ELECTROMAGNETIC DOOR HOLDER/RELEASES

Designed for remote door release applications
Introduction

Rixson offers a wide range of electromagnetic door holders/releases. Designed for virtually any remote door release application, electromagnetic door holders/releases primarily hold fire doors open until released by an alarm or smoke detector.

Floor mounted units are available for single or back-to-back doors. Wall mounted units feature concealed or surface wiring, low profile projection or high hold force.

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General Information

Electromagnetic door holder/releases are designed for virtually any remote door release applications. They must be used in conjunction with closing devices.
- Fire/smoke barrier doors
  - Door releases when tripped by an alarm or smoke detector
- Private offices
  - Door releases when triggered by a remote switch
- All devices come with a wall/floor portion and a door portion (armature)
- Circuit normally closed
- Door portions have screws and plates to accommodate surface and concealed mounting

Features
- 25 to 40 pounds holding force, except where noted
- Fail-safe operation; power failure releases door to close
- Positive release button initiates closing motion
- Tri-volt coils on most models see
- Spotting template included
- For stronger holding forces (50-55 lbs.) specify model and voltage. Not available in tri-volt coils

Certifications
- Compliant with ANSI/BHMA A156.15 Standards. See individual products for sub sections
- UI/ULC listed
- Listed by California State Fire Marshal

Specifications
All electromagnetic door holder/releases shall be supplied by architectural hardware supplier. All units shall have a single coil to accommodate 12VDC, 24VAC, 24VDC and 120VAC. The coils shall be independently wound, employing a fuse. Armatures will have positive release button.
Prior to determining the product you will need to use, begin by looking at the door and perpendicular wall relationship.
- Measure the distance. That will give you the “D” dimension. Select from chart A.

**Chart A**

<table>
<thead>
<tr>
<th>If the distance from wall to door is: “D”</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/16” (11)</td>
<td>989</td>
</tr>
<tr>
<td>1-3/16” (46)</td>
<td>990M</td>
</tr>
<tr>
<td>2-5/8” (67)</td>
<td>997M</td>
</tr>
<tr>
<td>3-5/8” (92)</td>
<td>998M</td>
</tr>
<tr>
<td>3-3/4” (95)</td>
<td>994M</td>
</tr>
<tr>
<td>4-1/8” (105)</td>
<td>996M</td>
</tr>
<tr>
<td>4-3/8” (111)</td>
<td>999M</td>
</tr>
<tr>
<td>5-1/8” (130)</td>
<td>998M x XK996M</td>
</tr>
<tr>
<td>6-5/8” (168) min. distance from wall</td>
<td>980M</td>
</tr>
<tr>
<td>6-3/4” distance between doors</td>
<td>981M</td>
</tr>
</tbody>
</table>

**Chart B**

Junction box location should always be as close as possible to the door pull/lever/knob.

A position horizontally farther toward the hinge edge will dramatically lessen the hold open force of the magnet.

A mounting too high on the vertical plane (top of door) will make it more difficult to pull out of hold open.

Refer to Diagram B
- How far is the centerline of the pivot/hinge from the wall? “A” dimension
- What is width of door? “B” dimension
- At what degree is the door opening? If this dimension is more than 100° consult template.
  The armature has a few degrees of adjustment but, before proceeding verify with the product template
- Dimension “C” is from pivot point to junction box centerline
Model 980M

Application
- Floor mount
- Single door
- Shipping weight: 4 lbs. (1.8 kg)

Features
- Concealed wiring
- Total floor space required: 6-5/8’ (168mm)
- Mounting requirements: conduit connects directly to floor plate
- 2 year limited warranty

Compliance
- ANSI/C00021

Electrical Data
- Voltage and current:
  - 120VAC, 60 Hz., .020 amp
  - 24VAC/DC, 60 Hz., .020 amp
  - 12VDC, .040 amp
  - For 50-55 lbs. of holding force, specify voltage
  - 120VAC, 60Hz .017 amp
  - 24VAC, 60Hz .080 amp
  - 24VDC, .068amp
  - 12VDC, .180amp
  - 240VAC, 50/60Hz .009 amp

