



Shear Locks

# DORMA EMSL

# The EMSL-2000 Series Micro Shear and EMSL-2700 Series High Shear locks use an innovative locking design that incorporates a special alloy steel for greater durability and strength.

The field adjustment capabilities of these advanced locks ensure proper operation after final installation alignment. The EMSL Series shear locks also offer a field adjustable 1 to 5 second auto-relock delay timer.

The patented EMSL-2000 Series Micro Shear design, with models 2061 and 2062, has surpassed 2000 pounds tensile holding strength on laboratory tests and will withstand forces that will deform a door before the lock will separate. The 2765 and 2766 High Shear models surpass 2700 pounds. This design combines aesthetics, high security, and performance. With the most advanced features in shear lock design, the EMSL-2000 and EMSL-2700 Series create the ultimate in fail-safe performance and security.

Lateral and vertical alignment adjustment - The exclusive lateral armature alignment adjustment can compensate for minor warped or misaligned doors. Optimum vertical armature positioning is also obtained with the field adjustable design to help insure positive relocking of the door without the use of shims. Reliable performance is inherent in this design for high frequency openings.

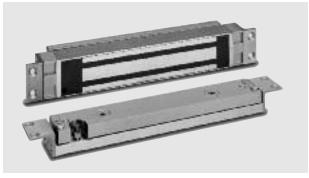
#### Models available with built-in field adjustable auto-relock switch -

The model 2062 and 2766 shear locks fit in 1-1/4" face frames and are equipped with an auto-relock switch and external field adjustable time delay of 1-5 seconds after the door is closed. The 2061 and 2765 fit in a 1-3/4" face frame. The 2061 and 2765 are equipped with a built-in auto relock switch and field adjustable time delay that suspends relocking 1-5 seconds after door closure. This feature ensures that the door is at rest and fully closed to obtain optimum alignment before the lock is energized.

Single- or double-acting doors - Models are available for use with single- or double-acting doors. Positive centering door closers are required for all double acting door applications. Several mounting assemblies are available to meet varying door and frame applications, such as aluminum, hollow metal, glass, and wood doors. These locks are also ideally suited for narrow stile glass entrance doors and frames.

Positive fail-safe security - The shear locks are inherently fail-safe. When power is off, the unit is unlocked. They are ideal for fire/life safety applications and are compatible with fire alarm systems, access controls, mantraps, automatic doors, and interlock systems.

**Complete monitoring capabilities -** Built-in door position and lock status sensors are available for interface with control and annunciator panels or other signaling applications.



#### **Technical Details:**

- Lateral and vertical field adjustment allows precise adjustment of lock and armature.
- Special alloy steel shear stops.
- Magnetic force is not compromised due to profiling of the magnet or armature.
- · Built-in field adjustable auto-relock switch.
- Models 2061 and 2765 have an external field adjustable auto-relock delay timer.
- Compact design allows installation in 1-1/4" or 1-3/4" face frames.
- Operates on 12 VDC or 24 VDC.
- Fail-safe function.
- Built-in voltage kickback protection.
- Bond sensor and door position monitoring options without need for additional holes in the frame.
- Compatible with single- or double-acting aluminum, hollow metal, wood, or glass doors.

#### Certification:

The DORMA EMSL-2000 and EMSL-2700 Series are listed by U.L. and C.U.L. under their continuing reinspection programs.

**GWXT** - Auxiliary Locks

CVXJ - Burglary-Resistant, Electrically Operated Door Locking Mechanism

#### Mechanical Specifications:

Lock: See chart on page 3 or 4

Armature: See chart on page 3 or 4

Plating: Magnet Core Plated Throughout

#### **Electrical Specifications:**

Voltage: Dual, 12/24 VDC (field selectable)

Current: See chart on page 3 or 4
Wiring: Inboard Terminals
Surge Protection: Built-in Surge Protection

#### Finishes

#### Standard Finish:

Surface Housing – Aluminum: 628 (Anodized). Mortise Housing – Nickel: 619 (Satin).

### **Optional Sprayed Finishes:**

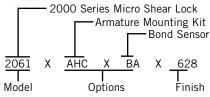
Bronze: 710 (Dark). Black: 711.

#### **Optional Plated Finishes:**

Brass: 605 (Bright) or 606 (Satin). Bronze: 611 (Bright) or 612 (Satin). Chrome: 625 (Bright) or 626 (Satin).



#### How to Order:



- 2061 Built-in auto-relock and time delay. Lock and armature are mortised. Single- or double-acting (2000 lb).
- 2061S Surface mount push side of door (2000 lb).
- 2061TJ Surface mount pull side of door (2000 lb).
- 2062 Built-in auto-relock and time delay. Lock and armature are mortised. Minimum 1-1/4" frame face. Single- or double-acting (2000 lb).
- **2062SC** Semi-concealed push side of door. Lock is mortised.
- **2062SC x GBRKT -** Semi-concealed with glass door bracket (GBRKT). Lock is mortised (2000 lb).
- 2765 Built-in auto-relock and time delay. Lock and armature are mortised. Single- or double-acting (2700 lb).
- 2766 Built-in auto-relock and external time delay.

