

## SPECIFICATIONS

### Compression Type Load Cell

## LOAD CELL CCP1(A)-20K ~ 100T

SPEC.No.EN211011-1A

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#### Performance

Rated capacity	: 196.1 N{20 kgf} ~ 980.7 kN{100 tf}
Safe overload	: 150 %R.C.(CCP1-20K ~ 100K : 500 %R.C.)
Ultimate overload	: 200 %R.C.(CCP1-20K ~ 100K : 500 %R.C.)
Rated output	: 3 mV/V ± 0.003 mV/V
Non-linearity	: 0.05 %R.O.
Hysteresis	: 0.02 %R.O.(CCP1-20K ~ 100K : 0.05 %R.O.)
Repeatability	: 0.02 %R.O.(CCP1-20K ~ 100K : 0.05 %R.O.)

#### Electrical

Excitation, recommended	: 12 V or less
Excitation, maximum	: 20 V
Zero balance	: ± 0.03 mV/V
Input resistance	: 350 ± 3.5
Output resistance	: 350 ± 5
Insulation resistance (between bridge and main body)	: 5 000 M or more(DC 50 V)

#### Temperature

Temperature range, compensated	: - 10 to 75
Temperature range, safe	: - 20 to 100
Temperature effect on zero balance	: 0.03 %R.O./10
Temperature effect on output	: 0.03 %LOAD/10

Cable : 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

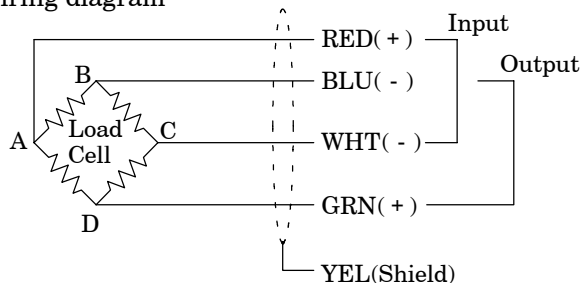
Paint : Painted by epoxy resin  
(Munsell 6GY3.5/2 half-polished resemblance color)

Durability : 10<sup>6</sup> 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

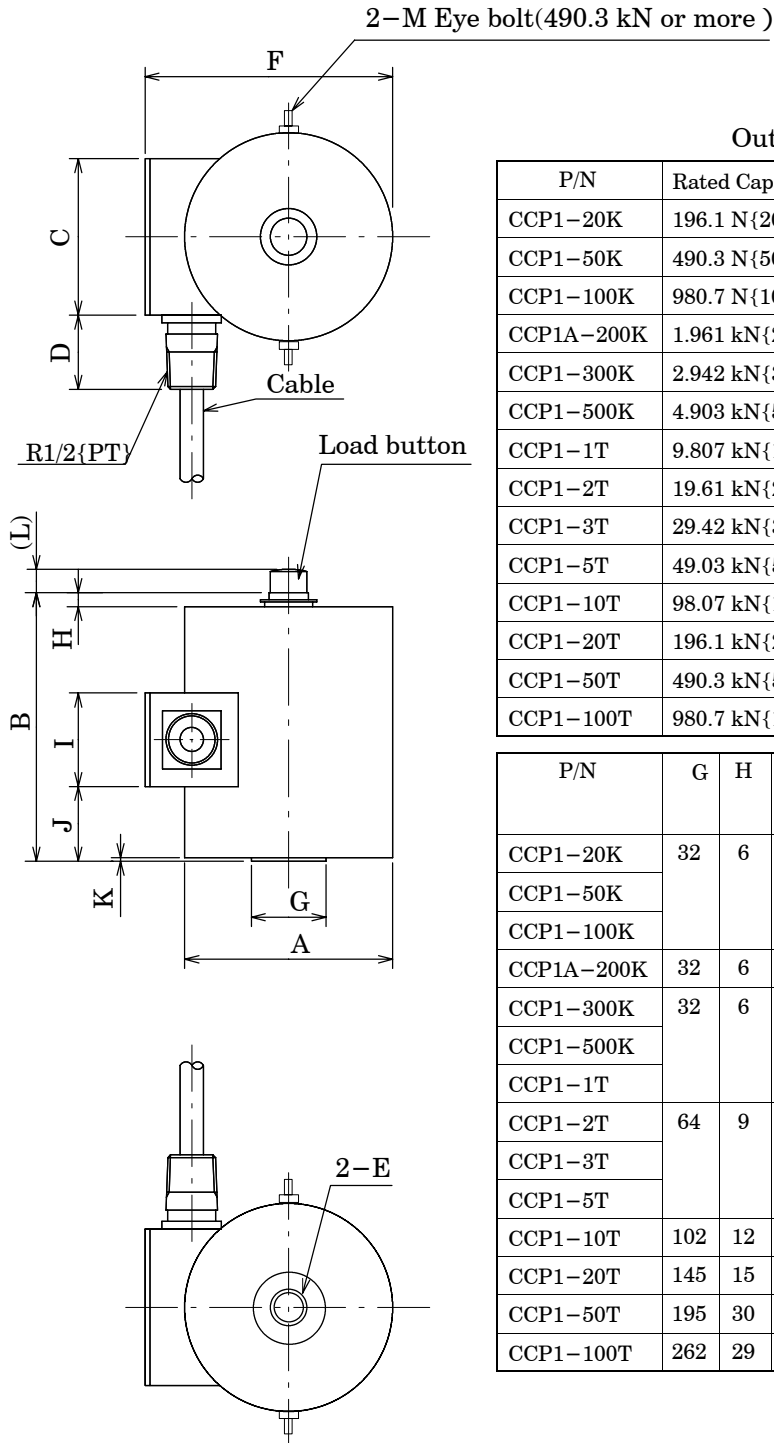
Composition	
Main body	1
Load Button(LBU- ) (Including O-ring.)	1
Inspection data sheet	1
Certificate	1
Instruction manual	1

