Honeywell

Relialign™ Commercial Door Interlock Switch

CDI Series

001042

Issue 5

Datasheet



DESCRIPTION

Similar in design to the RDI Series, the Relialign CDI Door Interlock Series is also an electromechanical device designed for use in commercial applications where swing/hinge door applications are in service. This Relialign Series design incorporates a “mechanical lock” feature (power-to-unlock solenoid) rather than a solenoid lock (de-energize solenoid to unlock). The mechanical lock prevents the swing door from accidently being opened if no power is present to the system or a temporary power loss occurs. A manual override is integrated into the interlock for emergency use.

The Relialign CDI Series solenoid circuit is further refined to include integral switches which permit power to be applied to the solenoid “only” when unlocking the door. This unique solenoid circuit may reduce the complexity of the host controller and extend the life of the solenoid, since power is applied only when the door is beginning to open.

VALUE TO CUSTOMERS

- Certified to ASME and UL codes
- Easier installation with terminal strip or Cat 5 wire connection
- Interlock accepts for 24 Vac or 24 Vdc signal
- Internal custom control of solenoid for increased life which may reduce complexity of host controller and potential “time outs” for door interlock from host controller

DIFFERENTIATION

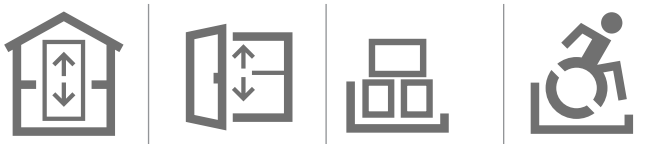
- Exceeds commercial pull force requirement of 675 lb with a 2X margin with use of high strength stainless steel solenoid plunger, cam, and key
- No exposed or open electrical contacts
- White electrostatic epoxy finish on metal housing to harmonize with equipment architecture

FEATURES

- Certified to applicable sections of ASME A17.1, ASME A18.1, and UL 104
- Two separate independent switches to provide door closed and door locked; factory wired for series or parallel configurations
- No exposed switch contacts
- Key-to cam engagement design and snap action switches minimize nuisance stops
- Rugged die-cast metal housing with electrostatic epoxy coating for enhanced durability and choice of several colors
- Life of one million cycles minimum
- Solenoid accepts 24 Vac or Vdc
- Electrical connection choice of terminal strip or RJ-45 Cat 5 termination
- Required to mount in vertical position

POTENTIAL APPLICATIONS

USA: Swing/Hinge Doors



Commercial & residential elevators | Commercial & residential dumbwaiters | Platform/ material lifts | Mobility impaired lifts

Canada: Swing/Hinge Doors



Commercial & residential elevators | Commercial & residential dumbwaiters | Platform/ material lifts

