

## 10293

### PINCH FORCE SENSOR

Model 10293, Window/Sunroof Pinch Force Sensor Kit, is used to measure the pinch force of automatically closing windows, doors, and sunroof systems under defined spring rates and displacements. The sensor features five interchangeable spring packs, adjustable measurement height, and a hand held peak force display.

The user will configure the sensor spring rate by screwing in the spring packs and adjusting the window bracket to the desired window opening. In operation, the sensor is clipped onto the window and the closer actuated. The companion instrument records the peak force developed to verify compliance to the specifications.

The sensor can also be mated to more sophisticated instrumentation for development applications.

The sensor was designed to help automakers and OEM's comply with FMVSS 118 (Federal Motor Vehicle Safety Standard section 571, title 49) and European standards.

#### SPECIFICATIONS

- Output (at 200N Max Load) ..... 2mV/V nominal
- Non-linearity (%F.S.) ..... 0.1
- Hysteresis (%F.S.) ..... 0.1
- Overload Capacity ..... 1,000N
- Compensated Temperature Range (°F) ..... 70 to +170
- Usuable Temperature Range (°F) ..... -65 to +250
- Spring Rates and Maximum Load:

| Spring Rate | Max Load |
|-------------|----------|
| 2 N/mm      | 40 N     |
| 5 N/mm      | 85 N     |
| 10 N/mm     | 125 N    |
| 20 N/mm     | 200 N    |
| 65 N/mm     | 200 N    |

#### SENSOR KIT INCLUDES THE FOLLOWING:

- 5 spring packs (2, 5, 10, 20, 65 N/mm)
- 200 mm extension bracket
- Sensor attachment assembly
- Signal cable

#### OPTIONAL DISPLAY UNITS INCLUDE:

- PMAC 2000, Model 90222
- PTI, peak track instrument, Model 90323

#### OPTIONS:

- 300N Full-scale capacity
- 100mm and 150mm Extension brackets
- Custom spring rates
- **90411 Power Sliding Door Assembly NEW!**



Standard unit on window



Sensor shown with 200mm Extension



Sensor shown with 90411 Assembly

