

HE6X6

Low Load Miniature Force Platform

DESCRIPTION

AMTI's HE6X6 System is a compact solution for quantifying very low loads. The HE6X6 is accurate, economical and very easy to use when combined with AMTI's powerful NetForce software package.

The platform measures the three forces (F_x , F_y , F_z) and three moments (M_x , M_y , M_z). The one piece sensor element provides extremely high overload protection, typically greater the 100 x capacity.

Minimal Components – Only the platform, PSU and a PC are required to collect data



SOFTWARE

AMTI's NetForce software is supplied with the HE6X6. NetForce acquires digital data from the platform at 50,100 or 200 data sets per second. NetForce provides a simple user interface and extensive data base function for easy trial set-up and data acquisition. NetForce allows users to export raw channel data to ASC11 file for import to spreadsheet programs such as Excel and Lotus.

Outputs

Digital Output – Built in sensor electronics provide digital output, allowing the system output to be directly plugged into a RS-232 serial port, via the included interface box. ISB output is also available

Analogue Output – Eight channels of ± 10 volt range are provided corresponding to F_{z1} , F_{z2} , F_{z3} , F_{z4} , F_{x1} , F_{x2} , F_{y1} and F_{y2} . They can be summed in the software to provide F_x , F_y , F_z , M_x , M_y and M_z

No Mounting Necessary

Top and bottom mounting holes are provided, but are not needed for many applications.

- Four top surface 4-40 threaded holes on 5.25" (133.35mm) centres
- Four bottom mount surface 8-32 threaded holes on 5.25" (133.35mm) centres

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Specifications

HE6X6 SPECIFICATIONS	HE6X6-1*	HE6X6-5*	HE6X6-10*	HE6X6-16*	HE6X6-20*
Fz, Capacity, lb, (N)	1 (4.4)	5 (24)	10 (44)	16 (70)	20 (89)
Fx, Fy Capacity, lb, (N)	0.5 (2.2)	2.5 (12)	5.5 (24)	8 (36)	10 (44)
Mz Capacity, lb/in (N/m)	1 (0.113)	5 (1.1)	11 (1.2)	18 (2)	20 (2.3)
Mx, My Capacity lb.in (N/m)	2 (0.226)	10 (0.565)	22 (2.5)	36 (4)	40 (4.5)
Dimensions, in (mm)	1.16 x 6.00 x 6.00 (29.5 x 152 x 152)				
Weight, lb (kg)	1.6 (0.75)				
Data Rate	Software selectable 50, 100 or 200 data sets per second. 12bit resolution				
Interface	RS-232 serial port, user selectable 57.6 or 115.2K Baud. Usable up to 400 data sets per second at 230K Baud with USB converter				
External Sync Signal	Active =low volts, switch to ground (0-9v). Inactive = high volts, open circuit with internal pull up resistor. Protected to +/- 18v. Min 1kΩ				
Data Transmission	Proprietary binary Format				
Minimum Computer Requirements	Win 98, Pentium 450Hz processor, 64mb RAM & RS-232 serial port				
Power Supply	9VDC, 110 or 220V input power supply included				
Filters	Fixed 200Hz 2 nd order analogue filter on each sensor channel				

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