PORTFOLIO

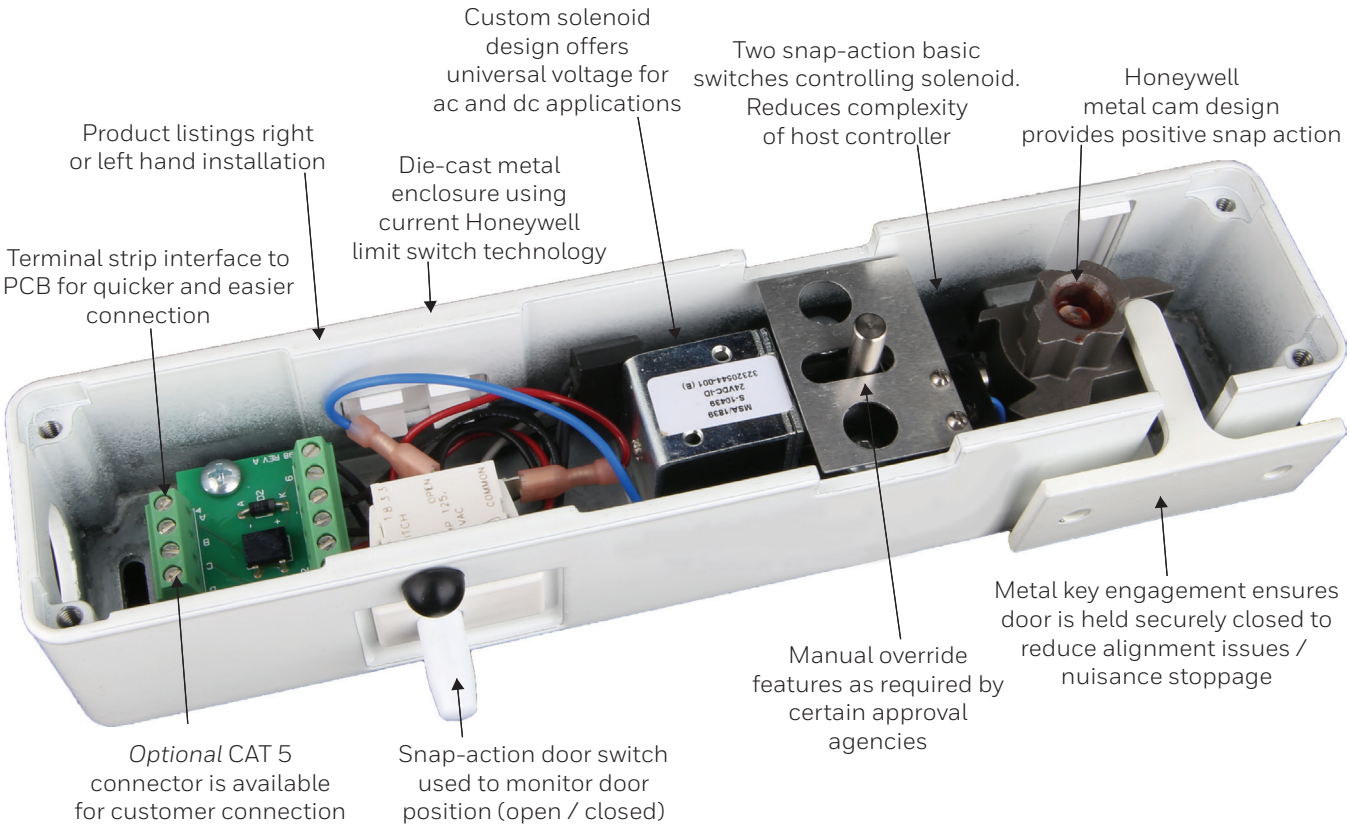
Honeywell also manufactures a Residential Door Interlock (RDI) for commercial applications.

Relialign Commercial Door Interlock Switches, CDI Series

Table 1. Specifications

Characteristic	Parameter
Product type	Relialign Electromechanical Door Interlock, CDI series
Mounting	Vertical mounting required for gravity to operate de-energized solenoid plunger
Interlock override option	Mechanical override standard on CDI door interlocks
Certifications	ANSI/ASME, cULus
Reference standards	ANSI/ASME A17.1 (Safety Code for Elevators & Escalators) ANSI/ASME A18.1 (Safety Standard for Platform Lifts and Stairway Chairlifts) UL 104 (Standard for Elevator Door Locking Devices) CAN/CSA B44 (Safety Code for Elevators & Escalators)
Housing material	Die-cast metal housing with zinc phosphate treatment & electrostatic epoxy coating
Key material	Stainless steel
Key override force	Exceeds 675 lbs pull force requirement by a 2x factor
Door indication	Two separate independent switches; one switch for door closed, one switch for door locked
Wiring for door indication	Factory wired per customer specification in parallel or series for door closed and door locked
Supply voltage	24 Vac or 24 Vdc
Supply current	AC, 0.35 A max; DC 0.2 A max
Internal switches	MICRO SWITCH snap action
Electrical connection	Terminal strip or RJ-45 Cat 5
Electrical life	1,000,000 cycles minimum
Operating temperature	4 ºC to 38 ºC [40 ºF to 100 ºF]
Storage temperature	-40 ºC to 60 ºC [-40 ºF to 140 ºF]

