



EDCA-DIO-01
Enclosure Door Contact Alarm
Install Guide

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Warranty

For details on the Lantronix warranty policy, go to <http://www.lantronix.com/support/warranty>.

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Revision History

Date	Rev	Notes
7/31/19	A	Initial release.
9/9/19	B	Add MTBF information and update Magnetic Contact Switch P/N.
2/24/22	C	Remove DIN Rail Clip 22507; initial Lantronix re-brand
4/16/24	D	Update features and graphics.

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Product Description

The Lantronix EDCA-DIO-01 Enclosure Door Contact Alarm adds an additional level of security to applications by monitoring the status of the door on equipment enclosures. The EDCA-DIO-01 inserts power into any 12V Digital Input (DI) application by making it active. The EDCA-DIO-01 provides power between a connected sensor or alarm and the Digital Input port on a Lantronix Managed Hardened Ethernet PoE Switch.

With a Lantronix Managed Hardened Ethernet PoE Switch installed in a cabinet, a mechanical contact closure switch (optional accessory) is installed at the cabinet door, and the EDCA-DIO-01 (also installed in the cabinet) links the two together. When the door to the cabinet is open, the switch is notified of the open door and network administrators are alerted.

The EDCA-DIO-01 can be used in applications where Lantronix PoE switches and other equipment are installed in cabinets and require additional levels of security.

The EDCA-DIO-01 requires power and can be powered by the same power supply providing power to the Lantronix Ethernet switch in the cabinet. The power port is a 2-wire Terminal Block supporting 20 - 60 VDC.

The switch must be mountable near the enclosure door so that the opening and closing of the door will trigger the switch. The switch requires wire connection terminals.

The EDCA is an enclosure door alarm device which can provide alerts if the cabinet door has been opened. The EDCA is a 12 volt step down voltage converter. It enables the DIO function in a switch to use 48V main power supply as the source of power and step the voltage down to the DIO voltage input range.

The EDCA-DIO-01 can be mounted within the cabinet via DIN Rail Clip or via an optional Wall Mount Plate. For example, the EDCA-DIO-01 can be used in conjunction with the Lantronix SISPM1040-362-LRT, SISPM1040-384-LRT-C, or SISPM1040-582-LRT hardened managed Ethernet switches.

Ordering Information

SKU	Description
EDCA-DIO-01	Enclosure Door Contact Alarm
WMB-EDCA	Wall Mount Bracket for Enclosure Door Contact Alarm (sold separately)
22365	Magnetic Contact Switch accessory (sold separately)

Features

- Provides 12VDC to an external contact switch or other actuation device
- Contact switch status (open/closed) can be wired to standard alarm input of a managed Ethernet switch
- Allows a managed Ethernet switch to report that enclosure door is open or closed
- Can be powered by the same power supply powering the managed Ethernet switch
- Supports wide input voltage range of 20-60 VDC; input is fused and reverse-polarity protected
- Standard DIN Rail Clip is included
- A wall mount bracket is also available (sold separately)
- Will work with the cabinet door contact switch provided by your enclosure manufacturer
- A third party magnetic enclosure door contact switch is available (sold separately)
- Compatible for use with these Lantronix Hardened Ethernet Switches:
 - SISPM1040-362-LRT
 - SISPM1040-384-LRT-C
 - SISPM1040-582-LRT
 - SISPM1040-3166-L
 - SISPM1040-3248-L

Specifications

IEEE, IETF, Safety Compliance	N/A
Regulatory Compliance for Emission	EN 55032
Regulatory Compliance for Immunity	EN 55024
Power Consumption	1.2W (100mA at 12V out max.)
Power Source	20-60 VDC
Power Output	12VDC +/- 10%
Dimensions	2.2" x 2" x 7/8" (6.2 x 5 x 2.2 cm)
Weight	0.2 Lb. (0.09 Kg.)
Environment	Operating Temp: -25 to +75 deg. C. Storage Temp: -40 to +85 deg. C Altitude: 0-10,000 feet. Operating Humidity: 5% to 95% (non-condensing)
MTBF	Telcordia SR-332 (Issue 3). Environment = GB (Ground, Fixed, Controlled). Calculation Results at GB/30C: MTBF = 9,950,896 hours
Warranty	Lifetime

