

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

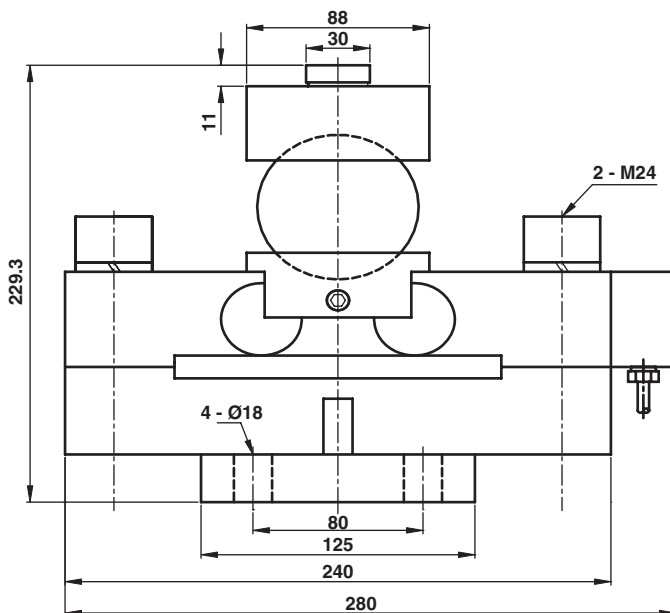
DESCRIPTION

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



Cable specifications:

Cable length: 13.5m

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

| 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 E_{max} |
| Safe dead load | 150 | % of E_{max} |
| Ultimate load | 300 | % of E_{max} |
| 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 | |

All Specifications subject to change without notice.

Disclaimer

All product specifications and data are subject to change without notice.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay Precision Group"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay Precision Group disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay Precision Group's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay Precision Group.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay Precision Group products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay Precision Group for any damages arising or resulting from such use or sale. Please contact authorized Vishay Precision Group personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.