

## SPECIFICATIONS

Explosion-proof Compression Type  
Load Cell

Load Cell  
CCP1-2T ~ 50T-Z

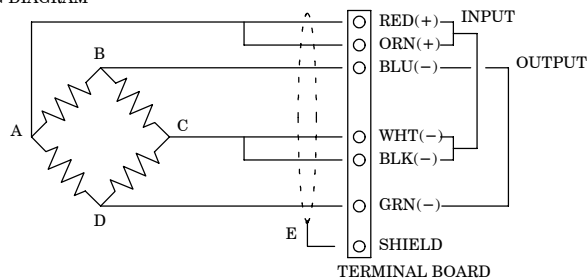
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Passing No. of model authorization	: CCP1-2T ~ 5T-Z : No.37836 CCP1-10T-Z : No.37837 CCP1-20T-Z : No.37838 CCP1-30T-Z : No.37839 CCP1-50T-Z : No.37840
Classification of explosive & flammability	: 2G4
Hazardous areas to be used	: 1 zone and 2 zone
Limit of temperature raise at operation	: 70 ( In case of operating temperature is at 40 )
Load characteristics	
Rated capacity	: 19.61 kN{2 tf} ~ 490.3 kN{50 tf}
Safe overload	: 150 %R.C.
Ultimate overload	: 200 %R.C.
Rated output	: 3 mV/V ± 0.003 mV/V
Non-linearity	: 0.05 %R.O.
Hysteresis	: 0.02 %R.O.
Repeatability	: 0.02 %R.O.
Electrical characteristics	
Excitation, recommended	: 12 V or less
Excitation, at max	: 20 V
Zero balance	: ± 0.03 mV/V
Input resistance	: 350 ± 3.5
Output resistance	: 350 ± 5
Insulation resistance	: 2 000 M or more(DC50 V)
( Between bridge and main body )	
Temperature characteristics	
Temperature range, compensated	: - 10 to 70
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	: CAB-501 should be used. ( Option ) ( 10 mm 6-cores shielded cable is attached.)
Class of protection	: Equivalent to IP64. (Main body only)
Materials of the element	: Alloy steel
Paint	: Painted with epoxy resin (Munsell 6GY3.5/2 half-polished resemblance color)
Durability	: 10 <sup>6</sup> times with rated load
Terminal box	: Fixed with solderless terminal screws on the terminal plate
Cable retracting method	: Explosion-proof packing type
Piping method	: Thick steel conduit tube

NOTE) R.O. indicates Rated Output and also 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 with wiring of blue and green(OUTPUT).

WIRING DIAGRAM



Composition

Composition	
Main Body	1
Load Buttom(LBU- ) (including O-ring)	1
Inspection data	1
Crimp-type terminal lugs	7
Instruction manual for Explosion proof	1
Instruction manual	1

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### Load Cell CCP1-2T-Z ~ 50T-Z

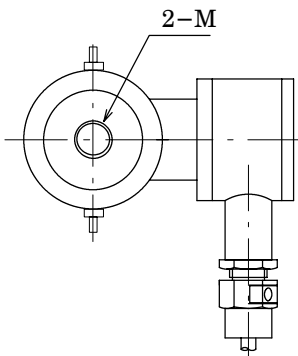
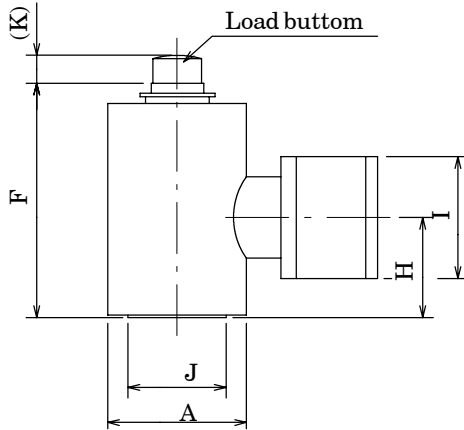
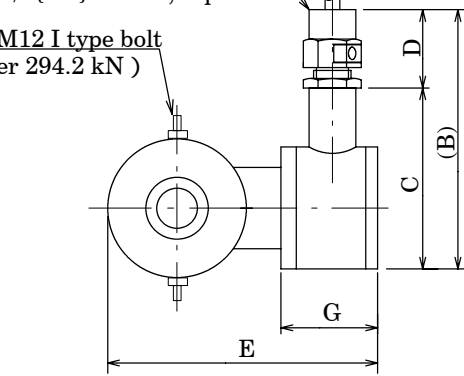
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For explosion-proof metal piping

G1/2{PF} B class, depth 12

2-M12 I type bolt  
(over 294.2 kN)