  Minimum 1-1/4" frame face. Single- or double-acting (2700 lb).

#### **Options:**

- AHC Armature mounting kit for aluminum or steel doors with 7/8" to 1-1/8" deep web depth; also for wood doors
- **FC** Armature mounting kit for field prepared horizontal mounting in steel doors with a flush edge
- AC Armature mounting kit for aluminum doors with 1-15/16" deep web depth

Note: Add suffix "M" for micro shear lock armatures, i.e. AHCM

- DPS-1 Door Position Switch SPDT 250 mA max.
- ATR Aluminum top rail armature bracket for leading edge adjustments
- **BA** Bond Alert Sensor SPDT 250 mA max. (not available on 2062 or 2766)
- $\mbox{\sc L-3}$  External LED that mounts separately through the frame

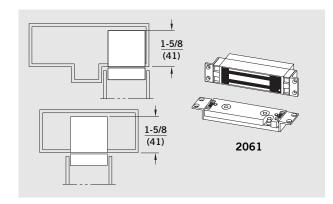
BR64XL - Rectifier for AC input

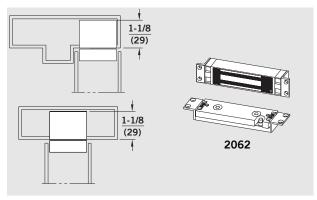
WDRBM - Wood door reinforcement box (micro shear)

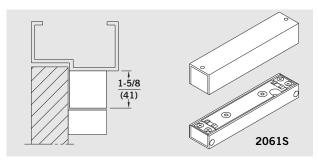
WDRB - Wood door reinforcement box (high shear)

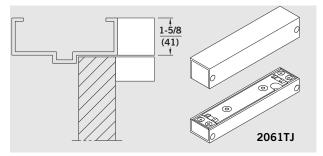
When incorporating the shear locks into a system with other DORMA electrical components, DORMA's Technical Services Department offers assistance with point to point wiring diagrams. Please contact them with specific requirements.

Models: 2061/2062 Micro Shear Locks											
Model	Lock Dimension			Holding	Voltage/Current		Armature				
	Length	Width	Depth	Force	12 VDC	24 VDC	Length	Width	Depth		
2061	8"	1-1/2"	1-5/8"	2000 lb	650 mA	350 mA	8-7/16"	1-1/2"	7/8"		
2062	8"	1-1/2"	1-1/8"	2000 lb	650 mA	350 mA	8-7/16"	1-1/2"	7/8"		

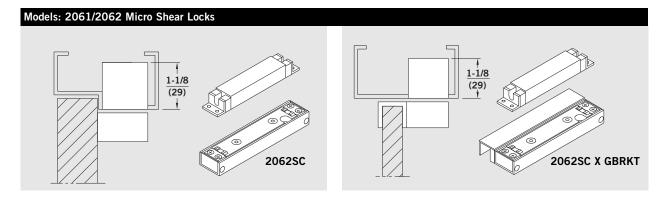




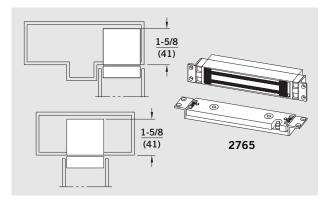


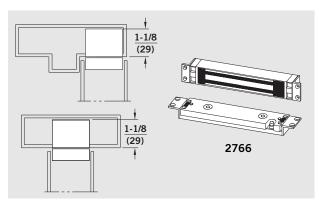


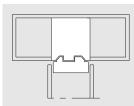




Models: 2765/2766 High Shear Locks										
Model	Lock Dimension			Holding Voltage/	Current		Armature			
	Length	Width	Depth	Force	12 VDC	24 VDC	Length	Width	Depth	
2765	10-7/16"	1-1/2"	1-5/8"	2700 lb	800 mA	400 mA	11"	1-1/2"	7/8"	
2766	10-7/16"	1-1/2"	1-1/8"	2700 lb	800 mA	400 mA	11"	1-1/2"	7/8"	

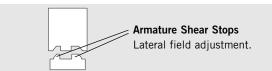


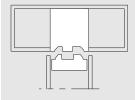




#### Lock energized with door closed and locked.

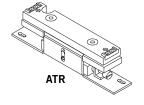
When the lock is energized, it is held against the lock face magnetically. The armature shear stops are then positioned between the pair of shear stops preventing lateral movement.

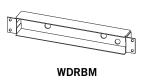




#### De-energized with door closed and unlocked.

The armature is disengaged from the lock and retracted into the door.





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