

# DSCB

## LOAD-RESISTANCE DIGITAL LOAD CELL



Detachable cable

Flexible cable

### Easy setup only connecting PC!

### Hard to break under severe load conditions!

#### High stiffness & safe overload of 500%

As deformation under load is small, DSCB can be used safely for measuring cutting or grinding force. With its 500% safe overload, DSCB can stably measure even severe load over a long period.

#### Excellent maintainability

It is unnecessary to reset the zero point and the sensitivity for the indicator and troublesome cable laying according to a replacement of DSCB. Customers can detect a sign of DSCB malfunction by recognizing the shift of the zero-point value.

#### Noise-insensitive digital output

The output complies with RS-485 and is insensitive to external noises. Thus, you can use long cables unavailable in conventional load cells and indicators.

#### Abundant functions incorporated

HI/LO limit comparison & a wide variety of hold functions are included. Digital low-pass filter and moving average filter can be adjusted by commands.

#### Connect to PC and PLC directly without dedicated indicator

By connecting to PC, draw waveforms, logging and such operations can be achieved with dedicated software (for free).

- OK/NOK & stability judgement function  
Upper/lower limit comparators (HH/ HI/ OK/ LO/ LL)
- Easy initial setting  
Export/Import of setting values

- Waveform drawing  
By real-time waveform display, visualizes load change of a load cell. Stability & upper/lower limit comparison status can be checked in one glance. Waveform data can be recorded.
- Record  
Record measured values and status (such as upper/lower limit comparison)

### USB dedicated software for DSCB

Display load variation on a load cell in real time via USB.



#### Display setting

<Normal>

Waveform can be acquired up to acquisition time after **Start** button is clicked.

Data acquisition resumes when **Stop** button is clicked.

- Continuous data recording function

Continue data recording until **Stop** button is clicked.

- USB dedicated software for DSCB

Once **Start** button is clicked, the status will turn to trigger standby. Data acquisition starts when data level passes the specified value in the specified direction.

<History>

Display past data in waveform

#### Trigger function

- Pre-trigger
- Level trigger
- Trigger slope

\* Application software can be downloaded from our official website.

The dedicated software can be run multiply, and it is possible to connect multiple DSCBs with one PC.

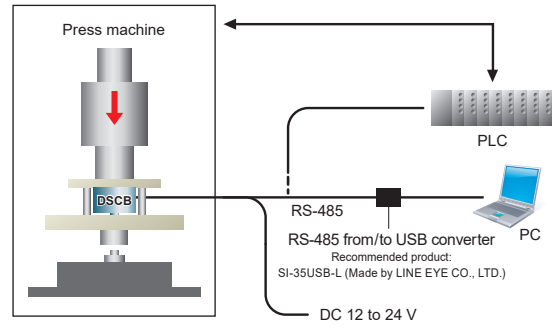
\* RS-485-USB converter is required to use the USB dedicated software for DSCB.

Recommended product: SI-35USB-L (Made by LINE EYE CO., LTD.)

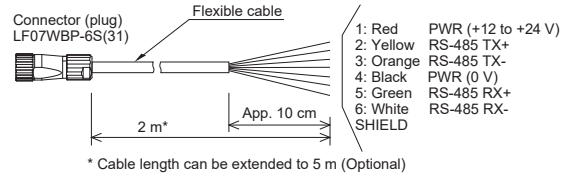
## Specifications

Model	DSCB-1KN	DSCB-2KN	DSCB-5KN	DSCB-10KN	DSCB-20KN	DSCB-50KN
Rated capacity	1 kN	2 kN	5 kN	10 kN	20 kN	50 kN
Safe overload	500% R.C.					
Non-linearity	0.1% 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					
Converter resolution	24 bit					
Load cell material	Stainless steel					
Power supply voltage	DC 12 to 24 V±15% (Insulated internally)					
Power consumption	0.7 W or less					
Digital low-pass filter	Can be set anywhere between OFF, 0.1 to 999.9 Hz					
Moving average filter	Can be set anywhere between OFF, 2 to 999 times					
Sampling rate	4800 times/sec.					
Interface	RS-485 interface (4-wire)					
Operation & setting methods	Display & configuration by command operation or through dedicated software (Free software)					
Dedicated software function	- Indicated value display, - Waveform display - Setting changes, - Data logging function					
Display digit number	5 digits (-99999 to +99999 plus decimal point)					
Other functions	- Digital zero - OK/NOK judgement (Upper and lower limit comparison: HH/ H/ OK/ LO/ LL) - Hold function (Sample, Peak, Bottom, Peak & Bottom, Average) - Calibration date / rated capacity / serial info read-out					
Cable	φ 5 6-conductor flexible cable 2 m, Cable end: 7 wires					
Optional accessories	φ 5 6-conductor flexible cable 5 m, Cable end: 7 wires					

