

## 1756sc-CTR8

### 8-Channel Counter/Flowmeter Module

for Allen-Bradley 1756 ControlLogix™ PLCs



- Eight incremental, single-ended counters or four up/down and quadrature counters.
- AC and DC input signal support.
- Turbine flowmeter inputs can include scaling factors as well as the ability to be setup for meter proving requirements.
- Ideal for general purpose count and flow applications.
- Installation and operation mirror Allen-Bradley products.

The 1756sc-CTR8 I/O module has eight 24-bit counter registers, that function as single-ended counters. Channels may be paired to support A, B and Z inputs allowing quadrature encoder input or up/down counting. Simultaneous rate measurement is supported in all modes. Count and rate measurement can be multicast to other processors at intervals as short as 10ms. The module also supports AC input types suitable for VRC flowmeter inputs. Mix AC and DC input signal types. Input signals can range from 0 to 65 KHz. Standard user-programmable features include roll-over/under, stop on limit and flowmeter scaling parameters.

#### **Simplified Installation**

The 1756sc-CTR8 incorporates proprietary Allen-Bradley technology, thereby ensuring simple installation. Plus, operation and performance mirror Allen-Bradley I/O products. The module uses standard Logix-based tag configuration allowing complete configuration and control.

#### **Outstanding Features**

The 1756sc-CTR8 includes a variety of features:

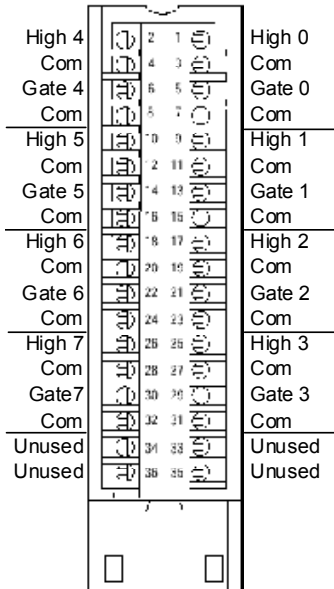
- Setup for incremental or up/down counting.
- Scaling of input counts or input frequency to engineering units.
- Simultaneous frequency/counter display.
- Count direction flags.
- Limit and zero flags to detect roll-over and roll-under.
- Start, stop, reset and preset control.

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for Allen-Bradley 1756 ControlLogix™ PLC

1756sc-CTR8  
Wiring



Note: RTBs are not included with the module.  
Order Allen-Bradley Part Numbers:  
1756-TBCH - 36 position screw terminals  
1756-TBS6H - 36 position press terminals

Specifications											
<b>Inputs per Module</b>	8 (eight) single ended or 4 quadrature/bidirectional										
<b>Module Location</b>	1756 I/O chassis—1 slot										
<b>Input Modes</b>	DC counter, AC flowmeter										
<b>Input Voltage Ranges</b>	<table border="0"> <tr> <td>Voltage Range</td> <td>Operating Voltage</td> </tr> <tr> <td>5 Vdc</td> <td>3.5 to 50 Vdc</td> </tr> <tr> <td>12/24 Vdc</td> <td>9 to 50 Vdc</td> </tr> <tr> <td>AC 50mVpp</td> <td>50 Vac pp to 50 Vac rms</td> </tr> <tr> <td>AC 200mVpp</td> <td>200 Vac pp to 50 Vac rms</td> </tr> </table>	Voltage Range	Operating Voltage	5 Vdc	3.5 to 50 Vdc	12/24 Vdc	9 to 50 Vdc	AC 50mVpp	50 Vac pp to 50 Vac rms	AC 200mVpp	200 Vac pp to 50 Vac rms
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12/24 Vdc	9 to 50 Vdc										
AC 50mVpp	50 Vac pp to 50 Vac rms										
AC 200mVpp	200 Vac pp to 50 Vac rms										
<b>Input Frequency</b>	0 to 65KHz										
<b>Minimum Pulse Time</b>	5.4 μs										
<b>Count Value Range</b>	0 to 16,777,215										
<b>Data Formats</b>	Floating Point IEEE 32 bit										
<b>Nominal Input Resistance</b>	> 24 KOhms typ (Voltage dependent)										
<b>Counter Voltage Input</b>	Programmable 5, 12/24 Vdc, 50mV ac, 200mV ac										
<b>Update Time</b>	<13 ms for all channels										
<b>Power Dissipation</b>	4.8 Watts (maximum)										
<b>Backplane Current Required</b>	75 mA @ 24 V max 230 mA @ 5 V max										
<b>Isolation Voltage</b>	2550 Vdc field wiring-to-backplane for 1 second										
<b>Environmental Conditions</b>	<table border="0"> <tr> <td>Operational Temperature</td> <td>0° to 60° C (32° to 140°F)</td> </tr> <tr> <td>Storage Temperature</td> <td>-40° to +85°C (-40° to 185°F)</td> </tr> <tr> <td>Relative Humidity</td> <td>5 to 95% (non-condensing)</td> </tr> </table>	Operational Temperature	0° to 60° C (32° to 140°F)	Storage Temperature	-40° to +85°C (-40° to 185°F)	Relative Humidity	5 to 95% (non-condensing)				
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<b>Certifications</b>	UL/cUL (Class I, Div 2, Groups ABCD), FM CE per Council Directive 89/336/EEC for EMC										
<b>Conductors</b>	Wire Size 14 gage stranded maximum 3/64 inch insulation maximum										



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