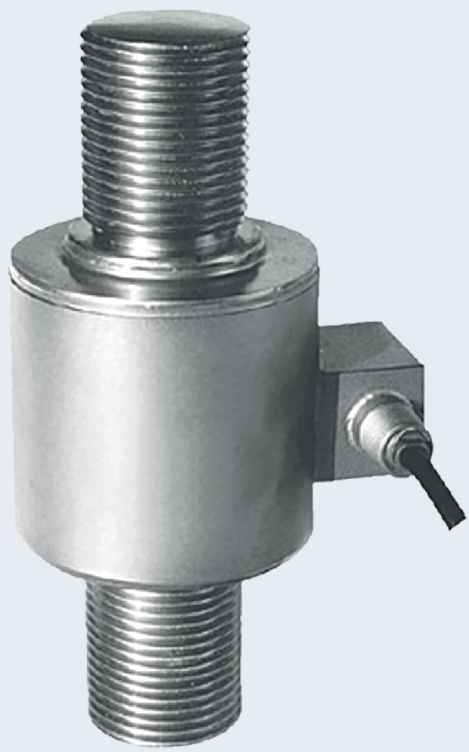
BOSCHE
WÄGETECHNIK

Tension and Compression Load cell *C50N*



Features

- Compact load cell with thread on both sides
- Material: stainless steel
- Nominal load: 10.000- 100.000kg
- Construction: Hermetically sealed, the measuring element is laser-welded, protection class: IP 65
- Particularly robust for tough continuous use in industrial applications
- Force application: External thread / contact surface with threaded holes
- Calibration in N or kg possible
- Compatible with other manufacturers

Scope of application:

- Offshore load measurements
- Measurement of tensile forces in ropes and chains or crane loads
- Monitoring of joining forces
- Tensile force measurement
- Force transducers, e.g. for tensile and compression testing machines
- Checking of actuating forces

+49 (0) 5491.999.689.0
www.bosche.eu

BOSCHE
WÄGETECHNIK

Tension and Compression Load cell *C50N*

Single-column compression load cell

The compact load cell C50N can be used as a tension load cell or compression load sensor. It has been specially designed for measuring static tensile and compressive loads and is thus a basis for many force measuring systems. The centric thread in the upper and lower part of the load cell ensures optimal force application in tension or compression. For tensile loads, shackles, bolts, swivel hooks eyebolts etc. can be used. For compression, there are corresponding fittings with base plates.

The load cells are made of high-quality stainless steel and provide precise and reproducible measuring results even in long-term use in harsh industrial environments. The load cells are temperature compensated, laser welded and meet the requirements of protection class IP65. For measuring forces, the load cell with thread on both sides is also very often calibrated in the physical unit Newton and used as a force transducer.

Mounting the load cells - Installation aids

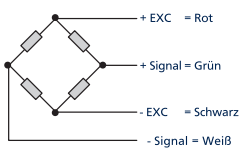
The load cell should be installed in such a way that the force is introduced axially and centrically into the transducer. Force bypasses, lateral forces and torques can cause measurement distortions and should be eliminated by installation aids such as articulated lugs.

TECHNICAL DETAILS

Accuracy class according to OIML R 60		G2
Nominal load (E_{max})	kg	10.000, 20.000, 25.000, 30.000, 40.000, 50.000, 100.000
Number of division values (n_{LC})		2000
Nominal value (C_n) / Characteristic tolerance	mV/V	1,5 / ± 0,002 mV/V
Minimum preload (E_{min})		0
Limit load (E_L) **Breaking load (E_d)**	% from Emax	150 300
Recommended supply voltage (U_{ref}) **Maximum permissible supply voltage (B_U)**	V	5 - 12 18
Zero adjustment	% v. C_n	≤ ± 1
Input resistance (R_{LC}) at reference temperature **Output resistance (R_O) at reference temperature**	Ω	700 ± 7 703 ± 4
Insulation resistance	MΩ	> 5 000
Nominal temperature range (B_T)	°C	- 10 ... + 40
Protection class according to (DIN 40.050 / EN 60529)		IP65
Cable length	m	20
Material		Stainless steel

TECHNICAL DRAWINGS

Elektrischer Anschluss
4 -Leiter - Kabel



+49 (0) 5491.999.689.0
www.bosche.eu

BOSCHE GmbH & Co. KG
Reselager Rieden 3
49401 Damme