## Example of use

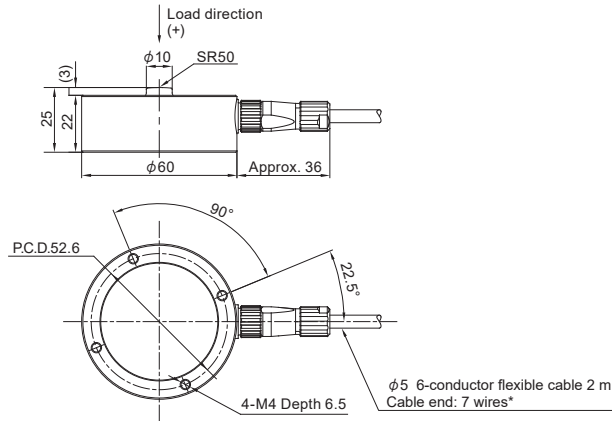


## Cable

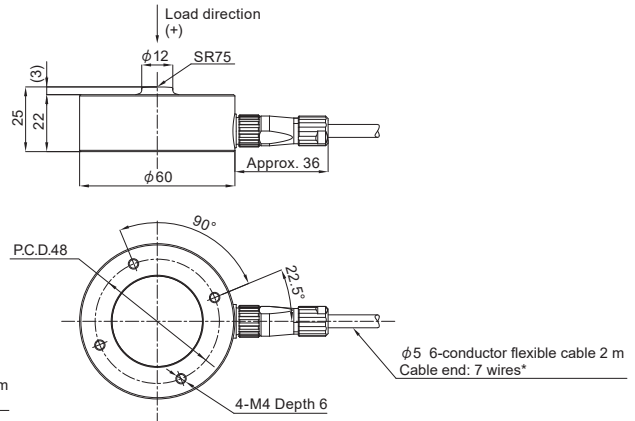


## External dimension

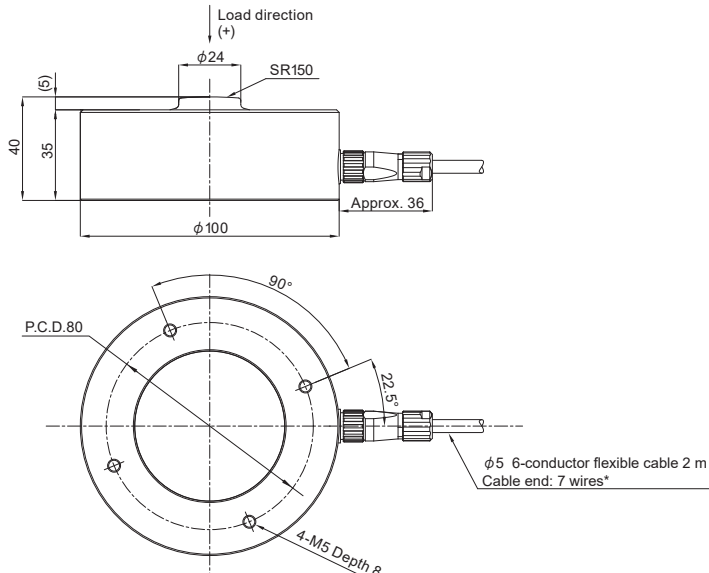
### ■ DSCB-1KN/2KN/5KN



### ■ DSCB-10KN/20KN



### ■ DSCB-50KN



\* Connector can be attached to the cable according to your requests. Refer to 84 pages for details.

Unit: mm

Model	Deflection at rated	Natural frequency	Weight
DSCB-1KN	0.010 mm	22 kHz	300 g
DSCB-2KN	0.012 mm	22 kHz	300 g
DSCB-5KN	0.021 mm	21 kHz	400 g
DSCB-10KN	0.025 mm	24 kHz	400 g
DSCB-20KN	0.035 mm	26 kHz	400 g
DSCB-50KN	0.065 mm	15 kHz	2.0 kg