

SPECIFICATIONS

Low Profile Shearweb Type
Compression Service Load Cell

LOAD CELL
CWV1-2T~100T

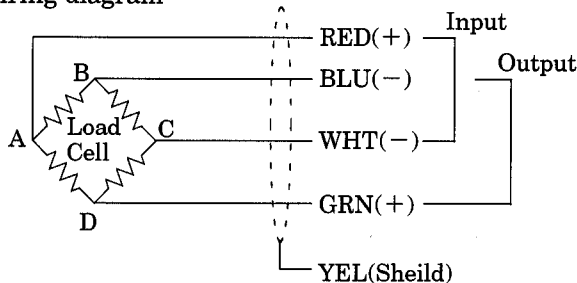
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- Performance
 - Rated capacity : 19.61 kN{2 tf}~980.7 kN{100 tf}
 - Safe overload : 150 %R.C.
 - Ultimate overload : 200 %R.C.
 - Rated output : 3 mV/V±0.006 mV/V
 - Non-linearity : 0.05 %R.O.(CWV1-50T~100T: 0.1 %R.O.)
 - Hysteresis : 0.01 %R.O.(CWV1-50T~100T: 0.15 %R.O.)
 - Repeatability : 0.02 %R.O.(CWV1-50T~100T: 0.05 %R.O.)
- Electrical
 - Excitation, recommended : 12 V or less
 - Excitation, maximum : 20 V
 - Zero balance : ±0.03 mV/V
 - Input resistance : 350 Ω ±3.5 Ω
 - Output resistance : 350 Ω ±5 Ω
 - Insulation resistance : 2 000 MΩ or more(DC 50 V)
(between bridge and main body)
- Temperature
 - Temperature range, compensated : -10 °C to 70 °C
 - Temperature range, safe : -20 °C to 80 °C
 - Temperature effect on zero balance : 0.03 %R.O./10 °C
 - Temperature effect on output : 0.03 %LOAD/10 °C
- Cable : φ 10, 4-cores shielded 3 m cable directly attached,
Y-crimp type terminal lugs are attached at cable end.
- Class of protection : Equivalent to IP64 (Main body only)
- Materials of element : Alloy steel
- Paint : Painted by epoxy resin
(Munsell 6GY3.5/2 half-polished resemblance color)
- Durability : 10⁶ times with rated load applied.

Note) R.O. means Rated Output. R.C means Rated Capacity.
Polarity of output will become plus(+) when the direction of compression load is applied.
If polarity change is required, change with wiring of blue and green(OUTPUT).

Wiring diagram



Composition

Composition	
Main body	1
Load Button(LBU-※) (Including O-ring.)	1
Inspection data sheet	1
Instruction manual	1

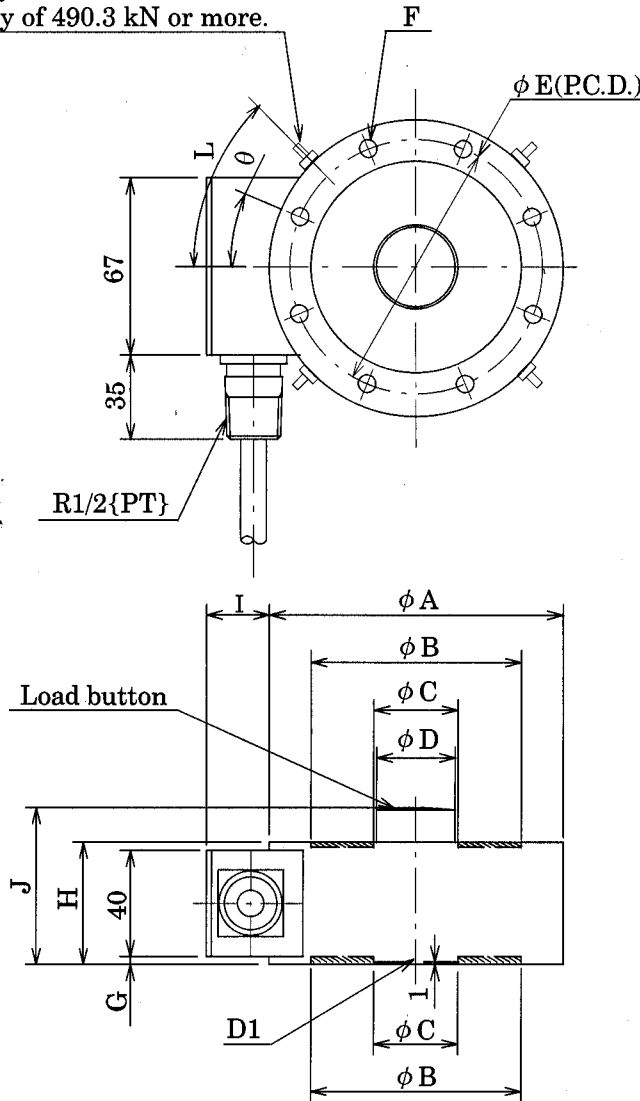
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4-K Eye bolt for the capacity of 490.3 kN or more.



