



Power over the Ethernet

NetWay5BT Series

5-Port Hardened 802.3bt 4PPoE Switches

Models Include:

NetWay5BTWP

- 5-port Hardened 802.3bt 4PPoE Switch with Power Supply/Charger
- NEMA4/4X, IP66 rated Outdoor enclosure.

NetWay5BTWPX

- 5-port Hardened 802.3bt 4PPoE Switch with Power Supply/Charger
- NEMA4/4X, IP66 rated Outdoor enclosure.
- Accommodates up to four (4) 12VDC/4AH batteries.

NetWay5BTWPN

- 5-port Hardened 802.3bt 4PPoE Switch
- NEMA4/4X rated outdoor enclosure

NetWay5BTX

- 5-port Hardened 802.3bt 4PPoE Switch with Power Supply/Charger
- NEMA1 rated Indoor enclosure.

NetWay5BTPL

- 5-port Hardened 802.3bt 4PPoE Switch with Power Supply/Charger
- Backplane version.

NetWay5BT

- 5-port Hardened 802.3bt 4PPoE Switch
- Board Only

Installation Guide



More than just power.™

Rev. 030424

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix NetWay5BT Series are hardened PoE+ switches. They provide a network data uplink and four (4) IEEE802.3af/3at/3bt PoE ports rated at 90W each, with 240W total power. They can power IP devices, such as PoE access controllers and cameras. Other applications may include integrating network door access systems with video surveillance.

For network managed switches see NetWay5BTQ Series.

Features:

Input:

- 115VAC, 60Hz, 1.8A or 230VAC, 50/60Hz, 1A.
- **NetWay5BT/NetWay5BTWPN:**
48-56V UL Listed ITE power supply.

Output:

- Four (4) IEEE802.3af/3at/3bt PoE ports rated at 90W each.
- Single data uplink port.

Ethernet Ports:

- Five (5) 10/100/1000 Mbps ports.
- Connectivity: RJ45, auto-crossover.
- Wire type: 4-pair CAT5e or higher structured cable.
- Distance: up to 100m.
- Speed: 10/100/1000 Mbps, half/full duplex, auto negotiation.

LED Indicators:

- Individual **PoE On** LEDs for each port.
- Individual **IP Link status, 100/1000Base-T/active** LEDs for each port.

Environmental:

- **Operating Ambient Temperature:**
– 30°C to 70°C (– 22°F to 158°F).
- **Storage Temperature:**
– 40°C to 85°C (– 40°F to 185°F).
- Humidity: 20 to 85%, non-condensing.
- Operating Altitude: – 304.8 to 2,000m.

Applications:

- Allows to power up to four (4) IP devices and networking of multiple remote devices without the need for running multiple cables from the main switch/server.

Mechanical:

NetWay5BT:

- Dimensions (L x W x D approx.):
5.9" x 3.6" x 0.75" (150mm x 91.4mm x 19mm).

NetWay5BTWPN

- NEMA 4X, IP66 Rated enclosure for outdoor use.
- Dimensions (H x W x D approx.):
9.5" x 7.32" x 4.92"
(241.3mm x 185.9mm x 125mm).

NetWay5BTWP:

- NEMA4/4X, IP66 Rated enclosure for outdoor use.
- Dimensions (H x W x D approx.):
13.31" x 11.31" x 5.59"
(338.1mm x 287.3mm x 142mm).

NetWay5BTWPX:

- NEMA4/4X, IP66 Rated enclosure for outdoor use.
- Accommodates four (4) 12VDC/4AH batteries (48V of backup).
- Dimensions (H x W x D approx.):
17.53" x 15.3" x 6.67"
(445.3mm x 388.6mm x 169.4mm).

NetWay5BTPL:

- Dimensions (H x W x D approx.):
10.75" x 8.875" x 2.375"
(273.1mm x 225.4mm x 60.3mm).

NetWay5BTX:

- Dimensions (H x W x D approx.):
13.5" x 13" x 3.25" (342.9mm x 330.2mm x 83mm).

Installation Instructions:

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application. All units should be installed by a trained service personnel.

