Synergy Controller Mounting Options

The Synergy Micro, Synergy Micro 2, Synergy Quattro, and Synergy Nano are popular for controller retrofits on legacy environmental test chambers and ovens. Tidal Engineering offers panel adapters to adapt existing control panels from different manufacturers to these controllers.

On some adapters, cutouts for 1/16 and/or 1/32 DIN Over-Temperature controllers are provided. (Note: Over/Under Fail-Safe -Temperature controllers are recommended on all installations.)

In some cases, adapting to the ¼ DIN Synergy Nano controller can be accomplished with the appropriate Synergy Micro adapter and the TE2076 Synergy Nano adapter which handles the ¼ DIN Synergy Nano. See the table below for a list of available adapter panels.

Contact the factory for other adapter options if this application note doesn't identify a solution to your specific mounting requirement(s).

Table of Mounting Options

Fig.	P/N	Description Dimensions (W x H)	Quattro	Nano
1	TE2012-4	Synergy Quattro Articulating Mounting Arm, 2 Knuckle	Y	
2	TE2062	Synergy Micro Panel Adapter, Envirotronics Systems Plus 10.75" x 10.25"	Y	
3	TE2065	Synergy Micro Panel Adapter, MicroTenn (II) Retrofit 9.5" x 15.25"	Y	
4	TE2067	Synergy Micro Panel Adapter, Thermotron 7800 19.0" x 6.97"	Y	
5	TE2076	Synergy Nano Panel Adapter, VersaTenn III Retrofit 9.25" x 6.50"		Y
6	TE2094	Synergy Nano Panel for adapter VersaTenn Retrofit 6" x 9"		Y
7	TE2187	Synergy Micro Panel Adapter, for VersaTenn II Retrofit 12" x 9"	Y	
8	TE2209	Synergy Micro Panel Adapter, ESPEC Controller 12.5" x 11.5"	Y	
9	TE2210	Synergy Micro Adapter for Thermotron SE Series	Y	
10	TE1879	Synergy Micro Sloped Control Box	Y	
11	TE2221	Synergy Micro Square Control Box, Front Mount	Y	
12	TE2221-2	Synergy Micro Square Control Box, Side Mount	Y	
13	TE2012-4	Synergy Quattro Articulating Mounting Arm Kit, 1 Knuckle	Y	
14	TE2012-5	Synergy Quattro Tilt Mounting Kit	Y	
15	TE2287	Synergy Quattro VESA Mounting Kit	Y	
16	TE2352	Synergy Panel for Envirotronics Systems Plus	Y	
17	TE2864-x	Synergy Controller SD Card Front Panel Extender For use with all Synergy Nano and Synergy Quattro controller models	Y	

TE2012-4 Synergy Quattro Articulating Mounting Arm, 2 Knuckle

Figure 1. TE2012-4 Synergy Quattro Articulating Mounting Arm, 2 Knuckle

TE2062 - Synergy Micro Panel Adapter for Envirotronics Systems Plus
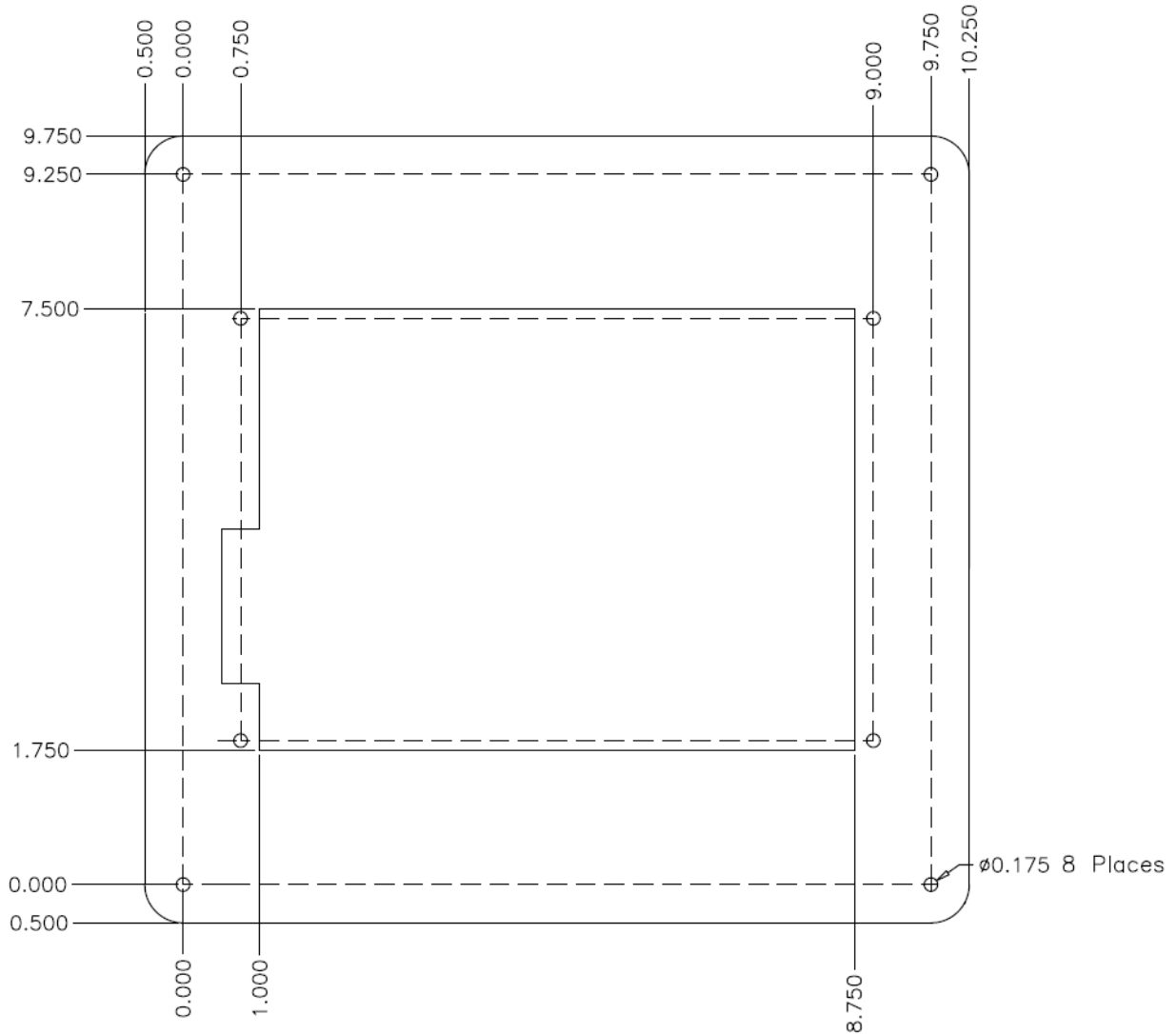

