

TECHNICAL DATASHEET #TDAX180700  
**Intelligent Load Control Switch**

**2 RTD Inputs**  
**1 AC Output**  
**Modbus RTU (RS-485)**  
**CANopen®**  
**Wi-Fi / Ethernet**  
**P/N: AX180700**

**Features**

- Intelligent load switching
- Modbus RTU (RS-485) master, active or passive (listen only) mode
- CANopen®
- 2 RTD inputs for temperature measurements
- 1 AC output for driving a contactor
- 1 24V/1A output
- Wi-Fi / Ethernet configuration

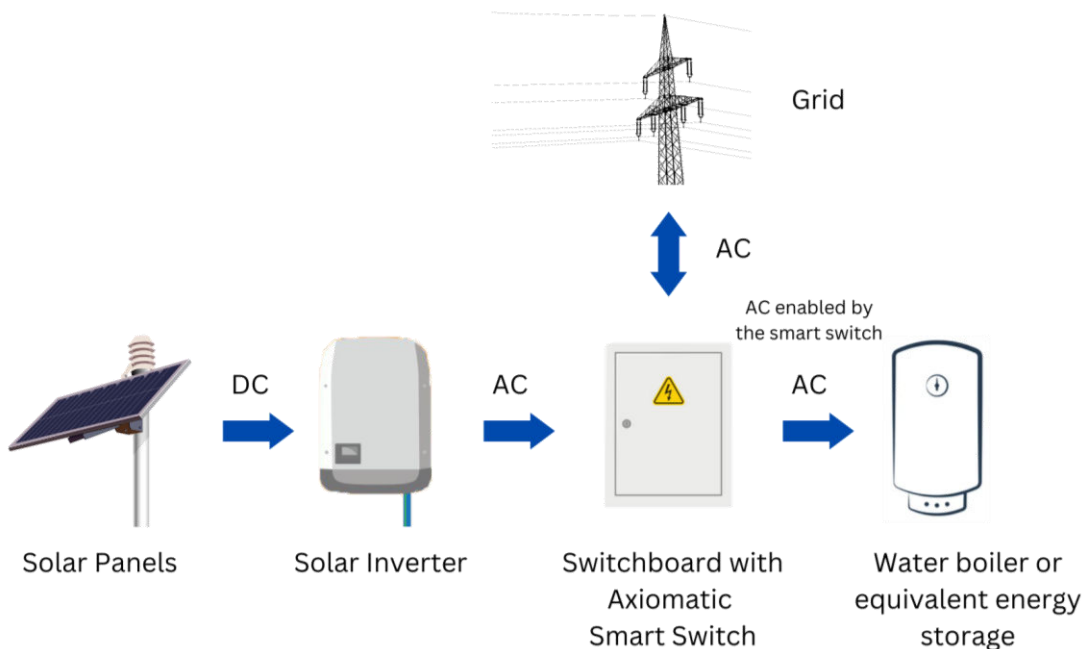
**Applications**

The smart switch is suitable for load switching on home solar systems. The decision to switch the load on or off is based on user configurable thresholds and instantaneous generated power reading acquired from a solar PV inverter or similar system.



**Ordering Part Number**

100-240 Vac, 2 RTD, 2 Output, Wi-Fi / Ethernet Smart Switch, P/N: **AX180700**



## Technical Specifications

Specifications are indicative and subject to change. Actual performance will vary depending on the application and operating conditions. Users should satisfy themselves that the product is suitable for use in the intended application. All our products carry a limited warranty against defects in material and workmanship. Please refer to our Warranty, Application Limitations & Return Materials Process as described on <https://www.axiomatic.com/service/>.

All specifications are typical at nominal input voltage and 25 degrees C unless otherwise specified.

