



# Maxiflex 4HSC Counter Module

Model M1711A 4 Channel Universal High Speed Counter Module.

DATASHEET



## FEATURES

- Fits in any MAXIFLEX base I/O slot
- 4 individually Isolated Counter Channels
- 1500V rms Isolation
- Counts up to 200kHz
- Accepts 9-30Vdc or 3 to5Vdc Pulse Input
- Individual Channel Activity Indication LED
- Removable Terminal Blocks
- Hot Plug-in
- In system automatic module detection

The Maxiflex M1711 High-Speed Counter module provides field inputs to four 16-bit counters. Two additional internal counters may be configured for a variety of functions. The counters can operate up to a frequency of 200 KHz.

Each input may be configured by links inside the module to either be a 3-5V dc, or a 9-30V dc input. The status of the inputs may be read by the Maxiflex CPU directly, providing up to 4 general purpose Digital Inputs when not used as counters.

Each input has a green LED to indicate the input signal status.

Isolation is 1500 Vrms between individual inputs, and between inputs and system logic.

The module plugs into any I/O slot and has a Scan Code and Module ID, which are used by the CPU to detect the module.

The two internal counters provided may be used in conjunction with a built in crystal oscillator to provide a variable time base. The internal configuration of the hardware enables frequency measurement and pulse counting over an accurate time period.

The counters may be configured for various operating modes. The modes are as follows:

- Mode 0 - Event Counting
- Mode 1 – Re-triggerable One-Shot Counter
- Mode 2 – Rate Generator
- Mode 3 – Square Wave Mode
- Mode 4 – Software Triggered Strobe
- Mode 5 – Hardware Triggered Strobe
- Mode 6 – Frequency Measurement

## SPECIFICATIONS

### Input

Number	4 Counter Inputs
Type	3-5Vdc or 9-30Vdc Pulse
Isolation	100% tested to 1500Vac, 50/60Hz for 1 minute - all outputs to logic
Insulation Resistance	1000MΩ min. at 500Vdc
Input Indication (Green LED)	LED on channel Active LED off channel Inactive
Input Range	0 to 200kHz
Counter Range	0 to 65535 counts

### Input Termination

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

### 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	95% max. at 40°C (104°F) non-condensing.
Protection	Electronics conformally coated

### Logic Power Consumption

From Logic Power Supply	60mA from 5Vdc max. 68mA from 12Vdc max 0.9W max overall
-------------------------	--

### Auto Identification Codes

Module ID	126
Scan Code	127

### Mass

Excluding Packaging	320g (11.3oz)
Including Packaging	410g (14.5oz)

### Ordering Information

<b>Model</b>	<b>Order Code</b>
4HSC	M1711A



# Maxiflex 4HSC Counter Module

Model M1711A 4 Channel Universal High Speed Counter Module.

## ELECTRICAL CONNECTION

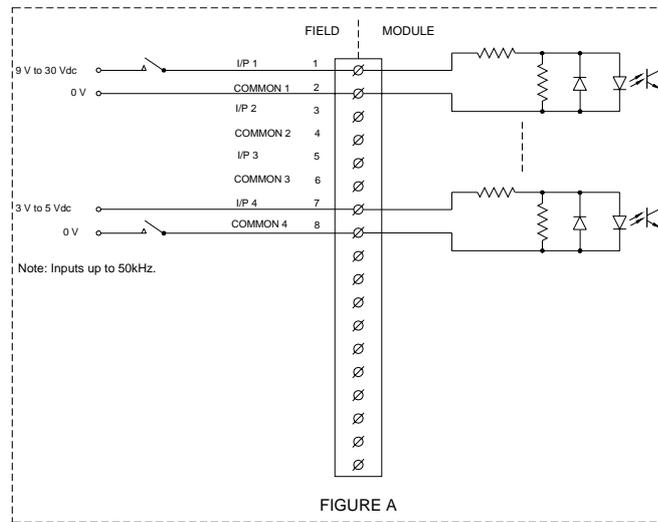


FIGURE A

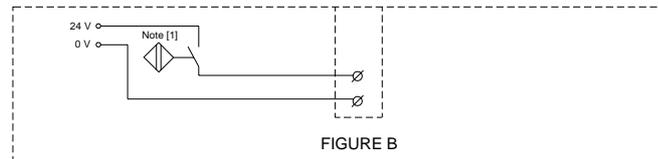
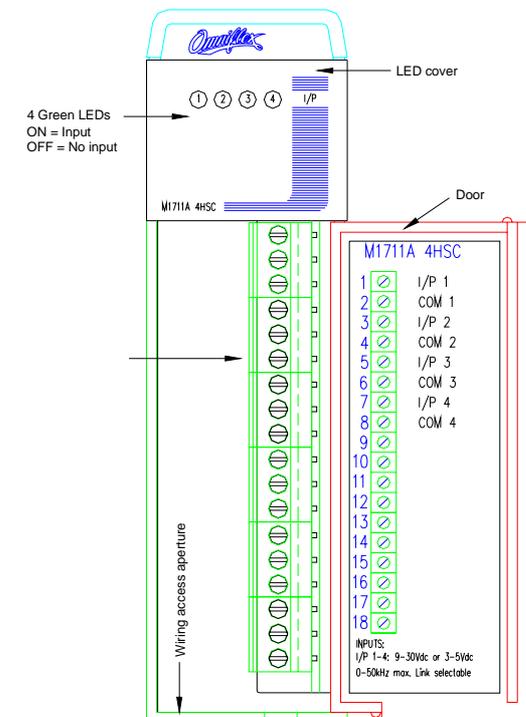


FIGURE B

Note [1] Any proximity switch connected to I/P 1 to I/P 4 must conform to the following :  
 Voltage range : 9 V to 30 V  
 Residual current : <1 mA [OFF state]

## MECHANICAL CONFIGURATION



Note: The LEDs can only be seen when illuminated, as they are located behind the LED cover.