Figure 2. TE2062 - Synergy Micro Panel Adapter for Envirotronics Systems Plus

Synergy Controller   Envirotronics

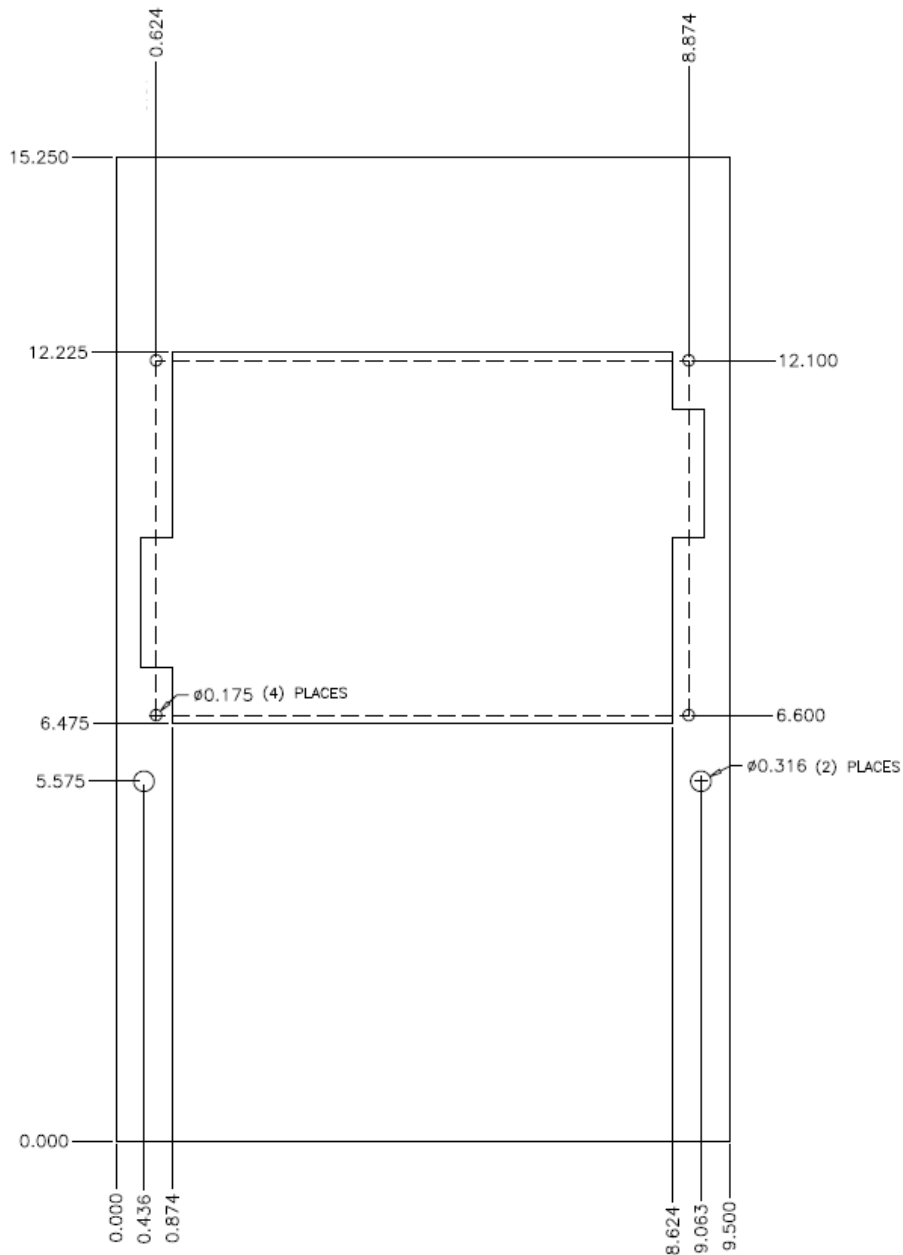**TE2065 Synergy Micro Panel Adapter for MicroTenn (II)**

Figure 3. TE2065 Synergy Micro Panel Adapter for MicroTenn (II)

TE2067 Synergy Micro Panel Adapter for Thermotron 7800
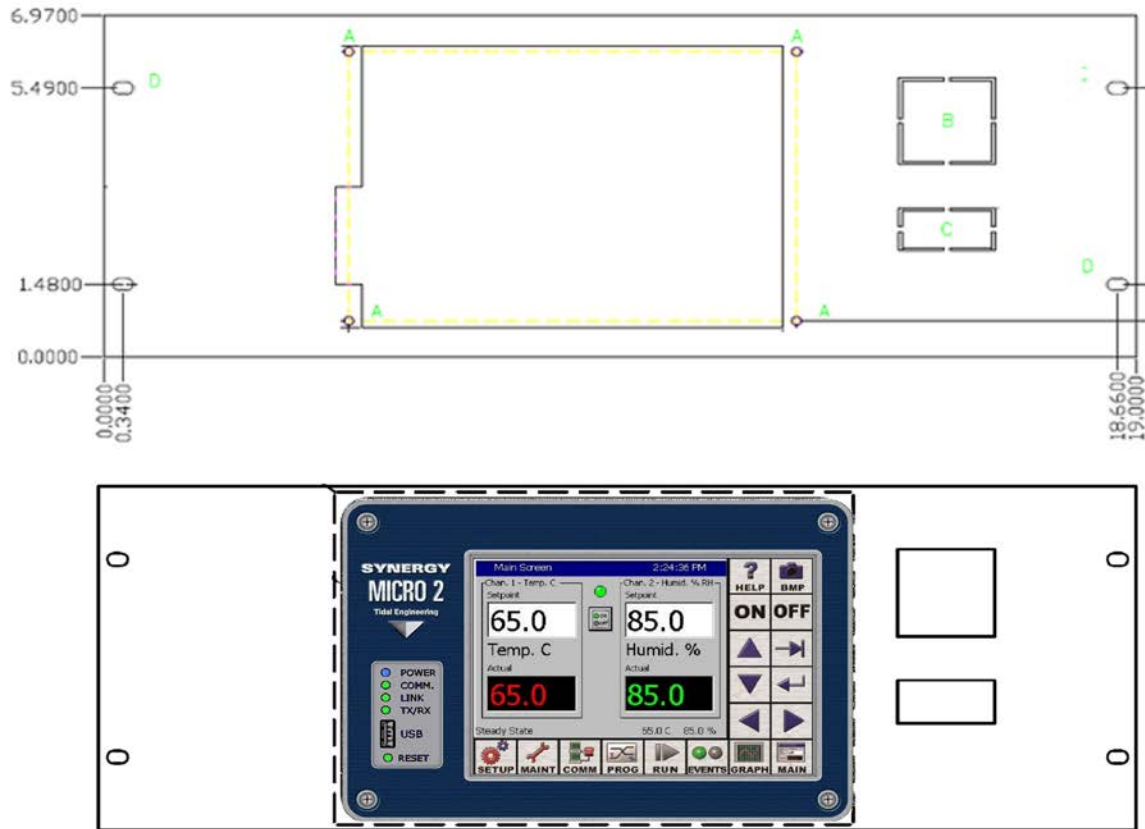
Figure 4. TE2067 Synergy Micro Panel Adapter for Thermotron 7800

