563Yx-AS-VAC

Vacuum/High-Temperature Load Cell

SPECIAL

Description:

High-Temperature and Vacuum Shear Beam Load Cells from ANYLOAD are designed for environments where standard sensors fall short. Built for aerospace, semiconductor manufacturing, metallurgy, and advanced research, they provide the accuracy and stability needed under extreme thermal and pressure conditions, while offering the flexibility to be configured for unique project requirements.

Unlike off-the-shelf solutions, these load cells are engineered to order, with options for vacuum operation down to 1Pa (≈1×10^{-3} Torr), compensated temperature ranges from -10°C to 150°C (operational up to 200°C), and customized mechanical and electrical interfaces. Their sealed cavities and low-outgassing construction make them suitable for vacuum chambers, space simulation facilities, and semiconductor process equipment, while repeatable performance is ensured even under rapid cycling between pressurized and vacuum states.

Because they are derived from proven ANYLOAD shear beam architectures, these products combine a dependable mechanical foundation with the ability to adapt to special applications. Whether you need modifications in geometry, mounting, temperature compensation, or electrical output, our engineering team works directly with customers to deliver solutions that align with system-level requirements.

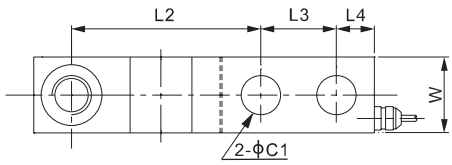
For engineers, researchers, and procurement specialists facing demanding conditions, ANYLOAD's high-temperature and vacuum shear beam load cells provide a configurable platform for precision measurement in the harshest environments. Submit an inquiry to discuss how we can tailor a solution for your application.

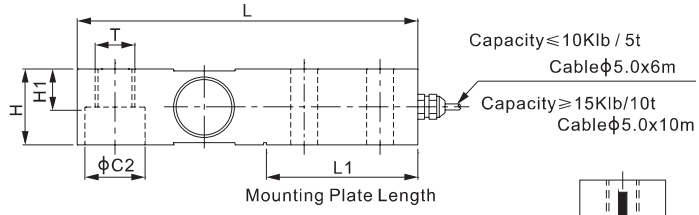
Features:

- Applications: aerospace, semiconductor manufacturing, metallurgy, advanced research, etc.
- Special configuration based on the proven 563YH load cell platform, engineered for demanding vacuum and high-temperature applications
- Vacuum-compatible (option): Sealed internal cavities and low-outgassing construction for dynamic vacuum environments down to 1 Pa (≈1×10^{-2} Torr)*, rated for repeated vacuum cycling.
- High Temperature Resistance (option): Compensated range* -10°C to 150°C, operational up to 200°C

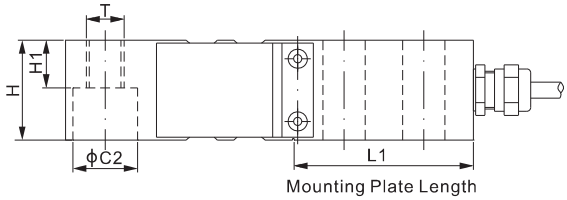
** Without material effect on weighing accuracy for most applications. Please contact us for more info.*

