

## ACCESS CONTROL CAPABILITIES WHILE MEETING FIRE LIFE SAFETY CODE COMPLIANCE

Electrified cylindrical locksets are similar to mechanical cylindrical locksets but include a built-in solenoid to keep the latch from retracting when turning the handle from the outside of the door. From the inside of the door, the latch can be retracted by turning the handle, ensuring free egress for code compliance.

Entering the door from the outside requires a key or access control to disengage the solenoid, allowing the latch to retract when turning the handle. Electrified cylindrical locksets are typically less expensive than electrified mortise locksets and are well suited for both new and retrofit construction. Additional features include:

- Compatible with any type of access control
- Available as failsafe or failsecure
- Available in a variety of trim and finish options

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# Electrified Cylindrical Locksets

## Application

Electrified cylindrical locks may be used on non-fire-rated and fire-rated wood, mineral core and hollow metal doors. Additionally, SDC's building code compliant 7200 Series electrified cylindrical locksets stay latched even when unlocked, maintaining fire door integrity. This basic ability complies with national code requirements for up to 3-hour fire-rated doors, including elevator lobby and stairwell doors where electromagnetic locks and electric strikes are not permitted, (See Misapplication, page 4).


Electrified cylindrical locks eliminate the need for exposed and vulnerable locking devices, such as electric strikes, magnetic locks and remote request-to-exit devices. Additionally, they are ideal for high profile installations that require high security or superior appearance.



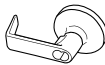

**Facility applications include:** Commercial high-rise buildings, industrial and technology centers, healthcare, transportation, government and military facilities, museums and universities.

## SDC'S Electra™ 7200 Series and Specifications Summary

SDC's Electra™ 7200 series solenoid controlled cylindrical locks are designed for the access control of openings in commercial, industrial and institutional facilities where code compliance, dependable operation and resistance to physical abuse are required. These code compliant electric cylindrical locksets stay latched even when unlocked, maintaining fire door integrity and eliminating the need for exposed and vulnerable electric strikes and magnetic locks or request-to-exit devices.

7200 series models incorporate a grade 1 cylindrical lockset and vandal resistant clutch – proprietary to all SDC locksets. 7200 series locks come standard with built-in latch status monitoring, REX optional. They replace most brands of mechanical locksets making them fully compatible with new and retrofit applications.

Series	7200
	
<b>Trademark</b>	Electra™
<b>Type</b>	Cylindrical, Solenoid Controlled
<b>Door Thickness</b>	1¾" to 2"
<b>Door Prep</b>	ANSI A115.2
<b>Backset</b>	2¾"
<b>Latchbolt</b>	9/16" Throw
<b>Strike</b>	Standard ANSI 47/8"
<b>Cylinder</b>	Standard or SFIC
<b>Weight</b>	6 lbs
<b>Input</b>	12/24 VDC ± 10%
<b>Current Draw</b>	600 mA @ 12 VDC, 300 mA @ 24 VDC
<b>Monitoring Contacts</b>	SPDT, 3 Amps @ 30 VDC Resistive
<b>Finishes</b>	630, 629, 606, 605, 612, 611, 613, 626, 625
<b>UL</b>	UL10C, ULC-S104
<b>Warranty</b>	5 Year

Trim Styles	
	
<b>Eclipse Rose, Standard Key-In</b>	<b>Galaxy Rose, Standard Key-In</b>
	
<b>Eclipse Rose, SFIC Prep</b>	<b>Galaxy Rose, SFIC Prep</b>

# Electrified Cylindrical Locksets

## Failsafe - Z7250

Locked when energized, the failsafe cylindrical electric lock function, model Z7250, is ideal for interior door and exit door applications. Unlike a magnetic lock, the Z7250 is never locked from the inside and permits uninhibited egress at all times by turning the inside manual lever handle. This also eliminates the need for secondary egress switch devices, such as motion detectors, wall mounted exit switches and switch bars. When connected to the fire life safety command center, the lock releases immediately in an emergency, transforming a stairwell or elevator lobby door from a one-way exit into a two-way exit. This permits re-entry and eliminates the possibility of stairwell entrapment and potential exposure to life threatening smoke inhalation. Additionally, firefighters are permitted uninhibited access to all floors during an emergency, speeding lifesaving and fire extinguishing efforts. See Figure 1 for typical installation.