Synergy Controller

Thermotron 7800

TE2076 Synergy Nano Panel Adapter for VersaTenn III
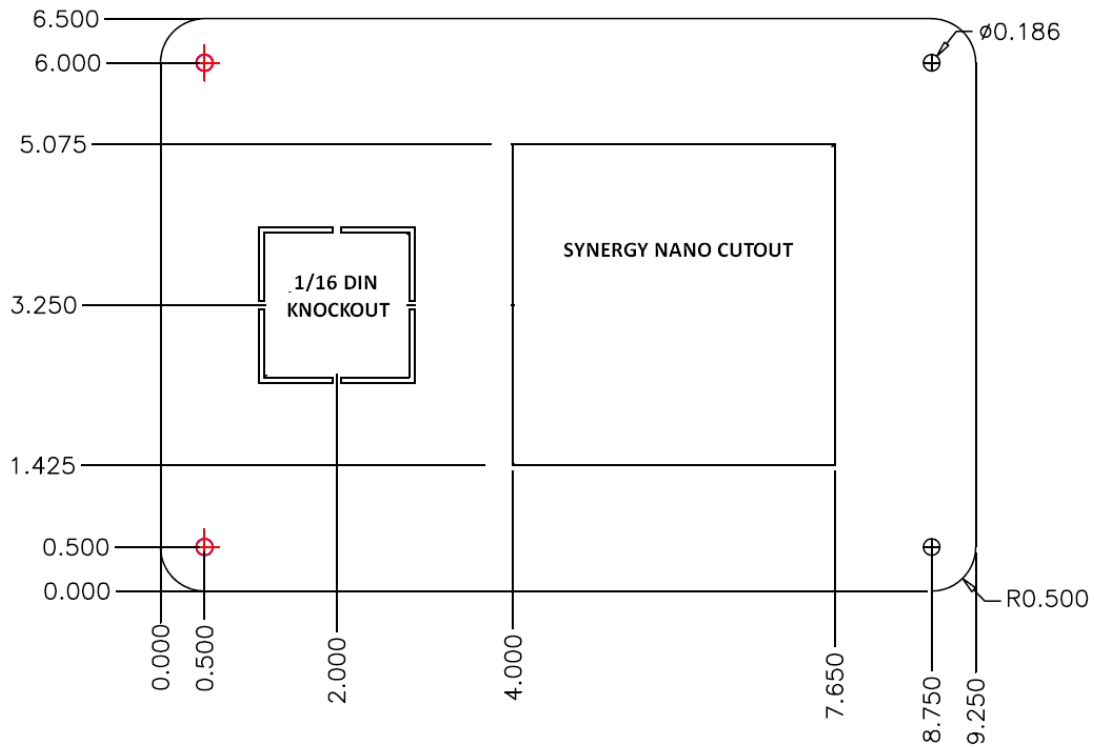
Figure 5. TE2076 Synergy Nano Panel Adapter for VersaTenn III
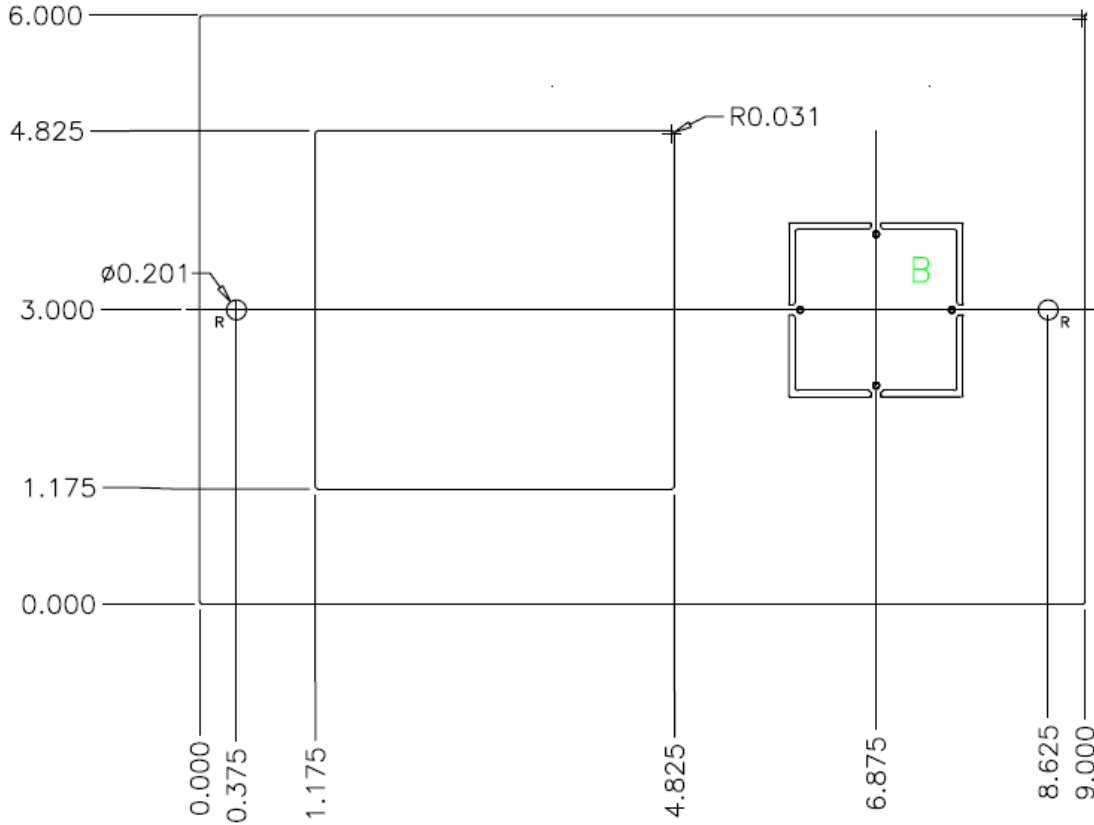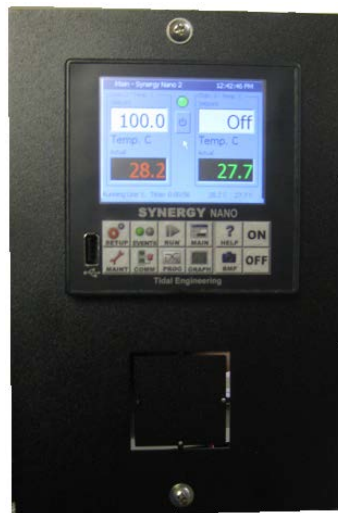
TE2094 Synergy Nano VersaTenn Panel Adapter, 6" x 9"
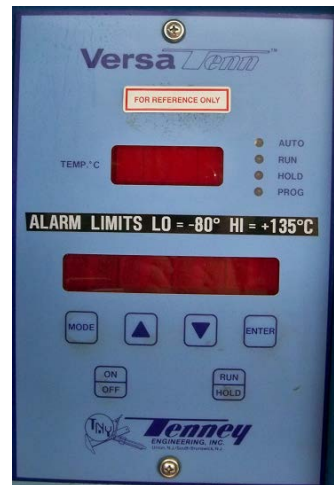

Figure 6. TE2094 Synergy Nano VersaTenn Panel Adapter, 6" x 9"

