# 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 (FMVSS208) as a sensor to acquire data of injury criterion.

Mounted to the neck of a crash dummy such as Hybrid Ⅲ, the LSM-E-15KNS1 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 ±1% RO |
| Hysteresis | Within ±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 ±0.05% RO/°C |
| Temperature Effect on Output | Within ±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 ±5% |
| Output Resistance | 120 Ω ±5% |
| Cable | 4-conductor (0.05 mm²) vinyl shielded cable, 2.5 mm diameter by 7 m long, terminated with 6 connector plugs (Measuring instrument side: R05-PB5M) (Shield wire is not connected to the case.) |

#### Mechanical Properties

| | |
|---|---|
| Safe Overloads | 120% |
| Interference | Within ±5% RO |

Connector plug
R05-PB5M



LSM-E-15KNS1 Recommended products for combination


Data Acquisition System for Crash Test DIS-7000 Series
→ 5-34


Data Logger for Crash Test DIS-5210A
→ 5-43

It requires change of the conversion cable or plug.