

## **ELECTRIC STRIKE SELECTION GUIDE**

LOCKING | ACTIVATION | CONTROL | ACCESS



## Introduction

Camden Door Controls is dedicated to your success and offers technical support through a library of helpful technical documents, such as this electric strike selection guide. In the following pages, we offer important information on how to select an electric strike.

Electric strikes are one of several kinds of electrically operated locking devices used to secure both inside and outside doors. Electromechanical by nature, they provide a cost-effective way to control foot traffic from one side of a door to the other. The cost of this device can run from under \$100.00 to several hundred dollars, compared to electromagnetic locks that can cost upwards of \$1,500.00 or more when you include all the necessary devices required to comply with local, state, and national fire and building codes.

The task of selecting the right electric strike for specific applications is extremely important because the wrong electric strike will compromise the overall security of the door. "A chain is only as strong as its weakest link," and so the wrong strike can easily become that weak link in an access control or life safety system. Using the wrong electric strike also can reduce the life expectancy of the electric strike, causing premature failure.

Another reason for a possible security failure is the physical and mechanical condition of the door such as sagging and misalignment. For this reason, it's important to double check the mechanical functions associated with each door where an electric strike is used. If it's a retrofit application, it would be prudent to check the door for such issues before you do the work.

#### There are nine basic factors that you need to know when matching an application to the correct electric strike. In brief, they are:

- 1. Electric Strike Mechanics
- 2. Type of Door and Frame
- 3. Type of Mechanical Door Lock(s)
- 4. Door Strike Security Grade (1, 2, or 3)
- 5. Supply Voltage
- 6. Electric Strike Duty and Fail States
- 7. Duty (Intermittent Vs. Continuous)
- 8. Strike and Lock Center Alignment
- 9. Strike Operation and Preload

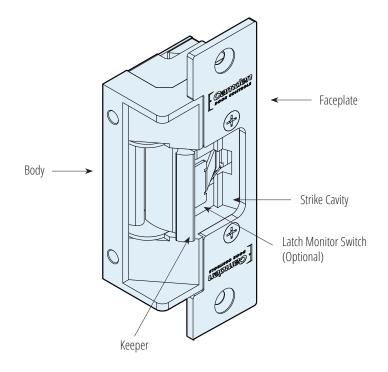


### **Electric Strike Mechanics**

It's important to know the mechanical elements associated with an electric strike to select the right model for a customer's application. Electro-mechanical by nature, electric strikes contain a solenoid; a small, movable keeper; and a specially designed strike cavity made to correspond to specific faceplates for specific types of latchbolt, deadbolts, and dead latches used.

The movable keeper within an electric strike acts as a gate, holding the lockset latch in place until someone energizes or de-energizes the strike's solenoid--depending on what kind of electric strike it is (more about this in a later section). When an authorized action does occur, such as a valid access card presented to a card reader, or someone at a manned kiosk presses a door release button, the electric strike will allow the keeper to move and the door to open.

Some models include an internal means of monitoring the status of the electric strike, such as the door position or the condition of the keeper. This is a useful feature to have because the customer now knows for certain when the door is locked or unlocked (many Camden strikes have this feature as standard). This type of electric strike is commonly employed in applications that require a higher level of security than a common electric strike will provide.



## Type of Door and Door Frame

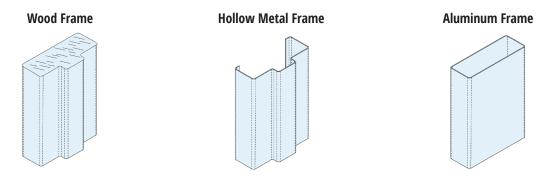
One of many important factors in the selection of an electric strike is the type of door and door frame. This is of great importance in that electric strikes are designed for use with specific kinds of doors and frames, made of specific materials. In all cases, the size and design of the electric strike faceplate is dependent upon the type of door frame material.

There are three basic materials to consider when working with electric strikes.

**1. Wood** - Wooden frames typically require electric strikes equipped with a longer face plate than when working with metal frames. A longer face plate promotes additional security and stability.

**2. Hollow Metal -** Hollow metal doors and frames are common in commercial facilities. The problem with hollow metal frames, is that they are commonly filled with construction materials, such as concrete and grouting. Frames filled with construction material can pose a few difficulties when installing an electric strike. For this reason, some electric strike manufacturers, like Camden Door Controls, make a low-profile electric strike where the solenoid is housed within the strike itself instead of externally.

**3. Aluminum -** Aluminum door frames usually come with a pane of glass. It's important to pay particular attention to the width of the glass versus the door frame to assure that you do not drill into the edge of the glass window. This can cause it to crack. These aluminum frames usually measure between 1-3/4 and 2 inches wide.



**Fire Ratings for Inside and Outside Doors -** Outside doors may or may not carry a fire rating. In the past, outside doors did not necessarily have to carry a fire rating. Today, however. this is not always the case due to the advancement of local fire codes. Thus, it is important to match the electric strike to the fire rating of the door. This is especially critical on the inside of a building where you're sure to encounter several fire walls with doors that must be capable of withstanding the heat of a fire for a given period of time.

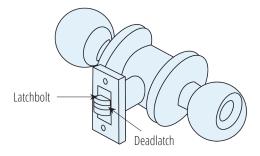
It is vital that the mechanical lockset is also fire rated to the same standard as the electric strike being installed. Fire ratings on strikes are normally 90 minutes or 3 hours. To confirm what type of rated strike you need, check the fire label on the hinge side of the door frame.

#### Important Note: Fire rated electric strikes must be fail secure.

**Single Versus Double Doors** - Another important item to consider is whether the door opening you're working with is comprised of one or two doors. In the case of a double door, you need to know if there is a center mullion present and whether it can be removed. When a center mullion is used, an electric strike can be installed within it. When there is no center mullion present, however, the electric strike can be installed inside of the inactive door. If both doors are active, another method of locking may be required, such as an electromagnetic lock (EML). All of these issues can affect the type of electric strike you use so be sure to do your homework ahead of time.

The type of lock on a door figures heavily in the electric strike selection process. It's imperative that you know this information before you make a final decision on the electric strike you will select. There are several common door locks that you'll encounter when installing most electric strikes.

**Cylindrical Locks -** When dealing with an existing door with a cylindrical lock(s), it's important that you know what kind of locking arrangement you're working with. Think of it this way, if you take the electrical power issue out of the picture, the electric strike must perform the same function in the same manner as the original strike plate. This requires that the latchbolt of the lock and the center line of the electric strike be aligned.



In order to make the right decision, it's important to know what type of cylindrical lock that you are working with. There are three basic types that you'll encounter. Each one is different in how it secures the door and so figures heavily in the kind of electric strike you need.

