Model MDB

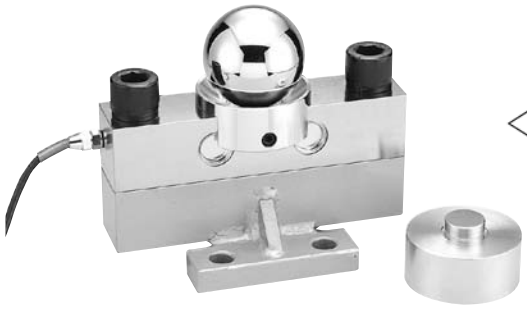
Celtron

VISHAY PRECISION GROUP

Miniature Double-Ended Beam

FEATURES

- Capacities: 10–50T
- High side load tolerance
- Electroless nickel-plated alloy tool steel
- Surge protection optional for 10T to 50T
- **Optional**
  - ❍ Hermetically sealed available
  - ❍ FM approval available



FM

APPLICATIONS

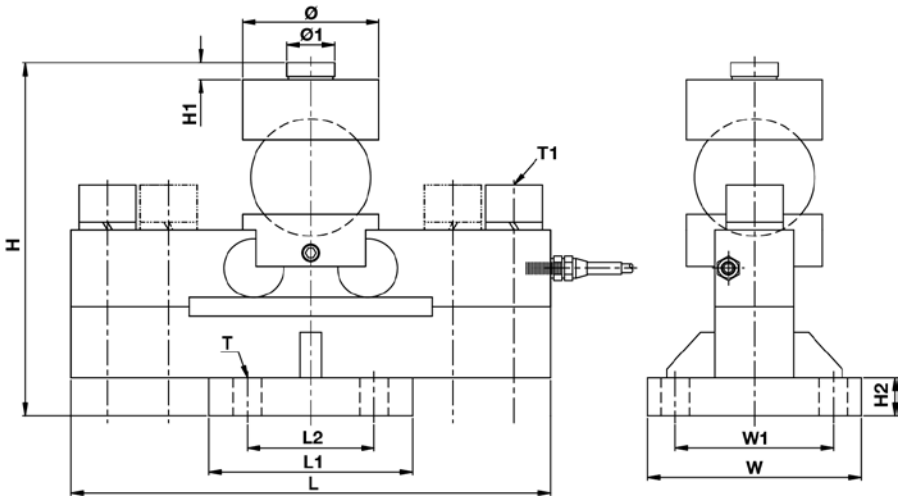
- Truck/rail scales
- Silo/hopper/tank weighing

DESCRIPTION

MDB is designed for truck and rail scales in high capacities with low profile. The design of loading through a ball is insensitive to side load.

MDB is constructed of alloy steel and is fully potted and sealed with special chemical compounds to IP67 providing excellent protection against water and moisture attack. MDB Hermetically-Sealed is constructed to IP68 providing excellent protection against corrosive and wash-down environments.

OUTLINE DIMENSIONS



Wiring diagram:

+ Excitation	Red
- Excitation	Black
+ Signal	Green
- Signal	White

CAPACITY		L	L_1	L_2	H	H_1	H_2	Ø	Ø1	W	W_1	T	T_1
10 / 20 / 25 / 30T	mm	240	125	80	230	11	20	88	30	135	100	4-Ø18	2-M24
	(inch)	9.45	4.92	3.15	8.85	0.43	0.79	3.46	1.18	5.31	3.94		
40–50T	mm	340	160	124	261	11	20	98	40	160	124	4-Ø21	4-M24
	(inch)	13.38	6.30	4.88	10.28	0.43	0.79	3.86	1.57	6.30	4.88		

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SPECIFICATIONS		
PARAMETER	**VALUE**	**UNIT**
NTEP/OIML accuracy class	Non-Approved	
Maximum no. of intervals (n)	3000	
Y = E_{max}/V_{min}	5000	Maximum available
Standard capacities (E_{max})	10000, 20000, 25000, 30000, 40000, 50000	kg
Rated output—R.O.	2.0	mV/V
Rated output tolerance	0.2	±% of rated output
Zero balance	1	±% of rated output
Non-linearity	0.030	±% of rated output
Hysteresis	0.030	±% of rated output
Non-repeatability	0.020	±% of rated output
Creep error (20 minutes)	0.030	±% of rated output
Zero return (20 minutes)	0.030	±% of rated output
Temperature effect on min. dead load output	0.0026	±% of rated output/°C
Temperature effect on sensitivity	0.0015	±% of applied load/°C
Compensated temperature range	–10 to +40	°C
Operating temperature range	–20 to +60	°C
Safe overload	150	% of R.C.
Ultimate overload	300	% of R.C.
Excitation, recommended	10	VDC or VAC RMS
Excitation, maximum	15	VDC or VAC RMS
Input impedance	770±10	Ω
Output impedance	700±5	Ω
Insulation resistance	>5000	MΩ
Cable length	13.5	m
Construction	Nickel-plated alloy steel	
Environmental protection	IP67	

All specifications subject to change without notice.

FM Approval

Intrinsically Safe: Class I, II, III; Div. 1 Groups A-G
Non-Incendive: Class I; Div. 2 Groups A-D