

LOAD CELL

CCS1-50T~500T

Spec. No. EN211111-1B

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SPECIFICATIONS

High Capacity Compression Type
Load Cell

SPECIFICATIONS

● Performance

Rated capacity	: 490.3 kN{50 tf}~4.903 MN{500 tf}
Safe overload	: 150 %R.C.
Ultimate overload	: 200 %R.C.
Rated output	: 2 mV/V±0.02 mV/V
Non-linearity	: 0.3 %R.O.
Hysteresis	: 0.3 %R.O.
Repeatability	: 0.15 %R.O.

● Electrical

Excitation, recommended	: 12 V or less
Excitation, at max.	: 20 V
Zero balance	: ±0.02 mV/V
Input resistance	: 350 Ω ± 3.5 Ω
Output resistance	: 350 Ω ± 5 Ω
Insulation resistance (Between bridge and main body)	: 2 000 MΩ or more (DC 50 V)

● Temperature

Temperature range, Compensated	: -10 °C to 70 °C
Temperature range, Safe	: -20 °C to 100 °C
Temperature effect on zero balance	: 0.05 %R.O./10 °C
Temperature effect on output	: 0.1 %LOAD/10 °C

● Cable

: φ 10 mm, 4 cores shielded 3 m cable directly attached.
Y type solderless terminal is attached at cable end.

● Class of protection

: Equivalent to IP64. (Main body only)

● Materials of the element

: Alloy steel

● Painting

: Painted with Epoxy resin (Munsell 6GY3.5/2 half-polished
resemblance color)

● Durability

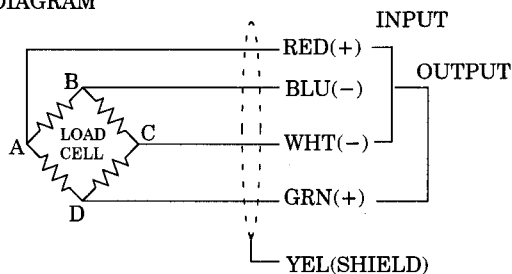
: 10⁶ times with rated load.

NOTE) R.O. indicates Rated output and R.C. indicates Rated Capacity.

Polarity of output will become plus (+) when the direction of compression load is applied.

If polarity change is required, change wirings of output (blue and green).

WIRING DIAGRAM



Composition

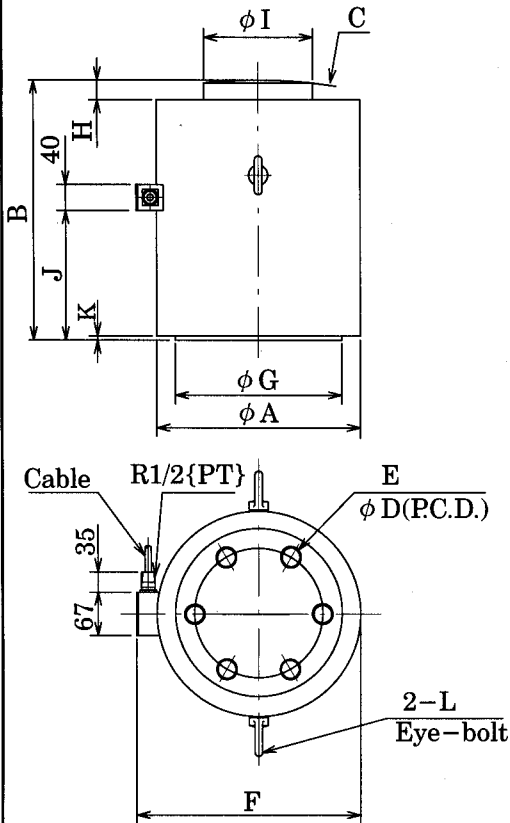
Main body	1
Inspection data	1
Instruction manual	1

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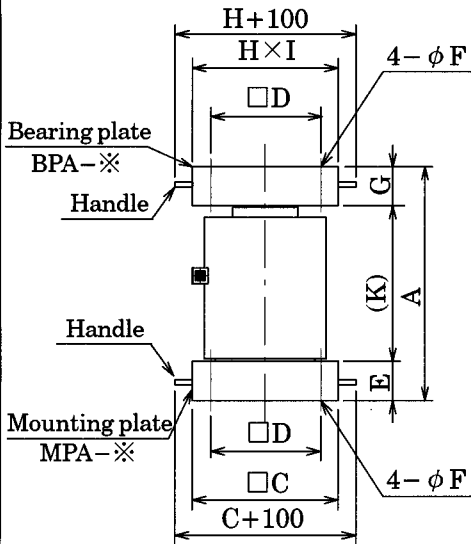
OUTLINE DIMENSIONS