EDCA-DIO-01 Dimensions

M4-0.7 x 6mm STUD
FOR DIN RAIL CLIP



Installation

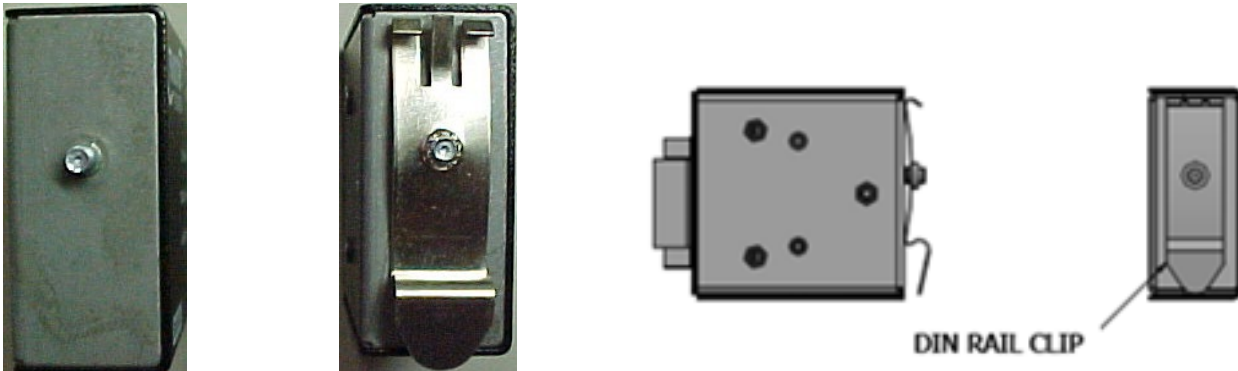
Package Contents

Carefully unpack the EDCA-DIO-01 and verify you have received the following items. Contact your sales representative if any item is missing. Please save the packaging for possible future use.

- One EDCA-DIO-01
- One printed Quick Start Guide
- DIN Rail Clip
- One Documentation Postcard

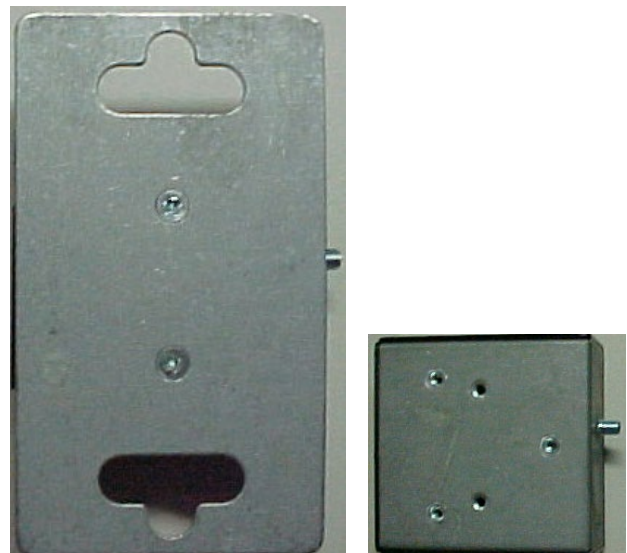
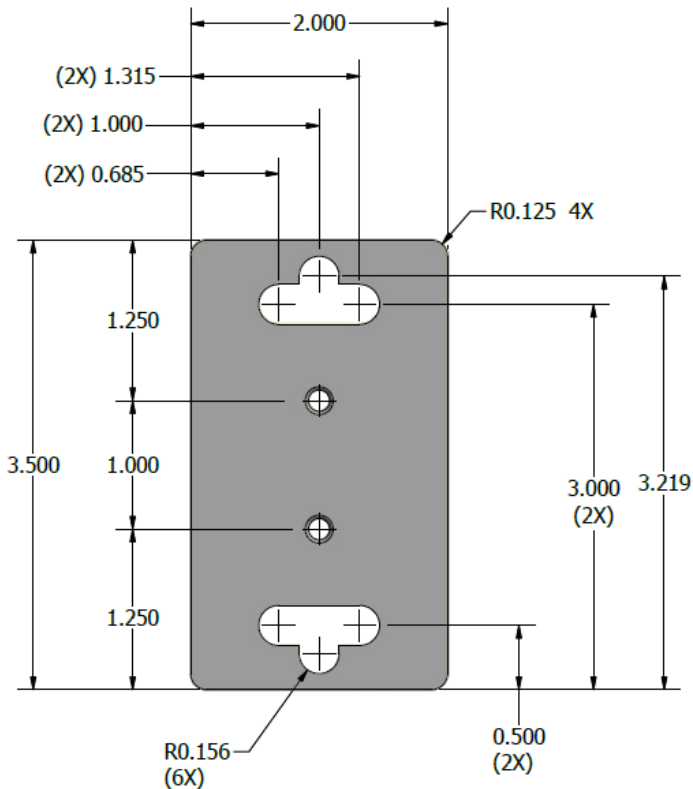
DIN Rail Clip Installation

