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.

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.

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.

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.

- O Continuous data recording function
 - Continue data recording until Stop button is clicked.
- O 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>

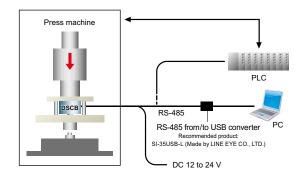
Display past data in waveform

- 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.)

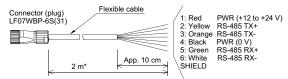
Specifications

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)					
	- Indicated value display, - Waveform display					
Dedicated software function	- 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/ HI/ 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					
CE marking certification	2011/65/EU+(EU)2015/863, 2014/30/EU(EN61326-1)					

Example of use



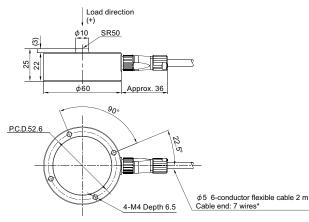
Cable



* Cable length can be extended to 5 m (Optional)

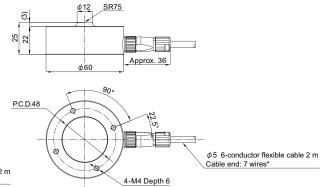
External dimension

■ DSCB-1KN/2KN/5KN

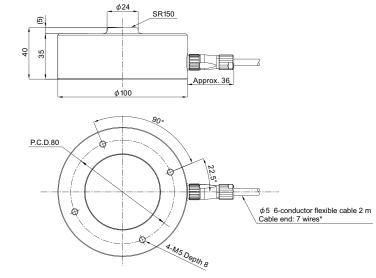


■ DSCB-10KN/20KN

Load direction



■ DSCB-50KN



Load direction

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



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