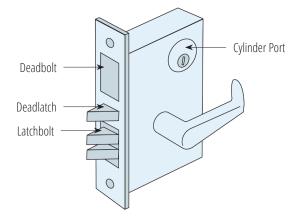
**Latchbolt** - The latchbolt is a spring-loaded assembly that ramps toward the inside of the door. This ramping effect enables the Latchbolt to move inward when closing the door. When the latchbolt is even with the strike plate/electric strike's inner cavity, it is free to pop out into this space to secure the door.

**Deadlatch** - The deadlatch is designed to work with the latchbolt so that when locked, the deadlatch remains depressed in the lockset. This assures that the latch cannot be manipulated from outside the door.

**Deadbolt -** The deadbolt contains a latchbolt that the user manually extends into the strike plate to secure a door. In the same manner, the user must manually retract the deadbolt in order to unlock the door. This type of lock requires a special electric strike, designed with additional depth and, in some instances, a slightly different type of keeper.

**Mortise Locks -** Choosing an electric strike for use with a mortise lock requires an understanding of the mechanical locking aspects of the lock itself and how each one works with a multi-faceted strike plate.

The dimensions of most, if not all mortise locks are the same because of ANSI standards. However, not all lock manufacturers arrange the latchbolt, deadlatch, and other elements in the same manner. For this reason, there are manufacturers, such as Camden Door Controls, that provides a selection of faceplates to accommodate the various mortise lock products on the market.



For example, like its cylindrical counterpart, some mortise locks contain a deadlatch that must depress and remain so when the door is shut and the lockset is in a locked state. It's essential that the right faceplate be used in order to maintain the deadlatch in its intended depressed state. Otherwise, the latchbolt can be manipulated allowing the door to open. All manufacturers provide a listing of compatible mortise locksets for each of their mortise electric strikes. Installers must reference these guides in all cases.

Please reference page 12 for more information regarding the different centerline applications that should be considered when selecting the correct mortise strike. Camden's range of electric strikes for mortise locksets can accommodate all latch bolt configurations.

**Rim Exit Device -** The Rim lock is an externally mounted exit/panic locking mechanism installed on the inside surface of a door. It locks using a surface mounted strike assembly, either on the outside of the frame or on the inside edge of the same. Things to watch for here include depth of the cavity within the electric strike as well as the center strike plate/latchbolt alignment (more on this in the next section).

Knowing which one of the above three locks that you're dealing with is important. Electric strikes are engineered with specific locks, doors, and construction materials in mind. It's important to your success that you know as much about these items so your success is assured.



**Horizontal Strike Adjustments -** A common issue can arise with regard to alignment of the strike and a door lock, due to door warp or door misalignment. To overcome this, some strikes provide horizontal adjustment by providing a movable keeper, capable of providing a horizontal adjustment of up to 1/4 inch.

Another method of horizontal adjustment is with the faceplate itself. In this case the strike is designed with faceplate mounting screws that allow the faceplate to be moved as much as 3/8 of an inch horizontally across the strike body.



Latch Detail

Like the locking hardware we install on doors of all kinds, electric strikes are rated in the same manner using a grading system. The three grades that we use come from a standard created and published by ANSI.



"The American National Standards Institute (ANSI) is a private nonprofit that administers voluntary performance standards for builder's hardware. The purpose of ANSI grades is to help identify the quality and durability of locksets through a series of operational and security tests."

#### **Difference Between Grades:**

Grade 1	Grade 2	Grade 3
<ul> <li>500,000 Cycles</li> <li>1500lb static strength test</li> <li>70ft-lb dynamic strength test</li> <li>Used in commercial installations</li> <li>Grade 1 offers the best security</li> </ul>	<ul> <li>400,000 Cycles</li> <li>1000lb static strength test</li> <li>50ft-lb dynamic strength test</li> <li>Used in commercial and high-end residential applications</li> <li>Grade 2 is used where the need for security is not as high as Grade 1</li> </ul>	<ul> <li>400,000 Cycles</li> <li>500lb static strength test</li> <li>33ft-lb dynamic strength test</li> <li>Used in commercial and residential interior doors</li> <li>Grade 3 is used where robust security is not required</li> </ul>

ANSI specializes in the creation and publication of voluntary performance standards for the hardware that builders utilize. The purpose of the ANSI grading system is to assist locksmiths, builders, and consumers in identifying the quality and durability of the locking devices they use. This grading system, which includes both locksets and electric strikes, was determined through a series of tests to determine operability and security.



According to BHMA/ANSI standards, there are three factors that enter into which of the three Grades that a lock or electric locking device fits.

**1. Cycle Testing -** An indication of endurance, is performed with similar hardware at a rate of up to 30 cycles per second. To qualify as Grade 1, an electric strike must be capable of at least 500,000 cycles; Grade 2 and Grade 3, 400,000.

**2. Dynamic Strength -** Tested by delivering a specified number of impacts using a ram at a specific spot on a door at specified increments. Grade 1 electric strikes must be capable of withstanding 10 strikes of 75 Ft-lbs. Grade 2, 5 strikes of 75 Ft-lbs of force. Grade 3, 2 strikes of 33 Ft lbs of force.

**3. Static Strength -** This is another indication of quality, which is done with the electric strike in a locked condition. It begins with the application of a specified amount of force to the door on a continuous basis at a rate of 10 to 20 pounds-force (44N to 90N) per second. This is performed until the hardware's rated static strength is reached. Then the force is applied for another minute before it's removed. Grade 1 strikes must be capable of holding 1,500 lbs, Grade 21,000 lbs, and Grade 3 strikes must be capable of holding 500 lbs.

It's important that you know the Grade of the locking hardware on the door in question. The electric strikes you install should match or exceed the locking hardware on the door. If you have a Grade 2 lock, you should use a Grade 2 strike, and likewise if you have a Grade 1 lock, a Grade 1 strike.

## **Supply Voltage**

The most common voltages used with electric strikes include 12 VDC, 24 VDC, 12 VAC, 16 VAC, and 24 VAC. In retrofit situations, it's important that you know which one is in use because the wrong voltage could easily damage the electric strike or the power supply that it's connected to. Where the existing electric strike fails to show a voltage rating, or where the strike is missing, you should apply a voltmeter to determine the voltage employed.

The use of 16 VAC is common in low-security, Grade 3, wood-type applications. Apartment intercom systems and inside entrances are common applications where you'll find this type of electric strike. Because it's an AC-powered device, the electric latch will buzz when activated.

