Honeywell

Relialign™ Residential Door Interlock Switch

RDI Series

001031

Issue 5

Datasheet



DESCRIPTION

Relialign RDI Series Interlock Assemblies are electromechanical devices designed for use in residential applications where swing/hinge door applications are in service. The Series design incorporates a “mechanical lock” feature (power-to-unlock solenoid) rather than a solenoid lock (de-energize solenoid to unlock) that 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 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 may reduce complexity of host controller and potential “time outs” from host controller

DIFFERENTIATION

- Exceeds residential pull force requirement of 150 lbs. with a 10X margin with use of high strength stainless steel solenoid plunger, cam and key
- No exposed or open electrical contacts

FEATURES

- Certified to applicable sections of ASME A17.1 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 and snap-action switches minimize nuisance stops
- Rugged die-cast metal housing with electrostatic epoxy coating for enhanced durability and choice of several colors
- Exceeds required life of 50,000 cycles
- Exceeds residential pull force requirement of 150 lbs. with a 10X margin
- Solenoid accepts 24 Vac or Vdc
- Electrical connection choice of terminal strip or Cat 5 termination

POTENTIAL APPLICATIONS

USA: Swing/Hinge Doors



Residential elevators



Residential dumbwaiters



Mobility Impaired Lifts

Canada: Swing/Hinge Doors



Residential elevators



Residential dumbwaiters

PORTFOLIO

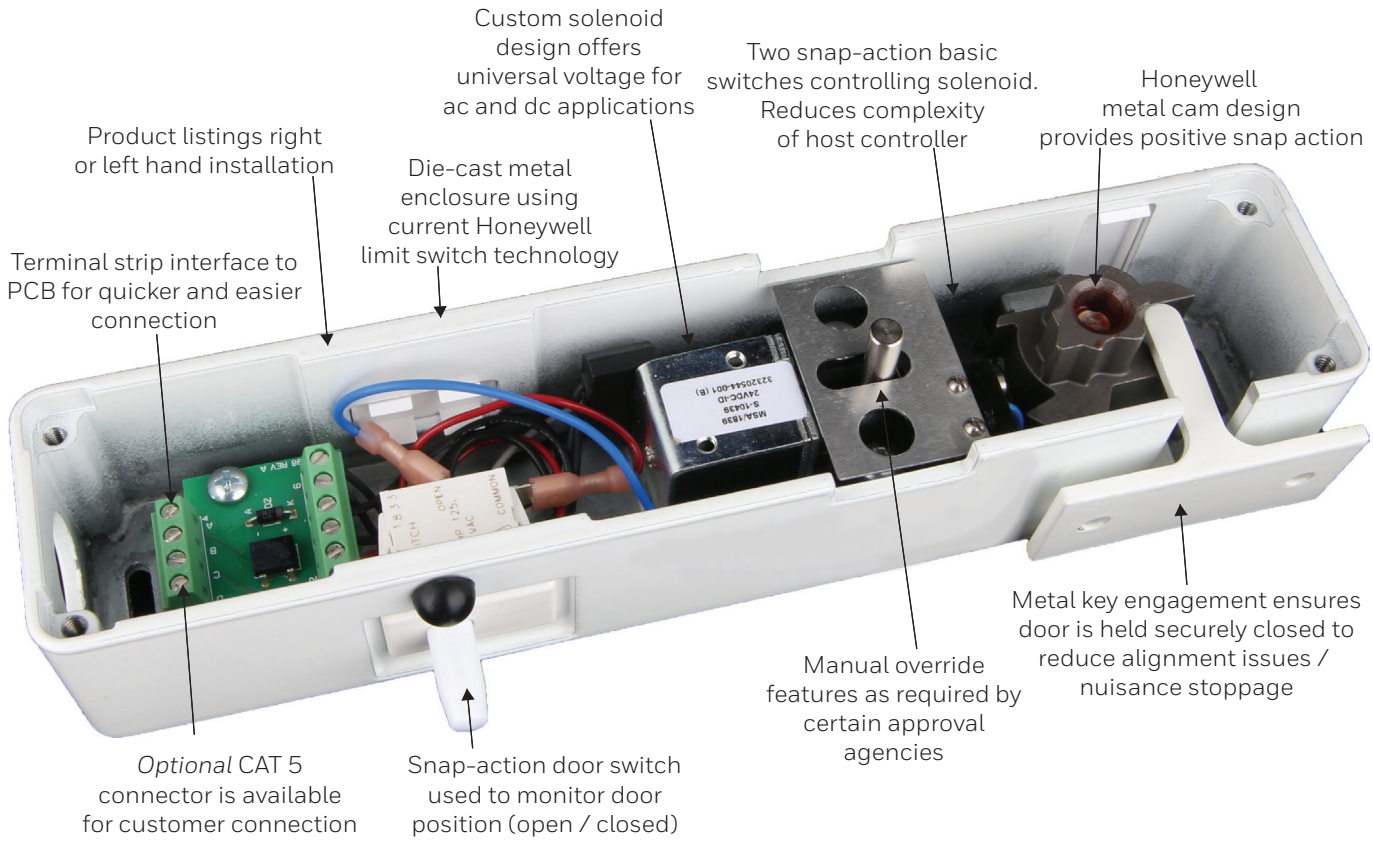
Honeywell also manufactures a Commercial Door Interlock (CDI) for commercial applications.

