

## "SK" / Shift-knob force sensor

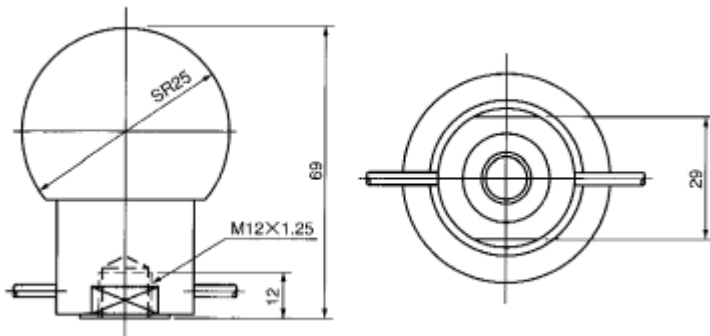


### Features

- Inserting a horizontal 2-components sensing device into the car's shifting knob of 50 mm in diameter.
- Less effects to driver's feeling during his shifting knob operation because of lower height of the knob available.
- Less crosstalk (within 1%) between respective components.
- Excellent linearity.
- Photo: Shift-knob sensor of 3-Component with a displacement sensor wearing arm.

Related products : [Pedal-force sensor](#) / [Shift-knob sensor of 6-Component](#)

### Appearance Dimensions



Model and Capacity / Dimension / etc. (unit : mm)				
Model	Fx	Fy	Weight	
SK-100N	100N	100N	200g	
SK-200N	200N	200N	200g	
SK-500N	500N	500N	200g	

- \* The weight indicated in the tables of this data sheet does not include the weight of cables.
- \* Can offer, upon special request raised, force sensors for use in one and 3-component shifting knobs.
- \* Can produce an integrating shifting knob force meter (\*1) upon special request raised.
- \*1 **Shifting knob force meter:**

Integrating force signals sent from the shifting knob force sensor within the designated lapse of time (level from start of

operation and to end of operation) for getting integrated values of force. With the help of integrated values of force, you can grasp quantitatively the evaluation of operation feeling of the shifting knob with an additional help from the value of peak load.

#### ■ Specifications

Safe Overload	150%RC
Rated Output	1mV/V $\pm$ 20%
Nonlinearity	0.1%RO
Hysteresis	0.1%RO
Repeatability	0.05%RO
Excitation Voltage	10V (or less)
Safe Excitation Voltage	15V (or less)
Input Resistance	410 $\Omega$
Output Resistance	350 $\Omega$
Compensated Temp.Range	-10 to 40°C
Safe Temp.Range	-20 to 60°C
Temp.Effect on Zero	0.02%RO/°C
Temp.Effect on Output	0.02%/°C
crosstalk	1%RO以内 (Between respective components)
Cable	$\Phi$ 3mm-4wire shielded cable, length : 2m

Load leaving off coefficient 0.2%/cm (Maximum leaving off range to be within 2.5cm)

- \* Can meet the requirements for changing the length of cables and for mounting the connectors (NDIS Standard) on the cables.