

M=Wall load cells can be arranged in nearly any way to provide the desired area for standard tests and specific test setups enabling the measurement of multiaxial forces and moments during impact.

- Measurement across five axes – F_x , F_y , F_z , M_y , M_z
- Wide measuring range – eligible 400 kN or 550 kN
- System integrated data acquisition
- Excellent linearity over total measuring range
- Flexibility - various crash barriers can be instrumented with M=WALL load cells



TECHNICAL SPECIFICATIONS

M=WALL load cell	400 kN	550 kN
Coordinate System	According to SAE J1733	
Working principle	Strain gauge, full bridge	
Measuring range	Fx: 0...-400 kN Fy, Fz: -150...+150 kN My, Mz: -12.5...+12.5 kNm	Fx: 0...-550 kN Fy, Fz: -150...+150 kN My, Mz: -17...+17 kNm
Non-linearity	< 1 %	
Maximum Noise Floor	< 0.1 kN	
Channel crosstalk	< 2.5 %	< 1 %
Hysteresis	< 2.5 %	< 1 %
Overload without damage (Fx, Fy, Fz, centric load)	1.25 x F.S.	Fx: 2.0 x F.S. Fy, Fz: 1.5 x F.S.
Dimensions (L x W x H)	125 mm x 125 mm x 92 mm	
Weight	7.5 kg	8.5 kg
Operating Temperature	0...50 °C	
Protection (IEC)	IP54	
Conformity	SAE J211 / ISO 6487	
M=WALL load cell integrated data acquisition system		
Offset adjustment	Full range sensor input voltage, 8 bit	
Trigger	M=BUS system trigger via gateway	
Antialiasing filter	2.4 kHz, Bessel 6-pole	
Sample rate	20 kHz	

Resolution	16 bit
Max. recording time	17 s per channel
Shunt check	Yes
Battery	Lithium-Polymer
Data storage time	2 weeks

Scope of supply

- M=WALL load cell
- Integrated data acquisition system
- Calibration certificate for load cell and system integrated M=BUS data acquisition system

Required Equipment

- M=BUS Ethernet Gateway
- Customized Back Plate
- CrashSoft®3 M=WALL

Options

- Control cabinet
- Wooden cover plates
- CrashSoft®3 DAS Control