1. Attach and tighten the DIN rail clip on the threaded stud until it is secured and aligned properly.



Wall Mount Plate Installation (Optional)

1. Attach the Wall Mount Plate to the EDCA-DIO-01 using the two provided screws.
2. Attach the Wall Mount Plate to the wall using two screws (not provided).



EDCA-DIO-01 Installation

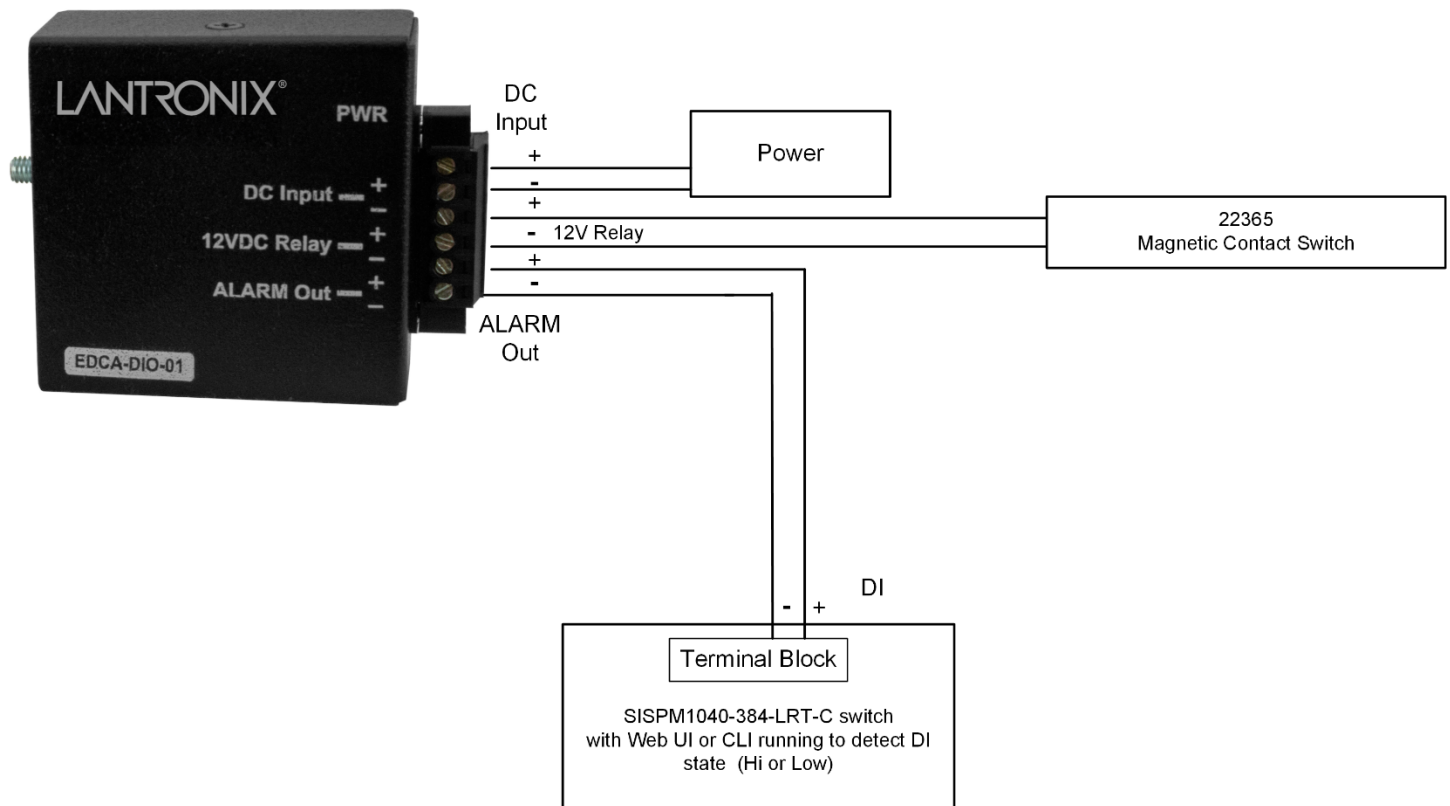
The EDCA-DIO-01 requires power and can be powered by the same power supply providing power to the Lantronix Ethernet switch in the cabinet. The power port (marked DC Input) is a 2-wire Terminal Block supporting 20 - 60 VDC.