Synergy Nano   VersaTenn

TE2187 Synergy Micro Panel Adapter for VersaTenn II
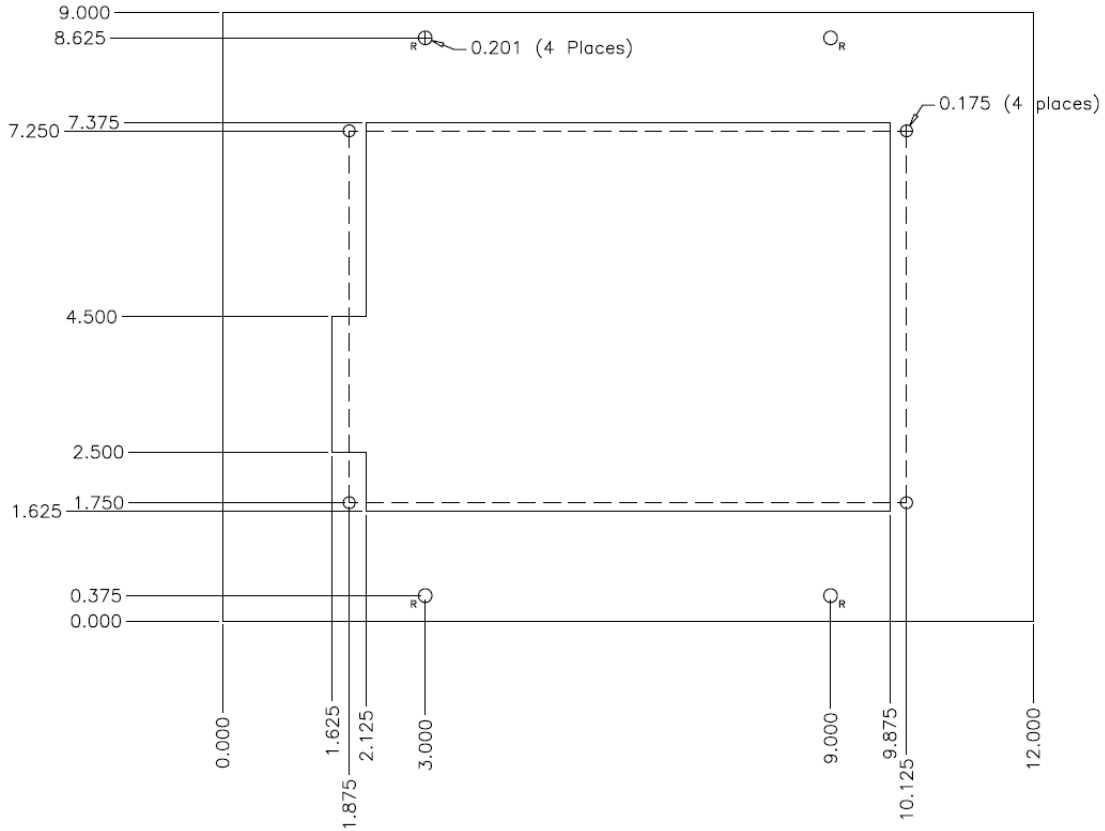

Figure 7. TE2187 Synergy Micro Panel Adapter for VersaTenn II

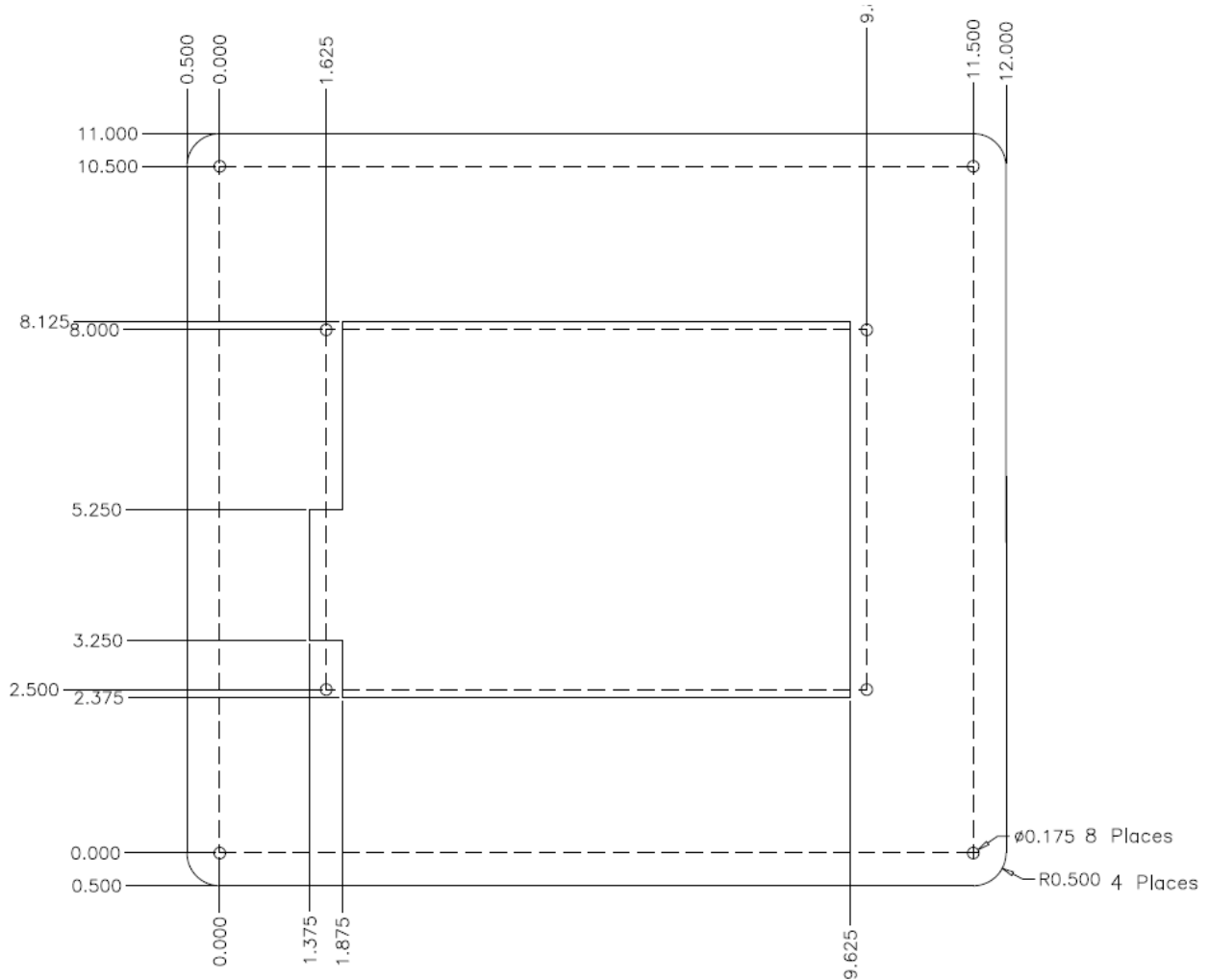**TE2209 Synergy Micro Panel Adapter for ESPEC Controller**