## Failsecure - Z7252

Unlocked when energized, the failsecure cylindrical electric lock function, model Z7252, is ideal for interior high security applications. The Z7252 is never locked from the inside and permits uninhibited egress at all times by turning the inside manual lever handle. This also eliminates the need for secondary egress switch devices, such as motion detectors, wall mounted exit switches and switch bars. Battery backup power supplies may be specified to provide power for operation during power outage. See Figure 1 for typical installation.

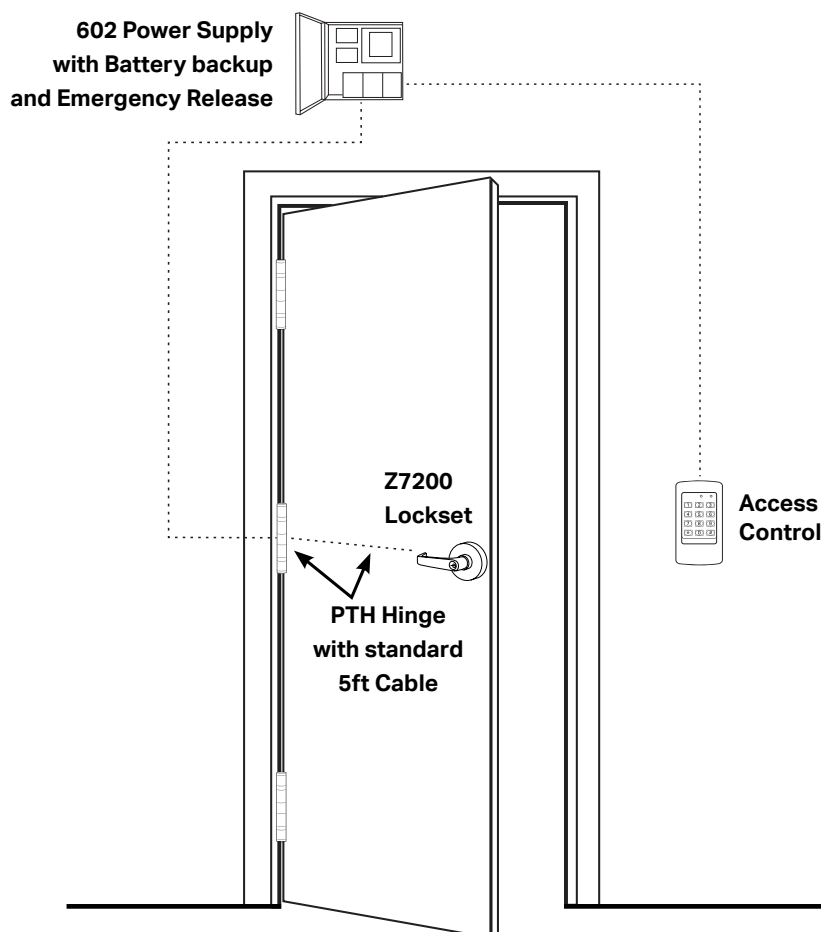


Figure 1

# Electrified Cylindrical Locksets

## Electrified Locks and Fire Ratings

Installing an electrified lock on a fire-rated door can void the door's fire rating.. Use fire-rated locks, like SDC's 7200, for fire-rated openings. It is important to note that refrotting an electrified lock on a fire-rated door can void the door's fire rating when door core drilling is required for a wire raceway. It is crucial that the lock is installed to allow for a rated door assembly to be re-certified after installation. For recertification, the Warnock Hersey (WH) Mark is the leading fire product safety and performance mark for building and construction products. Manufacturers and AHJs have viewed WH as the preferred mark for fire safety certification. Products bearing the Warnock Hersey certification indicate compliance to relevant building codes, association criteria, and product safety and performance standards.

Using improperly rated locks can void the rating as well as any drilling, cutting, or non-original penetration to the door or frame. On fire doors with ratings of 45 minutes or higher, an electrified lock must be installed so that it does not allow fire or smoke to penetrate. This is accomplished in originally rated assemblies by making sure the wiring is inside ANSI electrical pockets built into the door or frame.

Fire code officials are serious about not allowing fire and smoke to penetrate fire-rated doors. If you are not fully aware on how to retrofit the door with an electrified lockset without voiding the originally rated door assembly, you can potentially cost yourself a lot of money if you get it wrong. You will be responsible for replacing the entire rated assembly, door, and frame. We recommend you pay particular attention to the manufacturer's installation instructions as well as product listings and certifications before proceeding.

