

# DORMA EML310 & EML320 MULTIPURPOSE ELECTROMAGNETIC LOCKS

## Quick installation for enhanced building security.

Several standard features make these magnets amongst the hardest workers in the industry. The adjustable mounting bracket has been enhanced with keyhole mounting to support the magnet's weight during initial installation, freeing the installer's hands to affix the magnet mounting screws. The removable cavity cover offers quick, easy access to wiring. Both models feature a built-in, adjustable time delay with instant unlock and delayed re-lock (up to 110 seconds), which can be controlled by any standard switching device.

## DORMA Solutions

- 1500 lb (680 kg) holding force
- Bond Alert (BA), Door Position Sensor (DP), and Tamper Switch (TS) options
- Larger LED size for better visibility (Bond Alert versions only)
- 628 brushed anodized aluminum lock body
- Adjustable keyhole mounting
- Built-in time delay (instant release with adjustable re-lock, programmable from 0–110 seconds)
- Field selectable voltage—12/24 VDC
- Convenient plug-in wiring terminals
- Easy-access wiring cavity
- Stabilizing 4-bolt mounting (8-bolt for EML320)
- MOV surge protection
- No residual magnetism
- Low energy consumption
- Hardened steel armature nut
- Self-drilling tek™ fasteners

**NOTE:** When installed on access-controlled egress door assemblies, per NFPA101, must use Push to Exit labeled manual release device. DORMA push-button models PBEP, PB72, or PB73 are recommended.

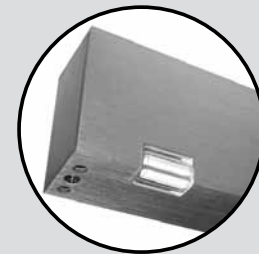
## Listings & Approvals

- UL/CUL listed under their continuing reinspection programs and conforms to standards UL 10C and GWXT positive pressure fire testing, 1 hour fire rated UL294
- ANSI/BHMA 156.23, Grade 1 listed
- CSFM pending
- Contributes to U.S. Green Building Council, LEED® MR Credits 2.1 4.1, 4.2, and 5.1

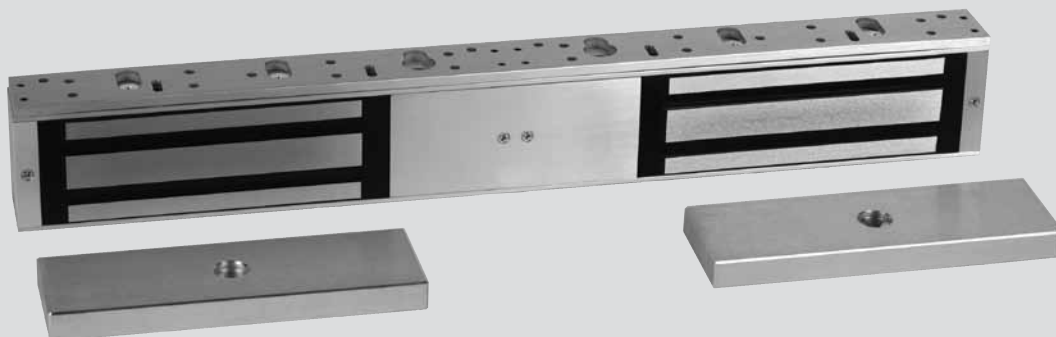
EML310 Single Outswinging Interior or Perimeter Doors



Larger LED Size for Better Visibility (Bond Alert versions only)



EML320 Double Outswinging Interior or Perimeter Doors without Mullion





Specifications	EML310	EML320
Housing Dimensions	1-5/8" D × 2-7/8" W × 10-1/2" L (41.3 mm × 73.0 mm × 266.7 mm) (including 1/4" (6 mm) mounting bracket)	1-5/8" D × 2-7/8" W × 21" L (41.3 mm × 73.0 mm × 533.4 mm) (including 1/4" (6 mm) mounting bracket)
Armature Plate Dimensions	Standard: 5/8" D × 2-3/8" W × 7-7/16" L* (15.9 mm × 60.3 mm × 188.9 mm)	Standard: 5/8" D × 2-3/8" W × 7-7/16" L* (15.9 mm × 60.3 mm × 188.9 mm)
Voltage	Field selectable 12/24 VDC Tolerance ±10%	Field selectable 12/24 VDC Tolerance ±10%
Power/Current Requirements	Max 0.28 A at 12 VDC Max 0.28 A at 24 VDC	Max 0.28 A at 12 VDC (each lock) Max 0.28 A at 24 VDC (each lock)
Holding Force	One-point locking (1500 lb)	Two-point locking (1500 lb each point)
Output Relays	BA (with LED)—SPDT 1.25 A @ 24 VDC DP—SPDT 0.20 A @ 12 VDC and 0.12 A @ 24 VDC	BA (with LED)—SPDT 1.25 A @ 24 VDC DP—SPDT 0.20 A @ 12 VDC and 0.12 A @ 24 VDC
Wiring Requirements	2 wires—power input; up to 4 wires output	2 or 4 wires—power input; up to 4 or 8 wires output
Adjustable Time Delay	0–110 seconds	0–110 seconds
Operating Temperature	14 to 140° F (–10 to 60° C)	14 to 140° F (–10 to 60° C)

\*DP armature plates are 5/8" D × 2-3/8" W × 10" L (15.9 mm × 60.3 mm × 254.0 mm) or 3/8" D × 2-3/8" W × 10" L (9.5 mm × 60.3 mm × 254.0 mm).