#### Outline dimensions

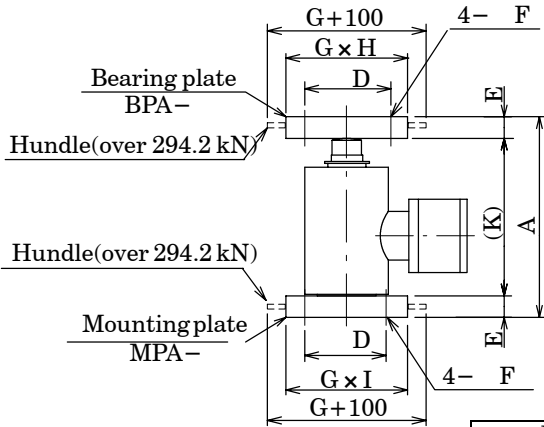
Unit : mm

P/N	Rated capacity	A	B	C	D	E	F	G	H	I
CCP1-2T-Z	19.61 kN{2 tf}	89	166	116	50	173	150	62	64	78
CCP1-3T-Z	29.42 kN{3 tf}									
CCP1-5T-Z	49.03 kN{5 tf}									
CCP1-10T-Z	98.07 kN{10 tf}	127	166	116	50	211	216	62	101	78
CCP1-20T-Z	196.1 kN{20 tf}	165	166	116	50	249	291	62	130	78
CCP1-30T-Z	294.2 kN{30 tf}	203	166	116	50	287	360	62	157	78
CCP1-50T-Z	490.3 kN{50 tf}	229	166	116	50	313	453	62	175	78

P/N	J	K	M	Rated displacement	Natural frequency (Hz)	Weight (Approx. kg)
CCP1-2T-Z	64	18	M24 × 2 depth 30	0.17	2 100	5.8
CCP1-3T-Z				0.16	2 600	
CCP1-5T-Z				0.13	3 500	
CCP1-10T-Z	102	30	M39 × 2 depth 50	0.18	2 500	13.5
CCP1-20T-Z	145	27	M50 × 2 depth 65	0.24	1 800	28.5
CCP1-30T-Z	172	40	M64 × 3 depth 89	0.26	1 600	51.5
CCP1-50T-Z	195	50	M76 × 3 depth 115	0.32	1 400	88.5

## SPECIFICATIONS

Applied bearing plate and mounting plate



Load Cell  
CCP1-2T ~ 50T-Z

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### Composition

Main Body	1
Load bottom(LBU- ) (Including O-ring)	1
Bearing plate(BPA- )	1
Mounting plate(MPA- )	1
Mounting bolt for load cell (Accessory of MPA)	1

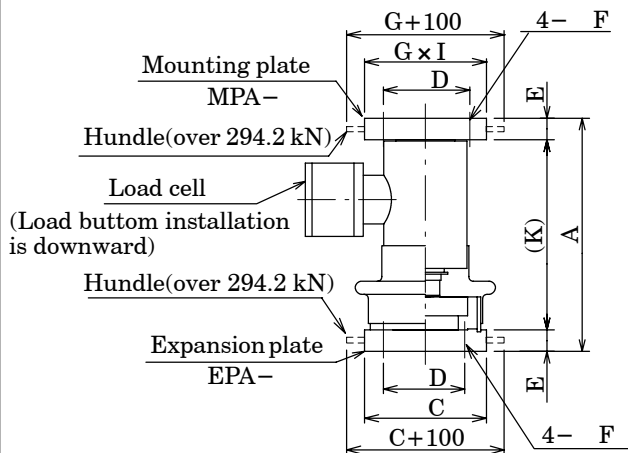
Outline dimensions

Unit : mm

P/N	P/N of Accs. (Option)	A	D	E	F	G	H	I	K	Weight (Approx. kg)
CCP1-2T-Z	BPA-3-B	214	105	23	12	130	128	130	168	11.8
CCP1-3T-Z	MPA-3A-B									
CCP1-5T-Z										
CCP1-10T-Z	BPA-4-B MPA-4A-B	305	125	30	14	160	153	155	245	25.5
CCP1-20T-Z	BPA-6-B MPA-6A-B	377	150	30	14	200	200	185	317	46.5
CCP1-30T-Z	BPA-17 MPA-31	480	190	40	18	240	240	240	400	87.5
CCP1-50T-Z	BPA-8-B MPA-9	622	200	60	23	260	250	260	502	153.5

The load cell may touch to either side of bearing plate as far as both dies 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 the surface of bearing plate where the P/N has curved.

Applied expansion plate and mounting plate



### Composition

Main body	1
Load bottom(LBU- ) (Including O-ring)	1
Expansion plate(EPA- )	1
Mounting plate(MPA- )	1
Mounting bolt for load cell(MPA accessory)	1

Outline dimensions

Unit : mm

P/N	P/N of Accs. (Option)	A	C	D	E	F	G	I	K	Limit of expansion	Weight (Approx. kg)
CCP1-2T-Z	MPA-3A-B	249	130	105	23	12	130	130	203	± 8	13.8
CCP1-3T-Z	EPA-3A										
CCP1-5T-Z											
CCP1-10T-Z	MPA-4A-B EPA-4A	350	160	125	30	14	160	155	290	± 10	28.5
CCP1-20T-Z	MPA-6A-B EPA-6	442	200	150	30	14	200	185	382	± 10	54.5
CCP1-30T-Z	MPA-31 EPA-19	550	240	190	40	18	240	240	470	± 15	100.5
CCP1-50T-Z	MPA-9 EPA-8A	710	260	200	60	23	260	260	590	± 15	178.5