Figure 8. TE2209 Synergy Micro Panel Adapter for ESPEC Controller

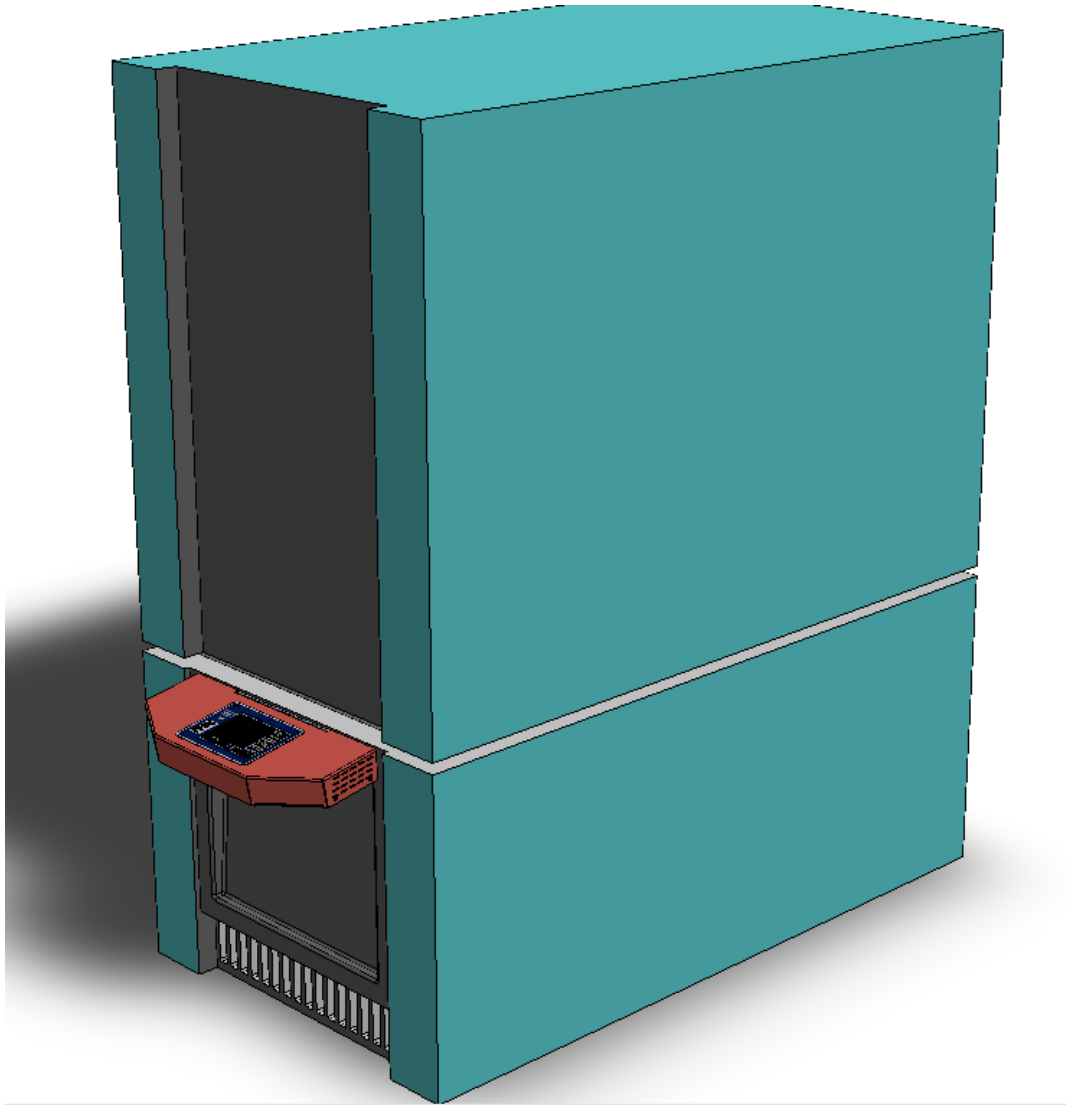P/N TE2210, Synergy Micro Adapter for Thermotron SE Series

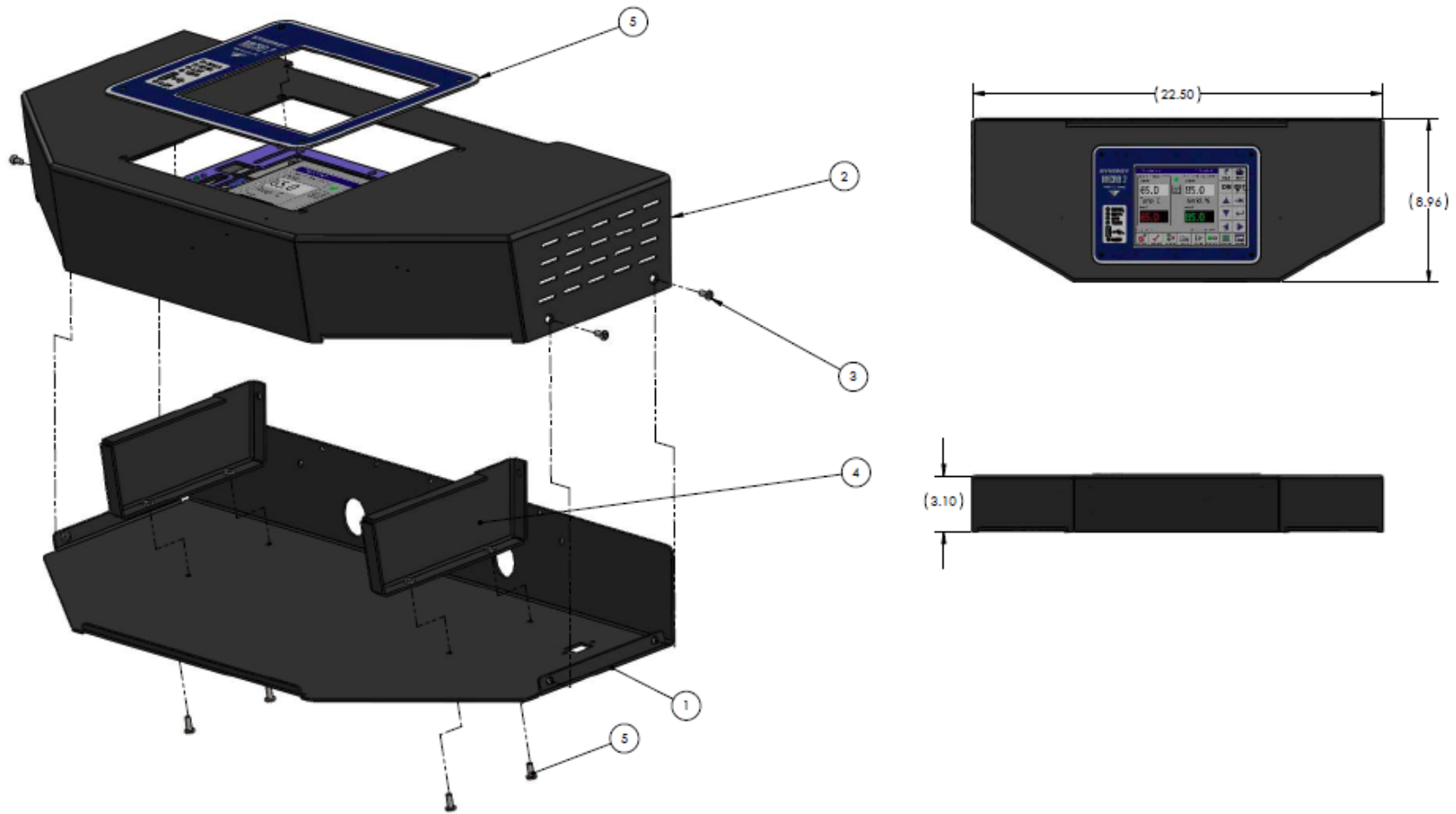**Figure 9A - P/N TE2210, Synergy Micro Adapter for Thermotron SE Series**

