



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 |
|--------------------|---------------------------------|

Isolation

| | |
|-------------------------|-------------|
| Outputs to System Logic | 1500Vac rms |
|-------------------------|-------------|

Insulation Resistance

| | |
|-------------------------|--------------------|
| 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 Blocks and 20 way ribbon header |
|-------|--|

| | |
|--------------------------|---|
| 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 ± 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

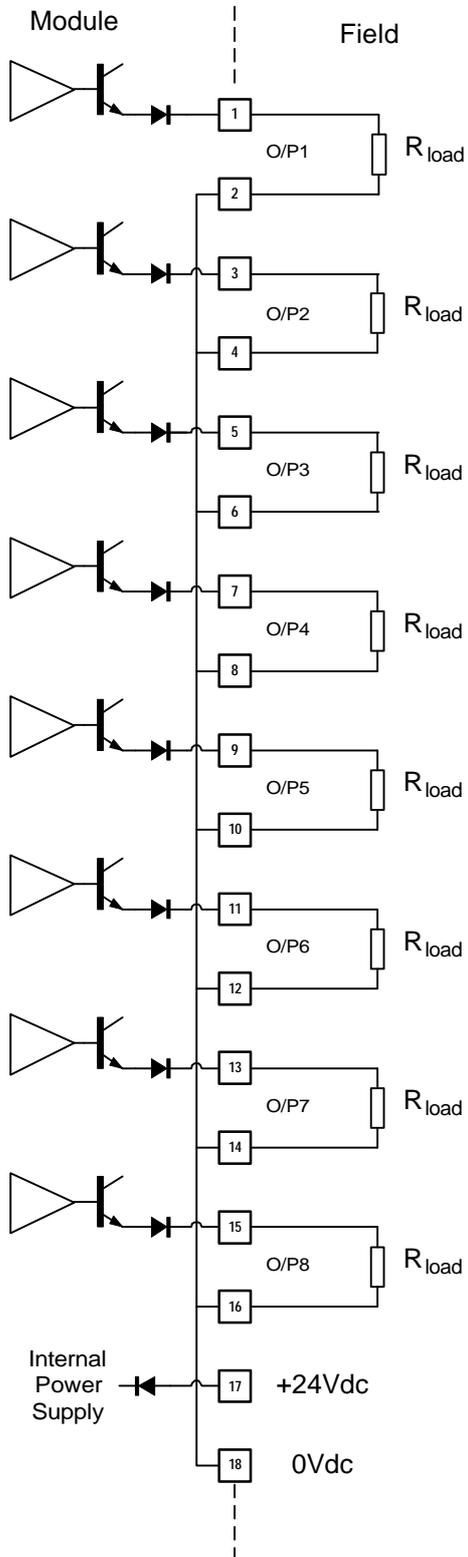
| | |
|---------------------|-------------------|
| Model | Order Code |
| Maxiflex 8AO module | M1412A |



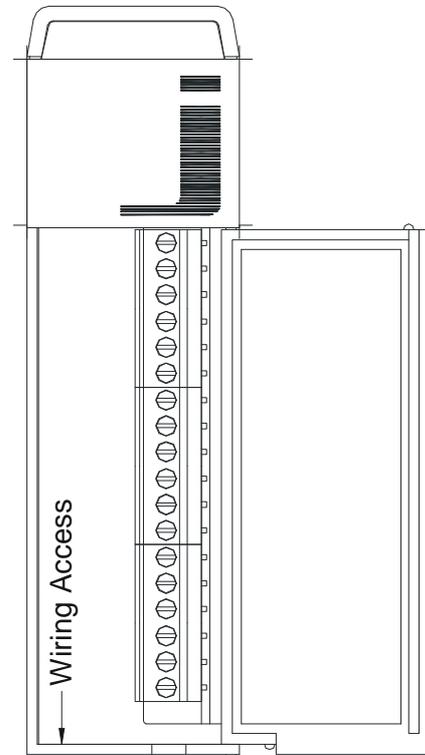
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ELECTRICAL CONNECTION



MECHANICAL CONFIGURATION



Note: Module shown with door open.