Figure 1. Design Features



Relialign Commercial Door Interlock Switches, CDI Series

Figure 2. Product Nomenclature

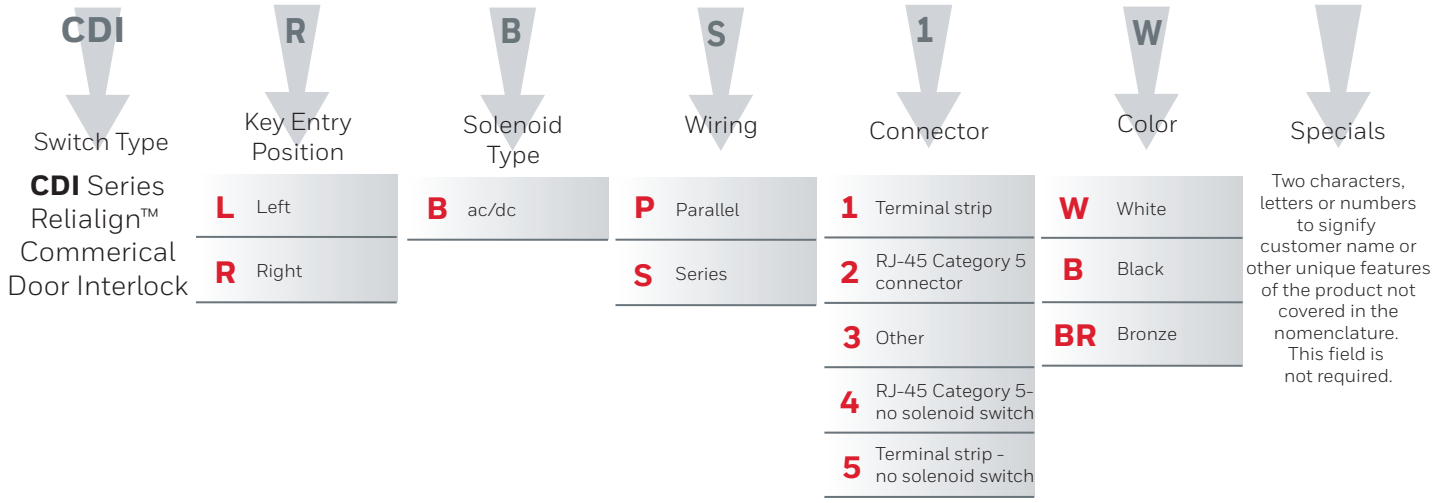


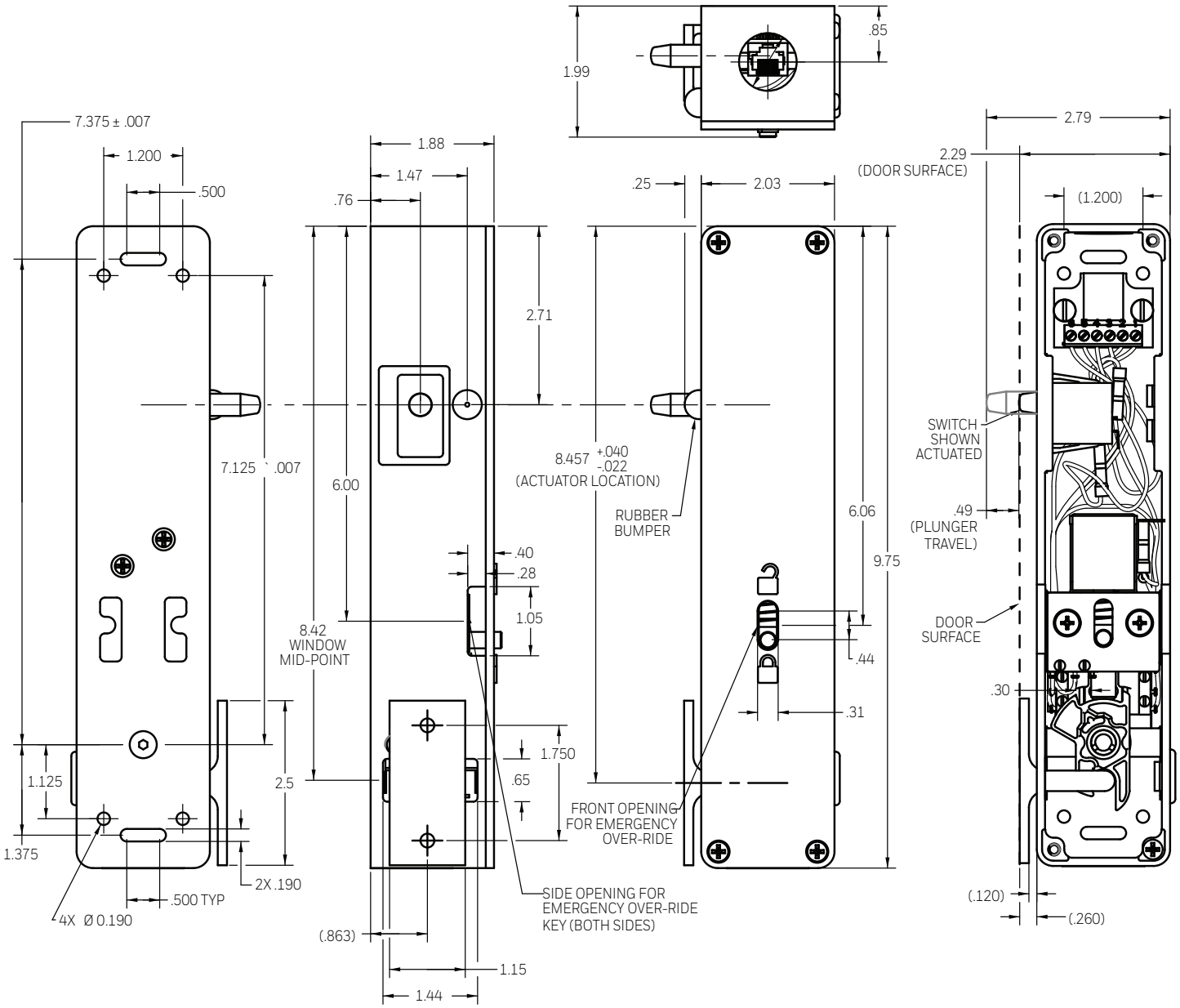
Table 2. Order Guide

Catalog LIstings	Description
CDILBP1W	CDI Commercial Door Interlock, left key entry, 24 Vac/dc solenoid, door closed and door locked with parallel circuits, terminal strip connector, housing finish white
CDIRBP1W	CDI Commercial Door Interlock, right key entry, 24 Vac/dc solenoid, door closed and door locked with parallel circuits, terminal strip connector, housing finish white
CDILBP2W	CDI Commercial Door Interlock, left key entry, 24 Vac/dc solenoid, door closed and door locked with parallel circuits, RJ-45 Category 5 connector, housing finish white
CDIRBP2W	CDI Commercial Door Interlock, right key entry, 24 Vac/dc solenoid, door closed and door locked with parallel circuits, RJ-45 Category 5 connector, housing finish white
CDILBP2BR	CDI Commercial Door Interlock, left key entry, 24 Vac/dc solenoid, door closed and door locked with parallel circuits, RJ-45 Category 5 connector, housing finish architectural bronze
CDIRBP2BR	CDI Commercial Door Interlock, right key entry, 24 Vac/dc solenoid, door closed and door locked with parallel circuits, RJ-45 Category 5 connector, housing finish architectural bronze
CDILBS1W	CDI Commercial Door Interlock, left key entry, 24 Vac/dc solenoid, door closed and door locked with series circuits, terminal strip connector, housing finish white
CDIRBS1W	CDI Commercial Door Interlock, right key entry, 24 Vac/dc solenoid, door closed and door locked with series circuits, terminal strip connector, housing finish white
CDILBS2W	CDI Commercial Door Interlock, left key entry, 24 Vac/dc solenoid, door closed and door locked with series circuits, RJ-45 Category 5 connector, housing finish white
CDIRBS2W	CDI Commercial Door Interlock, right key entry, 24 Vac/dc solenoid, door closed and door locked with series circuits, RJ-45 Category 5 connector, housing finish white