The most common voltages used by professionals are 12 VDC and 24 VDC. The most efficient selection, however, is 24 VDC. This is because an electric strike using 24 VDC will expend less current than those that use 12 VDC. For example, the Camden model CX-ED1079DL– a traditional Grade 1 electric strike at standard depth - requires 300 mA @ 12 VDC or 150 mA @ 24 VDC. Less current flow using 24 VDC (150 mA) allows us to travel twice as far on the same gauge wire as 12 VDC (300 mA).

Universal electric strikes are available that are field-selectable in voltage and duty, such as 12 VDC or 24 VDC as well as fail-secure/intermittent or fail-safe/continuous duty specifications. Refer to the manufacturer's installation instructions for further advice on wire gauges versus linear distances.



## **Electric Strike Fail States**

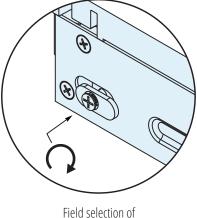
One of the most important aspects of selecting an electric strike involves the various effects of power on the electric strike. The first is the "fail state."

#### There are two "fail" states:

- 1. Fail Safe Unlocked
- 2. Fail Secure Locked

"Fail-safe" electric strikes, for example, will unlock a door when power is removed. On the other hand, "Fail-Secure" electric strikes will lock the door when electric power is lost, as when there's a power failure.

Many times a fail-secure electric strike is associated with the intermittent application of electric power while continuous-duty is associated with fail-safe electric strikes. Fire code requires that fail-secure electric strikes be installed and maintained on critical fire-rated doors so the moment power is lost, the keeper in the electric strike latches, thus preventing the door from opening and allowing fresh oxygen to feed the fire.



fail safe/fail secure operation

Maintaining a latched keeper during fire situations when power fails also is intended to assure the isolation of one area/room from others. Air pressure increases in the area of a fire and unless these doors are kept closed, smoke, heat, and fire will spread to adjacent areas of the structure, thus jeopardizing lives.

One of the most important aspects of selecting an electric strike involves the "duty" rating. The duty rating of an electric strike establishes its basic operating parameters--such as whether voltage can be continually applied or applied intermittently only as needed. There are two basic duty ratings assigned to electric strikes.

- 1. Intermittent
- 2. Continuous

In most, if not all access control situations an intermittent-duty electric strike requires that voltage be applied to unlock the door. This means that when the electric strike is de-energized, the door is locked. In this case the mechanical "keeper" inside the electric strike remains in its latched state. By applying power, the "keeper" is unlatched by a solenoid assembly, thus allowing it to move aside when the door is pushed or pulled open.

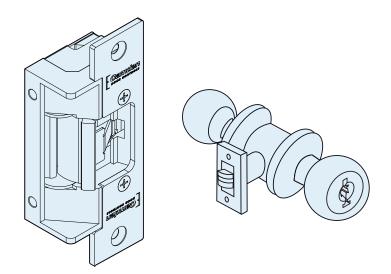
Continuous-duty electric strikes are different in that the keeper is unlatched and free to move in its de-energized state. When power is applied, the keeper mechanically latches so the door is once again in its locked condition.

An intermittent-duty electric strike is also referred to as "fail-secure" while a continuous-duty is referred to as "fail-safe." Fire code requires that fail-secure electric strikes be installed and maintained on critical fire-rated doors so the moment power is lost, the keeper in the electric strike latches, thus preventing the door from opening.

Maintaining a latched keeper during fire situations when power fails is meant to assure the isolation of one area/room from others. Air pressure increases in the area of a fire and unless these doors are kept closed, smoke, heat, and fire will spread to adjacent areas of the structure, thus jeopardizing the lives of others.

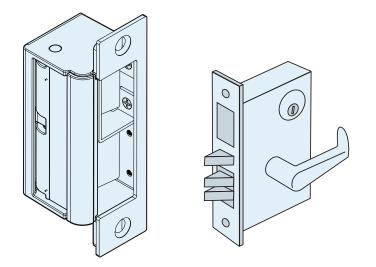


The Keeper in the electric strike and the latch of the door lock must be in alignment, for the two to operate properly. In the case of a cylindrical lock, alignment is fairly straight forward and easy to see as the latch is center to the lock body. In the case of a mortise lock, however, alignment is less obvious as the latch and other elements of the lock can be 3/8<sup>th</sup> of an inch off center.



In the case of a mortise lock the deadlatch and a solid area of the electric strike must align as well as the latch and the open portion behind the keeper in order for the deadlatch to do its job. That job is to prevent someone from forcing the latch to move, thus allowing the door to open.

The deadlatch on a cylindrical lock can usually be found on the backside of the latch. Here, once again, position is important because the keeper is that which contacts the deadlatch while the latch itself remains intact in the open cavity of the electric strike.



### **Strike Operation and Preload**

Even when an electric strike has been selected and installed correctly in all other regards, a common cause of strike failure is preload. Electric strikes are designed so that they will only operate when a small amount of latch pressure is applied against the keeper (jaws) of the strike. If this 'preload' pressure is more than a few pounds, the electric strikes will bind and fail to operate.

#### Preload pressure on the keeper of an electric strike can be caused by a wide range of issues:

1. Poorly Installed Doors

No electric strike can overcome all of the potential problems associated with a door that is misaligned or in poor repair.

Doors must be hung 'plumb' with the door hardware installed correctly before installing any electric strike.

In addition, installers should always check that the weather seals are installed correctly. Incorrect weather seal installation will cause pressure from the latch on the keeper of the strike.

Next, if the door has a closer, check that the closer isn't pushing the door and causing the latch to push the door latch against the keeper of the strike.

Lastly, some lubrication of the lockset latch will help with a smoother operation and reduce friction between the latch and the strike keeper.

2. Inaccurate Strike Installation

Incorrect alignment of the lockset latch entering the cavity of a strike can cause preload pressure on the keeper. Always check the movement of the latch within the keeper.

**Note** - Most Camden strikes offer horizontal mechanical adjustment and/or keeper shims that can be used to eliminate this problem.

#### 3. Air Pressure

One of the most common and severe causes of preload is higher air pressure inside a building compared to the outside air. The higher air pressure pushes the door outward, which puts pressure on the strike keeper. This is sometimes referred to as a stacking effect and is typical on exit doors in the stairwells of multi-story buildings.

Electric strikes with preload operation are becoming more prevalent in the industry and Camden offers a 3/4" Rim strike that will operate with up to 15lbs of preload. CX-EPD1289L is the only surface mounted strike (no cut required) with preload on the market.