*(Thanks to Norman Thomas and his book: "Electronic Access Control" from which we restated some of the above content. <https://www.sciencedirect.com/book/9780123820280/electronic-access-control>)*

## Door Core Drill Guide

Typically fire rated hollow metal doors will require preparation for wire preps by the door supplier to maintain their fire rating. However, the SDC door core drill fixture kit provides the best method of field wire preparation for fire rated or non-fire-rated particle filled and wood doors to accommodate the installation of electrified locksets, exit

devices and hinges while maintaining the door integrity and rating. The installer may call for inspection of fire-rated doors for re-certification when installation is complete.



### 7000-DGK Laser Guided Wire Raceway Drill Fixture Kit

- The drill fixture allows for drilling from the hinge side without removing the door from the frame
- Will drill at up to 20 degrees from center, up or down.
- Drills in only 4 minutes
- Evacuator drill bit standard

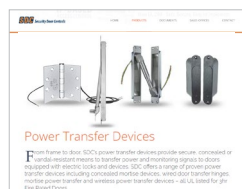
## Power Transfer Hinge

Installed in the center hinge position of the door, the PTH series electric hinge provides the concealed and vandal resistant wires required between the door and the frame for the purpose of powering and monitoring the access controlled locks. Choices include a 4-wire hinge for basic applications that may include a request-to-exit output and a 10-wire hinge to accommodate multiple remote lock status outputs, such as door status, latch status, locked status and request-to-exit.

**IMPORTANT:** It is important to note that when used on fire rated doors, the hinge must be UL 10C Listed, and carry the mark (F) located next to the UL symbol. The UL Listed (F), indicates that the hinge is UL Listed for use on up to 3 hour "A" label fire rated doors.

### Hinge Configurations

A typical standard weight hinge, size: 4 1/2 x 4 1/2"



For more power transfer devices product information and resources, visit [sdsecurity.com/power-transfer-devices.htm](https://sdsecurity.com/power-transfer-devices.htm)

# Electrified Cylindrical Locksets

## Listing and Performance Specifications

### REQUIRED UL LISTINGS



The UL Listing confirms that the electrified lockset design is electrically safe and has been tested for the purpose the product was intended.

All electrified locksets should meet the following applicable UL test requirements.

### UL 10C "Positive Pressure Compliant" and Classified in accordance with Uniform Building Code (UBC) "Fire Test for Door Assemblies"



This verifies that the lock does not have negative impact on the integrity of fire rated openings. The description will be found on the official UL Listing Auxiliary Lock document.

### ULC-S104 Standard Method for Fire Tests of Door Assemblies

**Scope:** Fire endurance and hose stream test of door assemblies of various materials and types for use in wall openings to prevent the passage of fire.

**Applicable Products:** Door and frame assemblies mounted in a wall, including swinging doors, sliding or rolling doors, horizontal slide-type elevator doors, access doors, chute doors, dumbwaiter doors, service-counter doors. Door and frame hardware is also applicable

**Canadian Listing:** The C preceding the listing symbol indicates that the product is also UL Listed for use in Canada.

### The World of Difference Between UL "Listed" and UL "Recognized"

UL's Component Recognition Services covers the testing and evaluation of individual components that are incomplete or restricted in performance capabilities. These components will later be used in complete end-products or systems listed by UL. These recognized components are not intended for separate installation in the field, they are intended for use as components of complete equipment submitted for investigation and subsequent UL Listing.

### California State Fire Marshal: CSFM Listed 3774-0324:0108



This listing is required for California installations. The State of California is well known for consistently setting the highest standards for fire life safety in the world.

#### Note to Distributors and Installers

For a competitive edge, specify and promote the listing and performance attributes of the components you are providing with your installations. Include information on code compliance, city and state listings, performance certification (ANSI/BHMA), specific laboratory listings (UL), service ease and warranty.

#### A Note to Building Owners

Know and understand the products being installed, or specify a preferred manufacturer yourself. Request that details about product and application code compliance are supplied with the installation bid, such as, city and state compliance, performance certification (ANSI/BHMA), laboratory listings (UL), service ease and warranty. This information may be a deterrent to having an inspector reject an installation today, or even at a later date when NFPA 80 changes take effect. Additionally, non-compliance of components could lead to potential liability should a fire or life safety emergency occur in the facility.

