

# Accutech™ 4AO, 8SW, 4AO-8SW

## Analog & switch output modules





The Accutech analog and switch output modules are base radio accessories that provide analog outputs and switch closures based on process values from an associated field unit. The modules are DIN rail-mounted, and powered from an external 24VDC source. LEDs indicate power, RS-485 link data transmission, and fault (fail-safe) condition. Up to 25 output modules can be daisy-chained on an RS-485 network from the base radio to provide a total of 100 analog outputs and 200 individually isolated switch closures. Accutech Manager is required to set up the user-programmable options, which include input/output mapping, range, trim, and fail-safe.

The 4AO analog output module provides four 4-20mA analog outputs, representing primary and secondary process variables monitored by field units.

The 8SW switch output module provides eight switch closures configured to open and close based on the process value, input switch or status of a field unit. These switch closures include low battery or sensor out-of-spec values.

The 4AO-8SW analog and switch output module combines both the features of the 4AO and 8SW modules in one convenient package.

# Product Data Sheet Accutech 4AO, 8SW, 4AO-8SW Specifications



## Accutech 4AO, 8SW, 4AO-8SW

### Functional

4AO	4-Channel Analog Output
8SW	8-Point Switch Closure Output
4AO-8SW	Combination 4-Channel Analog Output & 8-Point Switch Closure Output Module
Input Power	<ul style="list-style-type: none"> <li>• 10-30VDC</li> <li>• 24VDC @ 13.2mA typical</li> </ul>

### Features

Remote Configuration Interface	Accutech Manager, Windows®-based GUI software, providing network-wide monitoring and performance-management features and field unit configuration capabilities.
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### Analog Outputs

Number of Channels	4															
Type	Isolated Current Sink Outputs															
	<table border="1"> <thead> <tr> <th></th> <th>Min.</th> <th>Typ.</th> <th>Max.</th> <th>Units</th> </tr> </thead> <tbody> <tr> <td>Current Range</td> <td>3.1</td> <td></td> <td>23.5</td> <td>mA</td> </tr> <tr> <td>Field Voltage</td> <td>12</td> <td>24</td> <td>30</td> <td>VDC</td> </tr> </tbody> </table>		Min.	Typ.	Max.	Units	Current Range	3.1		23.5	mA	Field Voltage	12	24	30	VDC
	Min.	Typ.	Max.	Units												
Current Range	3.1		23.5	mA												
Field Voltage	12	24	30	VDC												
Isolation	<ul style="list-style-type: none"> <li>• 2,200 Vrms between Field and Logic</li> <li>• 1000Ω maximum @ 24VDC</li> <li>• 500Ω maximum @ 12VDC</li> </ul>															
Connector	14AWG max.															

### Switch Outputs

Number of Channels	8																									
Type	Isolated Avalanche MOSFET Outputs																									
	<table border="1"> <thead> <tr> <th></th> <th>Min.</th> <th>Typ.</th> <th>Max.</th> <th>Units</th> </tr> </thead> <tbody> <tr> <td>Current</td> <td>0</td> <td>NA</td> <td>1</td> <td>ADC</td> </tr> <tr> <td>Voltage</td> <td>6</td> <td>24</td> <td>30</td> <td>VDC</td> </tr> <tr> <td>AC Frequency</td> <td>NA</td> <td>NA</td> <td>NA</td> <td></td> </tr> <tr> <td>Resistance</td> <td></td> <td>9</td> <td>15</td> <td>mΩ</td> </tr> </tbody> </table>		Min.	Typ.	Max.	Units	Current	0	NA	1	ADC	Voltage	6	24	30	VDC	AC Frequency	NA	NA	NA		Resistance		9	15	mΩ
	Min.	Typ.	Max.	Units																						
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Voltage	6	24	30	VDC																						
AC Frequency	NA	NA	NA																							
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Connector	14AWG max.																									