## **Electric Strike Cross Reference**

DESCRIPTION	CAMDEN	RCI (Dorma Kaba)	H.E.S.	ADAMS Rite	TRINE	VON Duprin	LOCKNETICS	NOTES
3/4" Surface Mount RIM Strike	CX-EPD1289L	RCI F0162	9500/9600	N/A	4800F	6300	RS-300-F-32D	Camden Includes Preload, Security and 3 Hour Fire Rating
Low Profile 'All in One' Fire Rated Electric Strike	CX-ED1689L-4	N/A	1500	N/A	4100	N/A	N/A	Camden Includes 4 Faceplates, 3 Hour Fire Rating, and Monitoring as Standard
Dual Monitor 'All in One' Fire Rated Electric Strike	CX-ED1799L-8	N/A	1600	N/A	N/A	N/A	N/A	Camden Includes 8 Faceplates, 3 Hour Fire Rating, and Monitoring as Standard
'All in One' Grade 1 Fire Rated Electric Strike	CX-ED1579L	F2164	1006CLB	N/A	4100CDBM	6400	MS100F	Camden Includes 5 Faceplates, 3 Hour Fire Rating, and Latch Monitoring as Standard
Cylindrical, Grade 1, Low Profile	CX-ED1079	L65U	5000C	N/A	N/A	4200	CS-450	Camden Includes 3 Faceplates as Standard
Cylindrical Grade 1, Standard Depth	CX-ED1079D	S65U	5200C	N/A	4200	N/A	CS-750	Camden Includes 3 Faceplates as Standard
Cylindrical, Grade 1, Fire Rated	CX-ED1410	F4114	7501	7240	N/A	6200	N/A	Camden Includes 1 Faceplate (ANSI w/ Square Corners) as Standard, and 90 min. Fire Rating
Cylindrical, Grade 2, Low Profile	CX-ED2079	L65U	N/A	N/A	4200	5100	CS-450	Camden Includes 3 Faceplates
'Universal' Grade 1, Narrow Stile Aluminum	CX-ED1309 Series	N/A	N/A	7100	N/A	N/A	N/A	Camden Includes 2 ANSI Faceplates
Outdoor Rated, Grade 1 Electric Gate Strike	CX-ED1959-MB/ CX-ED1959RM-MB	N/A	N/A	N/A	EN400	N/A	N/A	Camden Includes a Metal Surface Mounting Box

Note: Specifications are subject to change without notice.



# A COMPLETE LINE OF ELECTRIC STRIKES FOR ANY APPLICATION!

Camden electric strikes offer exclusive features, industryleading quality, and the best value. Our strikes comply with the latest UL/ULC security and fire standards, offer 'universal' operation, multiple faceplates, and are compatible with all brands of cylindrical or mortise locksets, and RIM exit devices. Camden strikes are also backed by a no-hassle 5 year warranty!





CX-EPD1289L

CX-ED1579L



CX-ED1410



CX-ED1309



CX-ED1959-MB

#### LOCKING | ACTIVATION | CONTROL | ACCESS





## CX-EPD1289L SERIES: 3/4" 'UNIVERSAL' GRADE 1 FIRE RATED RIM STRIKES WITH PRELOAD

CX-EPD1289L Series Grade 1 electric RIM strikes for pullman latches offer the best strike quality, with a preload release function for superior performance under the most demanding conditions. Industry-leading preload strike design registered under U.S. Patent 10,988,959. The award-winning strikes are now also available in a unique all-black finish, including the jaws and latch monitor.

#### Features

- Up to 15 lbs. of preload pressure • All-black finish available (BHMA 622, US19) 'Universal' design, 12/24V, AC/DC • 3/4" latch projection · 'Plug-in' latch bolt monitor assembly • 'No-cut' surface mount
- · Fail safe / fail secure
- Tamper resistant stainless steel construction · Non-handed, with plug-in wiring harness · Stainless steel cover plate included · Metal mounting jig included
  - 5 year warranty

MODELS				
CX-EPD1289L	Surface mount Grade 1 RIM strike with preload, 12/24V, AC/DC, fail safe/fail secure, cw/ 'plug-in' latch monitor assembly and metal mounting jig			
CX-EPD1289L-BK	All-black finish, Surface mount Grade 1 RIM strike with preload, 12/24V, AC/DC, fail safe/fail secure, w/ 'plug-in' latch monitor assembly and metal mounting jig			
SPACER PLATE				
CX-EPD1289-SPC	Spacer plate for CX-EPD1289L surface mount RIM strike			



### **Specifications**

Voltage:	12/24V, AC/DC
Current Draw:	560mA@12VDC   280mA@24VDC
Strength - Static:	1,500 Lbs.   Dynamic: 70 Ft- Lbs.
Preload (Fail-Secur	e Only): 15 Lbs.
Endurance:	1,000,000 cycles (Factory Tested) 250,000 cycles (UL verified)
Mode:	Fail-safe / Fail-secure
Duty:	Continuous
Fire Rating: UL10C	/CAN4-S104   3 hrs. (Fail Secure)
Mechanical Adjustr	nent: Strike Body
Operation: AC-Buzz	z, DC - Silent
Latch Projection:	3/4"
Latch Bolt Monitor:	SPDT, 100mA @ 24 VDC
Dimensions (Body)	: 9-1/8"H x 1-7/8"W x 3/4" D (231.6mm x 48mm x 19.8mm)

# Finally, a **RIM Strike** Designed for Every Installer!



## **CX-EPD1289L Series**

Whether you've installed a hundred RIM strikes or just one, Camden's remarkable preload strike is designed to get you off the job faster and can even avoid future service calls!

The patented design of CX-EPD1289L Series RIM strikes will release with up to 15 lbs of preload pressure, caused by differences in air pressure, inexact installation, or misaligned doors (during or after installation).



## ELECTRIC STRIKES

#### LOCKING PRODUCTS

## CX-ED1579L: 'ALL IN ONE' GRADE 1 FIRE RATED ELECTRIC STRIKE

UL 1034 UL 294 LISTED



CX-ED1579L Grade 1 electric strike for mortise and cylindrical locksets offers the best strike quality and features, with the added value of built-in latch monitoring, five stainless steel faceplates and 'Universal' performance, including field selectable

#### Features

- For mortise and cylindrical locksets
- 3/4" (19mm) latch projection (throw)

voltage and fail safe/fail secure operation.

