

MF-Series Non-inductive Strain Gauges

DESCRIPTION

These are non-inductive strain gauges suited to the measurement in magnetic field. The sensing element of this gauge consists of two identical grids with one grid folded back on another. This construction makes to cancel the electromagnetically induced noise each other. The twisted leadwire is also effective to cancel the induced noise in the same way. Accordingly, this strain gauge is less sensitive to the influence of noise induced in changing magnetic field.

Please specify the type number as shown in the example below.

MFLA -2 -350 -11 -1LJAY

Objective material for temperature compensation (coefficient of linear thermal expansion $\times 10^{-6}/^{\circ}\text{C}$)

-11: Mild steel ■ -17: Stainless steel ■ -23: Aluminium ■

Operating temperature range -20 ~ + 80°C	Applicable adhesives
	CN - 20 ~ + 80°C
	CN-E - 20 ~ + 80°C
	RP-2 - 20 ~ + 80°C

SINGLE AXIS (FOR STEEL OR CONCRETE)

Gauge pattern	Type	Gauge size(mm)		Backing size(mm)		Resistance Ω
		Length	Width	Length	Width	
<ul style="list-style-type: none"> Single axis 						
<ul style="list-style-type: none"> MFLA-5-350- □-1LJAY Used leadwire 0.08mm² twisted vinyl leadwire 1 m Loop resistance per 1 m: 0.44Ω 	MFLA-2-350	2	0.5	4.7	1.9	350
<ul style="list-style-type: none"> MFLA-5-350- □-1LS (Shielded leadwire) Used leadwire 3.2 mm dia. 2-core twisted shielded vinyl leadwire 1 m Loop resistance per 1 m: 0.44Ω 	MFLA-5-350	5	0.7	8.1	1.9	350
<ul style="list-style-type: none"> Single axis (for concrete) 						
<ul style="list-style-type: none"> MFLA-60-350- □-1LJAY Used leadwire 0.08mm² twisted vinyl leadwire 1 m Loop resistance per 1 m: 0.44Ω 	MFLA-60-350	60	0.1	64	5	350
<ul style="list-style-type: none"> MFLA-60-350- □-1LS (Shielded leadwire) Used leadwire 3.2 mm dia. 2-core twisted shielded vinyl leadwire 1 m Loop resistance per 1 m: 0.44Ω 						

Minimum order quantity is 10 strain gauges.

NB: □ shows the objective material for temperature compensation ($\times 10^{-6}/^{\circ}\text{C}$)

MULTI-AXIS (FOR HIGH TEMPERATURE USE)

Multi-axis strain gauges of this series utilize polyimide resin for the backing and they are applicable to the measurement in high temperature.

Operating temperature range -20 ~ +200°C	Applicable adhesives	
	CN	- 20 ~ + 80°C
	NP-50	- 20 ~ + 200°C



Please specify the type number as shown in the example below.

MFCAL -2 (-350) -11 -6FD1LTS

↑ Gauge series name
 ↑ Gauge length
 ↑ Gauge resistance (blank for 120Ω)
 ↑ Objective material for temperature compensation
 ↑ Length in meter and type of integral leadwire

Objective material for temperature compensation (coefficient of linear thermal expansion $\times 10^{-6}/^{\circ}\text{C}$)
 -11: Mild steel -17:Stainless steel -23:Aluminium -28:Magnesium ■ ■

Note: The backing color of MF series gauges are the same for every material for temperature compensation.

Gauge pattern	Type	Gauge size(mm)		Backing size(mm)		Resist- ance Ω
		Length	Width	Length	Width	
• 2-axis 0° / 90° Stacked type  MFCAL-2-□-6FD1LTS Used leadwire 1.5 mm dia. 0.04mm ² 3-wire twisted shielded FEP leadwire 1 m Loop resistance per 1 m: 1.1 Ω	MFCAL-2	2	0.1	φ 7		120
	MFCAL-2-350	2	0.2	φ 7		350
• 3-axis 0° / 45° / 90° Stacked type  MFRAL-2-□-6FD1LTS Used leadwire 1.5 mm dia. 0.04mm ² 3-wire twisted shielded FEP leadwire 1 m Loop resistance per 1 m: 1.1 Ω	MFRAL-2	2	0.1	φ 7		120
	MFRAL-2-350	2	0.2	φ 7		350

Minimum order quantity is 10 strain gauges.
 The length of integral leadwire for multi-axis strain gauges of this series is available up to 1 meter.
 NB: □ shows the objective material for temperature compensation ($\times 10^{-6}/^{\circ}\text{C}$)