

## "MRD" / Ultra-small type

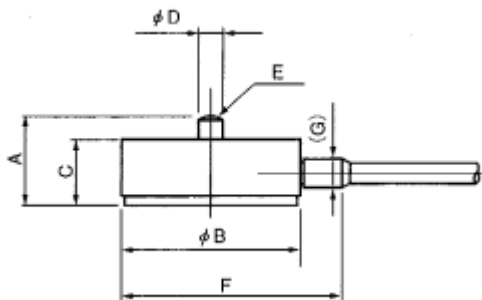


### Features

- Button type. Ultra-small Load Cell.
- Wide range capacities (10N to 10kN).
- Low cost.
- Applications: Pressure controls in press machines. For installation on industrial machines.

*Related products : MRU / MRDT / MR / MRS / MR-251...*

### Appearance Dimensions



Model and Capacity / Dimension / etc. (unit : mm)

Model	Capacity	A	B	C	D	E	F	G	Natural frequency	Weight
MRD-10N	10N	4	12	3.3	1.8	SR2	17	2.4	17kHz	1g
MRD-20N	20N	4	12	3.3	1.8	SR2	17	2.4	21kHz	1g
MRD-50N	50N	4	12	3.3	1.8	SR2	17	2.4	35kHz	1g
MRD-100N	100N	9.5	20	7.5	2.5	SR4	25	3	21kHz	5.2g
MRD-200N	200N	9.5	20	7.5	2.5	SR4	25	3	25kHz	5.2g
MRD-500N	500N	9.5	20	7.5	2.5	SR4	25	3	41kHz	5.2g
MRD-1KN	1kN	9.5	20	7.5	2.5	SR4	25	3	59kHz	5.2g
MRD-2KN	2kN	9.5	20	7.5	2.5	SR4	25	3	84kHz	5.2g
MRD-5KN	5kN	13.5	25	11	6	SR15	30	3	101kHz	12g
MRD-10KN	10kN	13.5	25	11	6	SR15	30	3	151kHz	12g

- \* The weight indicated in the specifications does not include that of the cable.

## Specifications

Safe Overload	150%RC
Rated Output	1mV/V±20%
Nonlinearity	1%RO
Hysteresis	1%RO
Repeatability	0.5%RO
Excitation Voltage	4V (or less)
Safe Excitation Voltage	6V
Input Resistance	350Ω
Output Resistance	350Ω
Compensated Temp.Range	0 to 60°C
Safe Temp.Range	-10 to 80°C
Temp.Effect on Zero	0.2%RO/°C
Temp.Effect on Output	0.1%/°C
Cable	Φ2mm-4wire shielded cable, length : 3m(10N to 50N) Φ2.8mm-4wire shielded cable, length : 3m(100N to 10kN)

\*RE:

An extremely thin side wound shielded cable with an excellent bendability is used in this Model of Load Cell. In order

Cable

**Strain Gages  
& Load Cells**



**Micro Sensor Technology**

**SHOWA MEASURING INSTRUMENTS INC.**

*Tokyo Japan*

for this extremely thin cable to be free from any accidents of being snapped off in the course of operation, it is recommended that this thin cable is connected with the robot cable via relay terminals if the load cell is installed on fluctuating positions.

Although the standard length of the drawn out cable from the load cell is determined to be 3 M, we see no particular effects provided even that the load cells are used with the drawn out cable in the different lengths