Model 981M

Application
- Floor mount
- 2 back-to-back doors
- Shipping weight: 4-3/4 lbs. (2.2 kg)

Features
- Concealed wiring
- Floor space required: 8-1/4’ (210mm)
- Mounting requirements: conduit connects directly to floor plate
- 2 year limited warranty

Compliance
- ANSI/C00031

Electrical Data
- Voltage and current:
  - 120VAC, 60Hz .040 amp
  - 24VAC/DC, .040 amp
  - 12VDC, .080 amp
  - For 50-55 lbs. of holding force, specify voltage
  - 120VAC, 60Hz .034 amp
  - 24VAC, 60Hz .016 amp
  - 24VDC, .036 amp
  - 12VDC, .360 amp
  - 240VAC, 50/60Hz .018 amp
**Model 989**

**Application**
- Wall mount
- Low profile
- Concealed wiring
- Shipping weight: 2 lbs. (0.9 kg)

**Features**
- Total projection: 7/16" (11mm)
- Mounting requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

**Compliance**
- ANSI/C00011

**Electrical Data**
- Voltage and current:
  - 120VAC, 60Hz, ...020 amp
  - 24VAC/DC, 60Hz, ...020 amp
  - 12VDC, ...40 amp
  - For 50-55 lbs. of holding force, specify voltage
    - 120VAC, 60Hz, ...017 amp
    - 24VAC, 60Hz, ...080 amp
    - 24VDC, ...68 amp
    - 12VDC, ...180 amp
    - 240VAC, 50/60Hz, ...009 amp

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**Model 990M**

**Application**
- Wall mount
- Low profile
- Concealed wiring
- Shipping weight: 2 lbs. (0.9 kg)

**Features**
- Total projection: 1-13/16" (46mm)
- Mounting requirements: 2" x 4" x 2-1/2" (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

**Compliance**
- ANSI/C00011

**Electrical Data**
- Voltage and current:
  - 120VAC, 60Hz, ...020 amp
  - 24VAC/DC, 60Hz, ...020 amp
  - 12VDC, ...40 amp
  - For 50-55 lbs. of holding force, specify voltage
    - 120VAC, 60Hz, ...017 amp
    - 24VAC, 60Hz, ...080 amp
    - 24VDC, ...68 amp
    - 12VDC, ...180 amp
    - 240VAC, 50/60Hz, ...009 amp
Model 991M

Application
- Wall mount
- Surface wiring
- Hazardous locations
- Shipping weight: 3 lbs. (1.4 kg)

Features
- Total projection: 4" (101mm)
- Approved for class I division 2, class II division 2, groups F and G and class III locations
- Unit includes a sealed surface-mounted junction box
- 2 year limited warranty

Compliance
- ANSI/C00011

Electrical Data
- Voltage and current:
  - 120VAC, 60Hz., .017 amp
  - 24VAC, .080 amp
  - 12VAC, .180 amp
  - 24VDC, .068 amp
  - 240VAC, 50/60Hz., .009 amp

Model 993M

Application
- High hold
- Surface or concealed mounting
- Floor or wall application
- Shipping weight: 3 lbs. (1.4 kg)

Features
- 300 lb. holding force
- Total projection: 5-1/4" (133mm)
- Switch box included 4-1/2" x 4-9/16" x 2-5/16" (114 x 116 x 59mm) deep
- Armature plate thru-bolted to maintain consistent contact with magnet
- Adjusting screw on special heavy-duty armature allows for alignment of contact plate
- 9930M Floor mount available
- Unit has test switch – may be ordered without switch if door will be pulled out of hold open very often
- Use key switch to release (by others)
- Substantial wall reinforcement required
- 2 year limited warranty

Electrical Data
- Voltage and current: 24VAC/DC .25 amp
**Model 994M**

**Application**
- Wall mount
- Adjustable armature
- Concealed wiring
- Shipping weight: 2 lbs. (0.9 kg)

**Features**
- Total projection: 3-3/4’ (95mm)
- Adjustable armature rotation up and down, back and forth for better alignment.
- Cannot be use with 900 base or spacers.
- Can be used without adjustment piece making it a model 997
- Mounting requirements: 2’ x 4’ x 2-1/2’ (51 x 102 x 64mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