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Outline Dimensions

(Unit : mm)

P/N	Rated Capacity	A	B	C	D	E	F
CCP1-20K	196.1 N{20 kgf}	89	115	67	35	M10 × 1.25 depth 14	106
CCP1-50K	490.3 N{50 kgf}						
CCP1-100K	980.7 N{100 kgf}						
CCP1A-200K	1.961 kN{200 kgf}	89	115	67	35	M12 × 1.25 depth 14	106
CCP1-300K	2.942 kN{300 kgf}						
CCP1-500K	4.903 kN{500 kgf}						
CCP1-1T	9.807 kN{1 tf}	89	150	67	35	M24 × 2 depth 30	106
CCP1-2T	19.61 kN{2 tf}						
CCP1-3T	29.42 kN{3 tf}						
CCP1-5T	49.03 kN{5 tf}	127	215	67	35	M39 × 2 depth 50	152
CCP1-10T	98.07 kN{10 tf}						
CCP1-20T	196.1 kN{20 tf}						
CCP1-50T	490.3 kN{50 tf}	229	452	67	35	M76 × 3 depth 115	259
CCP1-100T	980.7 kN{100 tf}						

P/N	G	H	I	J	K	L	M	Rated Displacement	Natural Frequency(Hz)	Weight Approx. kg
CCP1-20K	32	6	40	18	1.5	6.5	-	0.33	230	3.1
CCP1-50K								0.28	360	
CCP1-100K								0.23	580	
CCP1A-200K	32	6	40	18	1.5	10	-	0.18	1 200	3.1
CCP1-300K	32	6	40	32	1.6	10	-	0.17	1 400	2.7
CCP1-500K								0.15	1 800	
CCP1-1T								0.13	2 800	
CCP1-2T	64	9	40	46	1.6	18	-	0.17	2 100	4.3
CCP1-3T								0.16	2 600	
CCP1-5T								0.13	3 500	
CCP1-10T	102	12	40	71	1.6	30	-	0.18	2 500	11.9
CCP1-20T	145	15	40	80	1.6	27	-	0.24	1 800	27
CCP1-50T	195	30	40	146	1.6	50	M12	0.32	1 400	87
CCP1-100T	262	29	40	182	1.6	72	M16	0.40	1 100	200

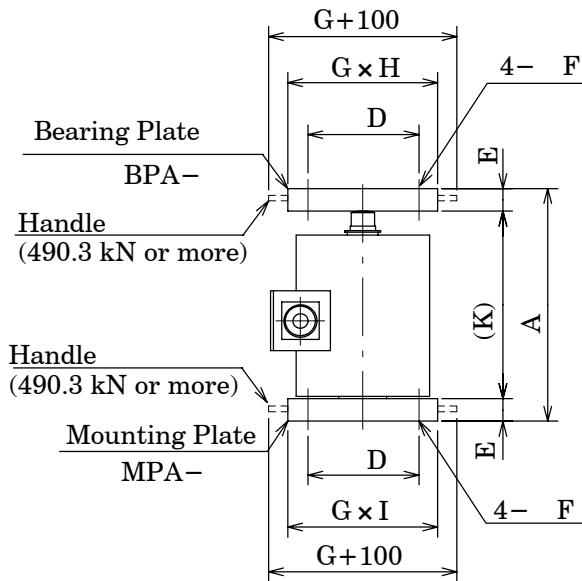
## SPECIFICATIONS

### LOAD CELL CCP1(A)-20K ~ 100T

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Bearing and Mounting plate attached



