Digital Miniature Double-Ended Beam

FEATURES

- Easy corner compensation of the weighbridge
- Capacities: 10–30T
- Digital output via RS485 or RS422 interface
- High side load tolerance
- Electroless nickel-plated alloy tool steel
- Surge protection optional
- Extensive internal diagnostics
- External resolution 240,000 counts
- Internal resolution 1,000,000 counts
- Maximum transmission distance 1200m

APPLICATIONS

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

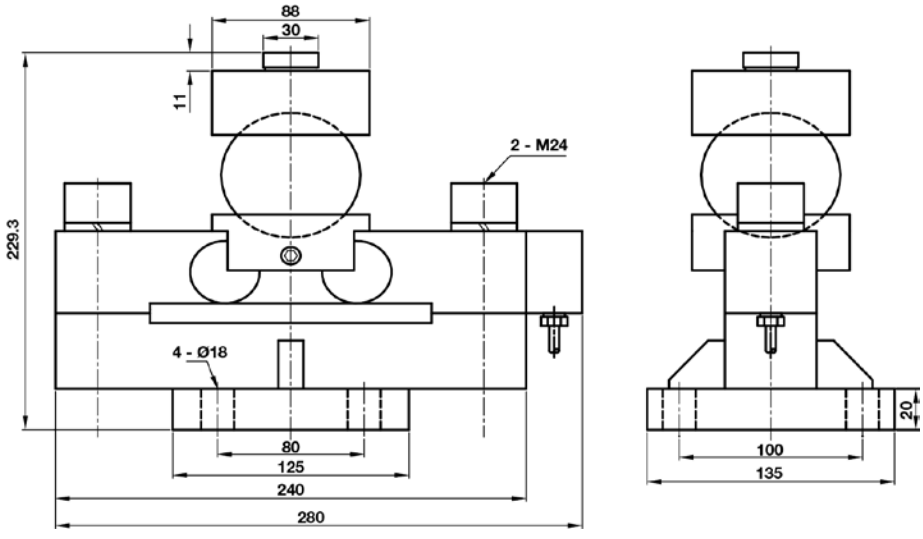
DESCRIPTION

The MDBD 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.

The MDBD 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.

The digital output enables the user to communicate with each MDBD independently of the others in the system, thus offering advantages in system setup, system control, corner correction, fault finding and load cell replacement.

OUTLINE DIMENSIONS in millimeters



Cable specifications:

Cable length: 13.5m

Excitation +	Green
Excitation –	Black
Rx +	Yellow
Rx –	Blue
Tx +	Red
Tx –	White
Shield	Transparent

Model MDBD

Celtron

VISHAY PRECISION GROUP

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SPECIFICATIONS		
PARAMETER	**VALUE**	**UNIT**
Standard capacities (E_{max})	10, 20, 25, 30	ton
Rated output—R.O.	240,000	counts
Rated output tolerance	200	±counts
Zero balance	200	±counts
Combined error	0.0200	±% of rated output
Non-repeatability	0.0200	±% of rated output
Creep error (30 minutes)	0.03	±% of rated output
Creep error (20–30 minutes)	0.01	±% of rated output
Zero return (30 minutes)	0.03	±% of rated output
Temperature effect on span	0.015	±% of rated output/10°C
Temperature effect on zero	0.026	±% of rated output/10°C
Compensated temperature range	–10 to +40	°C
Operating temperature range	–40 to +80	°C
Storage temperature range	–40 to +90	°C
Minimum dead load	0	% of Emax
Safe dead load	150	% of Emax
Ultimate load	300	% of Emax
Excitation voltage	12.5 to 18	VDC
Recommended excitation voltage	15	VDC
Maximum current consumption	80	mA
Start up current	150	mA
Insulation resistance	>5000	MW
Element material	Alloy steel	
Sealing (DIN 40.050/EN60.529/IEC 529)	IP67	
Signal update per second	25	
Baudrate	9600	Bits/s
Transmission type	Asynchronous serial transmission	
Start bits	1	
Data bits	7	
Stop bits	1	
Parity	Odd	
Maximum transmission cable length	1200	m
Data transmission interface	RS422 (4 communication wires)/ RS485 (2 communication wires)	

All specifications subject to change without notice.