- · Selectable fail safe/fail secure operation
- Selectable 12/24V AC/DC
- 5 Stainless Steel faceplates included
- Non-handed, LH/RH

- Easy fit connectors for power & monitoring wires
- Latch monitoring
- Stainless steel strike body
- 5 year warranty

#### MODEL

Grade 1 'All In One' Fire Rated Strike, 12/24V AC/DC, CX-ED1579L for mortise & cylindrical locksets

FACEPLATES				
Included in package				
CX-EMP-1	Stainless faceplate for Sargent, Schlage & Yale Mortise Locksets			
CX-EMP-2	Stainless faceplate for Arrow, Corbin, & Best mortise locksets			
CX-EMP-3	Stainless faceplate for centerline mortise or cylindrical locksets			
CX-EMP-4	Stainless faceplate for mortise locksets with deadbolt			
CX-EMP-5	Stainless faceplate for all mortise locks that include both latch & deadbolt			
CUTTING JIG (For 1/4" Collet and a 1/8" Router bit)				
CX-JIG6	For CX-ED1579L Strike, ANSI Faceplate (CX-EMP-3)			

## **Specifications**

Voltage:	12/24V AC/DC
Current Draw:	260mA @ 12V AC/DC 150mA @ 24V AC/DC
Static Force:	1,500 Lbs.
Dynamic Force:	70 Ft- Lbs.
Mode:	Fail-safe / Fail-secure Field selectable
Operation:	AC - Buzz DC - Silent
Duty:	Continuous (DC)
Mounting:	Non-Handed
Endurance:	1,500,000 Cycles (Factory Tested) 250,000 Cycles (UL Verified)
Fire Rating:	UL10C / CAN4-S104 3 hrs. (Fail Secure Only)
Latch Bolt Monitor:	SPDT, 100mA @ 24V DC
Dimensions:	<b>Body:</b> /-7/8"H x 1-1//"W/ x-1 3//"D

4-7/8"H x 1-1/4"W x-1 3/4"D (124mm x 32mm x 45mm)





CX-JIG6





## CX-ED1689L & CX-ED1799L SERIES: LOW PROFILE & DUAL MONITOR 'ALL IN ONE' FIRE RATED ELECTRIC STRIKES

Camden CX-ED1689L and CX-ED1799L are Grade 1 fire rated "all in one" electric strikes for use with mortise and cylindrical locksets. Both models include latch monitoring, and are packaged with either 4 or 8 faceplates. Universal performance, with field selectable voltage and fail safe/fail secure operation.

Option for ordering strike bodies and individual faceplates separately. Faceplates also available in black finish.

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#### **Features**

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- For mortise and cylindrical locksets
- A range of strike and faceplate packages for latchbolts and deadbolts
- · Faceplates also available in black architectural finish (BHMA 622, US19)
- · Selectable fail safe / fail secure
- · Strike power monitor switches included

1 or 2 latch and deadbolt monitoring

Magnetic door position switch included

· Easy fit connectors

switches included

- Selectable 12/24V AC/DC
- 5 year warranty

ELECTRIC STRIKES <u>WITHOUT</u> FACEPLATES				
CX-ED1689L	Low Profile Strike Body with Latch Monitor Switch			
CX-ED1799L	Strike Body with Latch & Deadbolt Monitor Switches			
STRIKE AND	MULTI FACEPLATE PACKS			
Low Profile				
CX-ED1689L-4	Strike w/ Latch Monitor, (4) Faceplates for Latchbolts Includes: CX-EMP100, CX-EMP200, CX-EMP300, CX-EMP400			
Standard Depth D	Dual Monitor			
CX-ED1799L-8	Strike w/ 2 Monitors, (8) Faceplate Package for Latchbolts & Deadbolts Includes: CX-EMP100, CX-EMP200, CX-EMP300, CX-EMP400, CX-EMP110, CX-EMP210, CX-EMP310, CX-EMP410			



UL10C/ CAN4-S104. 3hr. Fire rating





CX-ED1689L\*

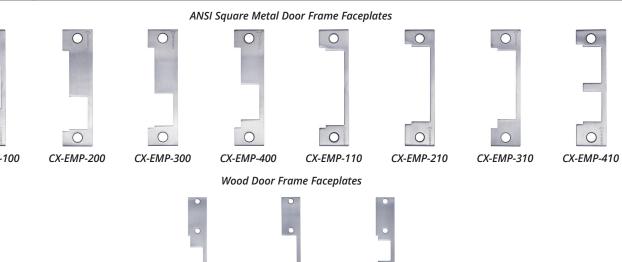
CX-ED1799L\*\*

#### **Specifications**

Secure
y Tested)
ied)
DC, Resistive
C, Resistive
3/8"D
m)
21/32"D
m)

FACEPLATES	
ANSI Square Meta	l Door Frame Stainless Steel Faceplates
CX-EMP-100	Centreline applications. Compatible with all cylindrical locksets
CX-EMP-200	Deadlatch positioned above latchbolt. Compatible with Baldwin, PDQ, Marks locksets
CX-EMP-300	Deadlatch positioned above latch. Compatible with Sargent 8100 / 7700, Schlage, Yale 8700 locksets
CX-EMP-400	Deadlatch positioned below the latchbolt. Compatible with Corbin Russwin, Falcon, Sargent 7800 locksets
CX-EMP-110	Deadbolt used for night latch function only. Compatible with Marks, Omnia, PDQ, Arrow, Accurate locksets
CX-EMP-210	Deadlatch positioned below the latchbolt. Compatible with Corbin Russwin, Best 45 / 47, Falcon, Sargent 7800 / 8200 / 9200 locksets
CX-EMP-310	Deadbolt used for night latch function only. Compatible with Sargent 7700 / 8100, Yale 8700 locksets
CX-EMP-410	Used for 1" deadbolt and no latch. Compatible with Marks, Baldwin, Arrow, PDQ, Omnia locksets
Wood Door Frame	Stainless Steel Faceplates
CX-EMP-100W	Deadbolt used for night latch function only. Compatible with Marks, Omnia, PDQ, Arrow, Accurate locksets
CX-EMP-110W	Centreline applications. Compatible with all cylindrical locksets
CX-EMP-400W	Dead latch positioned above the latch bolt. Compatible with all cylindrical locksets
ANSI Square Metal Door Frame All-Black Faceplates (BHMA 622, US19)	
CX-EMP-100-BK	Centreline applications. Compatible with all cylindrical locksets. All-black finish
CX-EMP-200-BK	Deadlatch positioned above latchbolt. Compatible with Baldwin, PDQ, Marks locksets. All-black finish
CX-EMP-300-BK	Deadlatch positioned above latch. Compatible with Sargent 8100 / 7700, Schlage, Yale 8700 locksets. All-black finish
CX-EMP-400-BK	Deadlatch positioned below the latchbolt. Compatible with Corbin Russwin, Falcon, Sargent 7800 locksets. All-black finish
CX-EMP-110-BK	Deadbolt used for night latch function only. Compatible with Marks, Omnia, PDQ, Arrow, Accurate locksets. All-black finish
СХ-ЕМР-210-ВК	Deadlatch positioned below the latchbolt. Compatible with Corbin Russwin, Best 45 / 47, Falcon, Sargent 7800 / 8200 / 9200 locksets. All-black finish
CX-EMP-310-BK	Deadbolt used for night latch function only. Compatible with Sargent 7700 / 8100, Yale 8700 locksets. All-black finish
CX-EMP-410-BK	Used for 1" deadbolt and no latch. Compatible with Marks, Baldwin, Arrow, PDQ, Omnia locksets. All-black finish





CX-EMP-110W

CX-EMP-400W

CX-EMP-100W

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# CX-ED1079 SERIES: 'UNIVERSAL' LOW & STANDARD PROFILE GRADE 1 ELECTRIC STRIKES

*CX-ED1079* (low profile, for 5/8" latch projection) and *CX-ED1079D* (standard depth, for 3/4" latch projection) 'Universal' grade 1 ANSI strikes offer 'universal' performance with selectable 12/24V AC/DC and fail safe/fail secure operation, and have horizontal faceplate / body adjustment. Both models have optional latch monitoring.