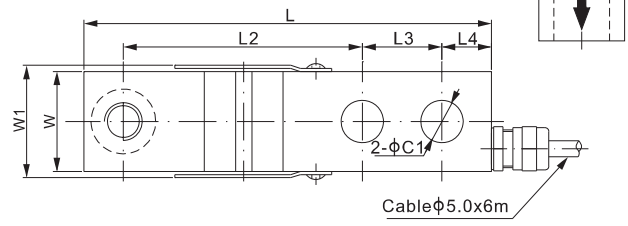
Capacity: 500kg-20t / 1Klb-20Klb





Capacity: 100kg-300kg / 100lb-500lb





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DIMENSIONS

RATED CAPACITY	C1	C2	H	H1	L	L1	L2	L3	L4	W	W1	T
lb/inches												
100–500	0.53	0.81	1.25	0.60	5.12	2.25	3.00	1.00	0.62	1.25	1.42	1/2–20 UNF–2B
1,000–4,000; SE5,000	0.53	0.81	1.25	0.60	5.12	2.25	3.00	1.00	0.62	1.25	–	1/2–20 UNF–2B
5,000–10,000	0.78	1.19	1.50	0.75	6.75	3.00	3.75	1.50	0.75	1.50	–	3/4–16 UNF–2B
15,000–20,000	1.03	1.81	2.00	1.00	8.75	4.00	4.75	2.00	1.00	2.00	–	1–14 UNS–2B
kg/mm												
100–300	13.5	20.6	31.8	15.2	130.0	57.2	76.2	25.4	15.8	31.8	36.0	M12X1.75
500–2,000	13.5	20.6	31.8	15.2	130.0	57.2	76.2	25.4	15.8	31.8	–	M12X1.75
2,500; 3,000; 5,000	19.8	30.2	38.1	19.1	171.5	76.2	95.3	38.1	19.1	38.1	–	M18X1.50
10,000	26.2	46.0	50.8	25.4	222.3	101.6	120.7	50.8	25.4	50.8	–	M24X2.00
20,000	30.2	50.0	58.0	32.0	241.5	110.0	132.0	55.0	27.5	58.0	–	M36X2.00

SPECIFICATIONS

Full Scale Output	3.0 mV/V ± 0.25%	**Recommended Excitation**	10V (15V Maximum)
Zero Balance	± 0.02 mV/V	**Compensated Temperature Range**	-10°C to 150°C / 14°F to 302°F(Customizable up to 200°C)
Non-linearity	< ± 0.17%	**Safe Overload**	150% of full scale
Repeatability	< ± 0.17%	**Breaking Overload**	300% of full scale
Hysteresis Error	< ± 0.17%	**Seal Type / IP Rating**	Cap.⩽300kg / 500lb: Environmentally Sealed / IP66 Cap.⩾500kg / 1Klb: Environmentally Sealed / IP67 (Custom vacuum-Sealed version)
Creep in 30 min.	< ± 0.23%		
Input Resistance	400Ω ± 20 for kg; 350Ω ± 7 for lb		
Output Resistance	350Ω ± 3	**Cable Color Code**	Exc+ Red Exc- Black Sig+ Green Sig- White Shield Bare
Insulation Resistance	>2 [50V DC]GΩ		
Cable Material	Custom high-temperature wire		

PART NUMBER

Load Cell Model	OPTIONS					Approx. Unit Weight
	Element Material	High Temp	Vacuum-Compatible	ATEX, FM, IECEX Approved *	Capacities	
563Y	**S** = Stainless Steel (or) **H** = Alloy Steel (or) **A** = Aluminum	**AS1** = 100°C (or) **AS2** = 150°C (or) **AS3** = 250°C	**VAC**	**EX**	100lb, 500lb, 1Klb, 2.5Klb	1.0kg / 2.2lb
					LE2.5Klb	1.7kg / 3.7lb
					4Klb, SE5Klb	1.0kg / 2.2lb
					5Klb, 10Klb	1.8kg / 4.0lb
					15Klb, 20Klb	4.0kg / 8.8lb
					100kg, 500kg, 2t	1.0kg / 2.2lb
					2.5t, 3t, 5t	1.8kg / 4.0lb
					10t	4.0kg / 8.8lb
					20t	5.6kg / 12.3lb

SE refers to small envelope, LE for large envelope (size of metal element)

* ATEX, FM, IECEx approved versions carry the "-EX" suffix; approval only effective when operating within -40°C to 60°C

WEIGH MODULE

■ 563YHM2

■ 563YHM4-02

250lb-2.5Klb & 200kg-1t: NTEP 1:5 000 Class III, Single Cell;
NTEP 1:9 500 ClassIII, Multiple Cell
4Klb-20Klb & 2t-5t: NTEP 1:6 000 Class III, Single Cell;
NTEP 1:10 000 Class III, Multiple Cell
only applicable to the temperature range of -40°C to 60°C

1Klb-5Klb & 500kg-2.5t: OIML MAA C4, Y=15 000;
10Klb-20Klb & 3t-10t: OIML MAA C6, Y=8 500
only applicable to the temperature range of -40°C to 60°C

For further available P/N's & specifications , please contact us.

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