

SPECIFICATION

Square Beam Type Load Cell

Load Cell
C3B1-200K ~ 5T-NS

SPEC.No.EN211504-C 1/2

Performance

Rated capacity	: 1.961 kN {200 kgf} ~ 49.03 kN {5 tf}
Safe overload	: 150 %R.C.
Ultimate overload	: 200 %R.C.
Rated output	: 3 mV/V ± 0.003 mV/V
Non-linearity	: 0.025 %R.O.
Hysteresis	: 0.025 %R.O.
Repeatability	: 0.025 %R.O.
Creep	: 0.03 %R.O./20 min
Creep recovery	: 0.03 %R.O./20 min

Electrical

Excitation, recommended	: 12 V or less
Excitation, at maximum	: 20 V
Zero balance	: ± 0.03 mV/V
Input resistance	: 420 ± 40
Output resistance	: 350 ± 5
Insulation resistance (between bridge and main body)	: 2 000 M or more (DC 50 V)

Temperature

Temperature range, compensated	: - 10 to 70
Temperature range, safe	: - 20 to 80
Temperature effect on zero balance	: 0.05 %R.O./10
Temperature effect on output	: 0.02 %LOAD/10

Cable : • 4.7, 4-cores shielded 6 m cable directly attached.
Y-type solderless terminal is attached at the cable end.

Class of protection : Equivalent to IP67 (Main body only)
(JIS C0028, normal operation after 10 cycles are over.)

Material of element : Alloy steel

Paint : Painted with epoxy resin (Black)

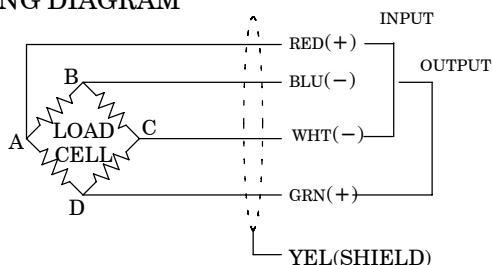
Durability : 10⁶ times with rated load.

Note) R.O. means Rated Output and also 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 wiring of blue and green.

WIRING DIAGRAM



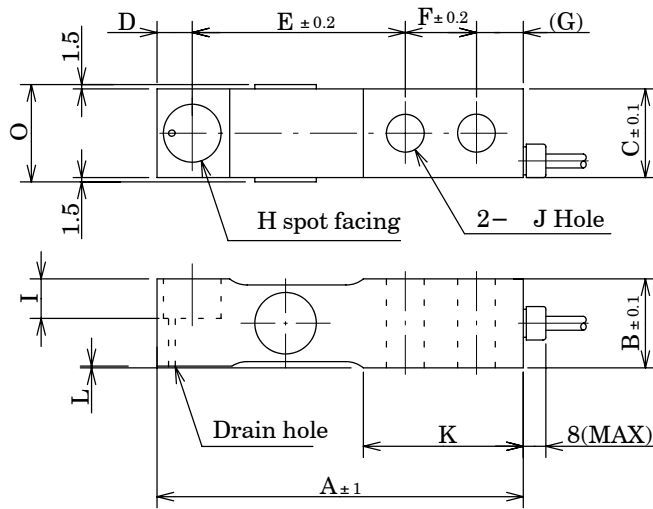
Composition

Main body	1
Inspection data sheet	1

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Unit : mm

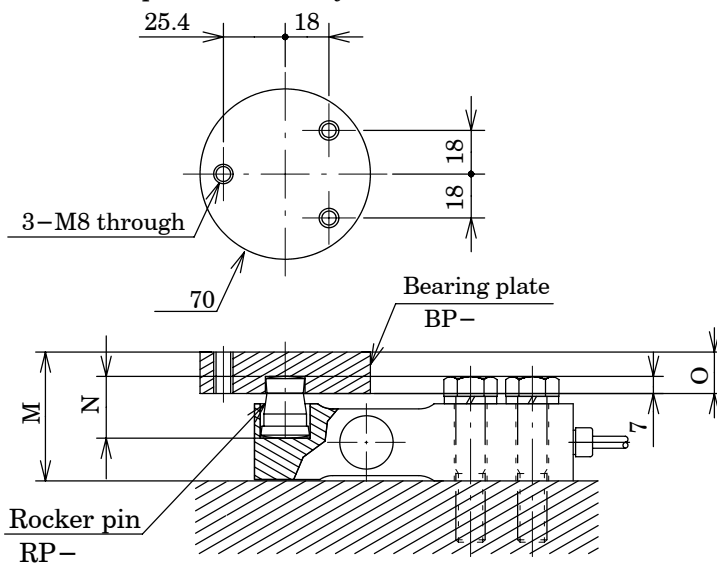
Outline dimensions

(Unit : mm)

P/No.	Rated capacity	A	B	C	D	E	F	G	H
C3B1-200K-NS	1.961 kN {200 kgf}	171.5	38.1	38.1	19	95.25	38.1	19.15	30.2
C3B1-300K-NS	2.942 kN {300 kgf}								
C3B1-500K-NS	4.903 kN {500 kgf}								
C3B1-1T-NS	9.807 kN {1 tf}								
C3B1-2T-NS	19.61 kN {2 tf}								
C3B1-3T-NS	29.42 kN {3 tf}	1	85	1	41.1	0.9	2 300	2.0	
C3B1-5T-NS	49.03 kN {5 tf}								

P/No.	I	J	K	L	O	Rated displacement	Natural frequency (Hz)	Weight (Approx. kg)
C3B1-200K-NS	14.2	13.5	57.2	0.6	34.8	0.5	2 600	1.1
C3B1-300K-NS						0.5	2 600	
C3B1-500K-NS						0.5	2 600	
C3B1-1T-NS						0.5	2 500	
C3B1-2T-NS	17	19.8	85	1	41.1	0.9	2 300	2.0
C3B1-3T-NS						0.9	2 200	
C3B1-5T-NS						0.9	2 200	

With optional accessory installed



Composition

Main body	1
Bearing plate(BP-)	1
Rocker pin(RP-)	1

Outline dimensions

(Unit : mm)

P/No.	P/No. of accessory (Option)		M	N	O	Weight (Approx. kg)
	RP	BP				
C3B1-200K-NS	RP-1	BP-1	53	25.4	17	1.7
C3B1-300K-NS						
C3B1-500K-NS						
C3B1-1T-NS	RP-2	BP-2	66	31.9	20	2.7
C3B1-2T-NS						
C3B1-3T-NS						
C3B1-5T-NS						

Specifications and outline dimensions and so on which have printed may subject to change for the purpose of improvement.