**NOTE:** DORMA recommends frame reinforcement and our filtered, regulated DC voltage PS500 Series power supplies.

Function	Description
Bond Alert Sensor (BA)	Electronic field presence sensor for remote and local LED indication of reduced holding force caused by materials between magnet and plate, and unlocked device due to current loss.
Door Position Sensor (DP)	Ceramic magnet-reed type sensor for remote indication of door status (opened or closed, independent of local power); magnet embedded in armature for tamper resistance; reed switch inside electronic housing cavity for easy access.
LED Indicator	Included with BA options, the LED gives a local indication of lock status: red—unsecured; green—secured.
Low-Voltage Detection	Low voltage dramatically reduces electromagnetic lock holding force. This detection feature signals the BA relay/LED to activate (alarm) when voltage drops below 10.3 VDC (12 V input) or 20.5 VDC (24 V input).

**Finish<sup>1</sup>**

**Plated**

- Brass: 605 (Bright) or 606 (Satin)
- Bronze: 613 (Oxidized Satin)
- Chrome: 625 (Bright) or 626 (Satin)

**Painted**

- Bronze: 691 (Dull)
- Black: 693
- Gold: 696 (Satin)

1. Lock body supplied in 628. All other finishes supplied as a cover.

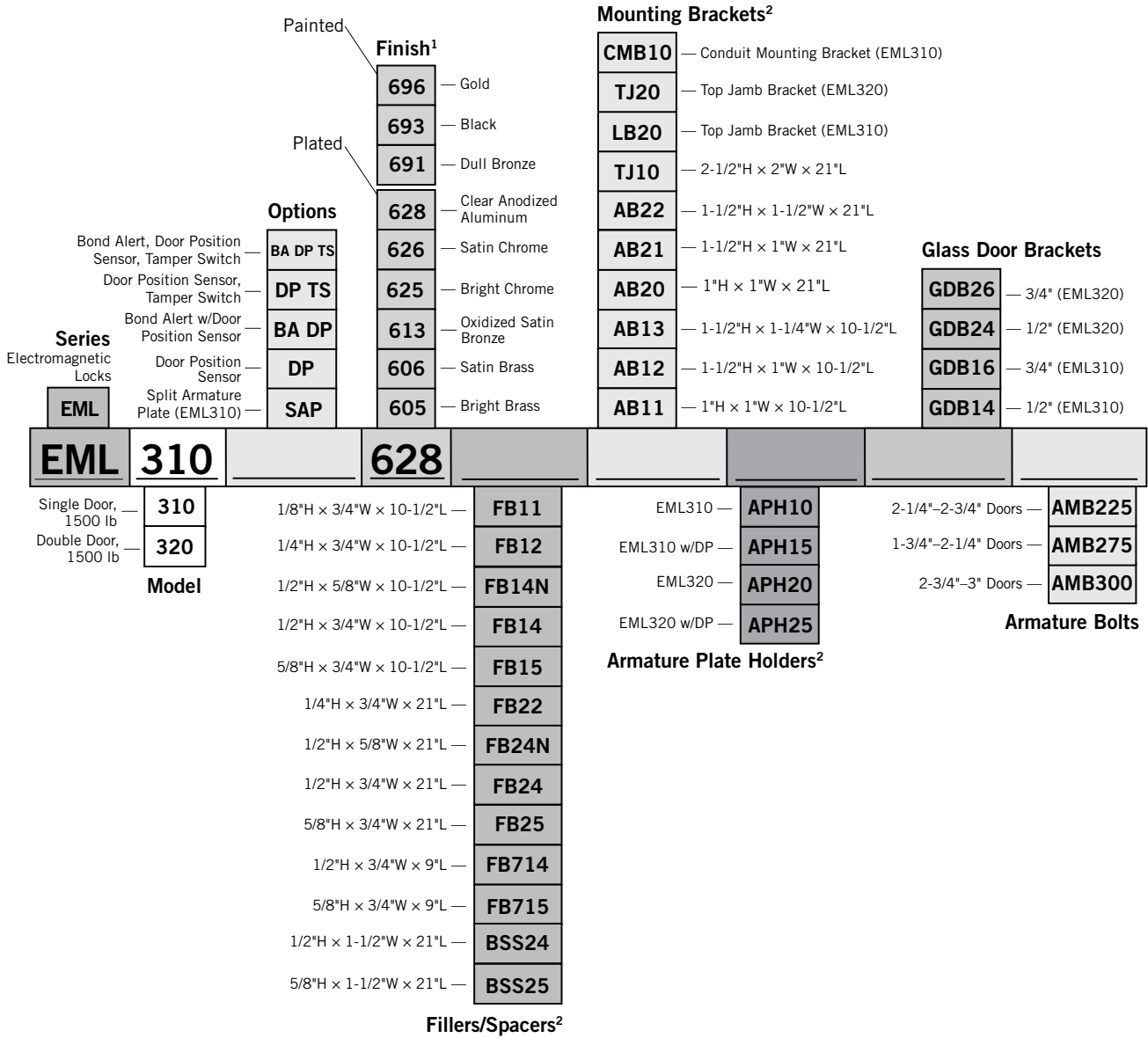
**Optional Mounting Accessories**

- Angle brackets