(22.50)

(8.96)

(3.10)

Figure 9B, P/N TE2210, Synergy Micro Adapter for Thermotron SE Series

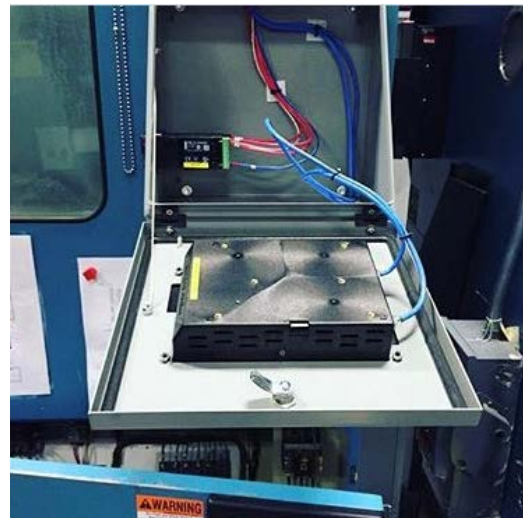**P/N TE1879,** Synergy Micro Sloped Control Box

Figure 10 P/N TE1879, Synergy Micro Sloped Control Box

P/N TE2221, Synergy Micro Square Control Box, Front Mount
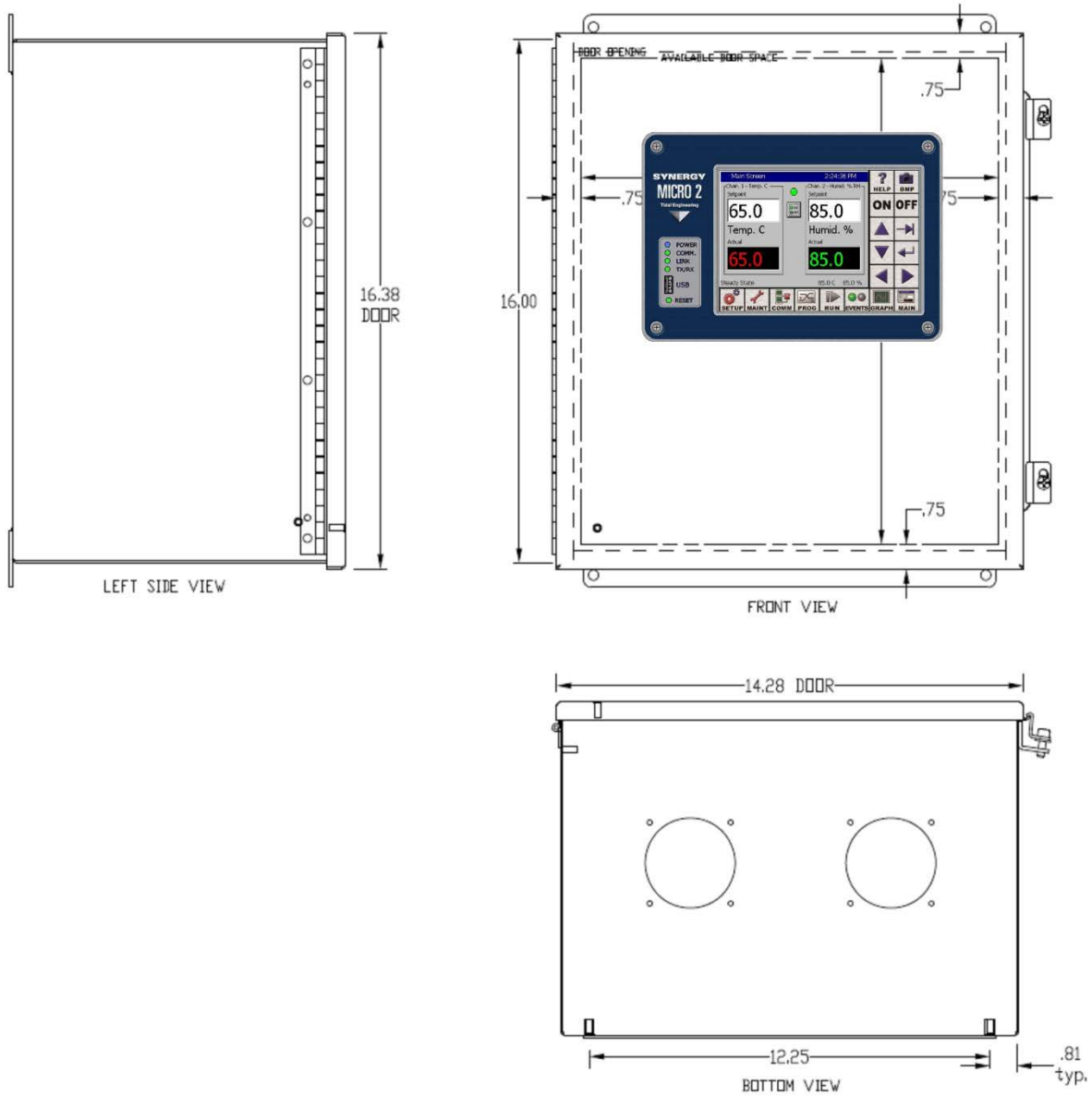