**Compliance**
- ANSI/C0001

**Electrical Data**
- Voltage and current:
  - 120VAC, 60Hz., .020 amp
  - 24VAC/DC, 60Hz., .020 amp
  - 12VDC, .040 amp
  - For 50-55 lbs. of holding force, specify voltage
    - 120VAC, 60Hz. .017 amp
    - 24VAC, 60Hz .080 amp
    - 24VDC, .068 amp
  - Wall must be properly reinforced
  - 2 year limited warranty

**Model 996M**

**Application**
- Wall mount
- Surface wiring
- Shipping weight: 3 lbs. (1.4 kg)

**Features**
- Total projection: 4-1/8’ (105mm)
- Mounting requirements: 1-1/2’ (38mm) deep adapter housing
- Wall must be properly reinforced
- 2 year limited warranty

**Compliance**
- ANSI/C0001

**Electrical Data**
- Voltage and current:
  - 120VAC, 60Hz., .020 amp
  - 24VAC/DC, 60Hz., .020 amp
  - 12VDC, .040 amp
  - For 50-55 lbs. of holding force, specify voltage
    - 120VAC, 60Hz. .017 amp
    - 24VAC, 60Hz .080 amp
    - 24VDC, .068 amp
    - 12VDC, .180 amp
    - 24VDC, 50/60Hz. .009 amp
  - 2 year limited warranty
Model 997M

Application
- Wall mount
- Concealed wiring
- Shipping weight: 2 lbs. (0.9 kg)

Features
- Total projection: 2-5/8" (67mm)
- Mounting requirements: 2" x 4" x 1-3/4" (51 x 102 x 45mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

Compliance
- ANSI/C00011

Electrical Data
- Voltage and current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz., .017 amp
  24VAC, 60Hz., .080 amp
  24VDC, .068 amp
  12VDC, .180 amp
  240VAC, 50/60Hz., .009 amp

Model 998M

Application
- Wall mount
- Concealed wiring
- Shipping weight: 2-1/2 lbs. (1.1 kg)

Features
- Total projection: 3-5/8" (92mm)
- Mounting requirements: 2" x 4" x 1-3/4" (51 x 102 x 45mm) outlet box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

Compliance
- ANSI/C00011

Electrical Data
- Voltage and current:
  120VAC, 60Hz., .020 amp
  24VAC/DC, 60Hz., .020 amp
  12VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  120VAC, 60Hz., .017 amp
  24VAC, 60Hz., .080 amp
  24VDC, .068 amp
  12VDC, .180 amp
  240VAC, 50/60Hz., .009 amp
**Application**
- Universal mounting
- Shipping weight: 2-3/4 lbs. (1.2 kg)

**Features**
- Base plate; concealed wiring
- Total projection: 4-3/8" (111mm)
- Mounting requirements: 2" x 4" (51 x 102mm) outlet box; 4" (102mm) square box; 4" (102mm) octagonal box
- Wall must be properly reinforced and outlet box adequately fastened
- 2 year limited warranty

**Compliance**
- ANSI/C00011

**Electrical Data**
- Voltage and current:
  - 120 VAC, 60 Hz., .020 amp
  - 24 VAC/DC, 60 Hz., .020 amp
  - 12 VDC, .040 amp
- For 50-55 lbs. of holding force, specify voltage
  - 120VAC, 60Hz, .017 amp
  - 24VAC, 60Hz, .080 amp
  - 24VDC, .068amp
  - 12VDC, .180amp
  - 240VAC, 50/60Hz, .009 amp
**Electromagnetic Door Holders/Releases**

**Schematics**

![Schematic Diagram](image)

**Operation Narrative**

Doors are to be normally held open. The electromagnetic door releases will be energized with the voltage shown (at right) in the hardware set for this opening. Power shall be controlled by the fire control system. It will interrupt the power if alarmed, causing the doors to be released, thus allowing the door closers to close the doors. When power is restored the magnets will re-energize, permitting the doors to be manually returned to their held open position.

