DSCB

HIGH STIFFNESS DIGITAL LOAD CELL

UNIPULSE NEW!

CE RoHS2 **Detachable cable** **Flexible cable**

Measurement is possible by easily connecting to PC! Hard-to-break force measurement tool capable of stable measurement of even severe load!

High stiffness & safe overload of 500%

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

Excellent maintainability

Zero point and full scale are adjusted at the time of shipment from a factory; recalibration is unnecessary at a replacement of DSCB. As a cable and the main unit are connected with a connector, troublesome cable laying operations at a replacement of the main unit is unnecessary. Misalignment of zero point from a time of shipment to the present can be checked, thus abnormality can be promptly detected.

Noise resistant digital output

Output format is compliant with RS-485 standard thus is noise resistant; can be installed with long-distance cable.

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/ LOvLL)
- 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

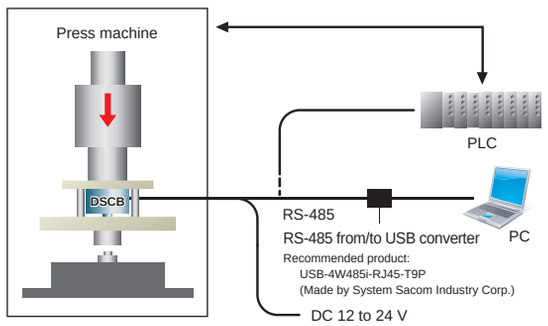
- Pre-trigger - Level trigger - Trigger slope

* RS-485-USB converter is required to use the USB dedicated software for DSCB.
Recommended product: USB-4W485i-RJ45-T9P (Made by System Sacom Industry Corp.)

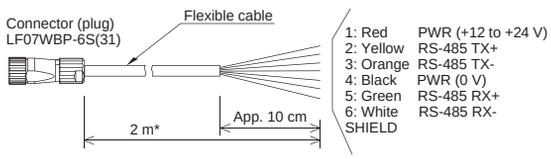
Specifications

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	-10 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					
Loadcell 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/ 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					
Accessories	ϕ5 6-conductor flexible cable 5 m, Cable end: 7 wires					
CE marking certification	EMC directives EN61326-1, EN61326-2-3					

Example of use



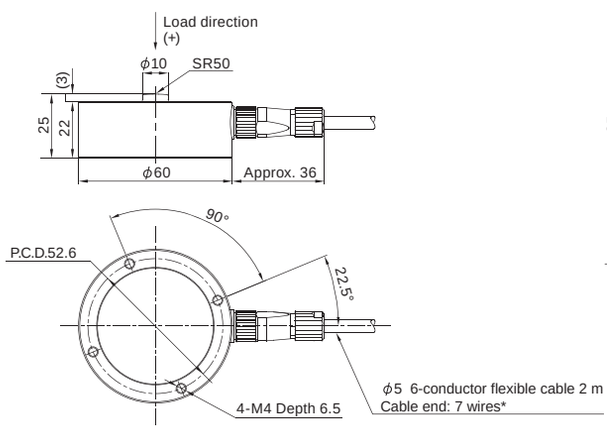
Cable



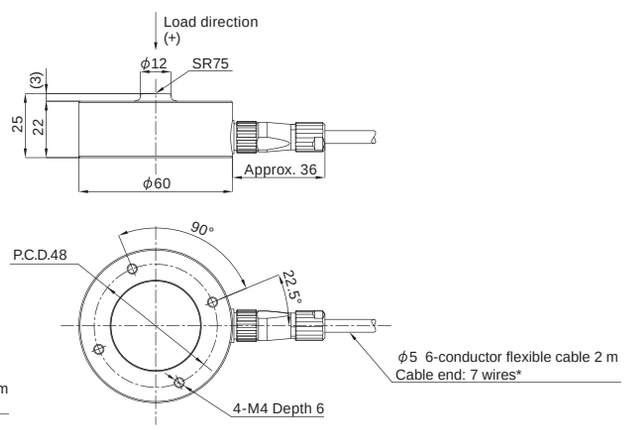
* Cable length can be extended to 5 m (Optional)

External dimension

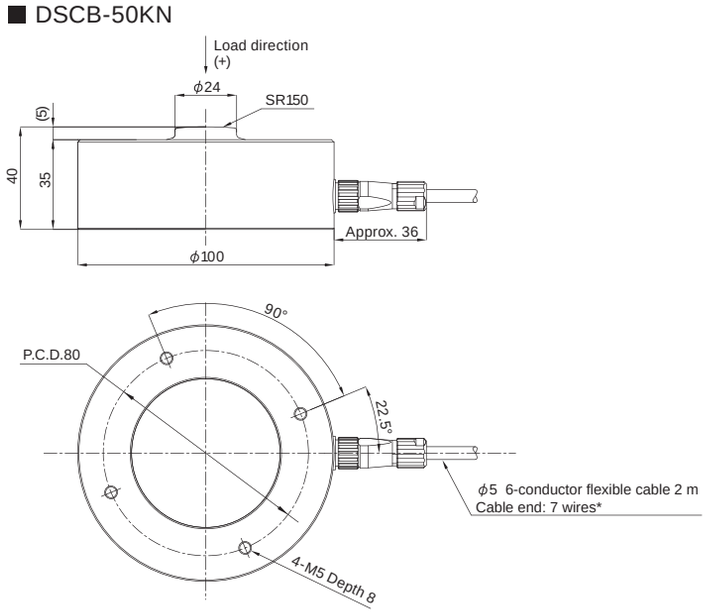
■ DSCB-1KN/2KN/5KN



■ DSCB-10KN/20KN



■ DSCB-50KN



* Connector can be attached to the cable according to your requests.
Refer to 82 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