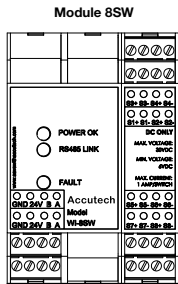
### General

Operating Ambient Environment	<ul style="list-style-type: none"> <li>• -40° to 85°C (-40° to 185°F) operating</li> <li>• -40° to 140°C (-40° to 284°F) storage</li> <li>• Ordinary locations only</li> </ul>
Physical Characteristics	<ul style="list-style-type: none"> <li>• DIN rail-mounted</li> <li>• Dimensions: See drawing below</li> </ul>
Accuracy	<ul style="list-style-type: none"> <li>• ± 0.1 % at reference conditions</li> <li>• Additional ± 0.1% per 10°C (18°F) deviation from reference conditions</li> </ul>
Fault (Fail-Safe) Condition	<ul style="list-style-type: none"> <li>• Each output goes into fail-safe in the event of a sensor failure, missing sensor, no RF condition, RS-485 link down or field unit powered down condition.</li> <li>• The output module displays a fault indication if any enabled output goes into a fail-safe condition.</li> </ul>
User-Programmable Options	<ul style="list-style-type: none"> <li>• Range (lower value range and upper value range) for each analog output</li> <li>• Trim each analog output</li> <li>• Enable or disable failsafe for each output</li> <li>• Failsafe output user selectable to 3.6mA, 23mA, or user-specified value (analog); failsafe switch closure output is open condition only</li> <li>• Select RS-485 address with Accutech Manager</li> </ul>

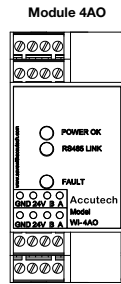
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# Product Data Sheet Accutech 4AO, 8SW, 4AO-8SW Model Code and Dimensions

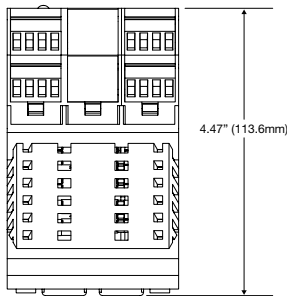
Model	Description	Part Number
4AO	4-Channel Analog Output Module	TBUM297526
8SW	8-Point Switch Closure Output Module	TBUM297527
4AO-8SW	Combination 4-Channel Analog & 8-Point Switch Closure Output Module	TBUM297528



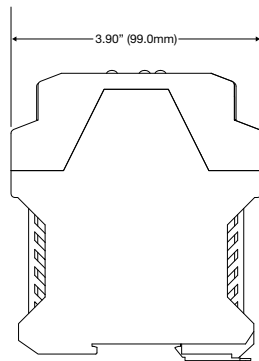
2.67" (67.8mm)



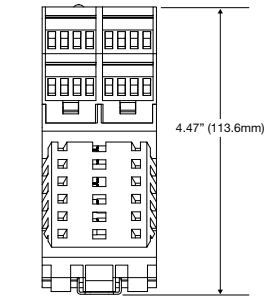
1.78" (45.2mm)



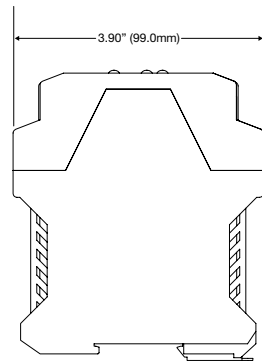
4.47" (113.6mm)



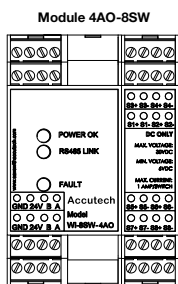
3.90" (99.0mm)



