



# MAXIFLEX 8AO Module

Model M1412A 8 channel 0-20mA/4-20mA Output Module.

## DATASHEET



### FEATURES

- Fits in any MAXIFLEX base I/O slot
- 8 analog outputs of 0-20mA/4-20mA
- Powered from external 24Vdc supply
- Outputs isolated from Logic
- High 1kohm output loop drive capability
- Removable Terminal Blocks
- Hot Plug-in
- In system automatic module detection

The M1412A 8AO module provides 8 analogue outputs. A link in the module selects all outputs to be either 0-20mA or 4-20mA. Reduced output current ranges can be achieved through software scaling. The outputs are isolated from the logic, and are powered from an external 24Vdc supply.

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.

### SPECIFICATIONS

#### Inputs

Quantity	8 analogue outputs
Range	4-20mA output (factory set) 0-20mA selectable by internal link.
Maximum Load Resistance	Maximum load is calculated by: $R_{load} = (V_{supply} - 6.4V) / 20 \text{ kohm}$
Accuracy	0.25% of Full Scale maximum
Linearity	0.1% of Full Scale (typical)
Resolution	12 bits
Amplifier Drift	100ppm/°C typical

#### Response Time

Step Output change	80ms maximum for all 8 channels
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#### Isolation

Outputs to System Logic	1500Vac rms
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#### Insulation Resistance

Outputs to system logic	>20Mohms at 500Vdc
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#### LED Indication

HEALTHY	ON = operating correctly Flashing = Module failure or in calibration mode OFF = No Power or module failure
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#### Output Termination

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

Operating Temperature	-25°C to +60°C (-13°F to +140°F)
Storage Temperature	-40°C to +70°C (-40°F to +158°F)
Humidity	5% to 95% non-condensing.
Protection	Electronics conformally coated

#### Power Supply

Logic Power Consumption	50mA maximum from 5Vdc
External 24Vdc Supply	24Vdc $\pm$ 10% 195mA with all outputs at 20mA

#### Auto Identification Codes

Module ID	34
Scan Code	17

#### Mass

Excluding Packaging	360g (12.7oz)
Including Packaging	450g (15.9oz)

#### Ordering Information

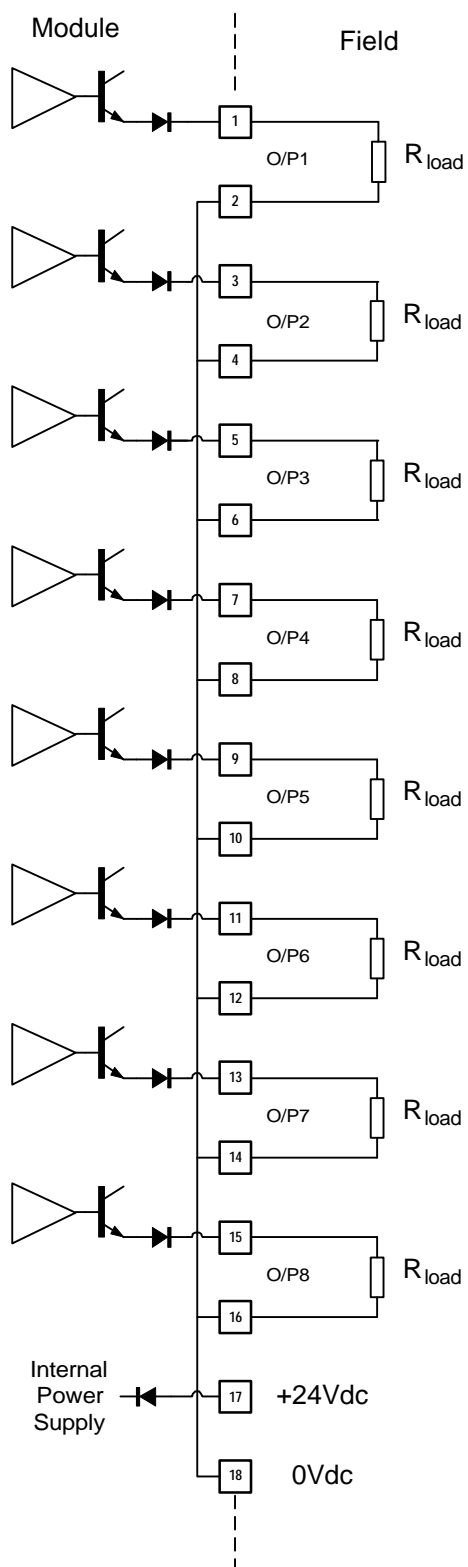
Model	Order Code
Maxiflex 8AO module	M1412A



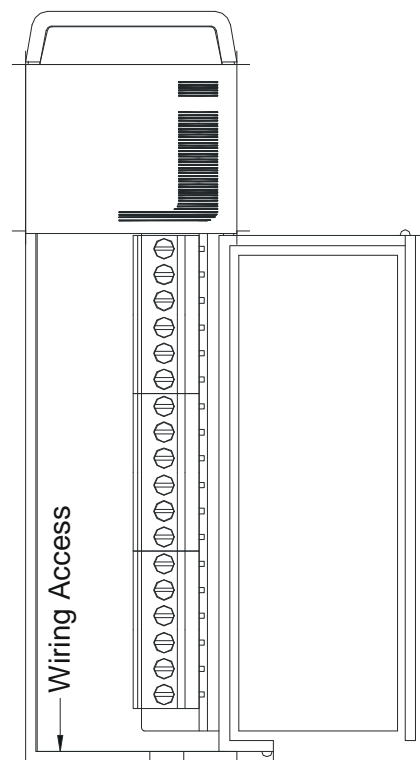
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## ELECTRICAL CONNECTION



## MECHANICAL CONFIGURATION



Note: Module shown with door open.