

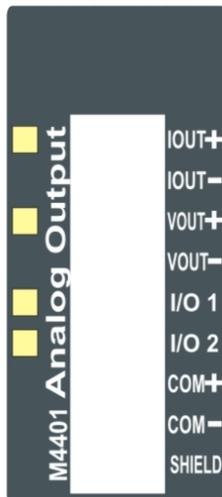


# M4401 Analogue Module

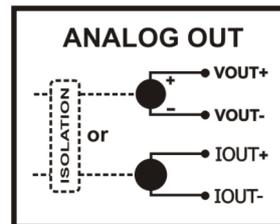
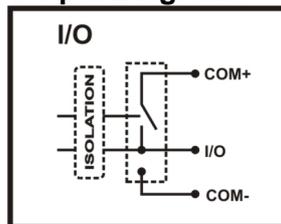
## Module Description:

General	4-20mA or 0-10V isolated analogue output 2 x isolated digital I/O	
Isolation	Analogue: >500V from indicator to module I/O: >500V from indicator to module	
	<b>Current</b>	<b>Voltage</b>
Analogue Rated Load	600Ω maximum	2000Ω minimum
Analogue Range	0 to 24mA	-1.5 to 11.5VDC
Analogue Error	<0.1% overall	<0.2% overall
Analogue Update Rate	400Hz (Refer to the indicator manuals for system speed)	
Analogue Resolution	Approximately 1/65,000 (16 bit )	
I/O Power Supply COM+, COM-	12VDC to 24VDC Maximum voltage (without damage): 30VDC	
I/O Input	Input ON: $\geq 8V$ Input OFF: $\leq 3V$ Pulse counting: 300Hz maximum	
I/O Output	Maximum current (each I/O): 400mA ON voltage drop: 150mV	

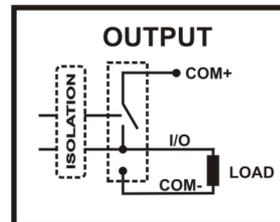
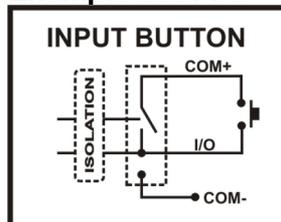
## Module Connections



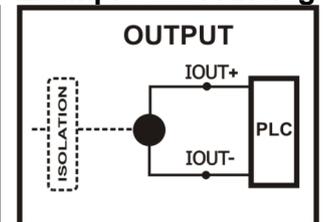
## Output Diagrams



## Example Use: I/O



## Example Use: Analog



**NOTE: I/O ARE DISABLED WHEN M4301 (8 INPUT/OUTPUT) IS USED.**

## M4401 SETUP

The indicator should be switched OFF before installing or removing this device.

Modules are configured using the indicator setup. Setup can be done via the indicator keypad or the viewer program. An overview of setup is given below; see the indicator Quick Start or Reference manuals for detailed setup information.

The indicator provides both configuration checking and testing capabilities for the M4401. This is found in the H.WARE setup menu. See the indicator Quick Start or Reference manuals.

### K402 SOFTWARE SETUP

#### Analogue Settings

- (i) Setup. . . H.WARE. . . .ANL.HW. . . TYPE (Voltage or Current)
  - . : CLIP (Limit output to 4-20mA/0-10V. Yes/No)
  - : FRC.OUT (Test the analog output)
  - : ANL.CAL (Calibrate the analogue output)
- (ii) ANL.OUT. . . . ABS (Absolute –positive output with negative numbers)
  - SOURCE (Gross, Net, Gross/Net{Displayed})
  - WGT.LO (Weight at lower output value)
  - WGT.HI (Weight at higher output value)

#### Input Output Settings

The 2 I/O are configured to be IO1 and IO2 in the indicator. These I/O are disabled when a M4301 module is connected.

#### **Output**

- (i) Setup. . . .SETP. . . . .(Refer to quick start manual for settings)

#### **Input**

- (i) Setup. . . .FUNC. . . . . (Refer to quick start manual for settings)

#### **Testing**

- (i) Setup. . . .H.WARE. . . . . IO.HW. . . . (Refer to quick start manual for settings)

## M4401 TROUBLESHOOTING

The M4401 has 4 annunciators which help with troubleshooting. These annunciators are shown as yellow on the Module Connections figure above.

<b>Problem</b>	<b>Possible solutions</b>
Input not working. M4401 I/O annunciator not lit.	Check M4401 I/O power supply (COM+, COM-). Check wiring.
Input not working. M4401 I/O annunciator lit.	Check indicator setup (H.WARE:ALLOC). Use indicator test functions (H.WARE:IO.HW). Check if M4301 also connected.
Output not working. M4401 I/O annunciator not lit.	Check indicator setup (H.WARE:ALLOC). Use indicator test functions (H.WARE:IO.HW). Check if M4301 also connected.
Output not working. M4401 I/O annunciator lit.	Check wiring.
Analogue output not working.	Check indicator setup (see Setup below). Use indicator test function (H.WARE:ANL.HW).