

Features

- Capacities 2.5KG – 200KG.
- Linearity $\pm 0.026\%$ RO.
- IP67 rating.
- Optional mounting kit available.

Applications

- Low profile platforms.
- Process control.
- Belt weighers.



Description

The CL-F1 is a welded bending beam load cell manufactured from stainless steel. The F1 has welded sealing to enable it to be used for a wide range of applications in process weighing.

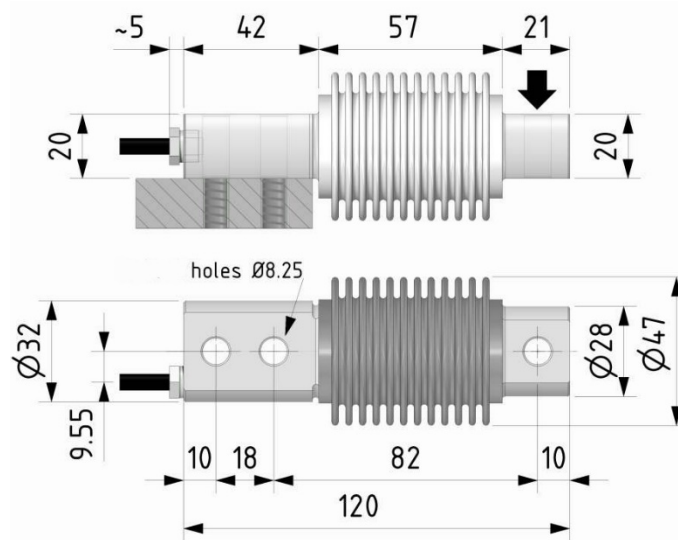
Please refer to **Page 3** for detailed information regarding the mounting kit.

Typical Specification

PARAMETER	VALUE	UNITS
Capacities Range	2.5, 5, 10, 25, 50, 100, 200	KG
Rated Output	2	mV/V
Sensitivity Tolerance	0.1	$\pm\%$ of Rated Output
Linearity & Hysteresis	0.026	$\pm\%$ of Rated Output
Repeatability	0.012	$\pm\%$ of Rated Output
Zero Return AFTER 30 MINUTES	0.025	$\pm\%$ of Rated Output
Creep at Nominal Load OVER 30 MINUTES	0.026	$\pm\%$ of Rated Output
Creep at Nominal Load OVER 20 & 30 MINUTES	0.010	$\pm\%$ of Rated Output
Input Resistance	420 \pm 20	Ω
Output Resistance	350 \pm 2	Ω
Insulation Resistance	>5	G Ω
Zero Balance	≤ 1	$\pm\%$ of Rated Output
Temperature Effect ON ZERO	0.025	$\pm\%$ of Rated Output/ $^{\circ}$ C
Temperature Effect ON OUTPUT	0.008	$\pm\%$ of Rated Output/ $^{\circ}$ C
Temperature Range STORAGE	-20 to +80	$^{\circ}$ C
Temperature Range OPERATING	-20 to +70	$^{\circ}$ C
Mechanical Limit SAFE OVERLOAD	150	% of Rated Output
Mechanical Limit ULTIMATE OVERLOAD	>300	% of Rated Output
Mechanical Limit SAFE TRANSVERSE LOAD	200	% of Rated Output
Mechanical Limit SAFE DYNAMIC LOAD	75	% of Rated Output
Displacement at Nominal Load	~ 0.4	mm
Excitation RECOMMENDED SUPPLY	10	Volts AC or DC
Excitation NOMINAL RANGE	1-15	Volts AC or DC
Excitation MAXIMUM	18	Volts AC or DC
Weight	~ 0.62	KG
Cable	5	m
Sensor Construction Material	Stainless Steel	-
Environmental Protection	IP67	-

PARAMETER	VALUE	UNITS
Fixing Screw DIAMETER	M8	-
Fixing Screw RESISTANCE CLASS	12.9	-
Fixing Screw TIGHTENING TORQUE	20	Nm

Outline Dimensions in millimetres



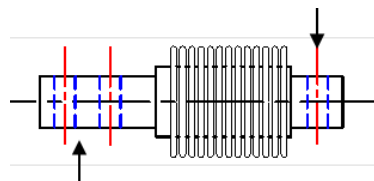
CAPACITY (KG)	ORDERING CODE
2.5	CF12K5C25
5	CF15KC25
10	CF110KC25
25	CF125KC25
50	CF150KC25
100	CF1100KC25
200	CF1200KC25

Wiring Details

	OUTPUT	CABLE ⁽¹⁾
	EXCITATION +	RED
	EXCITATION -	BLACK
	OUTPUT +	WHITE
	OUTPUT -	YELLOW
	-----	SHIELD ⁽²⁾

(1) PVC 105°C shielded cable, Ø 5.2mm with 4 tinned Ø0.35mm² conductors. (2) Connected to the body of the load cell.

