

SPECIFICATIONS

Load Cell for Scale

Load Cell
U2D1-3K ~ 100K

SPEC.No.EN214031-B

1/3

Performance

Rated capacity	: 29.42 N{3 kgf} ~ 980.7 N{100 kgf}
Safe overload	: 200 %R.C.
Ultimate overload	: 300 %R.C.
Rated output	: 2 mV/V ± 0.2 mV/V
Non-linearity	: 0.015 %R.O.
Hysteresis	: 0.015 %R.O.
Repeatability	: 0.02 %R.O.
Creep	: 0.02 %R.O./20 min(U2D1-3K : 0.03 %R.O./20 min)
Creep recovery	: 0.02 %R.O./20 min(U2D1-3K : 0.03 %R.O./20 min)

Electrical

Excitation, recommended	: 12 V or less
Excitation, at maximum	: 20 V
Zero balance	: ± 0.1 mV/V

Input resistance	: 420 $\begin{smallmatrix} +30 \\ -20 \end{smallmatrix}$
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 50
Temperature range, safe	: - 10 to 50
Temperature effect on zero balance	: 0.04 %R.O./10
Temperature effect on output	: 0.012 %LOAD/10

Cable : 3.2, 4-cores shielded cable 30 cm directly attached, and cable end is separated.

Class of protection : Equivalent to IP40 (Main body only)

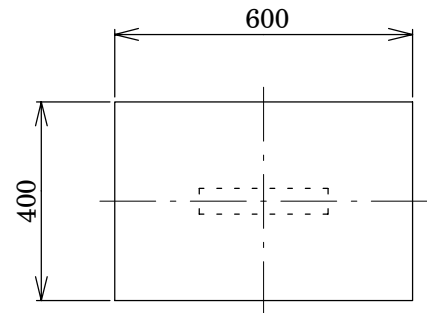
Material of element : Aluminium alloy

Durability : 10⁶ times with rated capacity applied.

Effect of eccentric load :

- The size of loading plate : 400 mm x 600 mm at maximum
- The center of loading plate and also the center of load cell should be the same position.
- Error is within 0.02 %R.O. applied with 1/2 of rated capacity at the position of 150 mm of eccentricity.

Maximum size of loading plate

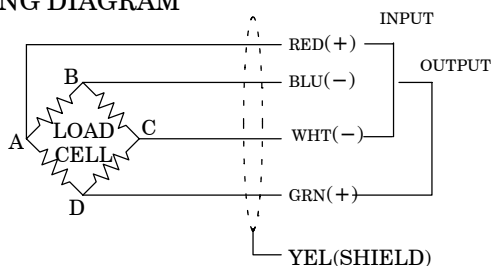


Note) R.O. means Rated Output and also R.C. means Rated Capacity.

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

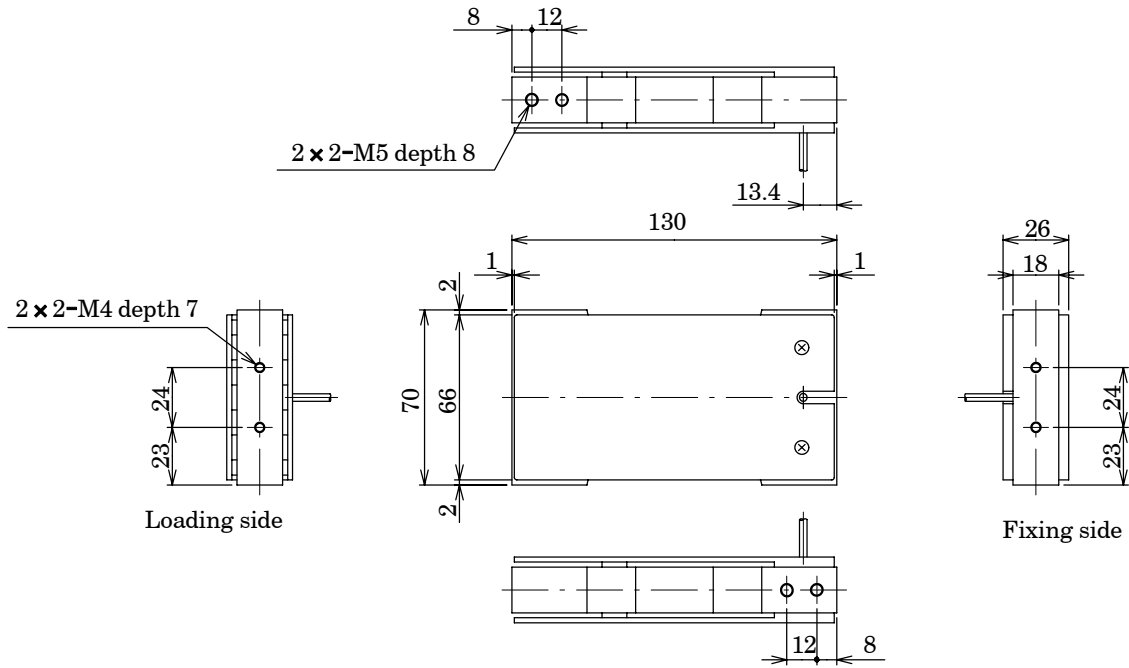
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U2D1-3K ~ 20K

