



MAXIFLEX 16AI Module

Model M1403A 16 Channel Voltage/Current Input Module.

DATASHEET



FEATURES

- Fits in any MAXIFLEX base I/O slot
- 16 Voltage/Current Inputs
- Common Input Reference for all inputs (2 groups of 8)
- 12 bit conversion resolution.
- Removable Terminal Blocks
- Hot Plug-in
- In system automatic module detection

DESCRIPTION The M1403 16AI module provides 16 voltage or current inputs. The inputs are divided into two groups of 8, with each group having a single common reference/return terminal. The inputs are isolated from the system logic.

The input value is read as a standard 16 bit value by the system

With the aid of an accurate DC voltage source, the module can be field calibrated by the user if required.

The module may be inserted into any I/O slot in a

Maxiflex system.

Inputs are terminated on plug-in screw terminals.

The module can be inserted or removed while the system is powered.

Auto-detection capability allows the CPU to recognise the presence of this module in the system.

All configuration and dynamic data are made available to the system CPU through a module Data Interchange Table. The dynamic input values are read by reading from this table.

SPECIFICATIONS

Inputs

Quantity	16
Standard Voltage ranges	0-1V; 0-5V; 1-5V; 0-10V; 2-10V
Standard Current ranges	0-20mA; 4-20mA(factory default)
Current Input Impedance	50 Ω (0.1%) resistors fitted internally when shipped.
Voltage Input Impedance	>1M for voltage inputs
Accuracy	0.25% of span max
Linearity	0.1% of span typical.
Temperature Drift	100ppm/ $^{\circ}$ C typical
Output Reading	0-65535
Input Resolution	12 bits
ResponseTime 10-90% step	Settles to within 1% in 300ms

Isolation

Input to system logic	2500Vac rms (60s)
Insulation resistance	>20M Ω at 500Vdc

LED Indication

Green "Healthy"	ON = operating correctly Flashing = In calibration mode
Red "High" and Green "Low"	Used for field calibration.

Output Termination

Types	Screw clamp Plug-in Terminal Blocks and 20 way ribbon header
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Screw Terminal Wire Size	2.0mm ² maximum For manageable wiring to the module, 0.5 mm ² is recommended with 2mm overall outside diameter
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Environmental

Operating Temperature	0 $^{\circ}$ C to +60 $^{\circ}$ C (32 $^{\circ}$ F to +140 $^{\circ}$ F)
Storage Temperature	-40 $^{\circ}$ C to +70 $^{\circ}$ C (-40 $^{\circ}$ F to +158 $^{\circ}$ F)
Humidity	95% max. at 40 $^{\circ}$ C (104 $^{\circ}$ F) non-condensing.
Protection	Electronics conformally coated

Logic Power Consumption

From Logic Power Supply	50mA max from 5Vdc 140mA from 12Vdc
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Auto Identification Codes

Module ID	30
Scan Code	14

Mass

Excluding Packaging	360g (13oz)
Including Packaging	450g (16oz)

Ordering Information

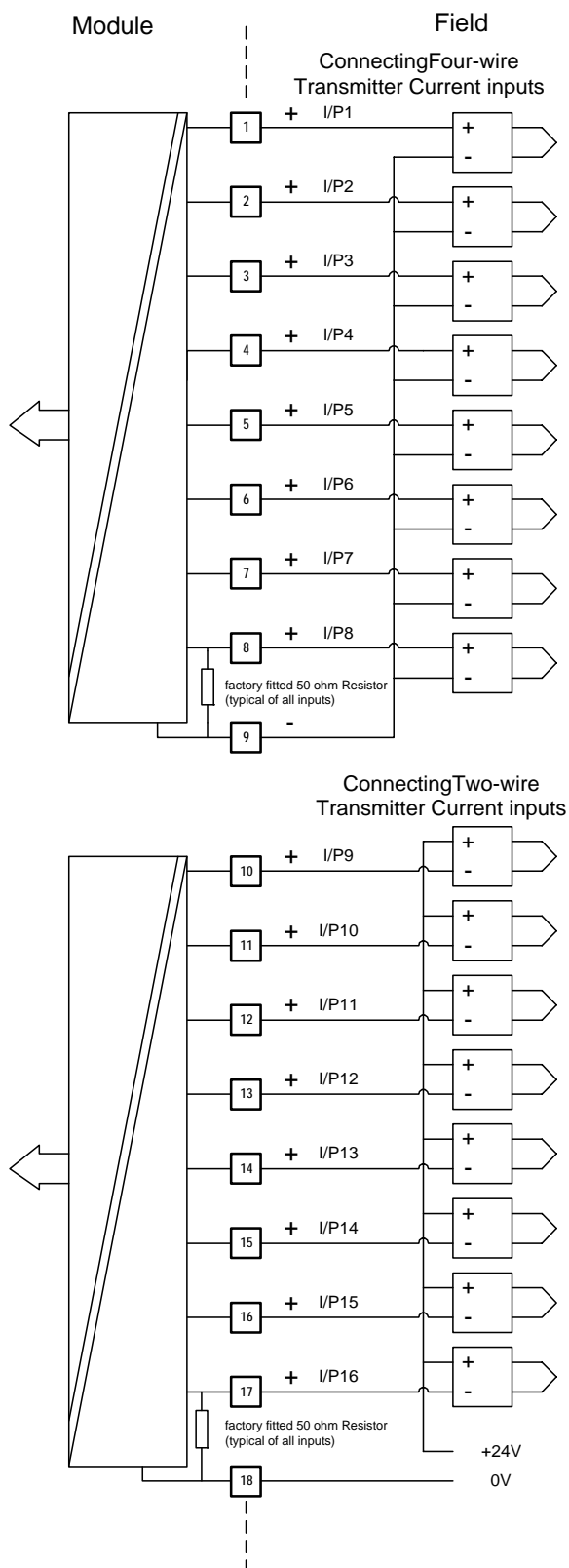
Model	Order Code
Maxiflex 8AI	M1403



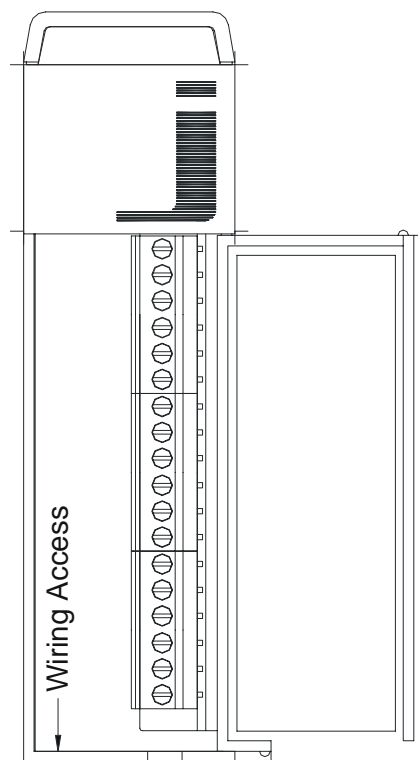
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ELECTRICAL CONNECTION



MECHANICAL CONFIGURATION



Note: Module shown with door open.