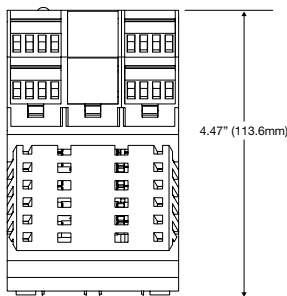
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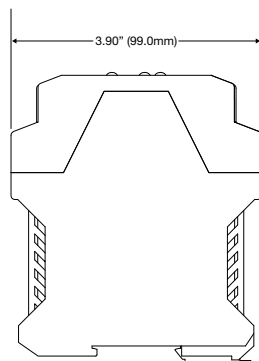
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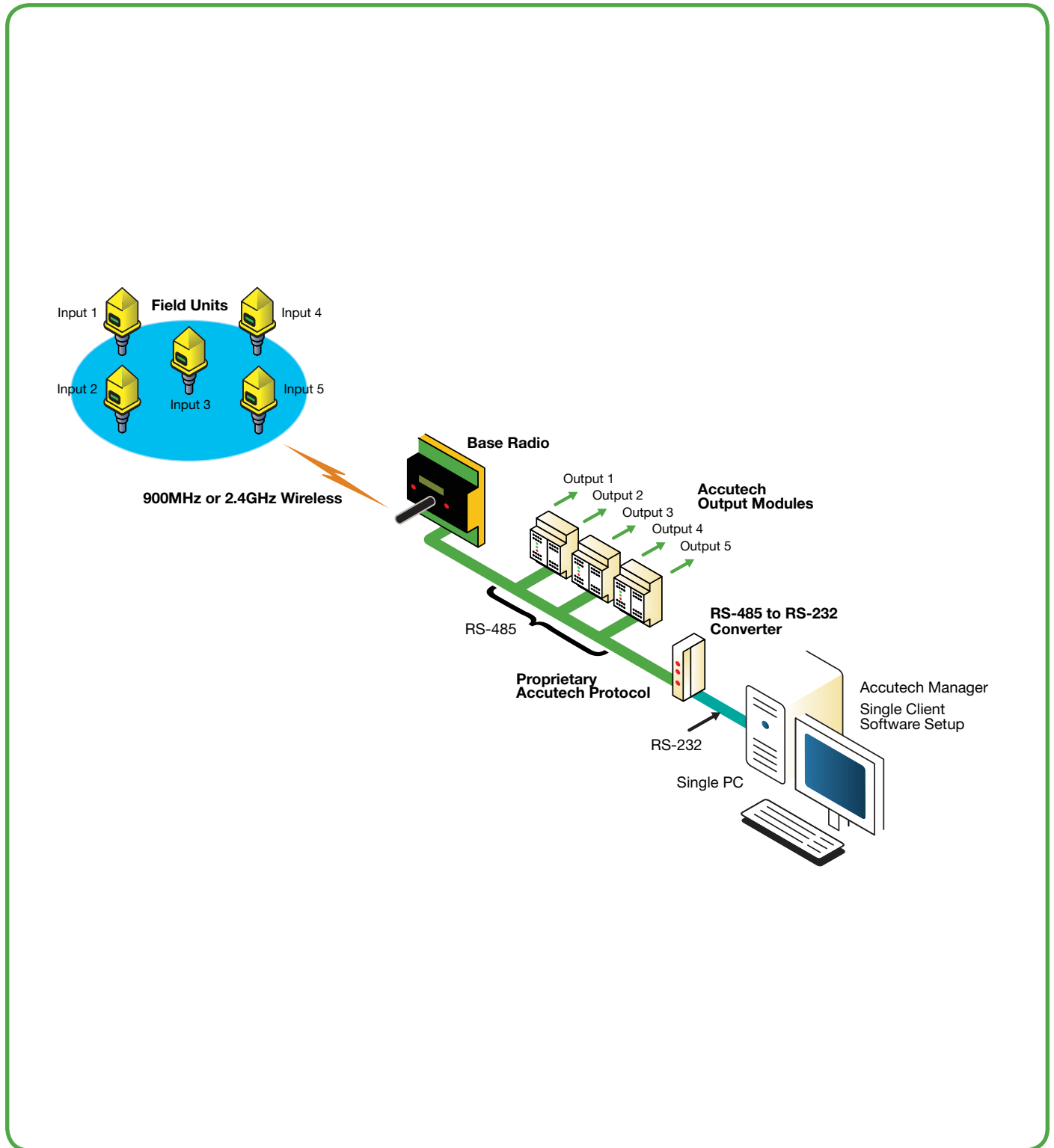


4.47" (113.6mm)



3.90" (99.0mm)

# Product Data Sheet Accutech 4AO, 8SW, 4AO-8SW Typical Installation



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