#### Features

<ul> <li>Centerline latch entry for cylindrical and</li></ul>	<ul> <li>Horizontal adjustability of strike body</li> <li>3 stainless steel faceplates included:</li></ul>
mortise locksets <li>CX-ED1079, low profile. 1/2" to 5/8" latch</li>	ANSI square, hollow metal and
projection (throw)	wood door frame
<ul> <li>CX-ED1079D, standard depth. 5/8" to 3/4" latch projection (throw)</li> <li>Selectable 12/24V AC/DC</li> <li>Selectable fail safe/fail secure operation</li> </ul>	<ul> <li>Continuous duty operation</li> <li>Non-handed</li> <li>5 year warranty</li> </ul>

#### MODELS

MODELS	
CX-ED1079	Low Profile Grade 1 'Universal' electric strike, 12/24V AC/DC, fail safe/fail secure operation, horizontal adjustment, and 3 stainless steel faceplates (CX-ESP1B, CX-ESP3B & CX-ESP4B)
CX-ED1079L	As above, with latch monitoring
CX-ED1079D	Standard Depth Grade 1 'Universal' electric strike, 12/24V AC/DC, fail safe/fail secure operation, horizontal adjustment, and 3 stainless steel faceplates (CX-ESP1B, CX-ESP3B & CX-ESP4B)
CX-ED1079DL	As above, with latch monitoring
FACEPLAT	ES
Included In Pa	ckage
CX-ESP1B	ANSI Square, 4-7/8" x 1-1/4", stainless steel
CX-ESP3B	Hollow Metal Door, 6-7/8" x 1-1/4", stainless steel
CX-ESP4B	Wood Door, 7-15/16" x 1-7/16", stainless steel
<b>Optional Facep</b>	lates
CX-ESP2B	ANSI Round, 4-7/8" x 1-1/4", stainless steel
CX-ESP1B-BK	ANSI Square, 4-7/8" x 1-1/4", all-black finish (BHMA 622, US19)
CX-ESP2B-BK	ANSI Round, 4-7/8" x 1-1/4", all-black finish (BHMA 622, US19)
CX-ESP3B-BK	Hollow Metal Door, 6-7/8" x 1-1/4", all-black finish (BHMA 622, US19)
CX-ESP4B-BK	Wood Door, 7-15/16" x 1-7/16", all-black finish (BHMA 622, US19)
LIP EXTEN	SION BRACKETS
CX-ED-LIP1	1" Lip extension for ANSI strikes (Stackable)
CX-ED-LIP2	2" Lip extension for ANSI strikes
CUTTING J	IGS (For 1/4" Collet and a 1/8" Router bit)
CX-JIG1	For CX-ED1079L Strike, ANSI Round faceplates (CX-ESP2B)
CX-JIG2	For CX-ED1079L Strike, Hollow metal door faceplates (CX-ESP3B)
CX-JIG3	For CX-ED1079DL Strike, ANSI Round faceplates (CX-ESP2B)
CX-JIG4	For CX-ED1079DL Strike, Hollow metal door faceplates (CX-ESP3B)
CX-JIG5	For CX-ED1079L & CX-ED1079DL Strikes, ANSI & Hollow metal door faceplates





#### **Specifications**

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Voltage:	12/24V AC/DC
Current Draw:	260mA @ 12V AC/DC 150mA @ 24V AC/DC
Static Strength:	1,500 Lbs.
Dynamic Strength:	70 Ft- Lbs.
Mode:	Selectable Fail safe/Fail-secure
Endurance:	1,000,000 Cycles (Factory Tested) 250,000 Cycles (UL Verified)
Operation:	AC - Buzz   DC - Silent
Duty:	Continuous
Latch Monitor	SPDT, 100mA @ 24 VDC
Dimensions:	<b>CX-ED1079:</b> 3-3/8"H x 1-3/4"W x 1-7/32"D (86mm x 44mm x 31mm) <b>CX-ED1079D:</b> 3-3/8"H x 1-3/4"W x 1-3/8"D (86mm x 44mm x 35mm)





CAMDEN DOOR CONTROLS

## CX-ED1379 / CX-ED1309: 'UNIVERSAL' GRADE 1 STRIKES FOR NARROW STILE ALUMINUM FRAME

**CX-ED1309** Grade 1 electric strikes for cylindrical and spring latch locksets offer 'Universal' performance, the best strike quality and features, including field selectable voltage and fail safe/fail secure operation with a wide range of aluminum and dark bronze faceplates.

#### Features

• Ideal for cylindrical and spring latch locksets in wood, hollow metal or aluminum frames

• Selectable fail safe/fail secure operation

- 1/2" to 5/8" (12mm to 16mm) latch projection
- Selectable 12/24V AC/DC
- A wide range of aluminum and dark bronze faceplates available
  - Easy fit connectors and mounting tabs included
- 1-3/4" (44.5 mm) Minimum Door Thickness 5 year warranty