### Specifications

Power Supply	100 to 240 Vac																																				
Inputs	2 RTD inputs for PT100 temperature measurements																																				
Outputs	1 ON/OFF solenoid output (100/240Vac, maximum 100mA) 1 ON/OFF solenoid output (24V, maximum 1A)  The output drives a 3-phase contactor.																																				
Status LEDs	Output state Controller health/mode																																				
Enclosure and Dimensions	Bud Industries DIN Rail Mount Multi-Board Box (P/N : <b>DMB-4772</b> ) ABS/PC blend plastic housing Flammability Rating: UL94V-0  Refer to Figure 1.																																				
Communication	Modbus RTU (RS-485) Wi-Fi Ethernet CANopen®																																				
Weight	0.204 kg. (0.45 lb.)																																				
Temperature Rating	Operating: -40 to 85°C (-40 to 185°F) Storage: -50 to 90°C (-58 to 194°F)																																				
Humidity	0-99% relative humidity (non-condensing)																																				
Protection Rating	IP20																																				
Electrical Pinout	<p>Phoenix Connector P/N: <b>1729144</b></p> <table border="1"> <thead> <tr> <th>Pin #</th><th>Electrical Connection</th></tr> </thead> <tbody> <tr> <td>1</td><td>CONTACTOR_L</td></tr> <tr> <td>2</td><td>CONTACTOR_N</td></tr> <tr> <td>3</td><td>N</td></tr> <tr> <td>4</td><td>L</td></tr> </tbody> </table> <p>Phoenix Connector P/N: <b>1729225</b></p> <table border="1"> <thead> <tr> <th>Pin #</th><th>Electrical Connection</th></tr> </thead> <tbody> <tr> <td>1</td><td>DOUT+</td></tr> <tr> <td>2</td><td>DOUT-</td></tr> <tr> <td>3</td><td>RTD1_P</td></tr> <tr> <td>4</td><td>RTD1_N</td></tr> <tr> <td>5</td><td>RTD2_P</td></tr> <tr> <td>6</td><td>RTD2_N</td></tr> <tr> <td>7</td><td>CAN_H</td></tr> <tr> <td>8</td><td>CAN_L</td></tr> <tr> <td>9</td><td>RS-485_TX/RX_P</td></tr> <tr> <td>10</td><td>RS-485_TX/RX_N</td></tr> <tr> <td>11</td><td>RS-485 Ground</td></tr> <tr> <td>12</td><td>Not Used</td></tr> </tbody> </table>	Pin #	Electrical Connection	1	CONTACTOR_L	2	CONTACTOR_N	3	N	4	L	Pin #	Electrical Connection	1	DOUT+	2	DOUT-	3	RTD1_P	4	RTD1_N	5	RTD2_P	6	RTD2_N	7	CAN_H	8	CAN_L	9	RS-485_TX/RX_P	10	RS-485_TX/RX_N	11	RS-485 Ground	12	Not Used
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Compliance	RoHS Directive																																				
User Interface	Webserver																																				
Installation	AC power – 10A fuse <b>Follow local electrical codes.</b>																																				
Mounting	DIN rail mounting																																				

Dimensional Drawing

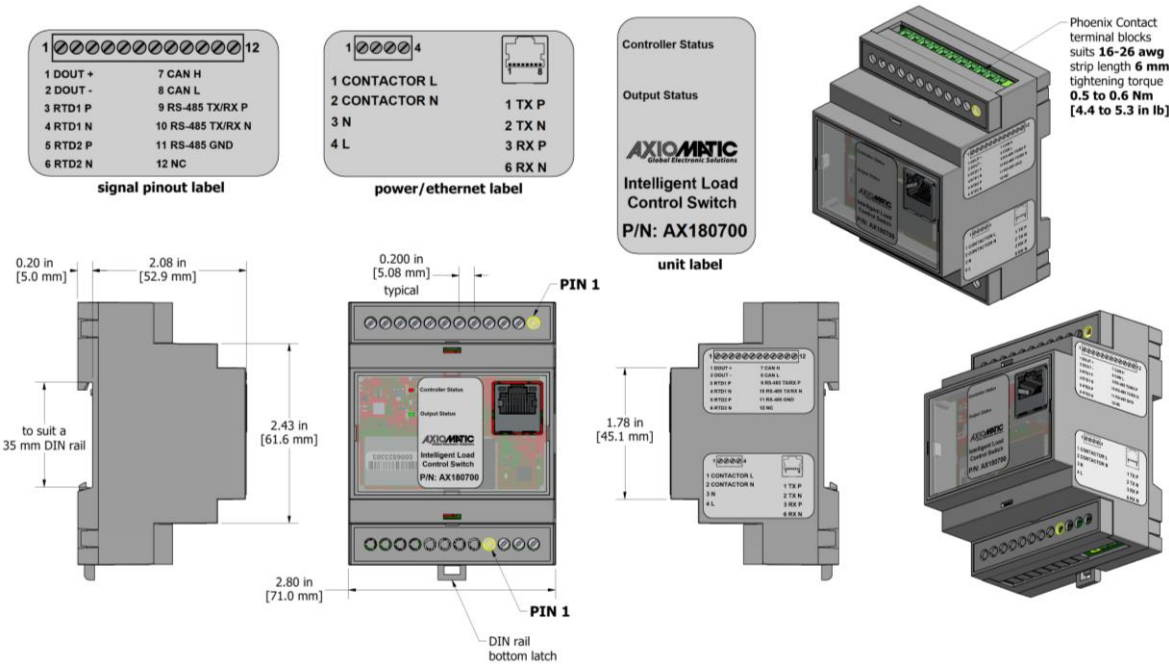


Figure 1 – Dimensional Drawing

Form: TDAX180700-04/07/2024