Figure 11 P/N TE2221, Synergy Micro Square Control Box, Front Mount

P/N TE2221-2, Synergy Micro Square Control Box, Side Mount
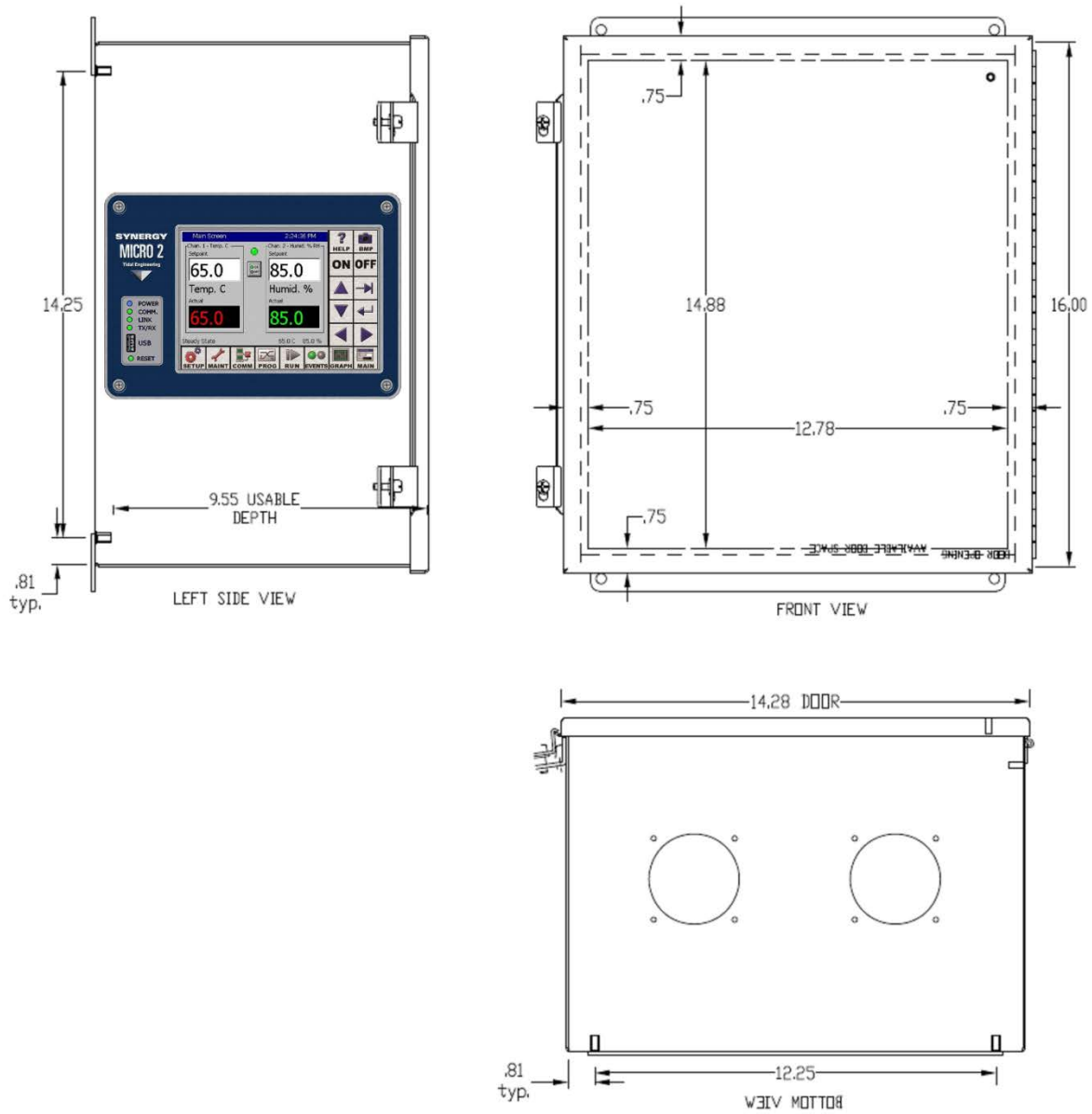

Figure 12   P/N TE2221-2, Synergy Micro Square Control Box, Side Mount

P/N TE2012-6 Synergy Quattro Articulating Mounting Arm, 1 Knuckle

Figure 13. P/N TE2012-6 Synergy Quattro Articulating Mounting Arm, 1 Knuckle

P/N TE2012-5 Synergy Quattro Tilt Mount

Figure 14. P/N TE2012-5 Synergy Quattro Tilt Mount

P/N TE2287 Synergy Quattro VESA Mounting Kit
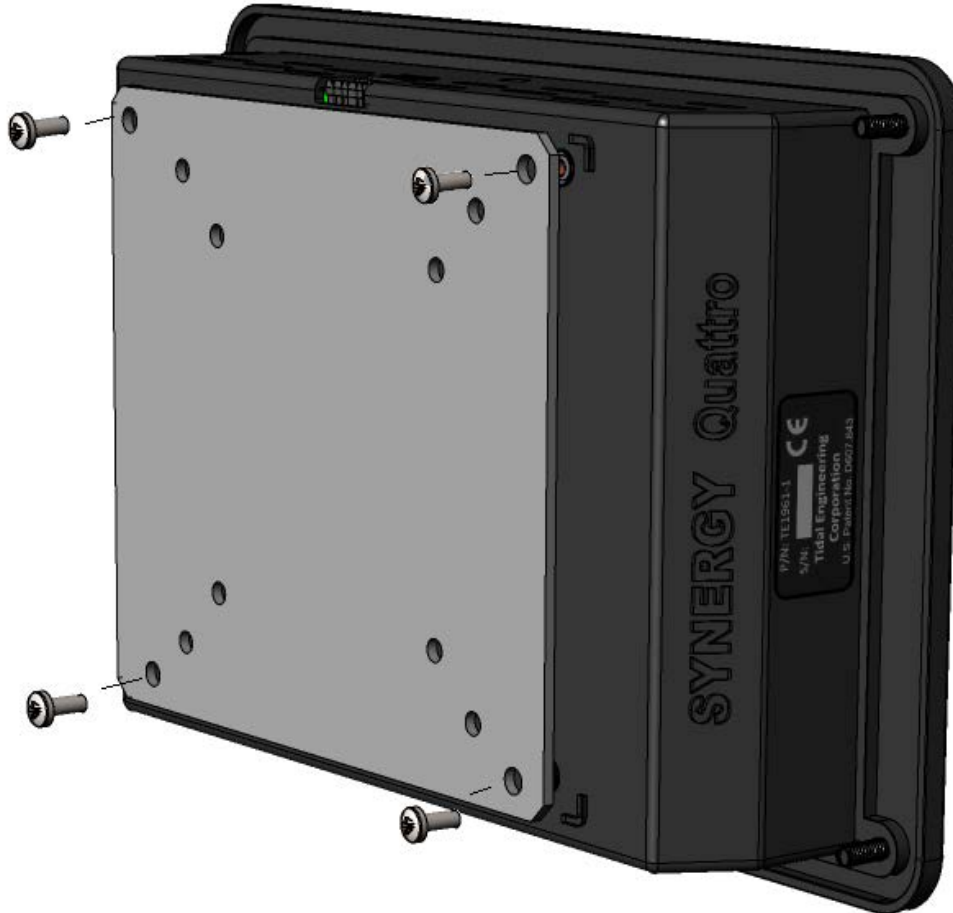

Figure 15. P/N TE2287 Synergy Quattro VESA Mounting Kit

P/N TE2352 Synergy Panel for Envirotronics Systems Plus

Figure 16. P/N TE2352 Synergy Panel for Envirotronics Systems Plus

17 Synergy Controller SD Card Front Panel Extender

For some customers in Military and Defense industries, when a system with Non-Volatile Memory is moved from one area or program to another, the Non-Volatile memory must be cleared.

With current Synergy Controller models, all non-volatile memory resides on the SD Card (Secure Digital). This is known as the Storage Card Drive shown on the touch screen when selecting files.

Normally, with the current Synergy Nano and Synergy Quattro models, the SD card can be removed from the controller, but the user must have access behind the control panel.