Relialign Residential Door Interlock Switches, RDI Series

Table 1. Specifications

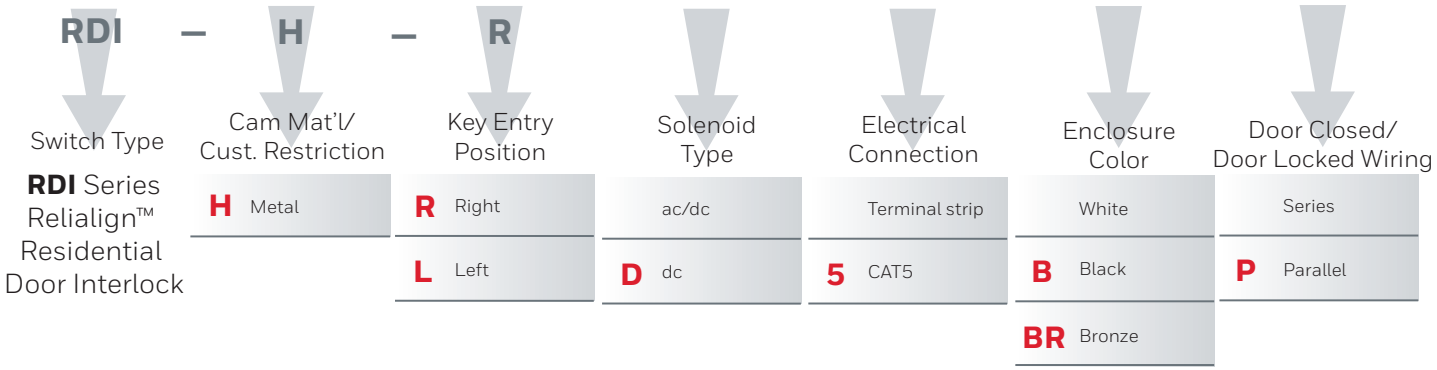
Characteristic	Parameter
Product type	Relialign Electromechanical Door Interlock, RDI series
Mounting	Vertical mounting required for gravity to operate de-energized solenoid plunger
Interlock override option	Mechanical override standard on RDI door interlocks
Certifications	ASME, UL
Reference standards	ASME A17.1 (Safety Code for Elevators & Escalators), UL 104 (Standard for Elevator Door Locking Devices)
Housing material	Die-cast metal housing with zinc phosphate treatment & electrostatic epoxy coating
Key material	Investment cast stainless steel
Key override force	Exceeds 150 lbs pull force requirement by a 10x factor
Door indication	Two separate independent switches; one switch for door closed, one switch for door locked
Wiring for door indication	Factory wired 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 Cat 5
Electrical life	50,000 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 Residential Door Interlock Switches, RDI Series

Figure 2. Product Nomenclature



NOTE: not all combinations of model code are available.
Please contact your Honeywell provider/representative for assistance.

