

Washer-Type Compression Load Cells

For Rolling/Drepressing Pressure
Measurement under Harsh Environment

LCW-D-S/E-S

1 to 5 MN

Hermetically Sealed Structure with Inert Gas Filled in

Heat- and Oil-Resistant Cable

High Stability



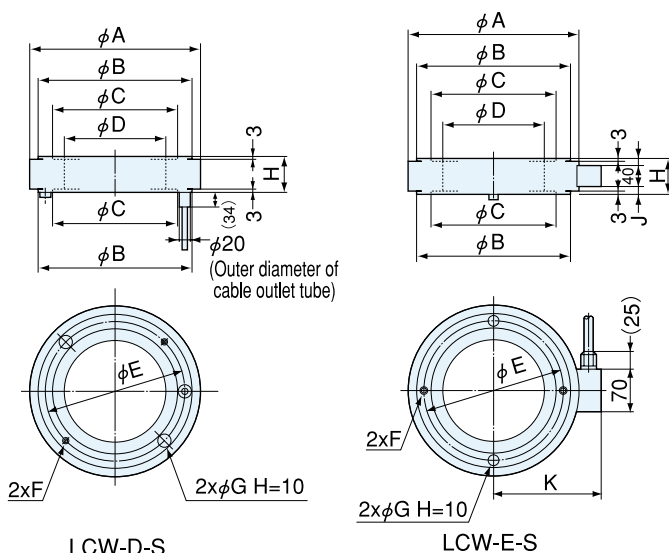
Hermetically-sealed structure with inert gas filled in ensures highly reliable, stable operation for a long period of time under harsh conditions. The flat washer-type structure requires only fabrication of screw nuts for installation to existing rolling mills.

Load cells which meet individual rolling mills can also be manufactured. Inquiries are welcome.

Specifications

Performance	
Rated Capacity	See table below.
Nonlinearity	Within $\pm 1\%$ RO
Hysteresis	Within $\pm 1\%$ RO
Repeatability	0.3% RO or less
Rated Output	1 mV/V (2000 $\mu\text{m/m}$) or more
Environmental Capability	
Safe Temp. Range	-20 to 100°C
Comp. Temp. Range	-10 to 80°C
Temp. Effect on Zero Bal.	Within $\pm 0.01\%$ RO/ $^{\circ}\text{C}$
Temp. Effect on Out.	Within $\pm 0.01\%$ RO/ $^{\circ}\text{C}$
Electrical Characteristics	
Safe Excit. Voltage	15 V AC or DC
Recom. Excit. Voltage	1 to 10 V AC or DC
Input Resistance	$350\ \Omega \pm 1\%$
Output Resistance	$350\ \Omega \pm 1\%$
Cable	4-conductor (0.75 mm ²) fluonlex shielded cable, 8 mm dia. by 15 m long, bared at the tip (Shield wire is not connected to the mainframe.)
Mechanical Properties	
Safe Overload Rating	150%
Natural Frequency	See table below.
Weight	See table below.
Protection Rating	IP 64 (Sprashproof type conforming to JIS C 0920)

Dimensions



Model	Rated Capacity	Natural Freq. (App.)	ϕA	ϕB	ϕC	ϕD	ϕE	F	ϕG	H	J	K	Weight (App.)
LCW-D-1MNS	1 MN	16 kHz	241	202	178	140	190	M8 d=8	8	64	—	—	7 kg
LCW-D-2MNS	2 MN	14 kHz	355	307	277	230	292	M10 d=10	12	70	—	—	15 kg
LCW-D-3MNS	3 MN	15 kHz	355	314	270	230	292	M10 d=12	20	70	—	—	17 kg
LCW-D-5MNS	5 MN	16 kHz	355	312	252	210	282	M10 d=12	20	70	—	—	20 kg
LCW-E-1MNS	1 MN	16 kHz	241	202	178	140	190	M8 d=8	8	64	16	155	7 kg
LCW-E-2MNS	2 MN	14 kHz	355	307	277	230	292	M10 d=10	12	70	18	213	15 kg
LCW-E-3MNS	3 MN	15 kHz	355	314	270	230	292	M10 d=12	20	70	18	213	17 kg
LCW-E-5MNS	5 MN	16 kHz	355	312	252	210	282	M10 d=12	20	70	18	213	20 kg