Installation:

NetWay5BT/NetWay5BTPL:

1. Mount board/backplane in the desired location/enclosure (mounting hardware included).
2. **NetWay5BT:** Connect NetWay5BT to power source and Ethernet devices:
NetWay5BT can be powered by 48-56V ITE power supply, e.g. Altronix PoE240 or PoE360 power supply/charger.
3. Connect a power source to the [GND +56V] terminals carefully observing polarity (*Fig. 1a, pg. 4*).
4. Connect a Data source to the [Data Input] RJ45 jack (*Fig. 1b, pg. 4*).
5. Connect Access Control boards, Altronix LINQ units or other IP devices to the [Port 1 - Port 4] RJ45 jacks (*Fig. 1c, pg. 4*). Refer to the corresponding Installation Guides for details.

NetWay5BTWPN/NetWay5BTWP/NetWay5BTWPX:

1. Remove backplane from enclosure prior to drilling. Do not discard hardware.
Note: Make sure that hardware will not interfere with components of the circuit board.
2. Mark and drill desired inlets on the enclosure to facilitate wiring. Maximum NEMA type 4X rated fittings to be used are 0.5". Follow manufacturer's specifications for the appropriate size opening.
Note: Inlets for conduit fittings should only be made on the bottom of the enclosure.
To facilitate wire entry utilize weather-tight NEMA rated connectors (*supplied*), bushings, and cable.
3. Clean out the inside of enclosure before remounting circuit boards/backplane.
4. Mounting NEMA4/4X rated enclosure (*Enclosure Dimensions, pg. 8-10*):

Wall mount: Mount unit in desired location. Mark and drill holes to line up with the top and bottom hole of the enclosure flange. Secure enclosure with appropriate fasteners (e. g. screws and anchors; bolts and locking nuts, etc.) that are compatible with mounting surface and are of sufficient length/construction to ensure a secure mount (*Fig. 3, pg. 7*).

Pole Mount: *Refer to Fig. 3 - 8, pg. 7.*

5. Mount backplane in enclosure with hardware.

NetWay5BTX:

1. Mount unit in the desired location. Mark and predrill holes in the wall to line up with the top two keyholes in the enclosure. Install two (2) upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two (2) upper screws; level and secure. Mark the position of the lower two (2) holes. Remove the enclosure. Drill the lower holes and install two fasteners. Place the enclosure's upper keyholes over the two (2) upper screws. Install the two (2) lower screws and make sure to tighten all screws (*Enclosure Dimensions, pg. 11*). Secure enclosure to earth ground.

Power Connection:

NetWay5BTWP, NetWay5BTWPX, NetWay5BTX, NetWay5BTPL:

1. Secure cabinet (backplane) to earth ground. Connect AC power from overcurrent protective device circuit breaker (20A @ 115VAC, 60Hz, 16A @ 230VAC, 50/60Hz) to the terminals marked [L, N] on power supply board. Use 14AWG or larger for all power connections (Battery, DC output, AC input).
Connect ground lug (⊕) to earth or green branch wire (12AWG min.).

Keep power-limited wiring separate from non power-limited wiring (115VAC 60Hz Input, Battery Wires). Minimum 0.25" spacing must be provided.

CAUTION: Do not touch exposed metal parts. Shut branch circuit power before installing or servicing equipment. There are no user serviceable parts inside. Refer installation and servicing to qualified service personnel.

2. When use of stand-by batteries is desired, they can be LiFePO₄ (lithium iron phosphate), lead acid or gel type. If batteries are housed in a weather-proof enclosure (NetWay5BTWP, NetWay5BTWPX), it must be properly ventilated. Use Altronix Vent2 kit. Connect battery to terminals marked [- BAT 24V +] on power supply board.

Note: When batteries are not used, a loss of AC will result in the loss of output voltage.

Note: When using two 12V LiFePO₄ (lithium iron phosphate) batteries, check with manufacturer specifications that batteries can be connected in series.

For outdoor battery backup, battery enclosure must have sufficient ventilation.

Battery operational temperature should be derated 10-15°C lower than manufacture's rated high temperature.

NetWay5BT, NetWay5BTWPN:

1. Mount NetWay5BT/NetWay5BTWPN in the desired enclosure/location (mounting hardware is included).
2. NetWay5BT/NetWay5BTWPN can be powered by a 48-56V ITE power supply, e.g. Altronix PoE240 or PoE360 power supply/charger.

