Electromagnetic Door Holder/Releases

Door Control for Fire and Smoke Barrier Doors and Other Remote Door Release Applications

ASSA ABLOY, the global leader in door opening solutions
Introduction

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**

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Electromagnetic Door Holder/Releases
How to Select Product

Prior to determining the product you will need to use, begin by looking at the door and perpendicular wall relationship.

- How far is the face of the door to the wall surface? “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>1-13/16 (46)</td>
<td>990</td>
</tr>
<tr>
<td>2-5/8 (67)</td>
<td>997</td>
</tr>
<tr>
<td>3-5/8 (92)</td>
<td>998</td>
</tr>
<tr>
<td>3-3/4 (95)</td>
<td>994</td>
</tr>
<tr>
<td>4-1/8 (105)</td>
<td>996</td>
</tr>
<tr>
<td>4-3/8 (111)</td>
<td>999</td>
</tr>
<tr>
<td>5-1/8 (130)</td>
<td>998 x XK996</td>
</tr>
<tr>
<td>6-5/8 (168) min. distance from wall</td>
<td>980</td>
</tr>
<tr>
<td>6-3/4 distance between doors</td>
<td>981</td>
</tr>
</tbody>
</table>

900 base has a minimum: 1-1/2”(38mm) extension. Maximum: 10” using combination of spacers [1/2”(13mm), 3/4”(19mm), etc.] Longer armature projections may encourage abuse and/or the weight of the extended rods will pull off the face of the door.

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

### Diagram 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.
**Electromagnetic Door/Holder Releases**

**Features**
- 25 to 40 pounds holding power, 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**
All Rixson® electromagnetic door holder/releases are in compliance with ANSI/BHMA 156.15 Standards. See individual products for sub sections.

- All units UL/ULC listed
- All units listed by California State Fire Marshal

**Limited Warranty**
Rixson® electromagnetic door holder/releases are warranted for 2 years for defect. See Rixson® Price Book for specific details of the limited warranty.

**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.
Electromagnetic Door Holder/Releases
Floor Mounted
Model 980 & 981

Model 980

Application
Floor Mount
Single Door
ANSI/C00021

Product Description & Features
• Concealed Wiring
• Total Floor Space Required: 6-5/8" (168mm)
• Mounting Requirements: Conduit connects directly to floor plate

Technical Information
• 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

• Shipping Weight: 4 lbs. (1.8 kg)

Model 981

Application
Floor Mount
2 Back-to-Back Doors
ANSI/C00031

Product Description & Features
• Concealed Wiring
• Floor Space Required: 8-1/4" (210mm)
• Mounting Requirements: Conduit connects directly to floor plate

Technical Information
• 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

• Shipping Weight: 4-3/4 lbs. (2.2 kg)
**Model 989**

**Application**
- Wall Mount
- Low Profile
- Concealed Wiring
- ANSI/C00011

**Product Description & 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

**Technical Information**
- 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, .068amp
  - 12VDC, .180amp
  - 240VAC, 50/60Hz .009 amp
- Shipping Weight: 2 lbs. (0.9 kg)

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**Model 990**

**Application**
- Wall Mount
- Low Profile
- Concealed Wiring
- ANSI/C00011

**Product Description & 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

**Technical Information**
- 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, .068amp
  - 12VDC, .180amp
  - 240VAC, 50/60Hz .009 amp
- Shipping Weight: 2 lbs. (0.9 kg)
Electromagnetic Door Holder/Releases
Special Purpose Wall Mounted Magnets
Model 991 & 993

Model 991

Application
Wall Mount
Surface Wiring
Hazardous Locations
ANSI/C00011

Product Description & 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

Technical Information
• Voltage and Current:
  120VAC, 60Hz., .017 amp
  24VAC, .080 amp
  12VDC, .180 amp
  24VDC, .068 amp
  240VAC, 50/60Hz., .009 amp
• Shipping Weight: 3 lbs. (1.4 kg)

Model 993

Application
High Hold
Surface or Concealed Mounting
Floor or Wall Application

Product Description & 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
• 9930 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