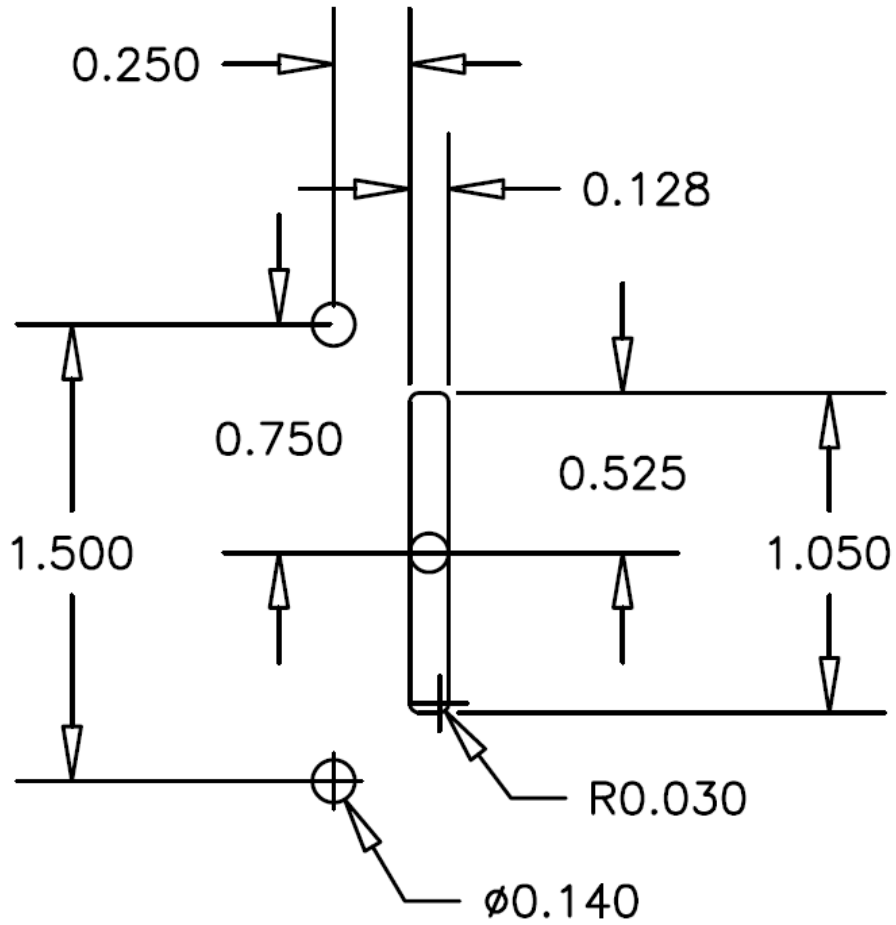With these SD Card Extender options, the SD Card can be easily removed from the front panel to accommodate security protocols.

These work with all Synergy Nano and Synergy Quattro controller models

TE2864-18	Synergy Controller Front Panel SD Card Extender, 18"
TE2864-11	Synergy Controller Front Panel SD Card Extender, 11"
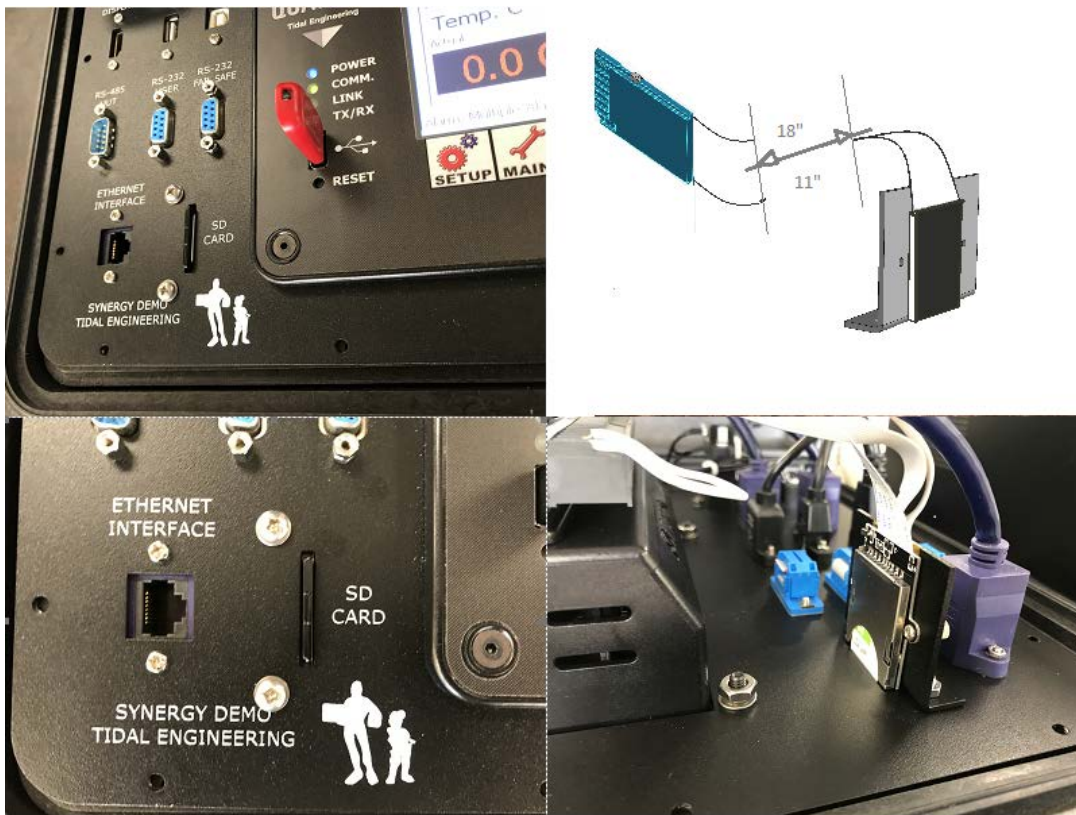
Panel drilling dimensions for TE2864-x

About the Synergy Controller Family

Tidal Engineering's Synergy Controllers; the ¼ DIN Synergy Nano, the Synergy Micro 2, and the Synergy Quattro provide state-of-the-art usability and connectivity for environmental test control and data acquisition. They combine the functions of a chamber controller and a data logger and are designed to improve test efficiency by supporting both factory automation and test and measurement protocols and standards.

Synergy Controller feature highlights includes:

➔ Color touch screen
➔ Ethernet, RS-232 and GPIB communications
➔ Built in 100 MB Data logger with USB drive support
➔ Data Acquisition, up to 64 T-type thermocouples (Optional)
➔ Built-in Web Server for remote control; WebTouch Remote ™
➔ Compatible with Synergy Manager for PC based control, monitoring and programming.
➔ Built-in FTP Server for factory automation and test and measurement applications

For more information regarding these controllers please see the full Synergy Controller Technical Manual on our website at http://www.tidaleng.com/synergy.htm

About Tidal Engineering

Headquartered in Randolph, NJ, Tidal Engineering Corporation has been designing and building award-winning embedded hardware and software for test and measurement and data acquisition applications since 1992. The company is recognized for technical expertise in such areas as Embedded IEEE 488, and turnkey SCADA (Supervisory Control and Data Acquisition) systems.

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