Unit : mm

/// Filled with polyurethane resin
Outline Dimensions table

Unit : mm

P/No.	Rated Capacity	ϕA	ϕB	ϕC	ϕD	D1 2nd class	ϕE	F	G
CWV1-2T	19.61 kN{2 tf}	112	80	32	30	M16×2	96	8- $\phi 6.6$	3
CWV1-5T	49.03 kN{5 tf}	118	82	36	34	M18×1.5	100	8- $\phi 9$	3
CWV1-10T	98.07 kN{10 tf}	138	94	48	42	M24×2	116	8- $\phi 11$	9
CWV1-20T	196.1 kN{20 tf}	182	126	76	70	M39×2	154	8- $\phi 14$	15
CWV1-50T	490.3 kN{50 tf}	226	153	92	80	M50×2	190	12- $\phi 18$	28
CWV1-100T	980.7 kN{100 tf}	310	212	138	118	M76×3	260	16- $\phi 22$	45

P/No.	H	I	J	K	L	θ	Rated displacement	Natural frequency(Hz)	Weight (Approx.kg)
CWV1-2T	46	24	59	-	-	22.5°	0.05	4 900	3.1
CWV1-5T	46	24	61	-	-	22.5°	0.05	6 500	4
CWV1-10T	60	25	80	-	-	22.5°	0.05	6 300	6.4
CWV1-20T	80	28	115	-	-	22.5°	0.05	4 800	15.5
CWV1-50T	105	29	150	M8	30°	15°	0.05	5 400	29
CWV1-100T	140	31	205	M10	45°	11.25°	0.09	3 400	74

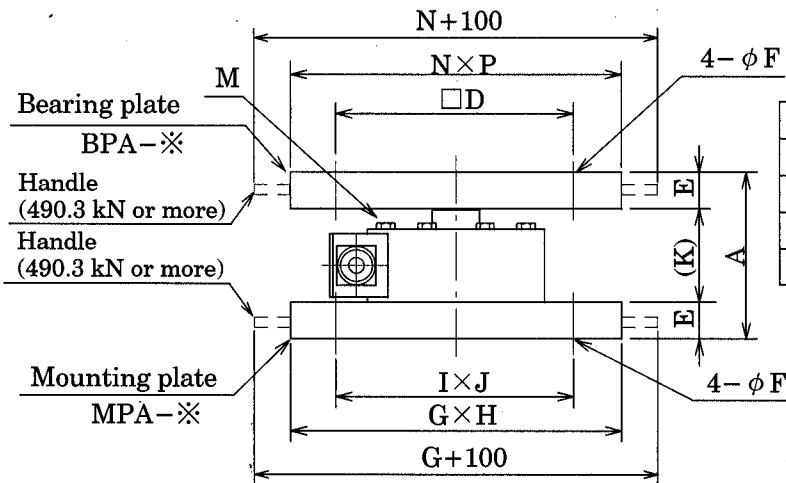
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Bearing and Mounting plate attached



Composition	
Main body	1
Bearing plate(BPA-※)	1
Mounting plate(MPA-※)	1
Hexagon bolt(Accessory of MPA)	※

※The number of Hexagon socket head cap screws depend on the number of holes for taps for installation of load cell.

Outline dimensions table

Unit : mm

P/No.	P/N for accessory (Option)	A	□D	E	φF	G	H	I	J	K	M	N	P	Weight (Approx.kg)
CWV1-2T	BPA-3-B MPA-16	105	105	23	12	210	130	185	105	59	8-M6	130	128	10.8
CWV1-5T	BPA-3-B MPA-17	107	105	23	12	210	130	185	105	61	8-M8	130	128	11.7
CWV1-10T	BPA-4-B MPA-18	140	125	30	14	160	160	125	125	80	8-M10	160	153	18.1
CWV1-20T	BPA-6-B MPA-19	175	150	30	14	200	200	160	160	115	8-M12	200	200	33.9
CWV1-50T	BPA-8-B MPA-20	270	200	60	23	260	260	200	200	150	12-M16	260	250	90.5
CWV1-100T	BPA-11 MPA-21	325	280	60	27	360	360	280	280	205	16-M20	360	360	193

The load cell may touch to either side of bearing plate as far as both sides of bearing plate have curved their P/N on them. In case of bearing plate whose touching side is curved, locate the load cell to the center of bearing plate where the P/N has curved.

Specifications and outline dimensions and so on which have printed may subject to change for the purpose of Improvement without notice.