**Accessories**

- **Base Unit Armature**
  - Extension Mounts between armature and contact plate. Part #900
  - Cannot be used with model 994M
  - XK996M
  - Part #996631M-

- **Armature Extension 90° Bend**
  - Part #900-Z
  - Must be used with 900 base unit. Those two pieces will extend armature 3" longer than the contact plate.

- **Spacer lengths – must be used with 900 base**
  - For dimensions, see chart below
  - Extension pieces must be used in conjunction with 900 Base Unit
  - Part #900-700 = 7"
  - Part #900-600 = 6"
  - Part #900-500 = 5"
  - Part #900-400 = 4"
  - Part #900-300 = 3"
  - Part #900-200 = 2"
  - Part #900-100 = 1"
  - Part #900-75 = 3/4"
  - Part #900-50 = 1/2"

*Specify finish*
The Rixson® 972 Industrial Door Release is listed by Underwriters’ Laboratories as a substitute for fusible links in such applications as overhead rolling doors, guillotine doors, fire dampers and self-closing windows. These heavy-duty units provide automatic release when triggered by a smoke detector, manual pull station, test button on unit, or other electrically operated switch.

Application
- 972H for swinging doors
- 972S for sliding doors
- 972U for overhead doors
- Specify model number and voltage

Features
- Shipping weight: 5 lbs. (2.3 kg)
- 2 year limited warranty

Compliance
- ANSI/C00041

Electrical Data
- Voltage and current:
  - 120VAC, 60Hz., .150 amp
  - 24VAC, 60Hz., .150 amp
  - 24VDC, .08 amp
  - 12VDC, .08 amp
- Holding force 75 lbs

Code Listings:
- Underwriters’ Laboratories, Inc.
- Underwriters’ Laboratories of Canada
- State of California (3550-047:13)
## How To Order

### 998M Series

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>980M</td>
<td>Floor Mounted</td>
</tr>
<tr>
<td>981M</td>
<td>Floor Mounted Back to Back Doors</td>
</tr>
<tr>
<td>989</td>
<td>Low Projection Wall Mounted</td>
</tr>
<tr>
<td>990M</td>
<td>Low Projection Wall Mounted</td>
</tr>
<tr>
<td>991M</td>
<td>Hazardous Location Wall Mounted</td>
</tr>
<tr>
<td>993M</td>
<td>High Hold Wall Mounted</td>
</tr>
<tr>
<td>9930M</td>
<td>High Hold Floor Mounted</td>
</tr>
<tr>
<td>994M</td>
<td>Wall Mounted Adjustable Armature</td>
</tr>
<tr>
<td>996M</td>
<td>Surface Mounted</td>
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<tr>
<td>997M</td>
<td>Wall Mounted</td>
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<td>998M</td>
<td>Wall Mounted</td>
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<tr>
<td>999M</td>
<td>Universal Wall Mounted</td>
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<tr>
<td>972H</td>
<td>Industrial Swing Door Holder</td>
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<tr>
<td>972S</td>
<td>Industrial Sliding Door Holder</td>
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<tr>
<td>972U</td>
<td>Industrial Overhead/Rolling Door</td>
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### 120VAC Voltage

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<thead>
<tr>
<th>Voltage</th>
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<tr>
<td>24VAC/DC</td>
<td>*24VAC/DC</td>
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<tr>
<td>12VDC</td>
<td>*12VDC</td>
</tr>
<tr>
<td>12VAC</td>
<td>*240VAC</td>
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<tr>
<td>240VAC</td>
<td>120VAC</td>
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<tr>
<td>*240VAC</td>
<td>120VAC</td>
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### 689 Finish

<table>
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<tbody>
<tr>
<td>689</td>
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<td>691</td>
</tr>
<tr>
<td>693</td>
</tr>
<tr>
<td>696</td>
</tr>
</tbody>
</table>

* When voltage is specified, these electromagnetic door holder/releases will have 50-55 lbs. of holding force.
Floor Portion

(A) Magnet Housing Cover
   980311M-*/981311M-*
(B) Magnet Support Bracket
   981309
(C) Gasket
   980095M
(D) Magnet
   **996219-3V
(E) Magnet Housing Base
   980312M-*/981312M-*

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for electromagnet assembly part number.