Table 3. Order Guide (Replacement Actuator Keys)

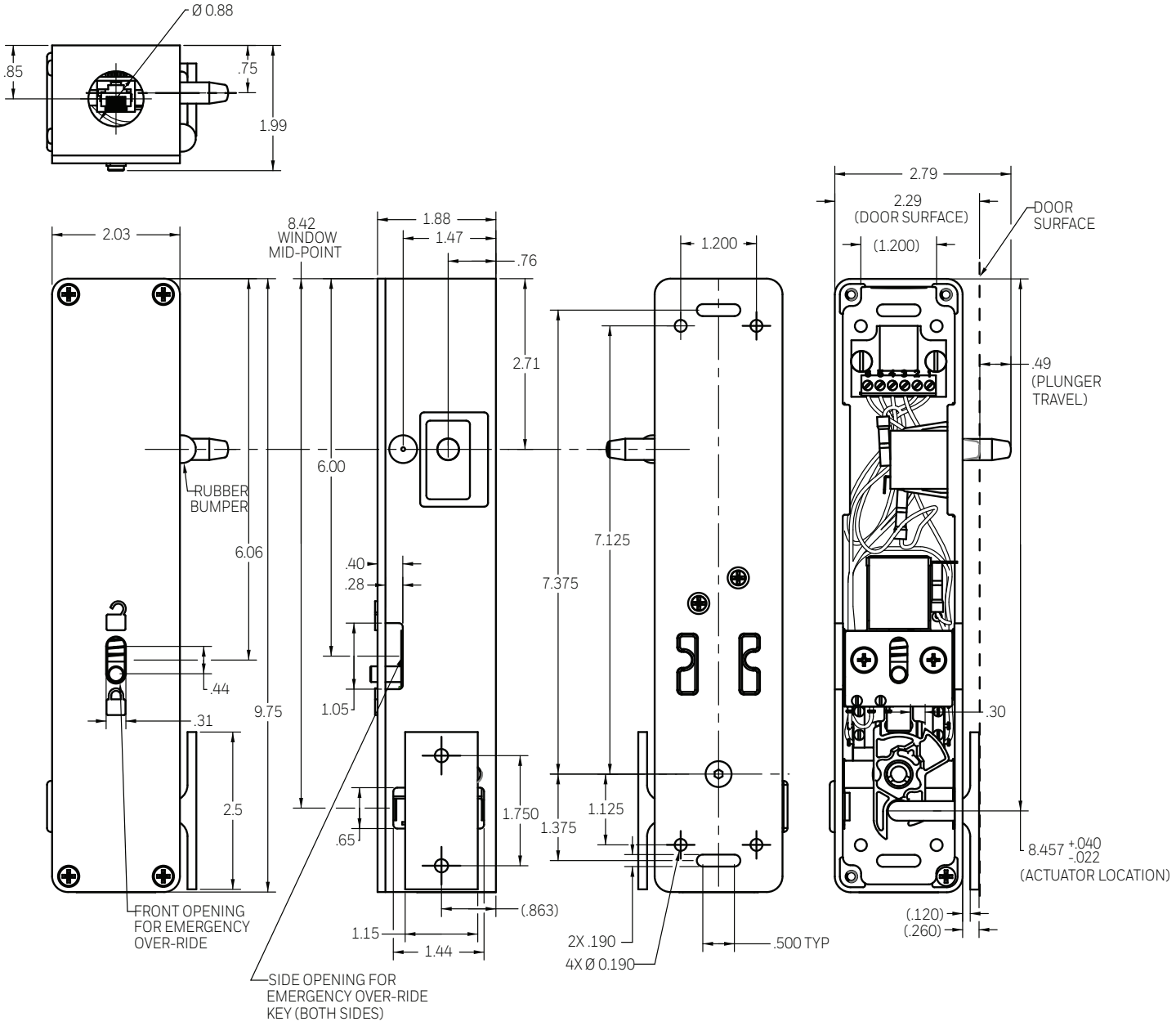
Catalog LIstings	Description
GKZ91	Replacement actuator key (finish, white)
GKZ92	Replacement actuator key (finish, black)
GKZ93	Replacement actuator key (finish, architectural bronze)

Figure 3. CDI Left-hand Mounting Dimensions • (For reference only) in



NOTE: Interlock must be mounted vertically as illustrated.

