



W-M1B103/104

3 in 1 Universal Analog Input Module - High Common Mode Voltage Protection



Features

- Communication Speed From 1200 to 115.2 kbps
- Direct Sensor Input J, K, T, E, R, S, B, N
- Input Impedance Voltage: 2 M Ω , Current: 120 Ω
- Communication Protocol: Modbus RTU



Introduction

W-M1B103 / W-M1B104, 8 and 16 channels voltage / current / thermocouple analog input module with high common mode voltage protection.

Analog Input

Voltage Range	$\pm 100\text{mV}$, $\pm 500\text{mV}$, $\pm 1\text{V}$, $\pm 5\text{V}$, $\pm 10\text{V}$, 0-100mV, 0-500mV, 0-1V, 0-5V, 0-10V
Current Range	$\pm 20\text{ mA}$, 4-20 mA, 0-20 mA (Slide Switch Select)
Direct Sensor Input	J, K, T, E, R, S, B, N
Burn-out Detection	Yes (all V, 4 ~ 20 mA & all T/C)
Sampling Rates	12 Samples / Second (Total)
Resolution	16-bit
Accuracy	$\pm 0.1\%$ FSR
Input Impedance	Voltage: 2M Ω , Current: 120 Ω
Span Drift	$\pm 25\text{ ppm}/^\circ\text{C}$
Zero Drift	$\pm 6\text{ }\mu\text{V}/^\circ\text{C}$
Input Voltage Protection	$\pm 240\text{V}$ for Voltage Mode (Exclude $\pm 100\text{ mV}$, 0-100 mV)
Common Mode Voltage	240 V
Channel Independent Configuration	Yes

General

Interface	RS-485
Power Consumption	1.6W @ 24 VDC (W-M1B103) 2.8W @ 24 VDC (W-M1B104)
Power Requirement	10 ~ 60 VDC
Watchdog Timer	System (1.6 Second Fixed)
Intra-Module Isolation, Field-to-Logic	2500 VDC

Communication

Protocol	Modbus RTU
Speed	From 1200-115.2k bps
Distance	1.2 km at 9.6 kbps

Environmental

Operating Temp.	-25 ~ 70 $^\circ\text{C}$
Storage Temp.	-30 ~ 75 $^\circ\text{C}$
Operating Humidity	10% to 90% (non-condensing)

Dimension

LED Indicators	PWR, Comm, Program, Status
Weight	65g (Average)
Dimensions	472 x 121 x 120mm

Ordering Information

W-M1B103	8 universal analog inputs module (voltage / current / thermocouple)
W-M1B104	16 universal analog inputs module (voltage / current / thermocouple)