Composition	
Main body	1
Load button(LBU- ) (Including O-ring)	1
Bearing plate(BPA- )	1
Mounting plate(MPA- )	1
Bolt for installation of load cell (Accessory of MPA)	1

Outline dimensions

Unit : mm

P/N	P/N for Accessories ( Options )	A	D	E	F	G	H	I	K	Weight (Approx. kg)
CCP1-20K	BPA-1-B MPA-1A-B	151.5	77	15	8	100	100	100	121.5	5.5
CCP1-50K										
CCP1-100K										
CCP1A-200K	BPA-1-B MPA-1-B	155	77	15	8	100	100	100	125	5.5
CCP1-300K	BPA-1-B MPA-1-B	155	77	15	8	100	100	100	125	5.1
CCP1-500K										
CCP1-1T										
CCP1-2T	BPA-3-B MPA-3A-B	214	105	23	12	130	128	130	168	10.3
CCP1-3T										
CCP1-5T										
CCP1-10T	BPA-4-B MPA-4A-B	305	125	30	14	160	153	155	245	23.9
CCP1-20T	BPA-6-B MPA-6A-B	377	150	30	14	200	200	185	317	45
CCP1-50T	BPA-8-B MPA-9	622	200	60	23	260	250	260	502	152
CCP1-100T	BPA-11 MPA-11	805	280	60	27	360	360	360	685	325

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.

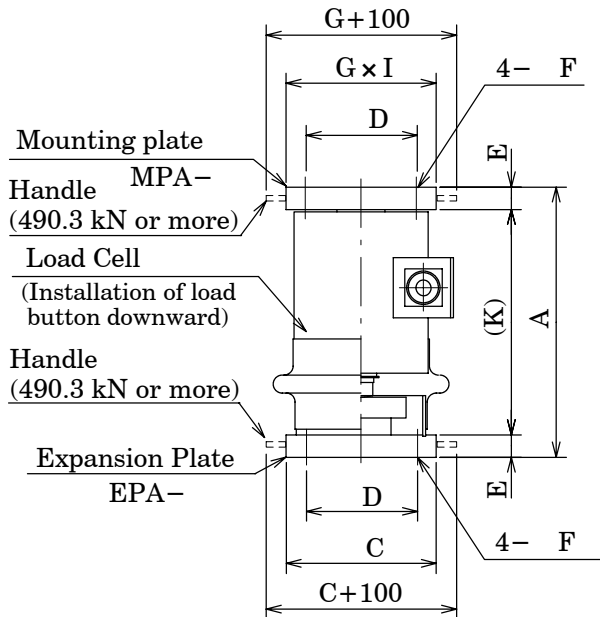
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### LOAD CELL CCP1(A)-20K ~ 100T

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Expansion and Mounting plate attached



#### Composition

Main body	1
Load button(LBU- ) (Including O-ring)	1
Expansion plate(EPA- )	1
Mounting plate(MPA- )	1
Bolt for installation of load cell (Accessory of MPA)	1

#### Outline dimensions

Unit : mm

P/N	P/N for Accessories (Options)	A	C	D	E	F	G	I	K	Expansion limit	Weight (Approx. kg)
CCP1-20K	MPA-1A-B EPA-1	176.5	100	77	15	8	100	100	146.5	± 8	6.1
CCP1-50K											
CCP1-100K											
CCP1A-200K	MPA-1-B EPA-1	180	100	77	15	8	100	100	150	± 8	6.1
CCP1-300K											
CCP1-500K											
CCP1-1T	MPA-3A-B EPA-3A	249	130	105	23	12	130	130	203	± 8	12.3
CCP1-2T											
CCP1-3T											
CCP1-5T	MPA-4A-B EPA-4A	350	160	125	30	14	160	155	290	± 10	26.9
CCP1-10T											
CCP1-20T											
CCP1-50T	MPA-9 EPA-8A	710	260	200	60	23	260	260	590	± 15	177
CCP1-100T											
CCP1-100T	MPA-11 EPA-10A	910	360	280	60	27	360	360	790	± 15	380

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