Figure 3. CDI Right-hand Mounting Dimensions • (For reference only) in



NOTE: Interlock must be mounted vertically as illustrated.

Figure 5. Wiring Schematic Parallel Connection (CAT 5 connector)

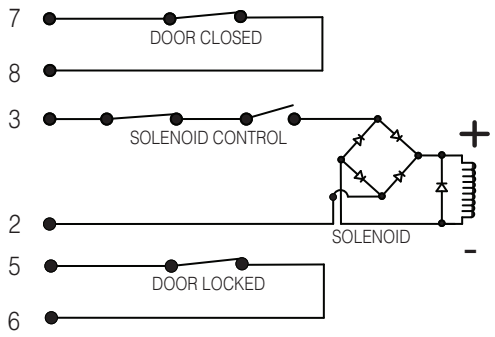


Figure 6. Wiring Schematic Series Connection (CAT 5 connector)

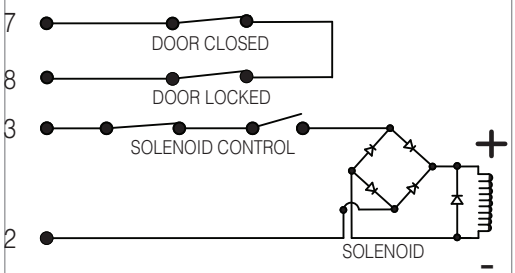


Figure 7. CAT 5 Connector Pin Details

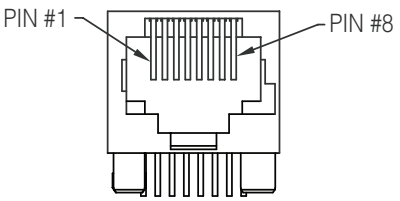


Figure 8. Wiring Schematic Parallel Connection (6-pin Terminal)

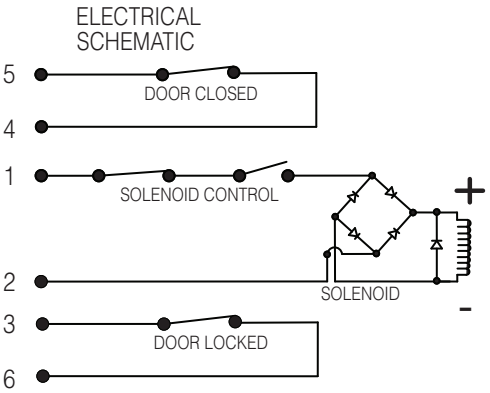
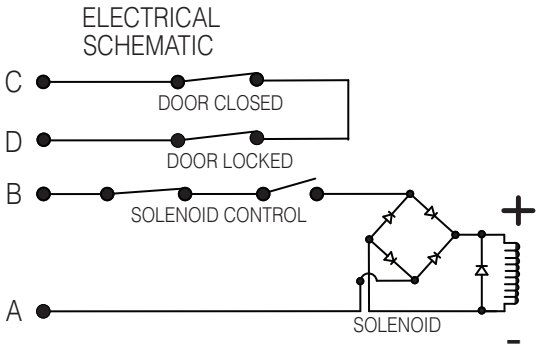


Figure 9. Wiring Schematic Series Connection (4-pin Terminal)



Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

⚠ WARNING
RISK TO LIFE OR PROPERTY

- Never use this product for an application involving serious risk to life or property without ensuring that the system as a whole has been designed to address the risks, and that this product is property rated and installed for the intended use within the overall system.

Failure to comply with these instructions could result in death or serious injury.

⚠ WARNING
MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

For more information

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