Input/Data Connections:

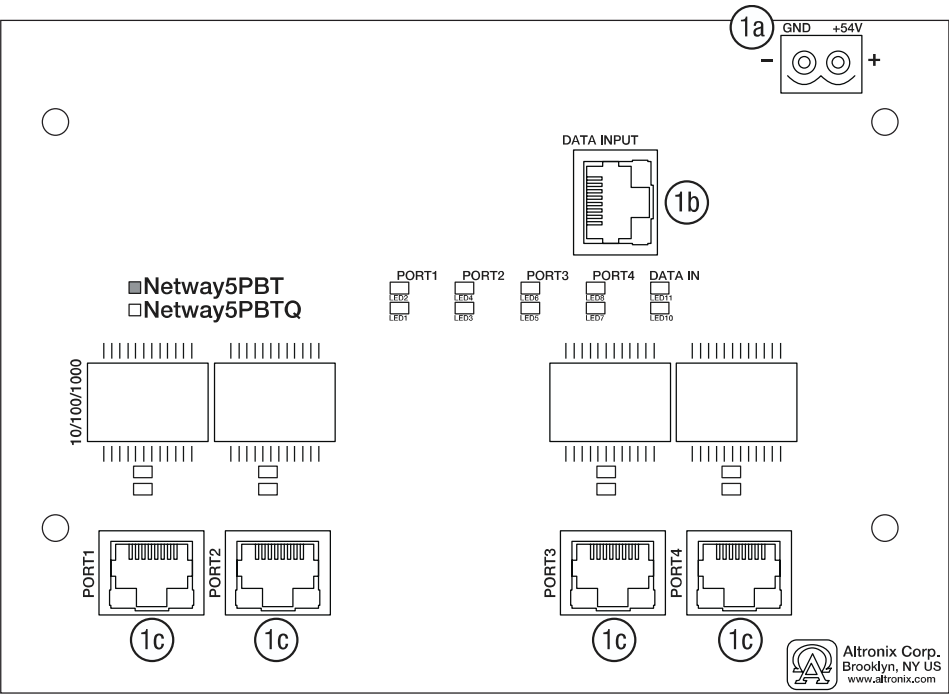
1. Connect a Data source to the [Data Input] RJ45 jack (*Fig. 1b, pg. 4*).
2. Connect Access Control boards, Altronix LINQ units or other IP devices to the [Port 1 - Port 4] RJ45 jacks (*Fig. 1c, pg. 4*). Refer to the corresponding Installation Guides for details.

Security:

Please ensure that the cover is secured with:

Key lock and screws for **NetWay5BTX**, Security Bolt for **NetWay5BTWPN, NetWay5BTWP, NetWay5BTWPX**.

Fig. 1 - NetWay5BT Board Configuration



Terminal and Port Identification:

Terminal/Port Legend	Function/Description
GND +54V	Connect a 48-56V UL Listed power source to these terminals carefully observing polarity. Factory connected to power supply in NetWay5BTWP , NetWay5BTPL , NetWay5BTWPX , NetWay5BTX (Fig. 1a, pg. 4)
Data Input	Can be used as a Data Uplink (Fig. 1b, pg. 4).
Port 1 - Port 4	Data and PoE/PoE+ (IEEE802.3af/3at/3bt compliant) ports (Fig. 1c, pg. 4).

Technical Specifications:

Parameter	Description		
Input Power Requirements	NetWay5BTWP, NetWay5BTWPX, NetWay5BTX, NetWay5BTPL: 115VAC, 60Hz, 1.8A or 230VAC, 50/60Hz, 1A. NetWay5BT/NetWay5BTWPN: 48-56V from a UL Listed power source.		
Output	Four (4) PoE/PoE+ ports. Single data uplink port.		
Indicators	NetWay5BT: Individual PoE On LEDs for each port. Individual IP Link status, 100/1000Base-T/active LEDs for each port.		
Environmental Conditions	Operating Ambient Temperature: 240W: – 30°C to 55°C (– 22°F to 131°F) 180W: – 30°C to 65°C (– 22°F to 149°F) 150W: – 30°C to 75°C (– 22°F to 167°F). Storage Temperature: – 30°C to 85°C (– 22°F to 185°F) Relative Humidity: 85%, +/- 5% Operating Altitude: – 304.8 to 2,000m		
Weights (approx.)	Model	Product Weight	Shipping Weight
	NetWay5BTWP	10.5 lb. (4.76 kg)	11.9 lb. (5.4 kg)
	NetWay5BTWPN	3.7 lb. (1.68 kg)	5 lb. (2.27 kg)
	NetWay5BTWPX	15 lb. (6.8 kg)	17.5 lb. (7.9kg)
	NetWay5BTX	6.65 lb. (3.02 kg)	7.55 lb. (3.42kg)
	NetWay5BTPL	2.6 lb. (1.18 kg)	2.6 lb. (1.18 kg)
	NetWay5BT	0.25 lb. (0.11 kg)	0.75 lb. (0.34 kg)

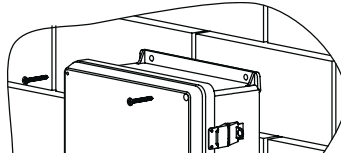
Fig. 2



Wall Mount Installation

1. Place unit at desired location and secure with mounting screws (not included) (Fig. 3, pg. 7).

Fig. 3



Pole Mounting Using Optional Pole Mount Kit

PMK1 (NetWay5BTWPN and NetWay5BTWP) or PMK2 (NetWay5BTWPX):

This installation should be made by qualified service personnel. This product contains no serviceable parts. Pole mount kits are intended for use with Altronix outdoor rated power supplies or accessories housed in WP1, WP2, WP3 and WP4 enclosures. Brackets are designed for use with the Wormgear Quick Release Straps (two included).

1. Thread one (1) wormgear quick release strap through the slots on the back of a mounting bracket (Fig. 4, pg. 7).
2. Once the desired height of the top Pole Mount bracket is achieved, tighten the straps down by sliding open end of the strap through the locking mechanism on the strap, then tighten the screw with flat head screwdriver or 5/16" hex socket driver (Fig. 5, pg. 7 and Fig. 7, pg. 7).

Fig. 4

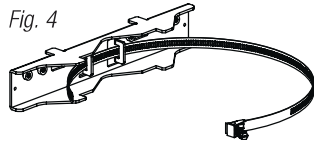


Fig. 5

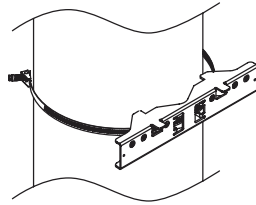
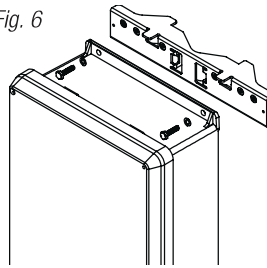


Fig. 6



3. Attach the bottom bracket to the enclosure by inserting bolts through the flange of the enclosure and into the bracket, tightening bolts with a 7/16" hex socket (Fig. 5, pg. 7).
4. Thread the second wormgear quick release strap through the slots on the back of the bottom mounting bracket (Fig. 7, pg. 7).
5. Mount enclosure onto the top bracket by inserting bolts through flange of the enclosure and into the bracket, tightening bolts with a 7/16" hex socket (Fig. 8, pg. 7).
6. Tighten the straps of the bottom bracket down by sliding the open end of the strap through the locking mechanism on the strap, then tighten screw with flat head screwdriver or 5/16" hex socket driver (Fig. 8, pg. 7).
7. Clip excess straps.

