DSCB

LOAD-RESISTANCE DIGITAL LOAD CELL



RoHS2 **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

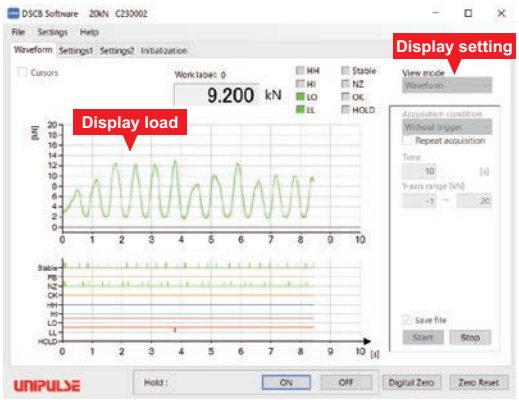
HI/LO limit comparison & a wide variety of hold functions are included.
Digital low-pass filter and moving average filter can be adjusted by commands.

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 judgment 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

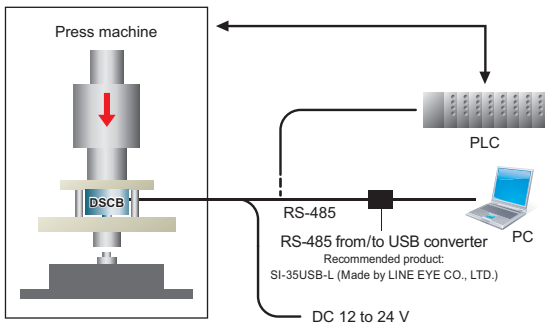
■ Trigger function
- Pre-trigger - Level trigger - Trigger slope

* 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.)
* 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.

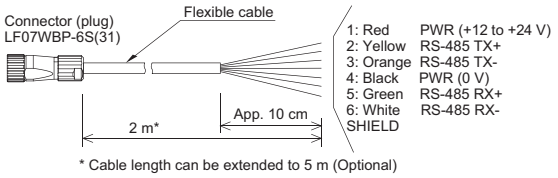
Specifications

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℃					
Safe temperature range	-20 to +70℃					
Temperature effect on zero	0.015% R.O/℃ or below					
Temperature effect on span	0.01% R.O/℃ 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 judgment (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	ϕ5 6-conductor flexible cable 2 m, Cable end: 7 wires					
Optional accessories	ϕ5 6-conductor flexible cable 5 m, Cable end: 7 wires					
RoHS directives	2011/65/EU (EU)2015/863					

Example of use



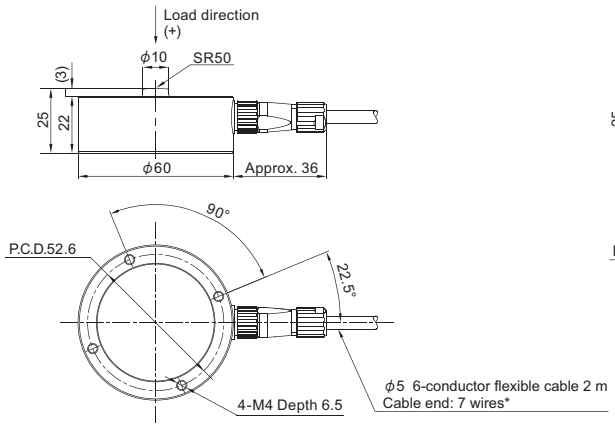
Cable



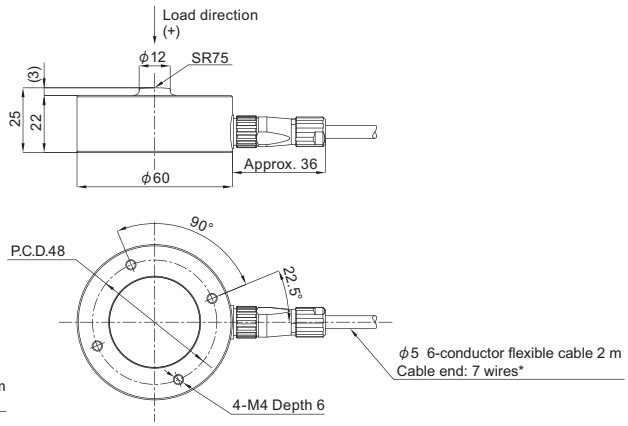
* Cable length can be extended to 5 m (Optional)

External dimension

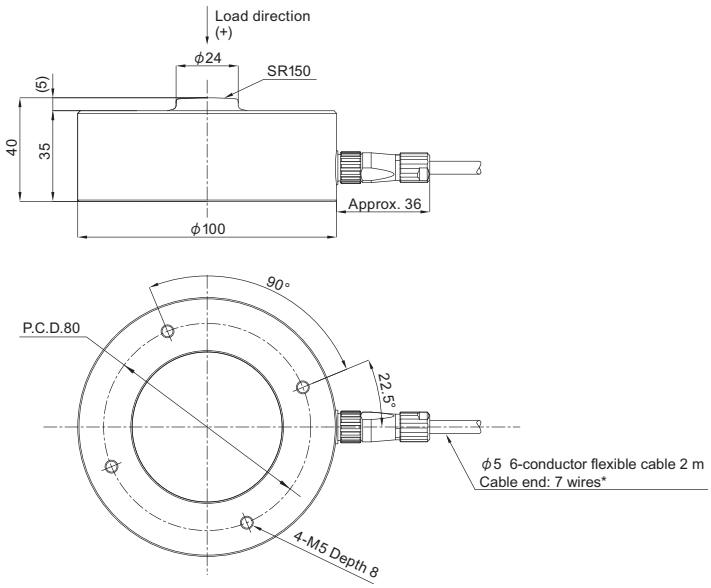
■ DSCB-1KN/2KN/5KN



■ DSCB-10KN/20KN



■ DSCB-50KN



* Connector can be attached to the cable according to your requests.
Refer to 81 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