The DI ports must also be 2-wire terminal blocks on the Lantronix Ethernet switch.

Lantronix sells as an optional accessory a universal mechanical door contact closure switch that works with a variety of enclosures. However, your cabinet manufacturer may provide their own door closure contact switch. The switch requires wire connection terminals.



The figure below shows a Lantronix SISPM1040-384-LRT-C Ethernet switch, EDCA-DIO-01, and power supply in a single cabinet/enclosure. **Warning:** Ensure that the target alarm input is capable of accepting the applied voltage (12VDC in this example).



Note: If installing external audio or visual alarm equipment, place that equipment in series with the 22365 or with the switch that came with the cabinet.

EDCA-DIO-01 Install Procedure

1. Mount a mechanical door closure contact switch near the enclosure door so that the opening and closing of the door will trigger the switch.
2. Connect the **12VDC Relay** port to the sensor or door contact closure switch.
3. Connect the **ALARM Out** port to the Digital input port on the Ethernet Switch.
4. Connect to **DC Input** power last.
5. Verify that the **PWR** LED is lit.

Switch Software Configuration

When the EDCA-DIO-01 is installed with a Lantronix managed hardened Ethernet PoE switch, you can set up alarm notifications and clear the logged alarm from either the switch Web UI or the CLI. See the related manual for your particular switch model.

Related Manuals

- EDCA-DIO-01 Quick Start Guide, 33796
- SISPM1040-582-LRT Install Guide, 33755
- SISPM1040-582-LRT Web User Guide, 33756
- Install Guide, SISPM1040-362-LRT and SISPM1040-384-LRT-C, 33727
- Web User Guide, SISPM1040-362-LRT and SISPM1040-384-LRT-C, 33728

Troubleshooting

Follow the steps below to resolve problems.

1. Check the PWR LED.
2. Verify proper EDCA-DIO-01 installation; see the EDCA-DIO-01 Install Procedure above.
3. Verify the Installation steps above.
4. Verify connected sensor or alarm and connections.
5. Verify connection with the Lantronix Managed Hardened Ethernet PoE Switch.
6. Record device and site information; see [Recording Information](#) below.
7. Contact Lantronix Tech Support.

Recording Information

After performing the Troubleshooting steps above, and before calling Tech Support, obtain information from the box label and/or product label.