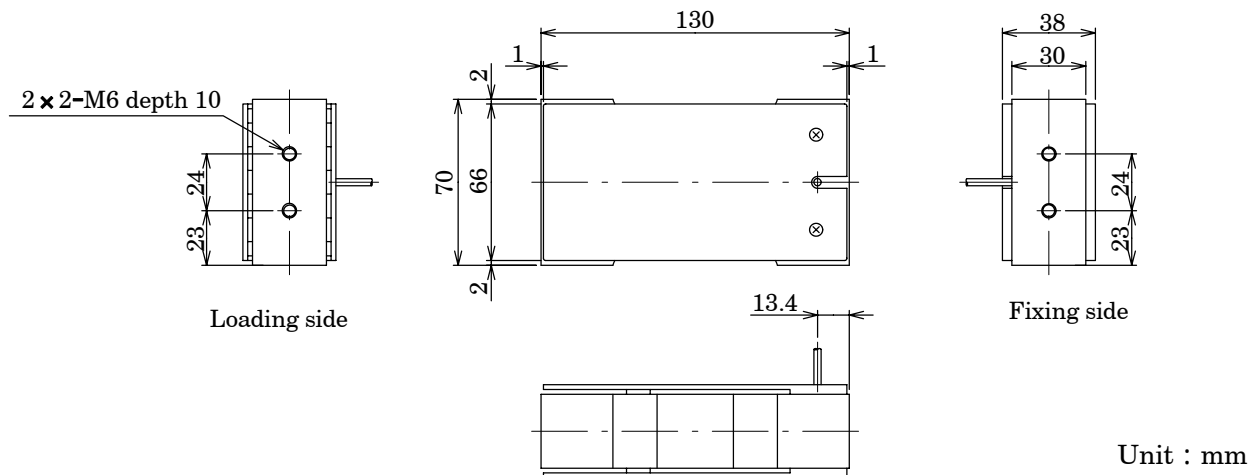


Outline dimensions

(Unit : mm)

P/No.	Rated capacity	Rated displacement	Natural frequency (Hz)	Weight (Approx.g)
U2D1-3K	29.42 N{3 kgf}	0.48	95	350
U2D1-6K	58.84 N{6 kgf}	0.48	140	350
U2D1-10K	98.07 N{10 kgf}	0.45	180	350
U2D1-15K	147.1 N{15 kgf}	0.41	230	350
U2D1-20K	196.1 N{20 kgf}	0.38	280	350

U2D1-25K ~ 50K



Outline dimensions

(Unit : mm)

P/No.	Rated capacity	Rated displacement	Natural frequency (Hz)	Weight (Approx.g)
U2D1-25K	245.2 N{25 kgf}	0.56	550	550
U2D1-50K	490.3 N{50 kgf}	0.61	550	550

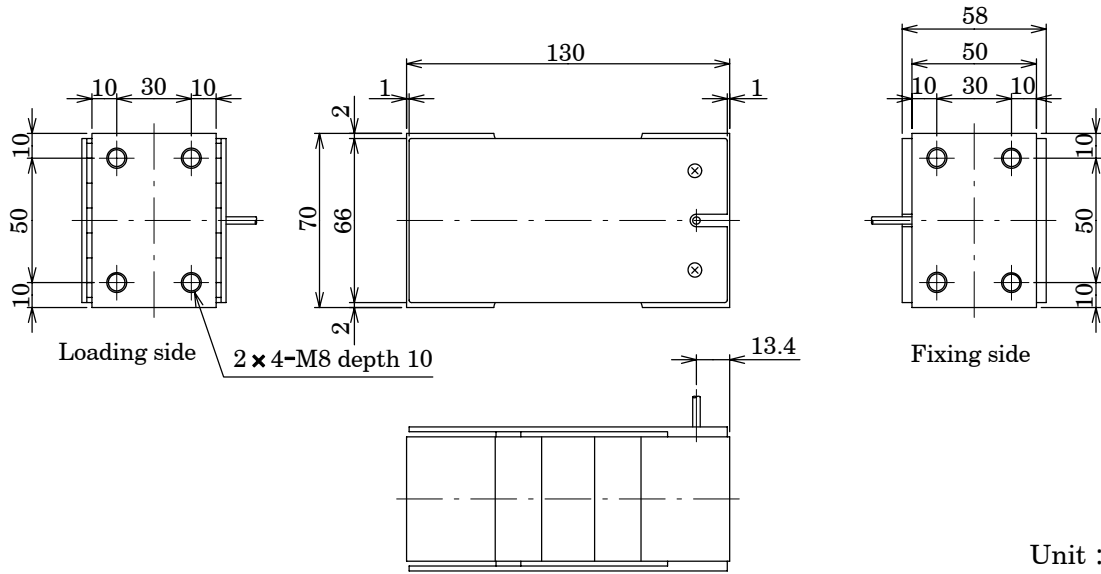
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U2D1-100K



Unit : mm

Outline dimensions

(Unit : mm)

P/No.	Rated capacity	Rated displacement	Natural frequency (Hz)	Weight (Approx.g)
U2D1-100K	980.7 N{100 kgf}	0.53	340	800

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