- Armature plate holders
- Filler bars
- Glass door brackets
- Spacers
- Top jamb **Z** bracket kits for inswinging doors
- (EML310 only—reduces holding force by half)
- Armature bolts
- **L** brackets
- DSR retrofit kit—**DSR15** (EML310) or **DSR25** (EML320)
- Split armature kit
- Magnet housing cover wraps—**MCW310** or **MCW320** (specify finish)

**Options**

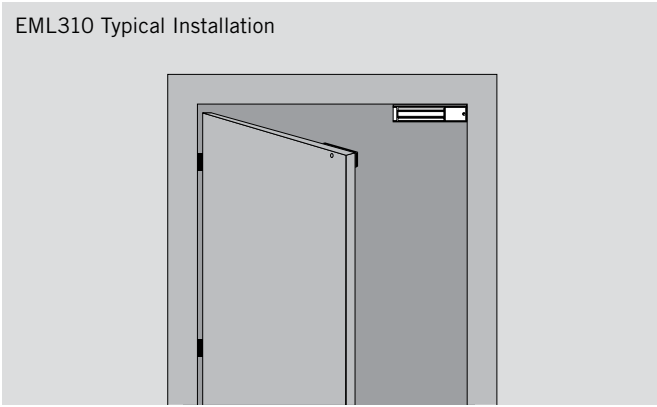
- DP**—Door position sensor (retrofit kits available)
- BA DP**—Bond alert/door position sensor combination
- DP TS**—Door position sensor and tamper switch
- BA DP TS**—Bond alert/door position sensor combination and tamper switch

# HOW TO ORDER EML310/320 SERIES

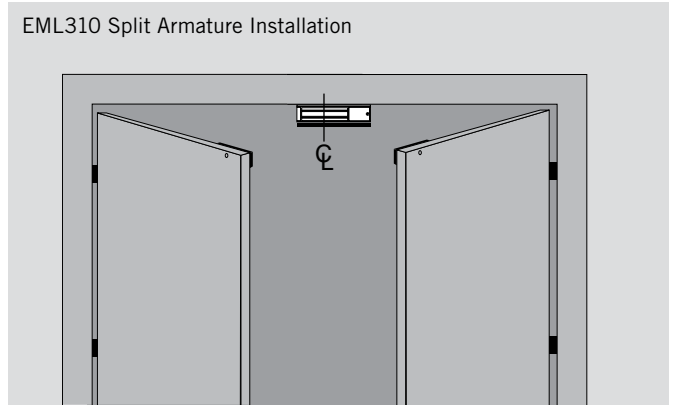


1. Lock body supplied in 628. All other finishes supplied as a cover.
2. Specify 628 or 695 finish, except FB11/LB20/CMB10 available in 628 only.

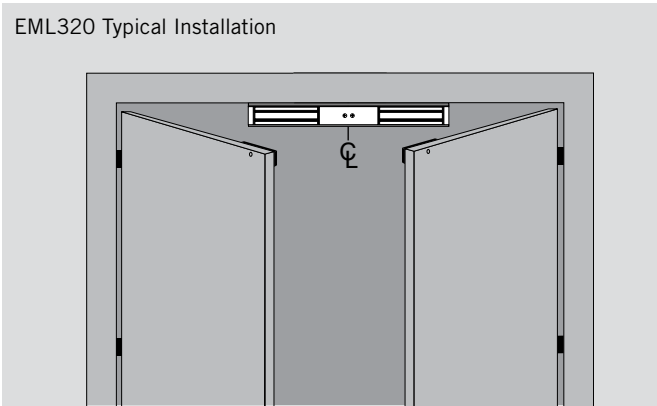
EML310 Typical Installation



EML310 Split Armature Installation



EML320 Typical Installation



DORMA also offers a complete line of Electromagnetic Locks, Electric Strikes, Door Controls, Power Supplies, Switches, Keypads & Readers, Exit Devices, Systems & Door Hardware.

[www.dorma.com](http://www.dorma.com)



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