Unit : mm

P/N	Rated capacity	ϕA	B	C	ϕD	E	F
CCS1-50T	490.3 kN{50 tf}	140	160	SR200	80	4-M12 Depth 20	166
CCS1-100T	980.7 kN{100 tf}	165	190	SR200	100	4-M16 Depth 20	193
CCS1-200T	1.961 MN{200 tf}	216	230	SR300	130	4-M16 Depth 25	246
CCS1-300T	2.942 MN{300 tf}	216	320	SR600	130	4-M24 Depth 35	246
CCS1-500T	4.903 MN{500 tf}	318	400	SR800	200	6-M30 Depth 50	350

P/N	ϕG	H	ϕI	J	K	L	Rated displacement	Natural frequency (Hz)	Weight (Approx. kg)
CCS1-50T	110	20	50	70	2	-	0.16	9700	10
CCS1-100T	130	30	70	80	2	M8	0.19	8200	18
CCS1-200T	180	30	95	100	2	M12	0.23	6900	34
CCS1-300T	180	30	120	150	2	M12	0.34	4800	50
CCS1-500T	260	30	170	200	7	M16	0.40	5000	150

BEARING & MOUNTING PLATE ATTACHED



Composition

Main body	1
Bearing plate (BPA-*)	1
Mounting plate (MPA-*)	1
Hexagon socket head cap screws (Accessories for MPA)	*

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

OUTLINE DIMENSIONS

Unit : mm

P/N	P/N for accessories (Option)	A	$\square C$	$\square D$	E	ϕF	G	H	I	K	Weight (Approx. kg)
CCS1-50T	BPA-7-B MPA-7A-B	240	220	160	40	19	40	220	220	160	40
CCS1-100T	BPA-8-B MPA-8	310	260	200	60	23	60	260	250	190	82
CCS1-200T	BPA-10 MPA-10	390	280	200	80	27	80	280	280	230	134
CCS1-300T	BPA-15 MPA-15	500	280	200	80	35	100	280	280	320	160
CCS1-500T	BPA-12 MPA-12	630	380	280	100	40	130	380	380	400	400

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.

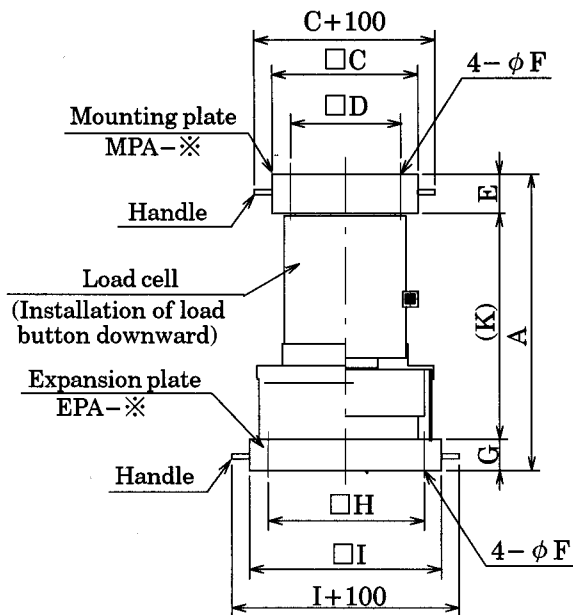
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EXPANSION & MOUNTING PLATE ATTACHED



Composition	
Main body	1
Expansion plate (EPA-※)	1
Mounting plate (MPA-※)	1
Hexagon Socket Cap Screws (Accessories for MPA)	※

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

OUTLINE DIMENSIONS

Unit : mm

P/N	P/N for accessories (Option)	A	□C	□D	E	φ F	G	□H	□I	K	Expansion limit	Weight (Approx.kg)
CCS1-50T	MPA-7A-B EPA-7	305	220	160	40	19	40	160	220	225	±15	50
CCS1-100T	MPA-8 EPA-8	400	260	200	60	23	60	200	260	280	±15	104
CCS1-200T	MPA-10 EPA-10	475	280	200	80	27	60	280	360	335	±15	204
CCS1-300T	MPA-15 EPA-15	585	280	200	80	35	60	320	400	445	±15	272
CCS1-500T	MPA-12 EPA-12	745	380	280	100	40	80	400	500	565	±15	607

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