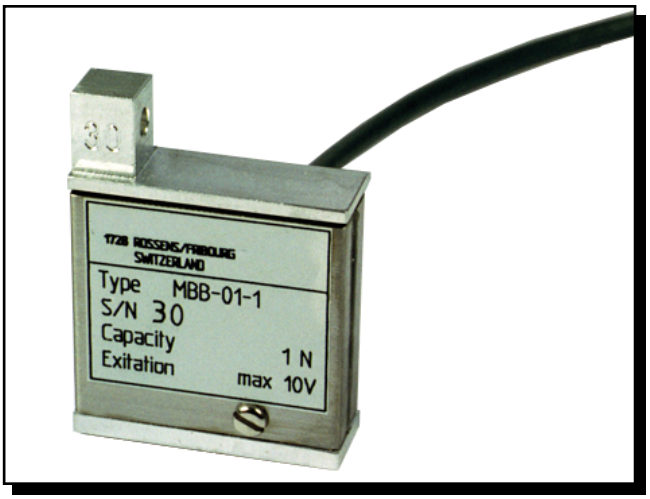
MBB-01 Miniature Force Transducers

FEATURES

- Nominal capacity:
  0.5 N, 1 N, 2 N, 3 N, 5 N, 10 N and 20 N
- Full bridge strain gauges
- Built-in high-capacity overload protection
- Minute displacement
- High-strength aluminum alloy measuring spring
- Compact dimensions



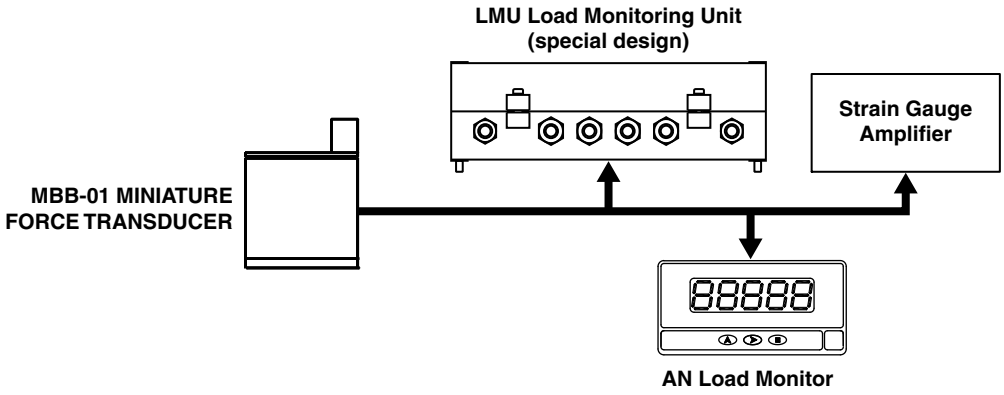
DESCRIPTION

The Magtrol MBB-01 Miniature Force Transducer is designed for measuring very small positive and negative loads. Made entirely of aluminum for very high measurement stability, this transducer features built-in high-capacity overload protection.

APPLICATIONS

The small dimensions of the MBB-01 Transducer permit its adaptation to numerous small and precision applications, as well as long-term dynamic measurements.

SYSTEM CONFIGURATION OPTIONS



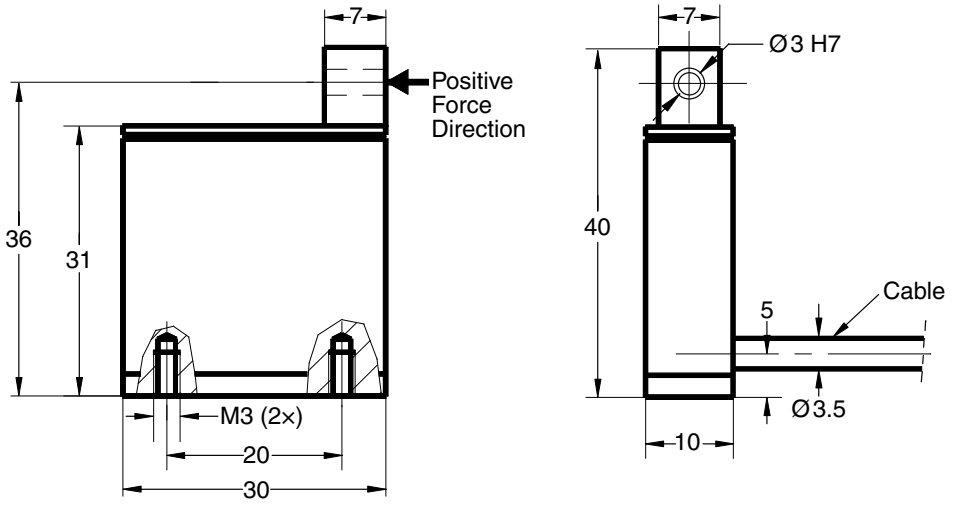
TECHNICAL RATINGS

	MBB-01-0.5	MBB-01-1	MBB-01-2	MBB-01-3	MBB-01-5	MBB-01-10	MBB-01-20
MECHANICAL CHARACTERISTICS							
Nominal Force	± 0.5 N	± 1 N	± 2 N	± 3 N	± 5 N	± 10 N	± 20 N
Overload Limit	5 N	5 N	50 N	50 N	50 N	50 N	100 N
Displacement at Nominal Force	≤ 0.05 mm	≤ 0.08 mm					
Angular Deviation of Ø 3H7 Hole at Nominal Force	≤ 0.005°						
ELECTRICAL CHARACTERISTICS							
Nominal Sensitivity	1 mV/V ±1%						
Input Impedance	1000 Ω to 1200 Ω		345 Ω to 450 Ω				
Output Impedance	1000 ±10 Ω		350 ±3 Ω				
Insulation Resistance	≥ 10^9 Ω						
Supply Voltage	≤ 10 V DC/AC					≤ 12 V DC/AC	
Combined Error (nonlinearity + hysteresis)	≤ ± 0.1 %			≤ ± 0.05 %			
ENVIRONMENTAL CHARACTERISTICS							
Max. Relative Humidity (indoor conditions)	90%						
Protection Class	IP 42						
CONNECTION CABLE							
Shielded Cable Length	0.5 m						
Pin Connections:* supply (+) supply (–) signal (+) signal (–)	Color Code (according to DIN): black blue red white						

Caution: The length of the cable attached to the MBB-01 Transducer should never be shortened. Doing so would remove the internal adjustment of the sensor.

* *The shield is not connected on the transducer side.*

DIMENSIONS



Due to the continual development of our products, we reserve the right to modify specifications without forewarning.

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