* Key actuator included with door interlock

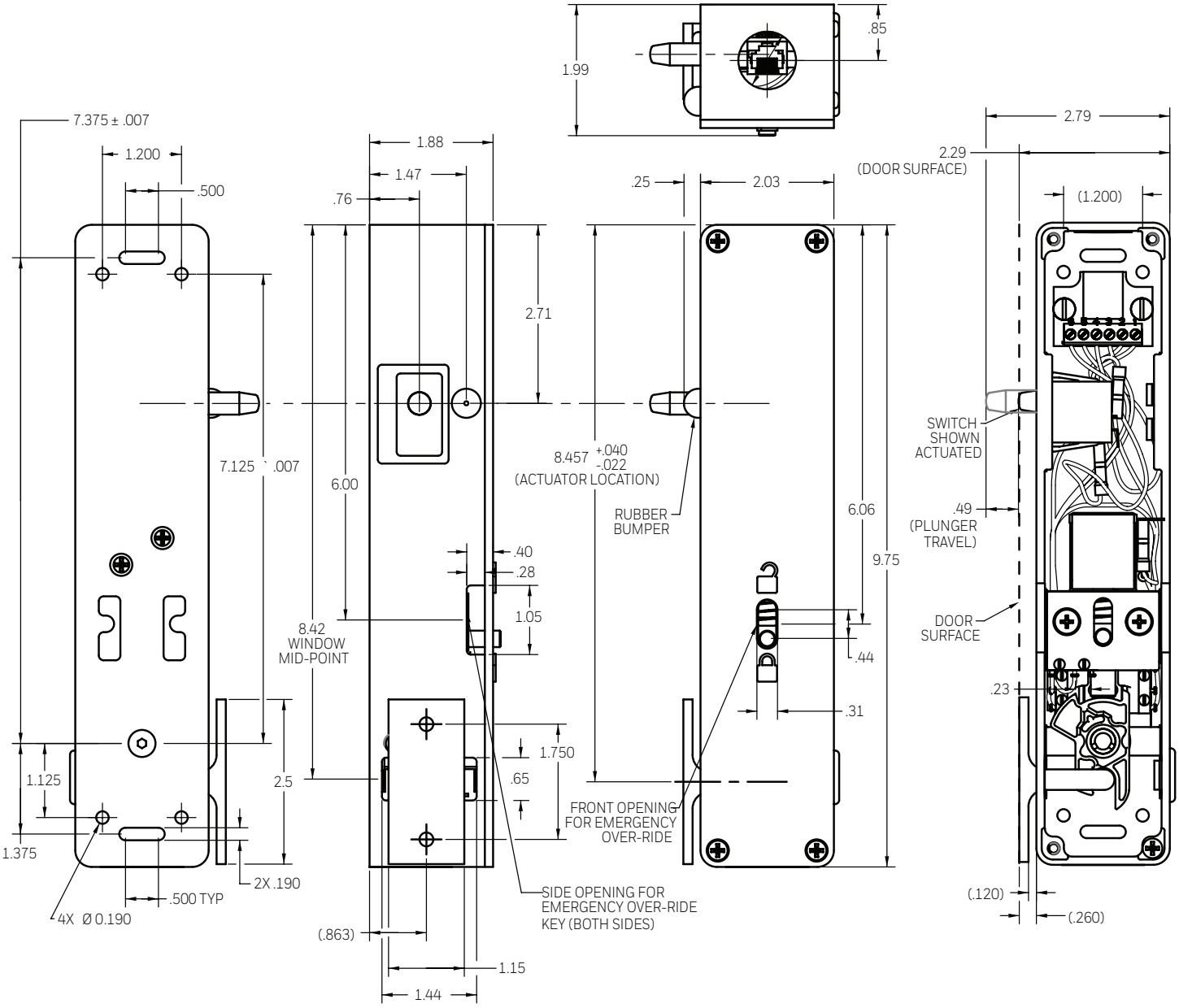
Table 2. Order Guide

Catalog LIstings	Description
RDI-H-L	Left-hand door interlock, terminal strip, series wiring (housing finish, white)
RDI-H-R	Right-hand door interlock, terminal strip, series wiring (housing finish, white)
RDI-H-LP	Left-hand door interlock, terminal strip, parallel wiring (housing finish, white)
RDI-H-RP	Right-hand door interlock, terminal strip, parallel wiring (housing finish, white)
RDI-H-L5B	Left-hand door interlock, CAT5 connector, series wiring (housing finish, black)
RDI-H-R5B	Right-hand door interlock, CAT5 connector, series wiring (housing finish, black)
RDI-H-L5P	Left-hand door interlock, CAT5 connector, parallel wiring (housing finish, white)
RDI-H-R5P	Right-hand door interlock, CAT5 connector, parallel wiring (housing finish, white)
RDI-H-L5	Left-hand door interlock, CAT5 connector, series wiring (housing finish, white)
RDI-H-R5	Right-hand door interlock, CAT5 connector, series wiring (housing finish, white)
RDI-H-LBR	Left-hand door interlock (housing finish, architectural bronze)
RDI-H-RBR	Right-hand door interlock (housing finish, architectural bronze)