#### MODELS

MODELS	
CX-ED1379	Grade 1 'Universal' Electric Strike, 12/24V AC/DC, fail safe/fail secure operation, includes: (1) CX-ESF-2 ANSI Round Faceplate - Brushed Aluminum finish (1) CX-ESF-2BZ ANSI Round Faceplate - Dark Bronze finish
CX-ED1309 Grade 1 'Universal' Electric Strike Body, 12/24V AC/DC, fail safe/fail secure operation. Order faceplate separately.	
FACEPLAT	ES
Brushed Alumi	num Finish (BHMA 628)
CX-ESF-1	ANSI Square Faceplate for CX-ED1309, Brushed Aluminum finish
CX-ESF-2	ANSI Round Faceplate for CX-ED1309, Brushed Aluminum finish
CS-ESF-2BR	Radius ANSI Round Faceplate for CX-ED1309, Brushed Aluminum finish
CX-ESF-3	Hollow Metal Faceplate for CX-ED1309, Brushed Aluminum finish
CX-ESF-3BR	Radius Hollow Metal Faceplate for CX-ED1309, Brushed Aluminum finish
CX-ESF-4	Wood Frame Faceplate for CX-ED1309, Brushed Aluminum finish
Dark Bronze Fi	nish (BHMA 710)
CX-ESF-1BZ	ANSI Square Faceplate for CX-ED1309, Dark Bronze finish
CX-ESF-2BZ	ANSI Round Faceplate for CX-ED1309, Dark Bronze finish
CX-ESF-2BR-BZ	Radius ANSI Round Faceplate for CX-ED1309, Dark Bronze finish
CX-ESF-3BZ	Hollow Metal Faceplate for CX-ED1309, Dark Bronze finish
CX-ESF-3BR-BZ	Radius Hollow Metal Faceplate for CX-ED1309, Dark Bronze finish
CX-ESF-4BZ	Wood Frame Faceplate for CX-ED1309, Dark Bronze finish





#### Specifications

Voltage:	12/24V AC/DC
Current Draw:	260mA @ 12V AC/DC 150mA @ 24V AC/DC
Faceplates:	CX-ED1379: Brushed aluminum (BHMA628) Dark bronze (BHMA710)
Static Strength:	1,500 Lbs.
Dynamic Strength	: 70 Ft. Lbs.
Mode:	Fail-safe/Fail-secure Field selectable
Operation:	AC - Buzz DC - Silent
Duty:	Continuous (DC)
Endurance:	1,000,000 Cycles (Factory Tested) 250,000 Cycles (UL Verified)
Dimensions:	<b>Body:</b> 4-7/8" H x 1-11/16" W x 1-5/8" D (124mm x 43mm x 42mm)

## CX-ED1410: 'ANSI' GRADE 1 FIRE RATED ELECTRIC STRIKE



**CX-ED1410** Grade 1 ANSI fire strike for UL fire rated doors / frames with cylindrical locksets offers the very best electric strike quality and performance. This 'ANSI' strike is designed to deliver unparalleled application flexibility, with field selectable voltage and fail safe/fail secure operation, over many years of trouble-free service.

#### Features

- Centerline latch entry for cylindrical locksets
- UL/ULC 90 minute fire rated
- UL 1034 Burglary listed
- 5/8"- 3/4" (16mm 19 mm) latch projection
- Dual voltage 12/24V AC/DC
- Trim plate included
- Field selectable fail safe/fail secure operation. Note: Fire rating applicable only while in fail secure mode
- ANSI square faceplate included 4-7/8" x 1-1/4" (124mm x 32mm)
- 5 year warranty

#### MODEL

CX-ED1410	Grade 1 'ANSI' fire electric strike, 12/24V AC/DC, fail safe/fail secure operation
CX-ED1410-BK	As above, with all-black finish faceplate (BHMA 622, US19)
CUTTING JIG (For 1/4" Collet and a 1/8" Router bit)	
CX-JIG3	For CX-ED1410 Strike

## CX-ED1959 SERIES: OUTDOOR RATED ELECTRIC STRIKES



**CX-ED1959 Series** outdoor-rated strikes feature heavy-duty stainless steel construction with an integrated ANSI square faceplate and Grade 1 performance. The CX-ED1959 Series models include a heavy gauge painted steel mounting box at no additional charge.

*CX-ED1959-MB is specifically designed for exposed perimeter doors and gates and is compatible with cylindrical and centreline mortise locksets without deadbolts. The CX-ED1959RM-MB is a best in class outdoor gate strike, designed for doors equipped with RIM exit devices.* 

#### Features

- UL listed Grade 1 strikes for exterior doors & gates
  - Easy fit
- Heavy gauge painted steel mounting boxes included
- 7/8" latch opening
- Easy fit connectors
- 5 year warranty
- Selectable 12/24V DC
- Selectable fail safe/fail secure operation

#### MODEL

CX-ED1959-MB	Outdoor rated Grade 1 strike for exterior doors and gates, designed for use with cylindrical & centreline mortise locksets. Supplied with metal mounting box.
CX-ED1959RM-MB	Outdoor rated Grade 1 strike for use with with RIM exit devices, with standard or Pullman latches. Supplied with metal mounting box.



#### Specifications

Voltage:	12/24V AC/DC
Current Draw:	260mA @ 12V AC/DC 150mA @ 24V AC/DC
Static Hold Force:	1,500 Lbs.
Dynamic Strength:	70 Ft- Lbs.
Endurance:	1,000,000 Cycles (Factory Tested) 250,000 Cycles (UL verified)
Fire Rating:	90 minutes
Mode:	Field Selectable, Fail Safe/Fail Secure (Fire Rated in Fail Secure Mode Only)
Latch projection:	5/8" - 3/4" (16mm - 19mm)
Operation:	AC– Buzz   DC – Silent
Duty:	Continuous
Dimensions ( <b>Body</b> )	: 3-3/8"H x 1-7/8"W x 1-3/8"D (86mm x 47mm x 35mm)





CX-ED1959-MB

#### IB CX-ED1959RM-MB

Specifications
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Voltage:	12/24V DC
Current Draw:	280mA @ 12 VDC   140mA @ 24 VDC
Strength:	Static: 1,500 Lbs.   Dynamic: 70 Ft- Lbs.
Endurance:	1,000,000 cycles (Factory Tested) 250,000 cycles (UL Verified)
Latch Opening:	1-9/16" x 7/8" (40mm x 22mm)
Modes:	Selectable Fail Safe / Fail Secure
Duty:	Continuous
Dimensions ( <b>B</b>	ody): 4-7/8"H x 1-5/8"W x 1-11/16" D (124mm x 41mm x 43mm)

## ELECTRIC STRIKES



#### LOCKING PRODUCTS

## CX-ED2071 / CX-ED2079: 'UNIVERSAL' LOW PROFILE GRADE 2 ELECTRIC STRIKES

*CX-ED2071* low profile grade 2 ANSI electric strike for cylindrical locksets provides exceptional value for installations that require 8 - 16V AC/DC operation. It includes 3 faceplates, selectable fail safe/fail secure operation and horizontal adjustment of the strike body.

**CX-ED2079** low profile 'Universal' grade 2 ANSI electric strike for cylindrical locksets provides exceptional value with 3 faceplates, and selectable 12/24V AC/DC voltage, fail safe / fail secure operation and horizontal adjustment of the strike body.

*CX-ED2079-1* Low profile 'Universal' grade 2 ANSI strike for cylindrical locksets, with (1) ANSI square faceplate, provides the best strike value.