Fig. 7

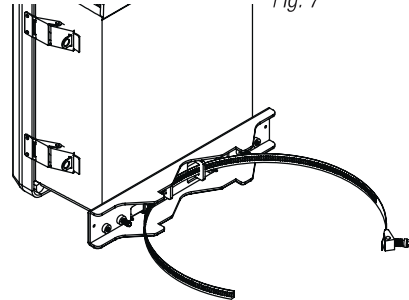


Fig. 8
2" to 8" (50.8mm to 203.2mm)
diameter round pole

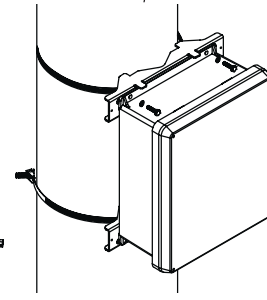
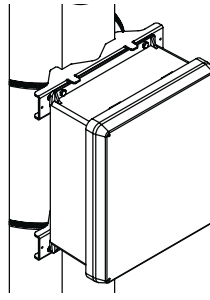
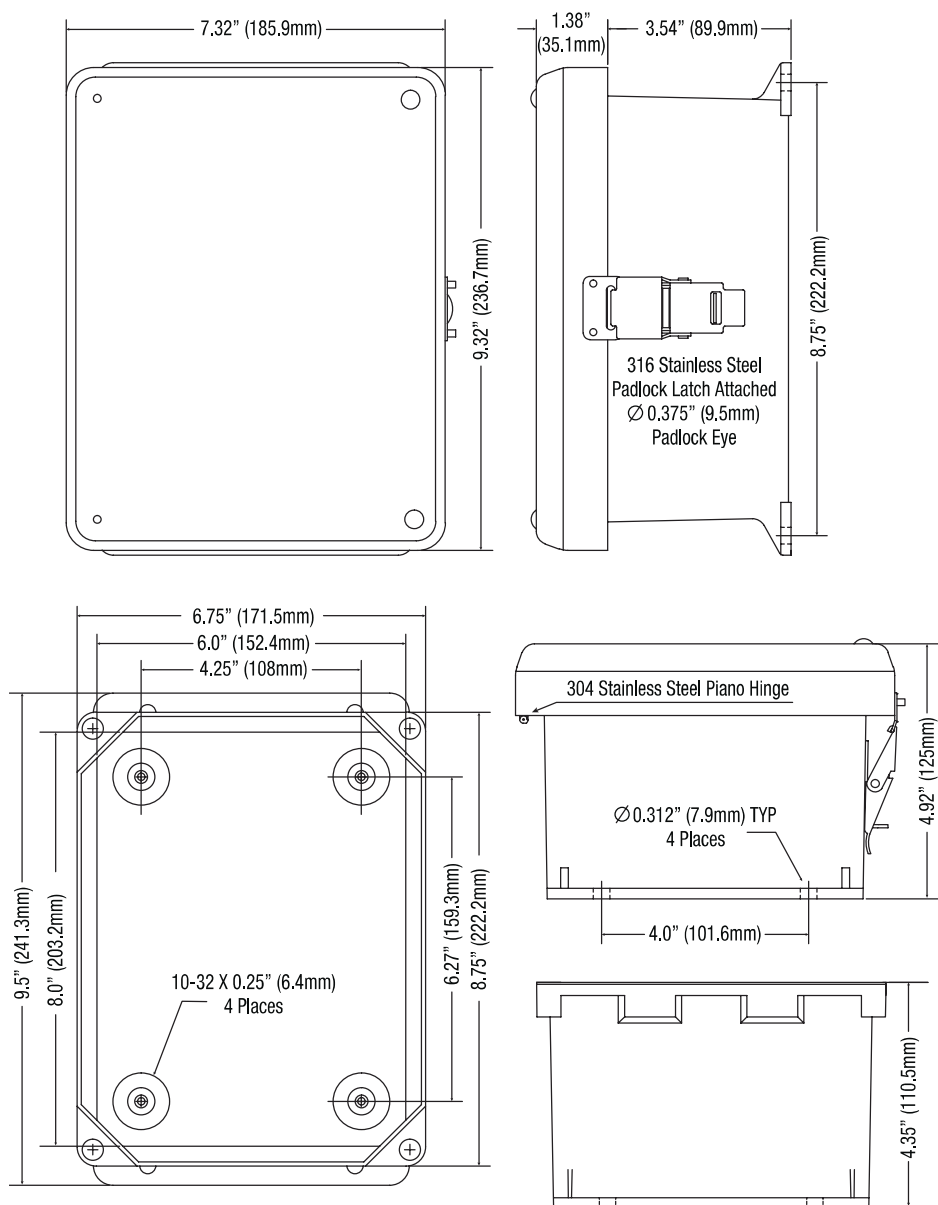