Screw Kits

Screw Kit for 980M
   980328-*
Screw Kit for 981M
   981328-*

Door Portion

(A) **Backup Plate
   900314
(B) Door Armature
   997510M-*/
(C) **Door Plate*
   998009

**Not Sold Separately – See Screw Kit
*specify finish

Door portion screws included with Wall/Floor parts.
**Used With Model 990M, 989**

**Wall Portion**

(A) Magnet Bracket 990002  
(B) Magnet **996219-3V**  
(C) Wall Cover Plate 990001

*For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.*

**Screw Kits**

Screw Kit for 990M 990300-*

**Used With Model 998M, 999M**

**Door Portion**

(A) Backup Plate 900314  
(B) Door Armature 998512M-*  
(C) Door Plate 998009

*Specify finish  
Door portion screws included with Wall/Floor parts.*

**Screw Kits**

See Screw Kit for 998M 998303-*

**Used With Model 989**

**Door Portion**

(A) Door Armature  
Attachment screw included in Kit. 444FM
**ELECTROMAGNETIC DOOR HOLDER/RELEASES**

**PARTS DRAWINGS**

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**Door Portion**

(A) **Backup Plate**
900314

(B) Adjustable Armature
994510M- *

(C) **Door Plate**
998009

(D) Adjustment Piece
900-3 *

*Specify finish

Door portion screws included with Wall/Floor parts.

---

**Wall Portion**

(A) Magnet Assembly and Bracket
**998369-3V**

(B) Cover
998315M- *

*Specify finish

For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.

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**Screw Kits**

Screw Kit for 994M/997M
998300- *

---

**Wall Portion**

(A) Surface Mounting Box Housing
996501M- *

(B) Magnet Assembly and Bracket
**996369-3V**

(C) Cover
998315M- *

*Specify finish

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.

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**Screw Kits**

Screw Kit for 996M
996325- *

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**Used With Model 994M**

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**Used With Model 994M, 997M, 998M**

---

**Used With Model 996M**

---

**Screw Kits**

Screw Kit for 996M
996325- *
**Wall Portion**

(A) Base Plate  
999105

(B) Cover  
999055- *

(C) Magnet  
**996219-3V

*specify finish

**For voltages other than (tri-volt 12 VDC, 24 VAC, 24 VDC, and 120 VAC), contact factory for magnet mounting bracket assembly part number.

**Screw Kits**

Screw Kit for 999M  
999318-*
PARTS DRAWINGS

ELECTROMAGNETIC DOOR HOLDER/RELEASES

Used With Model 972H

Screw Kit for 972H: 972190

Box
972100–12 VDC
972112–24 VAC
972118–120 VAC
972120–24 VDC

972106 Latch Unit

Cover

Used With Model 972S

Screw Kit for 972S: 972290

Box
972100–12 VDC
972112–24 VAC
972118–120 VAC
972120–24 VDC

Cover

Used With Model 972U

Screw Kit for 972U: 972390

Box
972100–12 VDC
972112–24 VAC
972118–120 VAC
972120–24 VDC

*specify finish
Used With Model 991M

Wall Portion

99102 Switch Box
99101 Gasket
99001 Wall Cover Plate

991210-120 VAC
991211-24 VAC/DC
991212-24 VDC
991214-12 VAC
991215-240 VAC
Magnet Assembly

Screw Kit for 991M: 990300- *

*specify finish

Used With Model 993M/9930M

9930M Parts
Bracket for floor mounting
993126-*
Screw kit for floor bracket
993040-*

Switch Box
993100-A Magnet Housing Assembly
Magnet and Bracket Assembly
Wall Plate
993126-689 Bracket (for 9930M)
Bracket screw pack 993040-A

Screw Kit for 993M: 993300-A
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ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, frames, door and window hardware, locks, perimeter fencing, access control and service.