Technical Information
• Voltage and Current: 24VAC/DC .25 amp
• Shipping Weight: 3 lbs. (1.4 kg)
**Model 994**

**Application**
- Wall Mount
- Adjustable Armature
- Concealed Wiring
- ANSI/C00011

**Product Description & 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

**Technical Information**
- 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, .068amp
  - 12VDC, .180amp
  - 240VAC, 50/60Hz .009 amp
- Shipping Weight: 2 lbs. (0.9 kg)

**Model 996**

**Application**
- Wall Mount
- Surface Wiring
- ANSI/C00011

**Product Description & Features**
- Total Projection: 4-1/8" (105mm)
- Mounting Requirements:
  - 1-1/2" (38mm) deep adapter housing
- Wall must be properly reinforced

**Technical Information**
- 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, .068amp
  - 12VDC, .180amp
  - 240VAC, 50/60Hz .009 amp
- Shipping Weight: 3 lbs. (1.4 kg)
**Model 997**

**Application**
- Wall Mount
- Concealed Wiring
- ANSI/C00011

**Product Description & 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

**Technical Information**
- 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
- Shipping Weight: 2 lbs. (0.9 kg)

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**Model 998**

**Application**
- Wall Mount
- Concealed Wiring
- ANSI/C00011

**Product Description & 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

**Technical Information**
- 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
- Shipping Weight: 2-1/2 lbs. (1.1 kg)
Electromagnetic Door Holder/Releases
Wall Mounted
Model 999

Model 999

Application
Universal Mounting
ANSI/C00011

Product Description & 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

Technical Information
• 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
• Shipping Weight: 2-3/4 lbs. (1.2 kg)
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 994

XK996
Part# 996631-

1-1/2" (38mm) Extension (for use only with Models 997, 998 & 994) Mounts behind wall cover.

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.

994 Swivel Armature (cannot be used with extension spacers) Part# 900-3

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"
Model 972

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

**Product Description & Features**

**Technical Information**
- Voltage and Current:
  - 120VAC, 60Hz., .150 amp
  - 24VAC, 60Hz., .150 amp
  - 24VDC, .08 amp
  - 12VDC, .08 amp
- Holding force 75#
- Shipping Weight: 5 lbs. (2.3 kg)
- ANSI/C00041

**Code Listings:**
- Underwriters' Laboratories, Inc.
- Underwriters' Laboratories of Canada
- State of California (3550-047:13)

**How to Order:**
Specify model number and voltage.
**How To Order**

<table>
<thead>
<tr>
<th>998 Series</th>
<th>120VAC Voltage</th>
<th>689 Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>980 Floor Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>981 Floor Mounted Back to Back Doors</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>989 Low Projection Wall Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>990 Low Projection Wall Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>991 Hazardous Location Wall Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>993 High Hold Wall Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>9930 High Hold Floor Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>994 Wall Mounted Adjustable Armature</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>996 Surface Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>997 Wall Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>998 Wall Mounted</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>999 Universal Wall Mounted</td>
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<tr>
<td>972H Industrial Swing Door Holder</td>
<td>—</td>
<td></td>
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<tr>
<td>972S Industrial Sliding Door Holder</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>972U Industrial Overhead/Rolling Door</td>
<td>—</td>
<td></td>
</tr>
</tbody>
</table>

**Voltages**

- BLANK 24VAC/DC
- 12VDC *12VDC
- 12VAC *120VAC
- 120VAC *240VAC
- 240VAC

**Finish**

- 689 Sprayed Alum
- 690 Sprayed Dk Brz
- 691 Sprayed Lt Brz
- 693 Sprayed Black
- 696 Sprayed Brass

*When voltage is specified, these electromagnetic door holder/releases will have 50-55 lbs. of holding force.*
Used with Model 980/981