Fig. 9
5" (127mm) square pole



NetWay5BTWPN **Mechanical Drawing and Dimensions (H x W x D approx.):**

9.5" x 7.32" x 4.92" (241.3mm x 185.9mm x 125mm)

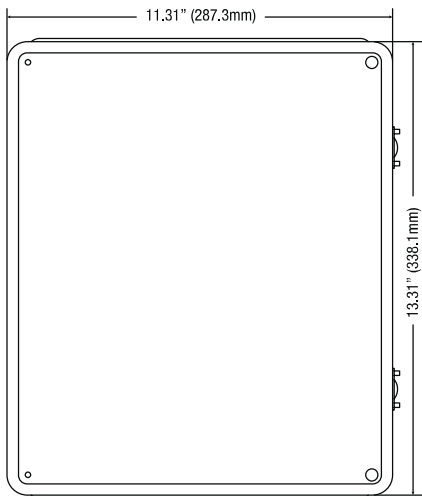


NetWay5BTWP

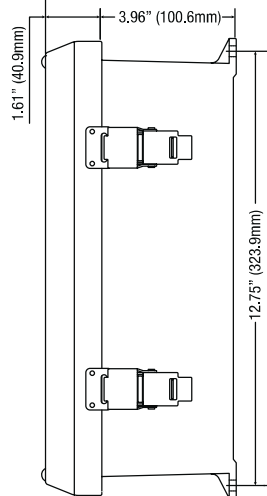
Mechanical Drawing and Dimensions (H x W x D approx.):

13.31" x 11.31" x 5.59" (338.1mm x 287.3mm x 142mm)

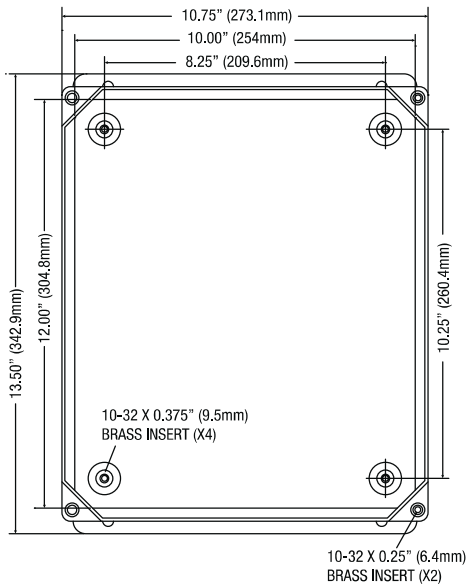
FRONT VIEW



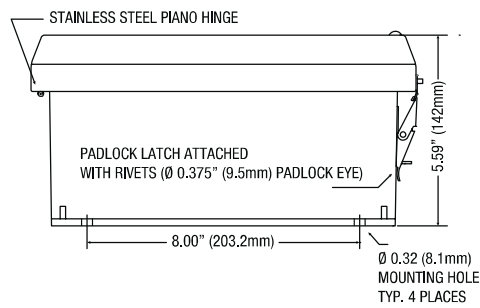
RIGHT SIDE VIEW



FRONT VIEW COVER REMOVED



END VIEW

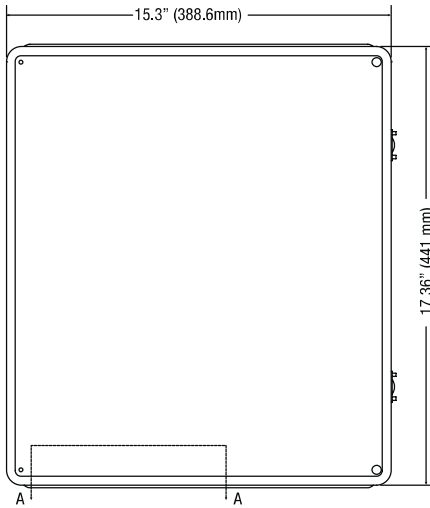


NetWay5BTWPX

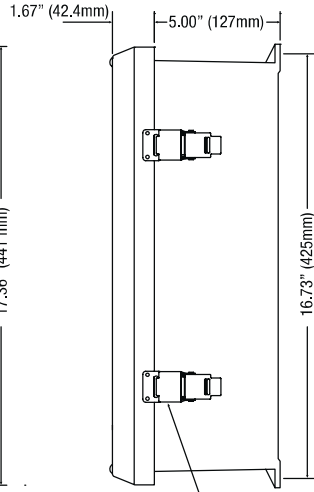
Mechanical Drawing and Dimensions (H x W x D approx.):

