

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

SPECIFICATIONS

Inputs

Quantity8 analogue outputsRange4-20mA output (factory set) 0-20mA selectable by internal link.Maximum Load ResistanceMaximum load is calculated by: Rload = (Vsupply - 6.4V)/20 kohmAccuracy0.25% of Full Scale maximumLinearity0.1% of Full Scale (typical)Resolution12 bitsAmplifier Drift100ppm/°C typical Response Time 5Step Output change80ms maximum for all 8 channelsIsolation1500Vac rmsOutputs to System Logic1500Vac rmsInsulation Resistance>20Mohms at 500VdcLED IndicationON = operating correctly Flashing = Module failure or in calibration mode OFF = No Power or module failureOutput TerminationScrew clamp Plug-in Terminal Blocks and 20 way ribbon header	inputs	
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Amplifier Drift100ppm/°C typicalResponse TimeStep Output change80ms maximum for all 8 channelsIsolationOutputs to System Logic1500Vac rmsInsulation ResistanceOutputs to system logic>20Mohms at 500VdcLED IndicationHEALTHYON = operating correctly Flashing = Module failure or in calibration mode OFF = No Power or module failureOutput TerminationTypesScrew clamp Plug-in Terminal	Linearity	0.1% of Full Scale (typical)
Response TimeStep Output change80ms maximum for all 8 channelsIsolationIsolationOutputs to System Logic1500Vac rmsInsulation ResistanceOutputs to system logicOutputs to system logic>20Mohms at 500VdcLED IndicationON = operating correctly Flashing = Module failure or in calibration mode OFF = No Power or module failureOutput TerminationTypesScrew clamp Plug-in Terminal	Resolution	12 bits
Step Output change80ms maximum for all 8 channelsIsolationOutputs to System Logic1500Vac rmsInsulation ResistanceOutputs to system logic>20Mohms at 500VdcLED IndicationHEALTHYON = operating correctly Flashing = Module failure or in calibration mode OFF = No Power or module failureOutput TerminationTypesScrew clamp Plug-in Terminal	Amplifier Drift	100ppm/°C typical
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Outputs to system logic >20Mohms at 500Vdc LED Indication HEALTHY ON = operating correctly Flashing = Module failure or in calibration mode OFF = No Power or module failure Output Termination Types Screw clamp Plug-in Terminal	Outputs to System Logic	1500Vac rms
LED Indication HEALTHY ON = operating correctly Flashing = Module failure or in calibration mode OFF = No Power or module failure Output Termination Types Screw clamp Plug-in Terminal	Insulation Resistance	
HEALTHY ON = operating correctly Flashing = Module failure or in calibration mode OFF = No Power or module failure Output Termination Types Screw clamp Plug-in Terminal	Outputs to system logic	>20Mohms at 500Vdc
Flashing = Module failure or in calibration mode OFF = No Power or module failure Output Termination Types Screw clamp Plug-in Terminal	LED Indication	
Types Screw clamp Plug-in Terminal	HEALTHY	Flashing = Module failure or in calibration mode
1 0	Output Termination	
	Types	1 0

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.

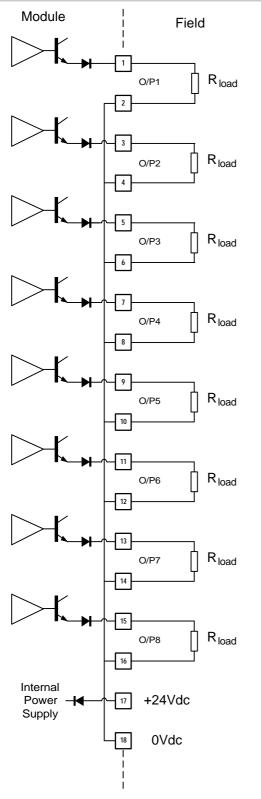
Screw Terminal Wire Size	2.0mm ² maximum For manageable wiring to the module, 0.5 mm ² is recommended with 2mm overall outside diameter	
Environmental		
Operating Temperature	-25°C to +60°C (-13°F to +140°F)	
Storage Temperature	-40°C to +70°C (-40°F to +158°F)	
Humidity	5% to 95% non-condensing.	
Protection	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	

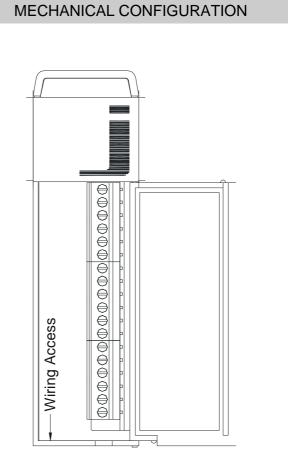




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Note: Module shown with door open.

