

LCR-B-S7

Tension Meter Load Cells

● Excellent Environmental Resistance ● 5 to 200 kN

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TRANS
DUCERS



Designed for tension meters, LCR-B-S7 series load cells are suitable for load measurement under environments where heat resistance, oil resistance, corrosion resistance and high overload rating are required.

Features

- High safe overload rating of 300% max.
- Mechanical stopper activating against overloads of 150 to 200%
- Hermetically-sealed structure with inert gas filled in
- Highly reliable structure (IP64)
- Corrosion resistant
- Cable direction selectable from either left or right

Specifications

Performance

Rated Capacity: See table below.

Nonlinearity:

- Within $\pm 0.1\%$ RO (LCR-B-5 to 50KNS7)
- Within $\pm 0.2\%$ RO (LCR-B-100 & 200KNS7)

Hysteresis

- Within $\pm 0.1\%$ RO (LCR-B-5 to 50KNS7)
- Within $\pm 0.2\%$ RO (LCR-B-100 & 200KNS7)

Repeatability:

$\pm 0.1\%$ RO or less

Rated Output:

1 mV/V (2000 $\mu\text{m/m}$) $\pm 1\%$

Environmental Characteristics

Safe Temperature Range: -20 to 120°C

Compensated Temperature Range: -10 to 100°C

Temperature Effect on Zero Balance: Within $\pm 0.005\%$ RO/ $^\circ\text{C}$

Temperature Effect on Output: Within $\pm 0.005\%$ / $^\circ\text{C}$

Electrical Characteristics

Safe Excitation Voltage: 15 VAC or DC

Recommended Excitation Voltage: 1 to 10 VAC or DC

Input Resistance: $350 \Omega \pm 1\%$

Output Resistance: $350 \Omega \pm 1\%$

Cable: 4-conductor (0.75 mm²) fluonlex shielded cable, 8 mm diameter by 10 m long, bared at the tip (Shield wire is not connected to mainframe.)

Mechanical Properties

Critical Overload Rating: 1000% (400% with 100 & 200KNS7)

Safe Overload Rating: 300% (200% with 100 & 200KNS7)

Material: Stainless steel (excluding the mount base of 100 & 200KNS7)

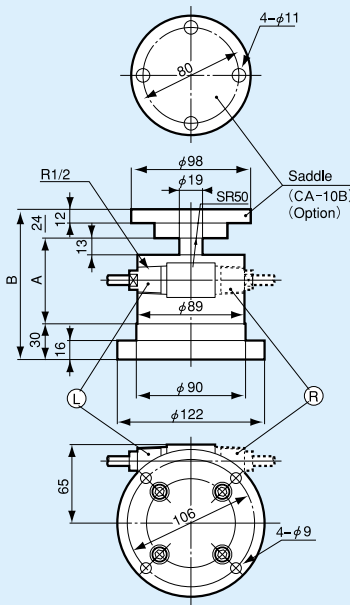
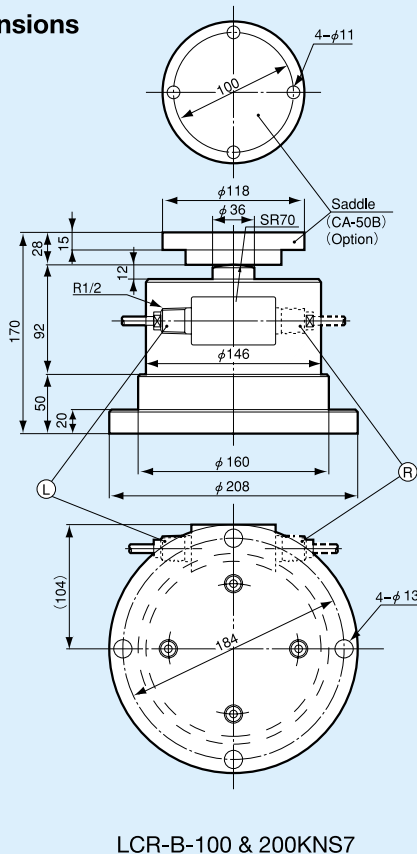
Protection Rating: IP64 (Splashproof type conforming to JIS C 0920)

Weight: See table below.

To Ensure Safe Usage

Never disassemble the mount base, which has the stopper mechanism activating against overloads of 150 to 200%. Once removed, overload protection is not guaranteed.

Dimensions



Model	Rated Capacity	A	B	Weight (Approx.)
LCR-B-5KNS7 (L/R)	5 kN	57	111	4 kg
LCR-B-10KNS7 (L/R)	10 kN			
LCR-B-20KNS7 (L/R)	20 kN			
LCR-B-30KNS7 (L/R)	30 kN	70	124	4.5 kg
LCR-B-50KNS7 (L/R)	50 kN			
LCR-B-100KNS7 (L/R)	100 kN	See drawing upper left.		19 kg
LCR-B-200KNS7 (L/R)	200 kN			

Suffixes L and R indicate cable directions, left and right. Specify when ordering.