

LSM-E-15KNS1

Neck 6-component Force Transducer



Neck 6-component force transducer for dummy neck upper parts

- Conforms to Federal Motor Vehicle Safety Standard 208 as a sensor to acquire data of injury criterion.

Mounted to the neck of a crash dummy such as Hybrid III, the LSM-E-5KNS1 simultaneously detects 6 force components acting to the neck by impact-initiated inertia force generating in the head.

Specifications

Performance

Rated Capacity	Fx: ± 10 kN, shearing force in front-rear direction
	Fy: ± 10 kN, shearing force in left-right direction
	Fz: ± 15 kN, axial force in up-down direction
	Mx: ± 300 N·m, moment in left-right direction
	My: ± 300 N·m, moment in front-rear direction
	Mz: ± 300 N·m, angular moment
Nonlinearity	Within $\pm 1\%$ RO
Hysteresis	Within $\pm 1\%$ RO
Rated Output	Approx. 1.7 mV/V for Fx, Fy, Mz
	Approx. 0.6 mV/V for Fz
	Approx. 1.2 mV/V for Mx, My

Environmental Characteristics

Safe Temperature	-20 to 70°C
Compensated Temperature	0 to 40°C
Temperature Effect on Zero	Within $\pm 0.05\%$ RO/°C
Temperature Effect on Output	Within $\pm 0.05\%$ /°C

Electrical Characteristics

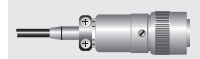
Safe Excitation	6 V AC or DC
Recommended Excitation	1 to 4 V AC or DC
Input Resistance	120 Ω $\pm 5\%$
Output Resistance	120 Ω $\pm 5\%$
Cable	4-conductor (0.05 mm ²) vinyl shielded cable, 2.5 mm diameter by 7 m long, terminated with connector plugs at both ends (R05-PB5M to amplifier side) (Shield wire is not connected to the case.)

Mechanical Properties

Safe Overloads	120%
Interference	$\pm 5\%$ RO



Connector plug
R05-PB5M



LSM-E-15KNS1
Recommended
products for
combination



It requires change of the conversion cable or plug.