



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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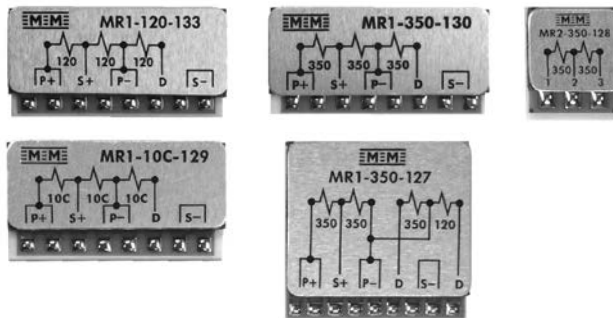


Information and Selection Chart

Strain gage instrumentation is readily available with built-in bridge completion resistors and “dummy” gages to accept quarter- and half-bridge strain gage input circuits. However, if the instrumentation at hand is not provided with these components, or if the measurement application does not permit their use, external bridge completion must be provided, and MR-Series Bridge Completion Modules can be an excellent choice in these applications.

MR-Series Bridge Completion Modules employ metal-foil resistance elements, bonded to a dense ceramic substrate. The resistance elements are specially processed to “match” the thermal expansion coefficient of the ceramic, resulting in a very low resistance temperature coefficient equivalent to $\pm 0.15\mu\epsilon/^\circ\text{F}$ ($\pm 0.27\mu\epsilon/^\circ\text{C}$) for the half-bridge circuits, and $\pm 0.35\mu\epsilon/^\circ\text{F}$ ($\pm 0.63\mu\epsilon/^\circ\text{C}$) for the dummy gages, over a temperature range from 0° to $+200^\circ\text{F}$ (-18° to $+95^\circ\text{C}$). Maximum operating temperature range is -50° to $+250^\circ\text{F}$ (-45° to $+120^\circ\text{C}$).

Each module is covered with a special environmental protection system to ensure long-term stability. A rugged aluminum overlay, embossed with a wiring diagram for easy terminal identification, affords additional protection, and in many applications no supplementary environmental protection is required. Each module is provided with foam tape for easy attachment to the test-part surface or at the instrumentation site, and tinned, heavy copper terminals facilitate attachment of up to 22-gauge (0.64 mm dia.) leadwires.



Completing the bridge circuit at the strain gage site provides for a symmetrical, balanced leadwire system between the strain gage circuit and the instrumentation. This can reduce effects of noise pickup in the leadwire system in some environments. Where switch contacts, slip rings, or other mechanical connections are employed between the strain gages and measuring instrumentation, or when leadwires will be periodically disconnected from the measuring instrument, accuracy can be improved by completing the bridge at the measurement site. Bridge completion modules can be designed to meet special circuit requirements. Contact our Applications Engineering Department for a detailed discussion of your special needs.

CHARACTERISTICS		
MODULE TYPE AND FEATURES	BRIDGE EXCITATION (VOLTS)	
	RECOMMENDED	MAXIMUM
MR1-350-127: Provides a precision 350 Ω half bridge as well as 120 Ω and 350 Ω dummy gages. Recommended for use with half-bridge strain gage circuits of any resistance value, or with 120 Ω or 350 Ω three-wire quarter-bridge circuits. Size (including foam tape): 1 x 1 x 0.2 in (25 x 25 x 5 mm). Weight: 6 g.	0.5–15 V 0.5–25 V	20 V (D120) 35 V (D350)
MR1-10C-129: Provides a precision 1000 Ω half bridge and a 1000 Ω dummy gage. Recommended for use with half-bridge strain gage circuits of any resistance value, or with 1000 Ω quarter-bridge circuits. High resistance extends battery life in battery-powered instrumentation, reduces strain gage self-heating, and permits higher bridge excitation voltage to improve signal-to-noise ratio. Size (including foam tape): 1.2 x 0.6 x 0.2 in (30 x 15 x 5 mm). Weight: 4 g.	0.5–30 V	40 V
MR1-350-130: Provides a precision 350 Ω half bridge and a 350 Ω dummy gage. Recommended for use with half-bridge strain gage circuits of any resistance value, or with 350 Ω three-wire quarter-bridge circuits. Size (including foam tape): 1.2 x 0.6 x 0.2 in (30 x 15 x 5 mm). Weight: 4 g.	0.5–18 V	25 V
MR2-350-128: Provides a precision 350 Ω half bridge in a compact size for use with half-bridge strain gage circuits. Small size makes it ideal for attachment at the strain gage site on the test part in many applications. Size (including foam tape): 0.5 x 0.7 x 0.2 in (13 x 18 x 5 mm). Weight: 2 g.	0.4–18 V	25 V
MR1-120-133: Provides a precision 120 Ω half bridge and a 120 Ω dummy gage. Recommended for use with half-bridge strain gage circuits of any resistance value, or with 120 Ω three-wire quarter-bridge circuits. Size (including foam tape): 1.2 x 0.6 x 0.2 in (30 x 15 x 5 mm). Weight: 4 g.	0.5–15 V	20 V

Half-bridge circuits in each module type are balanced to within $\pm 0.005\%$. Resistance tolerance on each dummy gage is $\pm 0.02\%$.



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