



# HIGH STIFFNESS / HIGH RESPONSE TYPE LOAD CELL



Flexible cable

Compatible with vacuum

**"Hardly breakable!" - Load cell with an innovative concept!**  
**A strain gauge sensor with phenomenal stiffness and responsiveness.**

### Robust

Amazing stiffness is achieved with a strain gauge!  
Suitable for applications requiring extra-low deformation during force measurements, such as measuring of grinding or machining forces.

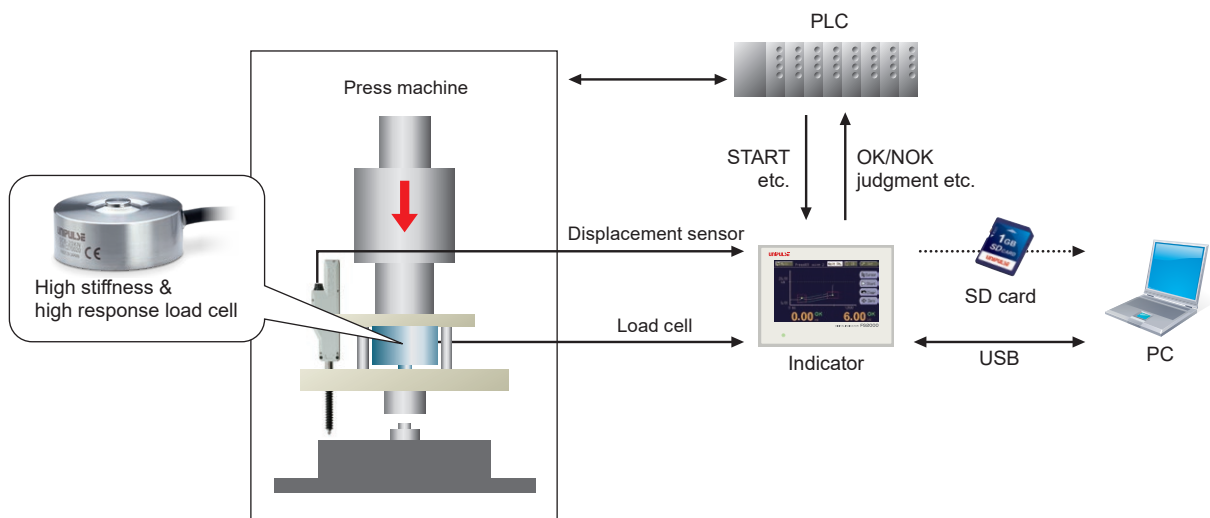
### High responsiveness

High resonant frequency is possible with strain gauge type sensor!  
It can be used to monitor a high-speed phenomenon.

### Safe overload of 500%

Overload up to 500% of the rated capacity does not affect the accuracy.  
Stable measurement can be performed for a long term even in sever loading conditions (e.g. press fitting machines).

### Example of use

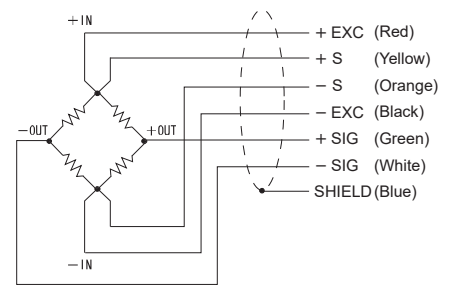


## Specifications

Model	SCB-□N									
	100 N	200 N	500 N	1 kN	2 kN	5 kN	10 kN	20 kN	50 kN	100 kN
Rated capacity	□ : Rated capacity									
Rated output	0.4 mV/V±0.2%*1									
Safe overload	500% R.C.									
Zero balance	±1% R.O.					±0.3% R.O.				
Non-linearity	0.2 or less R.O.									
Hysteresis	0.2 or less R.O.									
Repeatability	0.1 or less R.O.									
Compensated temperature range	- 10 to +60°C									
Safe temperature range	- 20 to +70°C									
Temperature effect on zero	0.015% R.O./°C or below									
Temperature effect on span	0.01% R.O./°C or below									
Input resistance	Approx. 700 Ω					Approx. 1000 Ω				
Output resistance	Approx. 700 Ω					Approx. 1000 Ω				
Recommended excitation voltage	5 V					10 V				
Maximum excitation voltage	7.5 V					15 V				
Insulation resistance (DC 50 V)	1000 MΩ or more									
Cable	φ 2.5 6-conductor flexible cable 3 m Cable end: 7 wires			φ 5 6-conductor flexible cable 3 m Cable end: 7 wires			φ 7 6-conductor flexible cable 3 m Cable end: 7 wires			
Load cell material	Stainless steel									
RoHS directives	2011/65/EU (EU)2015/863									

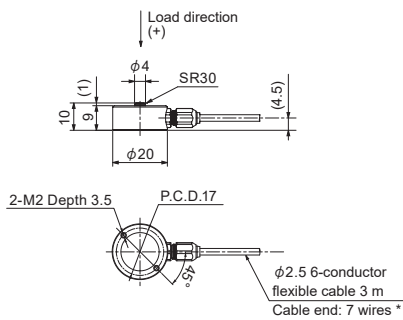
\*1 To make sure loadcell is up to specifications, refer to the flatness, surface roughness, & thickness of the base plate as described in the installation procedure.  
Contact us for the customization of vacuum compatibility.