Loading Mode



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CL-F1 Cantilever Beam Load Cell Mounting Kit

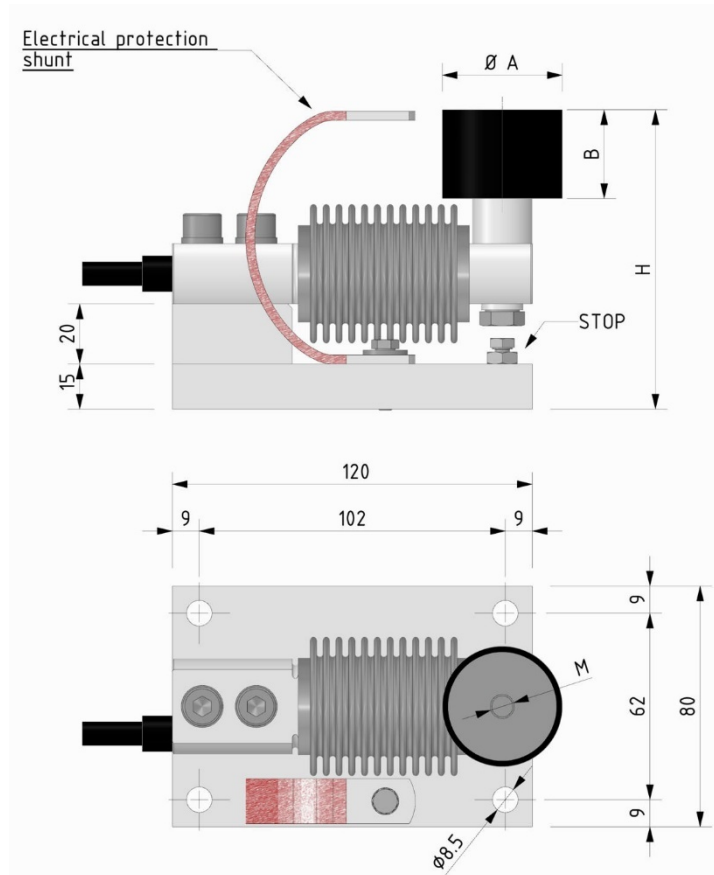
Description

The UPF1 mounting kit for the CL-F1 load cell is designed to refine the installation of the F1 load cell in weighing and batching system applications in tanks, silos, and hoppers. It is suitable for static or vibrating applications.

Made from stainless steel, the UPF1 is provided with an elastomer bearing to preserve excellent features even in event of settlements, thermal dilation, positioning error, transverse thrusts and deformations or vibrations of structures.

The UPF1 is completed by an adjustable mechanical stop to protect from overloading and by an electrical protection against electrostatic discharges.

Outline Dimensions in millimetres

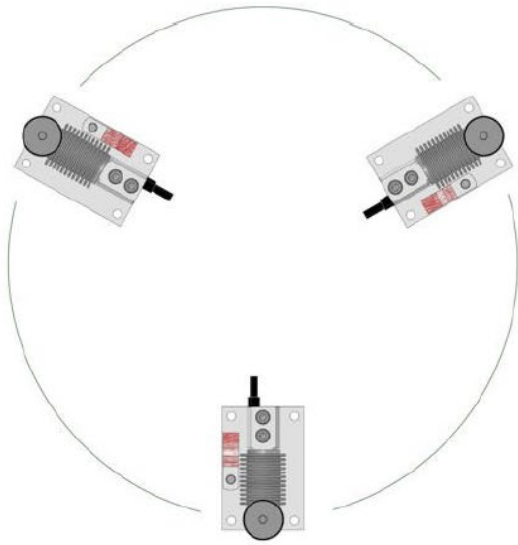


RANGE (KG)	A	B	M	H
2.5, 5, 10, 25, 50	40	30	M8	100
100, 200	50	45	M10	115

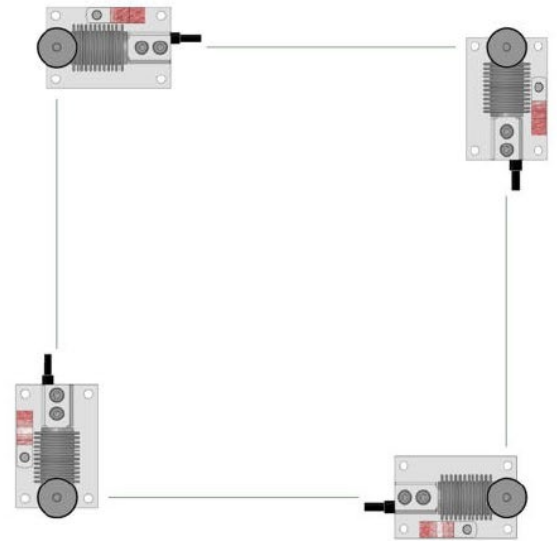
Assembly Instructions

- 1) Set the lower plates of the unit to the floor using M8 bolts.
- 2) Install the weighing system to the upper plates of the unit using M8 or M10 bolt.
- 3) Adjust the overload STOP with a clearance of 0.2 mm when the system is loaded with the maximum weight.
- 4) Connect the weighing units in use to the electrical earth, in accordance with plant design regulations.

CL-F1 Cantilever Beam Load Cell Mounting Kit



Circular system with 3 supporting points.

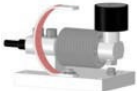
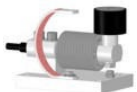





Square system with 4 supporting points

Installation Tips

- It is recommended to always observe all safety laws scrupulously in the country where the unit will be installed.
- The installer shall perform a careful environmental risk analysis (seismic zones, wind etc).
- Take care to avoid accidental overloads while assembling the unit.
- Make sure the load cell is not subject to any electrical current.
- While welding, connect the ground clamp to the top of the weighing unit.
- During maintenance check that the OVERLOAD STOPS are in the correct position and clean off any residual material.

Ordering Codes

ORDERING CODE	DESCRIPTION
 UPF1	Mounting kit for 2.5KG to 50KG rated F1 load cells. Includes base and elastomer (load cell excluded).
 UPF1B	Mounting kit for 100KG and 2000KG rated F1 load cells. Includes base and elastomer (load cell excluded).
 CANTIVIBRANTEF1	Elastomer for loads from 2.5KG to 50KG.
 CANTIVIBRANTEF1-200	Elastomer for loads of 100KG and 200KG.
 PDM8	Articulated foot complete with M8 fixing nuts.

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