

## Accutech SI10 Wireless Switch-Input Field Unit

**Accutech field units** eliminate costly hard wired installations by providing an easy-to-install and secure wireless link between field-based process instrumentation and control infrastructure. They are intended for use in extreme environments where typical wired communication is not feasible or economical. Field units are configured locally through a LCD/keypad or remotely with Accutech Manager, which also provides a user-friendly environment for wireless network diagnostics and management. A wide range of process types are supported with a maximum of 100 field units possible per base radio network.

### SI10 Features:

- Dual contact-closure switch-input
- Input de-bounce filter
- Flying leads option

The Accutech SI10 wireless switch input field unit is ideal for determining the state of contact switches without running wiring in the field. Two switch contacts can be accommodated with a de-bounce filter being applied to each.

All Accutech field units automatically report field data to a centralized Accutech base radio over distances of up to 5000ft (1524m). Each field unit is self contained, featuring an integrated 900MHz (license-free band), frequency hopping, spread-spectrum transceiver and antenna, and long-lasting battery for up to 10 years of maintenance-free operation. Accutech field units are housed within a compact and weather-proof NEMA 4 enclosure with options for a NEMA 4X or explosion-proof enclosure, remote sensor and remote antenna on select models. Field units are available in a wide range of certifications and are protected by an industry-leading 3-Year warranty (parts and labor).



## SIIO Specifications

Functional	
Sensor Type	Switch-Input
Location	Field Unit
Frequency Range	902-928MHz
Power	Integrated battery
Features	
Inputs	Two contact closures. (For installation in hazardous areas, the contacts must be simple devices with no energy storage capability).
Input Characteristics	<ul style="list-style-type: none"> <li>■ Max. switch impedance 1.0k <math>\Omega</math></li> <li>■ Input Isolation between Input 1 to Input 2 = 20k <math>\Omega</math></li> </ul>
Remote Configuration Interface	Accutech Manager, Windows™-based GUI software, providing network-wide fault and performance-management features and field unit configuration capabilities.
Local Configuration Interface	<ul style="list-style-type: none"> <li>■ Integrated LCD with membrane-switch buttons.</li> <li>■ Display cycles through Switch 1, 2 and error messages, if applicable</li> <li>■ Configure RF parameters locally using membrane-switch buttons</li> </ul>
RF Characteristics	<ul style="list-style-type: none"> <li>■ 902MHz - 928MHz band (FCC/IC)</li> <li>■ 915MHz - 928MHz band (Australia)</li> <li>■ 915MHz - 921MHz band (New Zealand)</li> <li>■ The RF module in each Field Unit is individually tested and calibrated over the full temperature range to ensure reliable wireless operation</li> </ul>
Self-Diagnostics	<ul style="list-style-type: none"> <li>■ Low battery alarm – indicates the need to replace the battery (approximately one month warning).</li> <li>■ Contains extensive self-checking software and hardware that continuously monitors operation. Any sensor or device parameter that is out of spec is identified and reported.</li> </ul>
General	
Operating Ambient Environment:	<ul style="list-style-type: none"> <li>■ -40 to +185°F (-40 to +85°C) electronics</li> <li>■ -4 to +158°F (-20 to +70°C) display (full visibility)</li> <li>■ -40 to +185°F (-40 to +85°C) display (reduced visibility)</li> <li>■ Humidity: 0 to 95 %, non-condensing</li> </ul>
Power:	<ul style="list-style-type: none"> <li>■ Self-contained power</li> <li>■ One 'C' Cell</li> <li>■ Up to ten (10) year battery life (depends on sample rate and RF-update rate)</li> </ul>
Physical Characteristics:	<ul style="list-style-type: none"> <li>■ Aluminum or Stainless Steel junction box</li> <li>■ GE Lexan® cover V-0 rating and UV stable</li> </ul>
Operating Shock and Vibration:	Certified per IEC EN00068 2-6 (vibration) and 2-27 (shock)
Random Vibration Characteristics:	Certified to withstand 6 g's, 15 minutes per axis from 9 – 500Hz
Electromagnetic Compatibility	
Safety Certifications:	<p>Operates within specification in fields from 80 to 1,000MHz with field strengths to 30V/m. Meets EN 50082-1 General Immunity Standard and EN 55011 compatibility emissions standard.</p> <ul style="list-style-type: none"> <li>■ Explosion Proof:                             <ul style="list-style-type: none"> <li>Div 1: CSA - Class I, Div. 1, Groups A, B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div. 1</li> <li>Div 2: CSA - Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups F and G; Class III</li> </ul> </li> <li>■ Intrinsically Safe:                             <ul style="list-style-type: none"> <li>CSA - Exia IIC; AEx ia IIC: Class I, Div. 1, Groups A, B, C &amp; D; Class II, Div. 1, Groups E, F &amp; G; Class III, Div. 1</li> </ul> </li> </ul>

**SI10**

AC-SI10-TG11N00-A represents a typical part number.

<b>Model</b>	<b>Type</b>
AC-SI10	Dual Contact-Closure Switch Input Field Unit
<b>Code</b>	<b>Select: RF Module Type</b>
T	902MHz - 928MHz band (FCC/IC)
D	915MHz - 928MHz band (Australia)
N	915MHz - 921MHz band (New Zealand)
<b>Code</b>	<b>Select: Safety Rating</b>
G	General Purpose (non-hazardous locations)
	<b>Explosion Proof Div 1</b>
A	Class I, Div. 1, Groups A, B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div. 1
	<b>Explosion Proof Div 2</b>
E	Class I, Div. 2, Groups A, B, C and D; Class II, Div. 2, Groups F and G; Class III
	<b>Intrinsically Safe</b>
J	CSA - Exia IIC; AEx ia IIC; Class I, Div. 1, Groups A, B, C & D; Class II, Div. 1, Groups E, F & G; Class III, Div. 1
<b>Code</b>	<b>Select: Housing</b>
1	NEMA 4 - Available with general purpose or intrinsically safe ratings
2	Aluminum - Available with all ratings. Required for explosion-proof safety rating
<b>Code</b>	<b>Select: Battery Pack</b>
1	One 'C' Cell
<b>Code</b>	<b>Future Option</b>
	None
<b>Code</b>	<b>Select: Integral Antenna or Cable &amp; Connector Interface</b>
00	Integral Antenna with Explosion Proof Antenna Cover (meets explosion-proof Div 1/ Div 2 & intrinsically safe rating)
01	Integral N-Male connector for Remote Antenna (meets explosion-proof Div 2 & intrinsically safe rating)
10	10ft. Cable with N-Male connector for remote antenna configurations (meets explosion-proof Div 2 & intrinsically safe rating)
25	25ft. Cable with N-Male connector for remote antenna configurations (meets explosion-proof Div 2 & intrinsically safe rating)
<b>Code</b>	<b>Select: Junction Box</b>
A	No Junction Box (exposed lead wires)
B	NEMA 4 - Aluminum Rear Entry
C	NEMA 4 - Epoxy Coated Cast Aluminum Rear Entry
D	NEMA 4X - Stainless Steel
E	Explosion-Proof