Table 3. Order Guide (Replacement Actuator Keys)

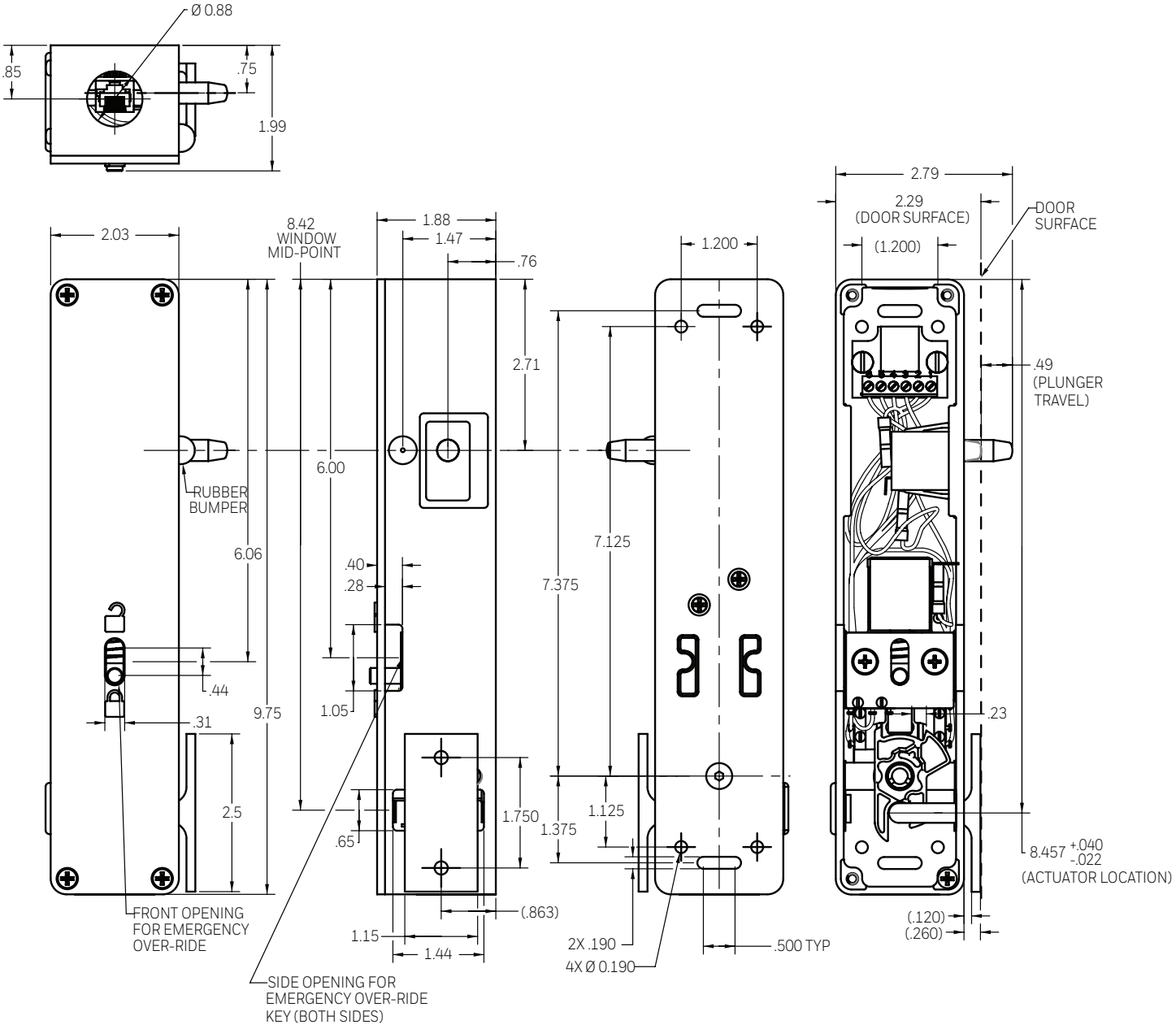
Catalog LIstings	Description
GKZ91	Replacement actuator key (finish, white)
GKZ92	Replacement actuator key (finish, black)
GKZ93	Replacement actuator key (finish, architectural bronze)

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



NOTE: Interlock must be mounted vertically as illustrated.

