail.com | www.amti.biz



ISO 9001:2015 certified
ISO 13485:2016 certified
ISO 17025:2017 accredited

©2025 Specifications subject to change without notice.
OPTIMA BMS/HPS SPEC SHEETS Rev 1