## ● Wiring diagram

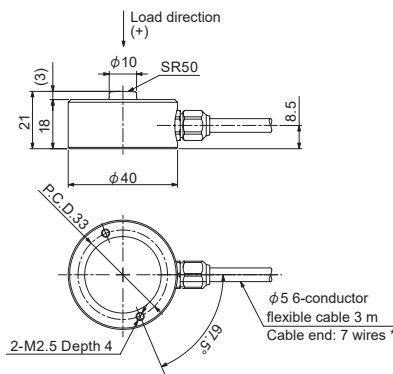


## External dimension

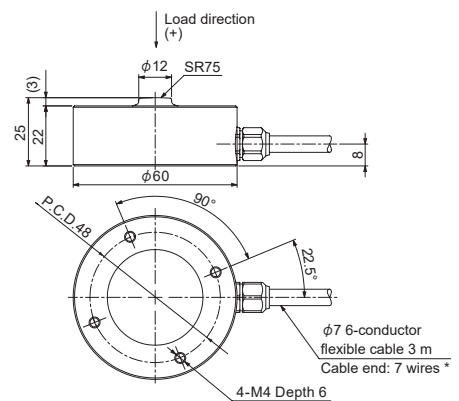
### ■ SCB-100N/200N/500N



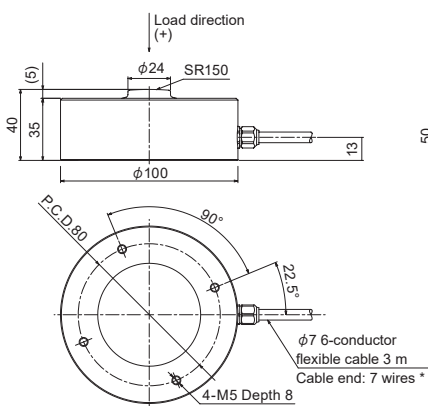
### ■ SCB-1KN/2KN/5KN



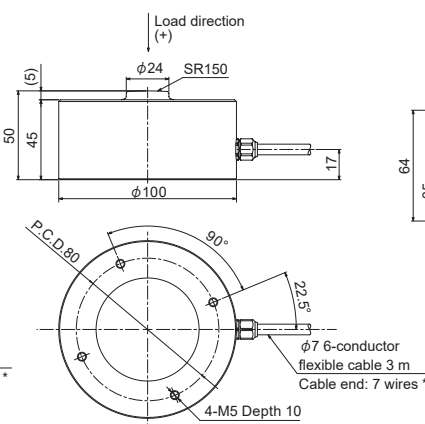
### ■ SCB-10KN/20KN



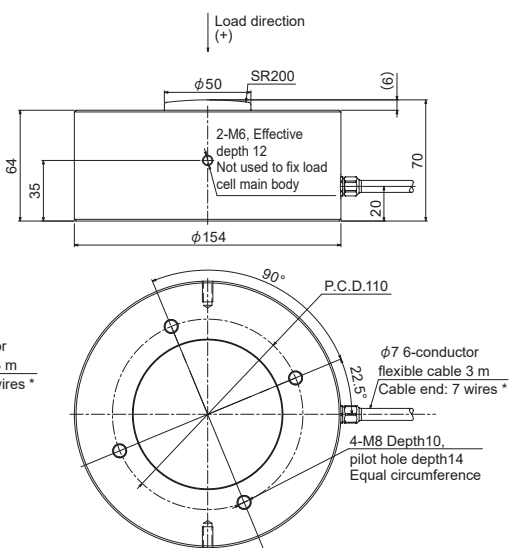
### ■ SCB-50KN



### ■ SCB-100KN



### ■ SCB-200KN



Model	Deflection at rated capacity	Natural frequency	Weight
SCB-100N	0.015 mm	40 kHz	20 g
SCB-200N	0.015 mm	40 kHz	20 g
SCB-500N	0.015 mm	40 kHz	20 g
SCB-1KN	0.015 mm	26 kHz	130 g
SCB-2KN	0.020 mm	26 kHz	130 g
SCB-5KN	0.025 mm	26 kHz	130 g
SCB-10KN	0.025 mm	26 kHz	400 g
SCB-20KN	0.035 mm	26 kHz	400 g
SCB-50KN	0.065 mm	15 kHz	2.0 kg
SCB-100KN	0.100 mm	15 kHz	2.3 kg
SCB-200KN	0.100 mm	8 kHz	8.2 kg

\* Connector can be attached to the cable according to your requests. Refer to 81 pages for details.

Unit: mm