17.53" x 15.3" x 6.67" (445.3mm x 388.6mm x 169.4mm)

FRONT VIEW

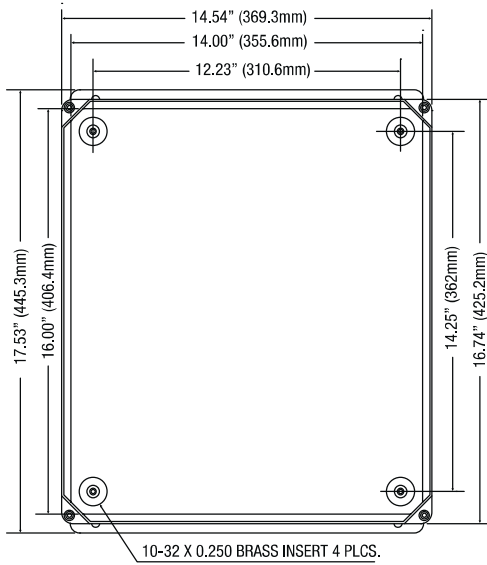


RIGHT SIDE VIEW

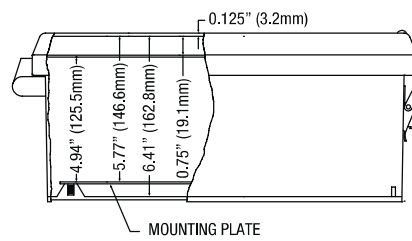


316 STAINLESS STEEL PADLOCK LATCH
ATTACHED WITH RIVETS. Ø 0.375 PADLOCK EYE

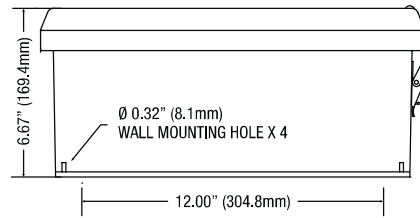
FRONT VIEW COVER REMOVED



SECTION A-A



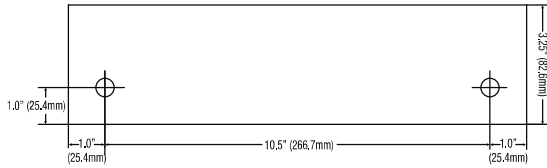
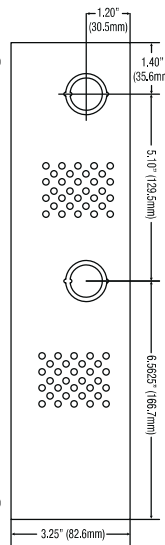
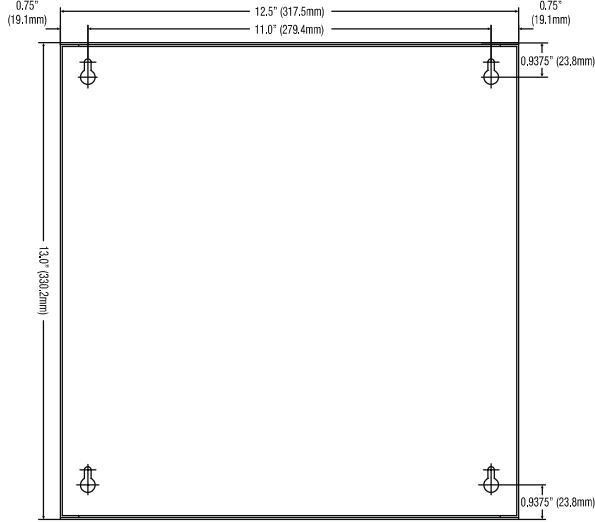
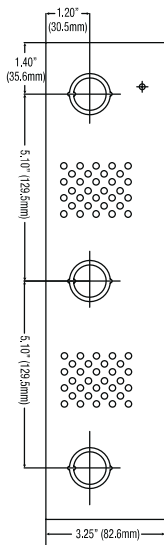
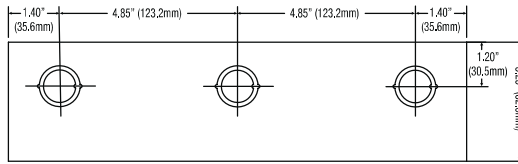
END VIEW