**Floor Portion**

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

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

---

**Used with Model 990, 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.**

---

**Used with Model 994, 997, 998**

**Wall Portion**

- **(A)** Magnet Assembly and Bracket
  **998369-3V**
- **(B)** Cover
  998315-*

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

---

*S**pecify finish
## Electromagnetic Door Holder/Releases

### Parts Drawings

**Used with Model 996**

#### Wall Portion

<table>
<thead>
<tr>
<th>Part</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Surface Mounting Box Housing</td>
<td>996501-*</td>
</tr>
<tr>
<td>(B) Magnet Assembly and Bracket</td>
<td><strong>996369-3V</strong></td>
</tr>
<tr>
<td>(C) Cover</td>
<td>998315-*</td>
</tr>
</tbody>
</table>

*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.**

### Used with Model 999

#### Wall Portion

<table>
<thead>
<tr>
<th>Part</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Base Plate</td>
<td>999105</td>
</tr>
<tr>
<td>(B) Cover</td>
<td>999055-*</td>
</tr>
<tr>
<td>(C) Magnet</td>
<td><strong>996219-3V</strong></td>
</tr>
</tbody>
</table>

*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.**

### Used with Model 980/981, 990, 991, 996, 997

#### Door Portion

<table>
<thead>
<tr>
<th>Part</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) <strong>Backup Plate</strong></td>
<td>900314</td>
</tr>
<tr>
<td>(B) Door Armature</td>
<td>997510-*</td>
</tr>
<tr>
<td>(C) <strong>Door Plate</strong></td>
<td>998009</td>
</tr>
</tbody>
</table>

**Not Sold Separately – See Screw Kit**

*Specify finish

Door portion screws included with Wall/Floor parts.

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Screw Kits

**Screw Kit for 996**

996325-*

**Screw Kit for 999**

999318-*

**Screw Kit for 996**

996325-*

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In USA: (800) 457-5670 or www.rixson.com

In Canada: (800) 461-3007 or www.assaabloy.ca

ASSA ABLOY, the global leader in door opening solutions
Electromagnetic Door Holder/Releases
Parts Drawings

Used with Model 998, 999

Door Portion

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td><strong>Backup Plate</strong></td>
<td>900314</td>
</tr>
<tr>
<td>(B)</td>
<td>Door Armature</td>
<td>998512-*</td>
</tr>
<tr>
<td>(C)</td>
<td><strong>Door Plate</strong></td>
<td>998009</td>
</tr>
</tbody>
</table>

**Not Sold Separately – See Screw Kit**

*specify finish

Door portion screws included with Wall/Floor parts.

Used with Model 994

Door Portion

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>(A)</td>
<td><strong>Backup Plate</strong></td>
<td>900314</td>
</tr>
<tr>
<td>(B)</td>
<td>Adjustable Armature</td>
<td>Part 994510-*</td>
</tr>
<tr>
<td>(C)</td>
<td><strong>Door Plate</strong></td>
<td>998009</td>
</tr>
<tr>
<td>(D)</td>
<td>Adjustment Piece</td>
<td>900-3*</td>
</tr>
</tbody>
</table>

**Not Sold Separately – See Screw Kit**

*specify finish

Door portion screws included with Wall/Floor parts.

Used with Model 989

Door Portion

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td>Door Armature Attachment screw included in Kit. Part#444FM</td>
<td></td>
</tr>
</tbody>
</table>

(A)  Door Portion

Surface Applied Concealed Mounting

Thru Bolt Mounting
Used With Model 991

Wall Portion

Used With Model 993/9930

Screw Kit for 991: 990300-*
*Screws Kit for 991: 990300-*
*Screws Kit for 993: 993300-A
Electromagnetic Door Holder/Releases
Parts Drawings

Used With Model 972H

Screw Kit for 972H: 972190

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

- 972041 "U" Bracket
- 972102 Cover
- 972106 Latch Unit
- Latch

Used With Model 972S

Screw Kit for 972S: 972290

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

- 972040 Angle Bracket
- 972102 Cover
- 972106 Latch Unit
- 972044 Flat Latch Bracket
- Latch
- 972043 Threaded Latch Bracket

Used With Model 972U

Screw Kit for 972U: 972390

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

- 972040 Angle Bracket
- 972102U Cover
- 972041 "U" Bracket
- 972105 Latch Arm

*specify finish