Figure 4. RDI 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)

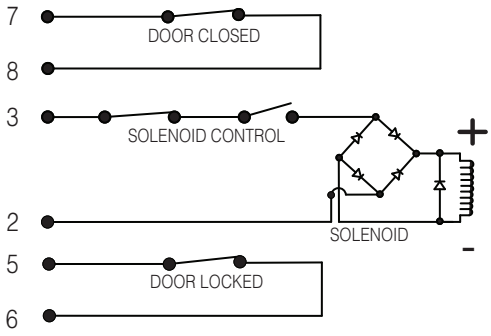


Figure 6. Wiring Schematic Series Connection (CAT 5 connector)

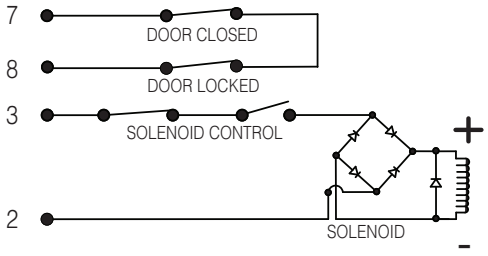


Figure 7. CAT 5 Connector Pin Details

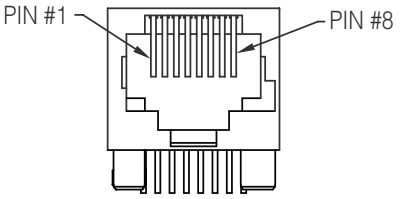


Figure 8. Wiring Schematic Parallel Connection (6-pin Terminal)

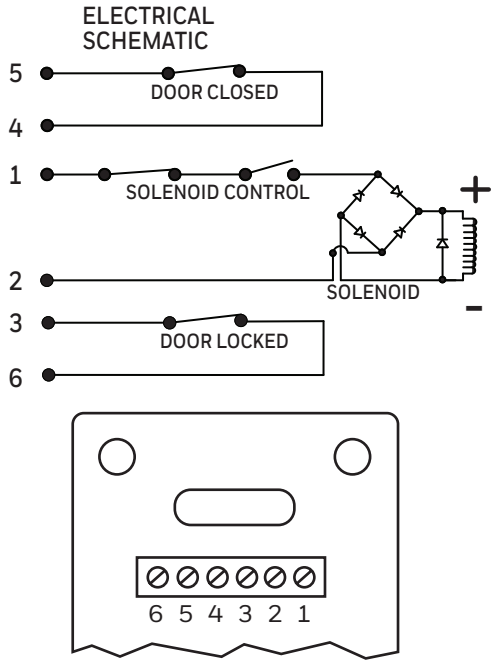
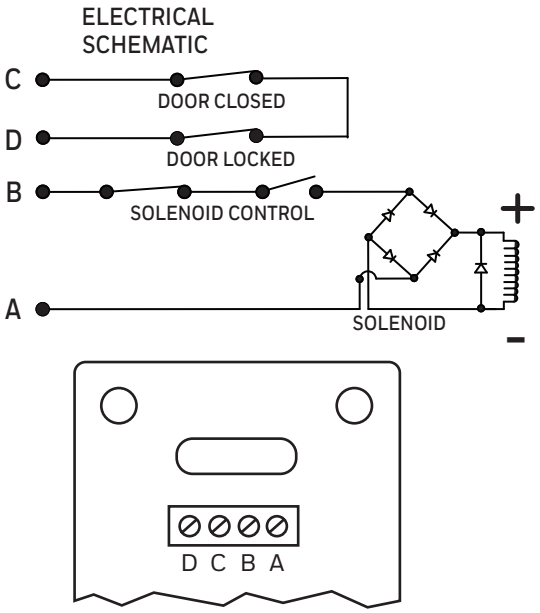


Figure 9. Wiring Schematic Series Connection (4-pin Terminal)



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

Honeywell Advanced Sensing Technologies services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or the nearest Authorized Distributor, visit sps.honeywell.com/ast or call:

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