

FSG large capacity load cells



Description

FSG large capacity load cell is designed in cylindric shape (Column type) or hollow shape (Center hole type) and is mainly used for pile load test or load measurement of high load structures such as bridges and is manufactured from 500 to 1500 tons.

The cell of large capacity load cell is made of heat-treated alloy steel and is mechanically precision processed. Foil strain gages are attached to form wheatstone bridge, and even if an eccentric load is applied to the cell, a single output is provided as a corrected value.

A calibration certificate is provided for each sensor and the sensors are individually calibrated by the validity verification of our authorized material testing machine, so reliability is guaranteed.

FSG large capacity load cell is designed with a waterproof and insulated structure to provide long-term stable output and to withstand the harsh environments of civil engineering sites.

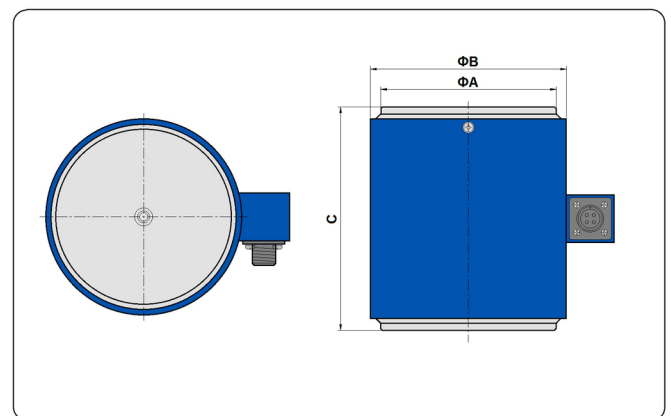
If using our FSG load cell indicator model ACE-40D, you can check the loads on the site directly by digital value.

Applications

- Load measurement applied during pile load test
- Load measurement of high load structure such as bridges
- Dynamic measurement of real-time load changes
- Used as a reference load cell for load pressurization device



[1200ton·f Material testing machine]



[Dimensions]

Dimensions

		(mm)				
Model		4201	4202	4203	4204	4205
Load (ton · f)		500	800	1000	1200	1500
Size	A	147	183	200	227	251
	B	164	203	222	260	271
	C	187	220	275	300	316
Bearing area (mm ²)		16,971	26,302	31,415	40,470	49,480

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Specification

Model	4201	4202	4203	4204	4205
Rated capacity(ton · f)	500	800	1000	1200	1500
Sensor element	Foil strain gage (wheatstone bridge circuit)				
Safe overload	120% FSR				
Accuracy	±0.5% FSR (Optional ±0.1% FSR)				
Non-linearity	±1.0% FSR (Optional ±0.5% FSR)				
Rating output	1.5mV/V ($1,500 \times 10^{-6}$)				
Exciting voltage recommended	Less than 5 VDC				
Resistance	700 Ω (8 strain gages)				
Insulation resistance	More than 100M Ω / 500V				
Operating temperature	-30~80°C				
Temp range compensated	-10~70°C				
Waterproof	105m H ₂ O				
Material of cell	SCM series steel				
Weight (kg)	31.0	55.9	83.6	125.0	143.1
Signal cable	Ø10mm, 0.5mm ² × 5C shielded PVC sheath cable				

Features

- Stability and reliability in extreme environment
- Accurately measurement of eccentric load
- Different models according to load and use
- Precision of cell process is under 0.05 (shaking, parallel straightness)
- Dynamic measurement is possible

Ordering information

- Application field
- Capacity
- Keeping readout unit
- Cable length

Ancillary equipments

- Universal terminal box (model 7012/7024)

The readout

It is electric resistance sensor that generates mV and can be used by connecting with strain meter or data logger that can read strain

- ACE-600 (FSG readout)
- ADL-200A (Smart logger)