



MRS-F-51

- Feature**
- A magnetic resistance element is an InSb mono-crystal. That sensitivity and the ratio of S/N are high.
 - It can be detected even if detected material doesn't stick to the detection side
 - Output doesn't depend on the movement speed of the magnetic body, and it can detect a stationary body.
 - A detection part is pure resistance, and hardly catches guidance noise.
 - The height of sensor is 4.5mm. This is height such as DIP type operational amplifier.

Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Standard Value	Unit
Excitation,Maximum	V _a max	5.5	V
Withstand Voltage	V _I	100	V
Allowable Loss	P _D	44	mW
Operation Environmental Temperature	T _{opg}	-30 ~ +85	°C
Preserved Environmental Temperature	T _{stg}	-30 ~ +85	°C

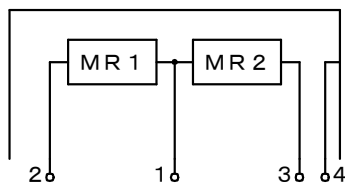
Electrical Property (Ta=25°C)

Item	Symbol	Condition	min.	Typ.	Max.	Unit
Output voltage	V _{OUT}	V _a =5V ^{*1}	0.16		0.42	mVrms
Resistance balance	d	I=1mA ^{*2}			30	%
Input resistance	R	I=1mA	700	—	4500	Ω
Voltage Noise	V _{NW}	V _a =5V			50	μV _{P-P}
Piezo Noise	V _{NP}	V _a =5V,press=10g			300	μV _{P-P}
Magnetic Flux Density	B			0.075 (S Pole)		T
Detection Width	W			3		mm

*1 Input uses the magnetic flux which occurs when it is charged with current of 50Hz, 100mA(rms) in the line of φ 0.1mm.

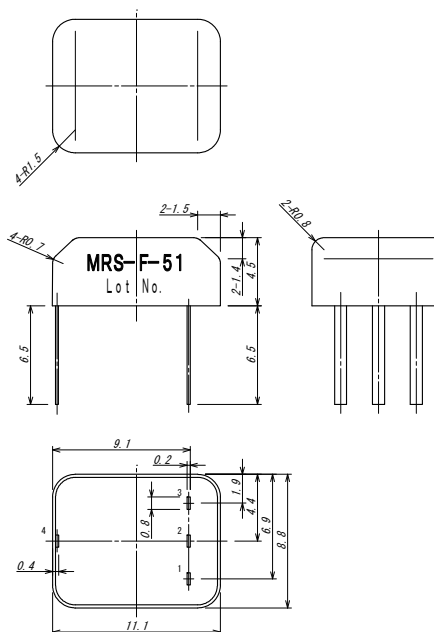
*2 $d = |MR1 - MR2| / MR1$ (or $MR2$) *100

Internal Circuit Figure



1	Vout
2	Va
3	GND
4	FG

Contour Measure Figure



The product specifications and the appearance are possibility of changing without notice.