SKU (model #): _____

Serial No.: _____

Lantronix connected devices: _____

Others connected devices: _____

LED Status: _____

Your Lantronix service contract number: _____

Describe the failure: _____

Describe any action(s) already taken to resolve the problem (e.g., changing mode, rebooting, etc.): _____

Describe your network environment (layout, cable type, etc.): _____

The device history (i.e., have you returned the device before, is this a recurring problem, etc.): _____

Any previous Return Material Authorization (RMA) numbers: _____

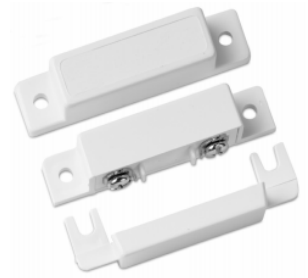
22365 Magnetic Contact Switch (Option)

The optional 22365 Magnetic Contact Switch accessory is sold separately.

The 22365 features positive clamping terminals with anti-rotation lugs and captured screws with combination heads for easy, quick installations.

The positive terminals do not require washers that can corrode or increase resistance.

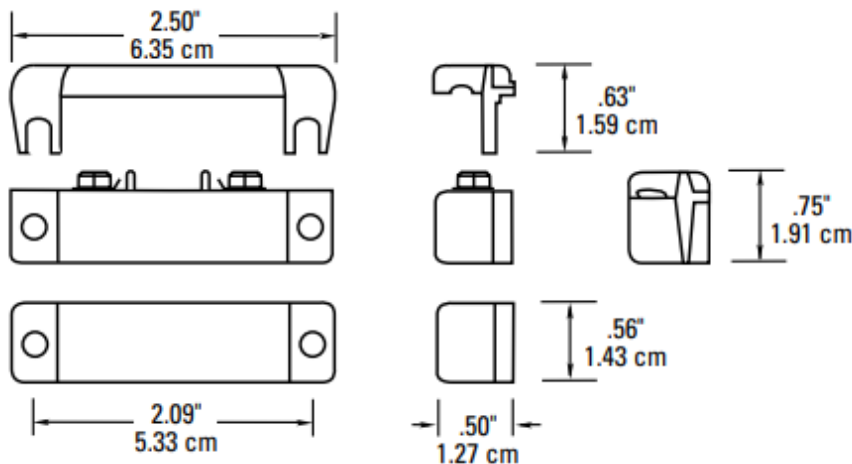
The captured screws cannot be accidentally removed and lost, and they incorporate heads that will accept both Phillips and flat-blade screwdrivers.



22365 Specifications

Voltage	100 VAC/VDC max.
Current	0.5 A max.
Power	7.5 W max.
Loop Type (Open or Closed)	Closed
Electrical Configuration(Normally open or SPDT)	Normally open
Dimensions (WxHxD)	2.5 x 0.50 x 0.56 in. (64 x 13 x 14 mm)
Gap Distance (3/4" or 1-1/2" or 2")	Up to 3/4 in. (See Note 1 below)
Housing	Flame retardant ABS plastic

Note 1: Gap specifications are nominal and may vary $\pm 20\%$. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



22365 Installation Instructions

1. Select desired mounting positions for contact and magnet. Attach with the desired mounting method (e.g., Velcro, industrial tape, nuts and bolts, super glue, rivets, etc.).
2. If protective cover is to be used to shield screw terminals, allow space for "ears" of cover before tightening down mounting screws. Route connecting wires through holes provided in cover.

Compliance Information

Declaration of Conformity

Manufacture's Name: Lantronics, Inc.

Manufacture's Address: 48 Discovery, Suite 250, Irvine, California 92618 USA

Declares that the products: EDCA-DIO-01 Enclosure Door Contact Alarm

Conform to the following Product Regulations:

FCC Part 15 Class A, EN 55032:2012, EN 55024:2010

Directive 2014/30/EU

Low-Voltage Directive 2014/35/EU

With the technical construction on file at the above address, this product carries the CE Mark

Place: Irvine, California

Date: April 27, 2023

Signature: *Eric Bass*

Full Name: Eric Bass

Position: Vice President of Engineering

FCC Regulations

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



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