NetWay5BTX

Mechanical Drawing and Dimensions (H x W x D approx.):

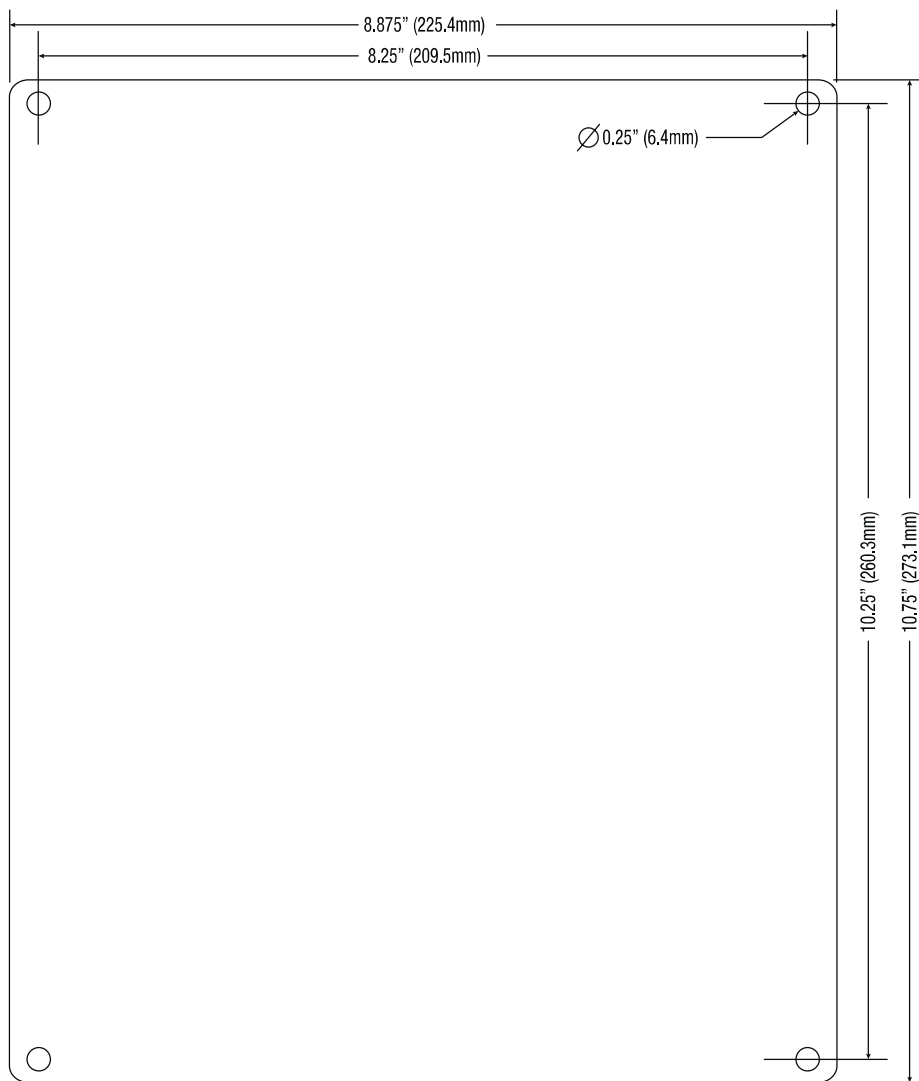
13.5" x 13" x 3.25" (342.9mm x 330.2mm x 82.6mm)



NetWay5BTPL

Mechanical Drawing and Dimensions (H x W x D approx.):

10.75" x 8.875" x 2.375" (273.1mm x 225.4mm x 60.3mm)



Altronix is not responsible for any typographical errors.

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II NetWay5BT Seires

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