

LTA-B-S/C-S

Crane Load Cells

● For Cranes ● 20 to 500 kN

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TRANSDUCERS



These series of tension load cells can be used as detectors for jib crane weighing systems and for general tension measurement. LTA-B-S series is equipped with an amplifier and provide voltage output of 1 to 5 V.

Features

- Built-in amplifier and voltage output (B type)
- Noise resistant (B type)
- High strength
- Easy to handle
- High reliability
- High stability

LTA-C-S Specifications

Performance

Rated Capacity: See table below.
Nonlinearity: Within $\pm 1\%$ RO
Hysteresis: Within $\pm 1\%$ RO
Rated Output: Approx. 0.6 to 0.7 mV/V (1200 to 1400 $\mu\text{m/m}$)

Environmental Characteristics

Safe Temperature Range: -20 to 70°C
Compensated Temperature Range: -10 to 60°C
Temperature Effect on Zero Balance: Within $\pm 0.05\%$ RO/ $^\circ\text{C}$
Temperature Effect on Output: Within $\pm 0.05\%$ / $^\circ\text{C}$

Electrical Characteristics

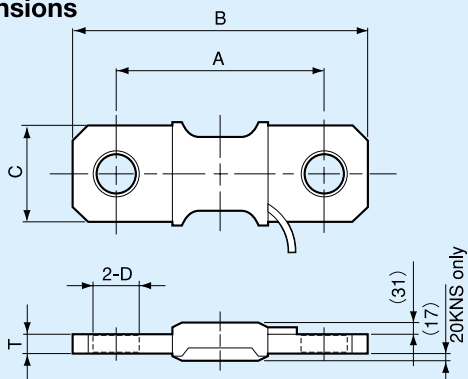
Safe Excitation Voltage: 12 VAC or DC
Recommended Excitation Voltage: 1 to 10 VAC or DC
Input Resistance: $350\ \Omega \pm 5\%$
Output Resistance: $350\ \Omega \pm 5\%$

Cable: 4-conductor ($0.75\ \text{mm}^2$) chloroprene shielded cable, 10 mm diameter by 10 m long, with press-fit terminal (Shield wire is not connected to mainframe.)

Mechanical Properties

Breaking Overload Rating: Approx. 500%
Safe Overload Rating: 150%
Weight: See table below.

Dimensions



Model	Rated Capacity	A	B	C	D	T	Weight (Approx.)
LTA-B-20KNS LTA-C-20KNS	20 kN	310	410	90	$\phi 45$	14	5 kg
LTA-B-50KNS LTA-C-50KNS	50 kN	310	430	110	$\phi 45$	15	5.5 kg
LTA-B-100KNS LTA-C-100KNS	100 kN	330	470	126	$\phi 60$	30	11 kg
LTA-B-200KNS LTA-C-200KNS	200 kN	360	540	170	$\phi 65$	36	21 kg
LTA-B-300KNS LTA-C-300KNS	300 kN	400	610	195	$\phi 75$	47	35 kg
LTA-B-500KNS LTA-C-500KNS	500 kN	440	670	240	$\phi 85$	60	60 kg

Amplifier-Equipped LTA-B-S Specifications

Performance

Rated Capacity: See table below.
Nonlinearity: Within $\pm 1\%$ RO
Hysteresis: Within $\pm 1\%$ RO
Rated Output: $5\ \text{V} \pm 0.040\ \text{V}$
 ($1\ \text{V} \pm 0.015\ \text{V}$ when not loaded)

Environmental Capability

Safe Temperature Range: -20 to 70°C
Compensated Temperature Range: -10 to 60°C
Temperature Effect on Zero Balance: Within $\pm 0.1\%$ RO/ $^\circ\text{C}$
Temperature Effect on Output: Within $\pm 0.08\%$ / $^\circ\text{C}$

Electrical Characteristics

Built-in Amplifier: Provided
Operating Voltage: $10 \pm 1\ \text{VDC}$
Load Resistance: $5\ \text{k}\Omega$ or more

Cable: 4-conductor ($0.75\ \text{mm}^2$) chloroprene shielded cable, 10 mm diameter by 10 m long, with press-fit terminal (Shield wire is not connected to the case.)

Mechanical Properties

Breaking Overload Rating: Approx. 500%
Safe Overload Rating: 150%
Weight: See table at the left.
Mass: See table below.

To Ensure Safe Usage

- Install the load cell carefully so that tensile or impact force may not applied to the cable to prevent the load cell from receiving bending or twisting force.
- Prepare a safety device such as link against accidental hazards so that it supports loads in place of a broken load cell.