#### Features

- Centerline latch entry for cylindrical locksets, 1/2" to 5/8" latch projection
- Horizontal adjustability of strike body
- Low profile strike body
- Selectable fail safe/fail secure
- 5 year warranty

- CX-ED2079: 12/24V Strike, includes
   (3) Stainless Steel Faceplates: ANSI Square, Hollow Metal Door and Wood Door
- CX-ED2079-1: 12/24V Strike, includes (1) Stainless Steel ANSI Square Faceplate
- CX-ED2071: 8V 16V Strike, includes
   (3) Stainless Steel Faceplates ANSI Square, Hollow Metal Door, and Wood Door

#### MODELS

CX-ED2071	'Universal' electric strike, 8 - 16V AC/DC, fail safe/fail secure operation, horizontal adjustment, w/ 3 stainless steel faceplates (CX-ESP1B, ESP3B & ESP4B)
CX-ED2079*	'Universal' electric strike, 12/24V AC/DC, fail safe/fail secure operation, horizontal adjustment, w/ 3 stainless steel faceplates (CX-ESP1B, ESP3B & ESP4B)
CX-ED2079-1*	'Universal' electric strike, 12/24V AC/DC, fail safe/fail secure operation, horizontal adjustment, w/ 1 stainless steel faceplate (EX-ESP1B)

#### FACEPLATES

	FACEFLATES	
Included In Package		age
	CX-ESP1B	ANSI Square, 4-7/8" x 1-1/4", stainless steel
	CX-ESP3B	Hollow Metal Door, 6-7/8" x 1-1/4", stainless steel
	CX-ESP4B	Wood Door, 7-15/16" x 1-7/16", stainless steel
	<b>Optional Facepla</b>	tes
	CX-ESP2B	ANSI Round, 4-7/8" x 1-1/4", stainless steel
	CX-ESP1B-BK	ANSI Square, 4-7/8" x 1-1/4", all-black finish (BHMA 622, US19)
	CX-ESP2B-BK	ANSI Round, 4-7/8" x 1-1/4", all-black finish (BHMA 622, US19)
	CX-ESP3B-BK	Hollow Metal Door, 6-7/8" x 1-1/4", all-black finish (BHMA 622, US19)
	CX-ESP4B-BK	Wood Door, 7-15/16" x 1-7/16", all-black finish (BHMA 622, US19)
LIP EXTENSION BRACKETS		ION BRACKETS
	CX-ED-LIP1	1" Lip extension for ANSI strikes (Stackable)
	CX-ED-LIP2	2" Lip extension for ANSI strikes
		<b>GS</b> (For 1/4" Collet and a 1/8" Router bit)
	CX-JIG1	For CX-ED2071 / 2079 Strike, ANSI Round faceplate (CX-ESP2B)
	CX-JIG2	For CX-ED2071 / 2079 Strike, Hollow metal door faceplates (CX-ESP3B)





CX-ED2071 / CX-ED2079

#### **Specifications**

Voltage:	<b>CX-ED2071:</b> 8 - 16V, AC/DC <b>CX-ED2079:</b> 12/24V, AC/DC
Current Draw:	<b>CX-ED2071:</b> 305 mA @ 8 VDC, 625 mA @ 16 VDC 190 mA @ 8 VAC, 460 mA @ 16 VAC <b>CX-ED2079:</b> 300 mA @12 VDC,150 mA @ 24 VDC
Static Strength:	1000 Lbs.
Dynamic Strength:	50 Ft. Lbs.
Mode:	Selectable fail safe / fail secure
Endurance:	<b>CX-ED2071 &amp; CX-ED2079:</b> 700,000 cycles (Factory Tested) <b>CX-ED2079:</b> 250,000 cycles (UL Verified)
Operation:	AC - Buzz DC- Silent
Duty:	CX-ED2071: Intermittent CX-ED2079: Continuous
Mounting:	Non-handed
Dimensions:	3-3/8"H x 1-7/8"W x 1-7/32"D (86mm x 44mm x 31mm)



## SERIES 20: PRE-LOAD GRADE 2 ELECTRIC STRIKES

20 Series pre-load electric strikes offer the highest pre-load rating, precision engineered quality and the most adjustability in the industry. 'Universal' operation include 12/24V, AC or DC, selectable fail safe/fail secure, an adjustable keeper and latch monitoring.

#### Features

- · For cylindrical locksets
- 1/2" to 5/8" latch projection (throw)
- Pre-load feature eliminates binding due to pressure against door latch

· Latch monitoring, standard on all models

- Selection of 4 faceplates
- · Adjustable keeper, standard on all models
- Dual voltage, 12/24V AC/DC
- · Selectable fail safe/fail secure

#### **ELECTRIC STRIKES WITHOUT FACEPLATE**

CX-EPD-2000L

Standard body, no faceplate

#### NOTE : Faceplate options, sold separately

#### ELECTRIC STRIKES WITH FACEPLATE

	CX-EPD-2010L	ANSI Square, 4-7/8" x 1-1/4", Stainless Steel
	CX-EPD-2020L	ANSI Round 4-7/8" x 1-1/4", Stainless Steel
	CX-EPD-2030L	Hollow Metal Door 6-7/8" x 1-1/4", Stainless Steel
	CX-EPD-2040L	Wood Door, 7-15/16" x 1-7/16", Stainless Steel
FACEPLATES		
	FACEPLAT	ES
	FACEPLATI	ES ANSI Square, 4-7/8" x 1-1/4", Stainless Steel
	CX-ESP1	ANSI Square, 4-7/8" x 1-1/4", Stainless Steel



- 5 year warranty



#### **Specifications**

Voltage:	12/24V AC/DC
Current Draw:	130mA @ 12 VDC 200mA @ 12 VAC
	70mA @ 24V AC/DC
Static Strength:	1,500 Lbs.
Pre-Load (Fail Secur	e Only): 20 Lbs.
Endurance:	500,000 Cycles
Operation:	Initial Buzz then Silent
Duty:	Continuous
Latch Monitor:	Standard
Keeper:	Adjustable
Dimensions:	4-1/8"H x 1-3/4"W x 1-1/2"D (105mm x 44mm x 38mm)



## **Electric Strike Selection Wizard**

Camden Makes It Easy & Fast To Find The Strike You Need!

Simply select the features you need, and the Electric Strike Selection Wizard will automatically scan our entire collection to present the strike that best suits your requirements, along with the specs and literature you need to get the job done.

- No knowledge of Camden products required.
- Easy to use. This selection tool eliminates all the guesswork.
- · Automatically generates product specs and submittal documents.
- Hot links to website resources and guotation/delivery support.

