



Grade 1 Heavy Duty Mortise Locksets



# CONTENTS

Grade 1 Mortise Locksets	Features	3	
	Technical Details/Specifications	4	
How to Order	Locks	5	
	Keyways	6	
Trim Options	M9000 Standard Levers	6	
	M9000 Premium Levers	7	
	Wrought Roses	7	
	Escutcheons	7	
Functions	Available Functions	8	
Electromechanical Options	Electrical Requirements	14	
	Monitoring Options	14	
Lock Options	4-7/8" Non-Handed Strike	15	
	4-7/8" Handed Strike	15	
	Tactile Warning (Knurling)	15	
	Occupancy Indicators	15	

DORMA USA quality and environmental management systems in Reamstown, PA and Steeleville, IL are certified to ISO 9001:2008 and ISO 14001:2004.





2

### M9000 - GRADE 1 HEAVY-DUTY MORTISE LOCKSETS

# Exceptional security, enhanced aesthetics, and rugged dependability.

These premium performance locksets are built with a heavy-duty mortise chassis for all applications where ANSI/BHMA A156.13 Grade 1 products are required. To meet the aesthetic needs of your project, these versatile locks are available in a range of lever and knob trim designs.

#### **Features**

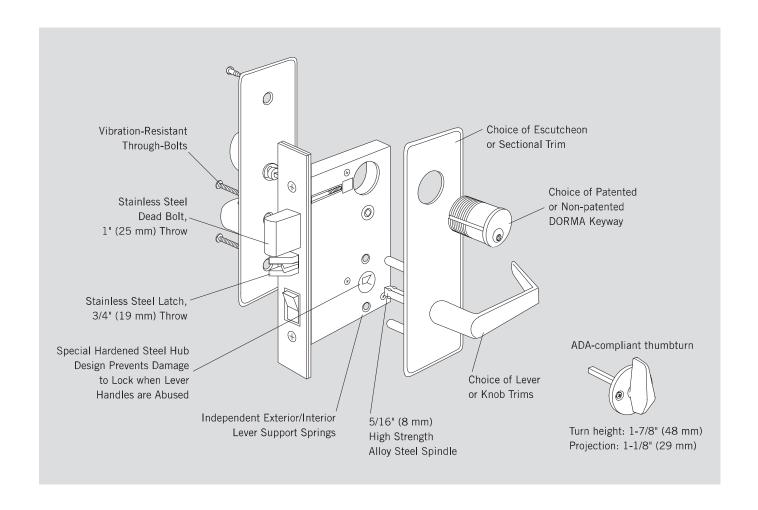
- M9000 Series mortise locks feature advanced design concepts for extreme reliability and are manufactured with the finest materials for exceptional durability.
- M9000 locks provide a wide variety of functions and the most popular finishes.
- Special, high-strength springs and a positive stop eliminate unsightly sagging levers.
- Select components are manufactured with highstrength steel or stainless steel, providing an extremely strong, highly durable lock.

- Trims utilize 5/16" (8 mm) high-strength alloy steel spindles for extra durability.
- Levers, knobs, roses, and escutcheons are manufactured from brass, bronze, or stainless steel.
- All levers—solid cast/forged brass or stainless.
- All roses—wrought brass or stainless.
- Escutcheons—
   H: cast/forged brass or stainless.

   M: wrought brass or stainless.

#### **Recommended Applications**

- Schools and Universities
- Hotels
- Apartments
- Hospitals and Nursing Homes
- Churches
- Municipal Buildings
- Airports
- Retail Complexes
- Offices
- Warehouses



#### **Technical Details**

- Standard door thickness 1-3/4"-2-1/4".
- 2-3/4" backset.
- Stainless steel dead bolt with hardened steel roller pins for strength, durability, and saw resistance.
- Security spacer between inside and outside lever hubs in lock case protects lock from unauthorized entry and vandalism.
- Steel lock case and internal components provide additional strength.
- Pivoting face plate allows lock case to fit flat face, standard bevel, and reverse bevel door applications.
- Full length interlocking face plate supports both the latch and dead bolts against forced entry.
- Chassis can be easily handed in the field.

- All trim through-bolted through the lock case for positive alignment.
- Universal non-handed curve lip strike for all functions.
- Premium PVD (physical vapor deposition) finishes for consistent durable color.
- Accepts standard and interchangeable core cylinders.

# Certification/ Compliance ANSI/BHMA

Meets A156.13 Series 1000, operational and security Grade 1.



Meets A117.1 accessibility code and ADA requirements for barrier-free accessibility.

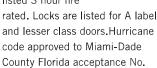


LISTED

UL/CUL – UL 10C Positive Pressure

All M9000 are listed 3 hour fire

12-0508.06.



California State Reference Code (formerly title 19, California State Fire Marshall standard) All levers with returns, return to

All levers with returns, return to within 1/2" (13 mm) of door face.

#### Cylinders and Keying

- Unless otherwise specified, cylinders will be provided in SC keyway with two (2) nickel silver keys.
- Optional patented key system available.

#### Warranty

For details, refer to **DORMA Limited Warranty** on our website at **go.dorma.com/terms.** 

#### **Finishes**

- Brass: 605 PVD (Bright) or 606 PVD (Satin)
- Bronze: 612 PVD (Satin) or 613 PVD (Dark Oxidized Satin)
- Nickel: 619 PVD (Satin)
- Chrome: 625 (Bright) or 626 (Satin)
- Stainless: 629 (Bright) or 630 (Satin)

**NOTE:** Consult factory for finishes not shown.



**Antimicrobial Protected Coating** 

ANSI/BHMA A156.18 standards

Specify AM.

Special Finish Notes

In some instances, for customer convenience, the most appropriate BHMA finish symbols are used to indicate similarity of appearance, regardless of base metal or finishing process. Finishes of latches, strikes, cylinders/cores, and visible mounting screws, though similar in appearance, may differ from the finish of the trim. Finish designations in the 600 numbers are the BHMA (Builders

#### **Security Screws**

Torx® tamper-resistant screws are available for all exposed screws. Specify **TX**.

Hardware Manufacturers

Association) industry standard.



LT Lever with H Escutcheon

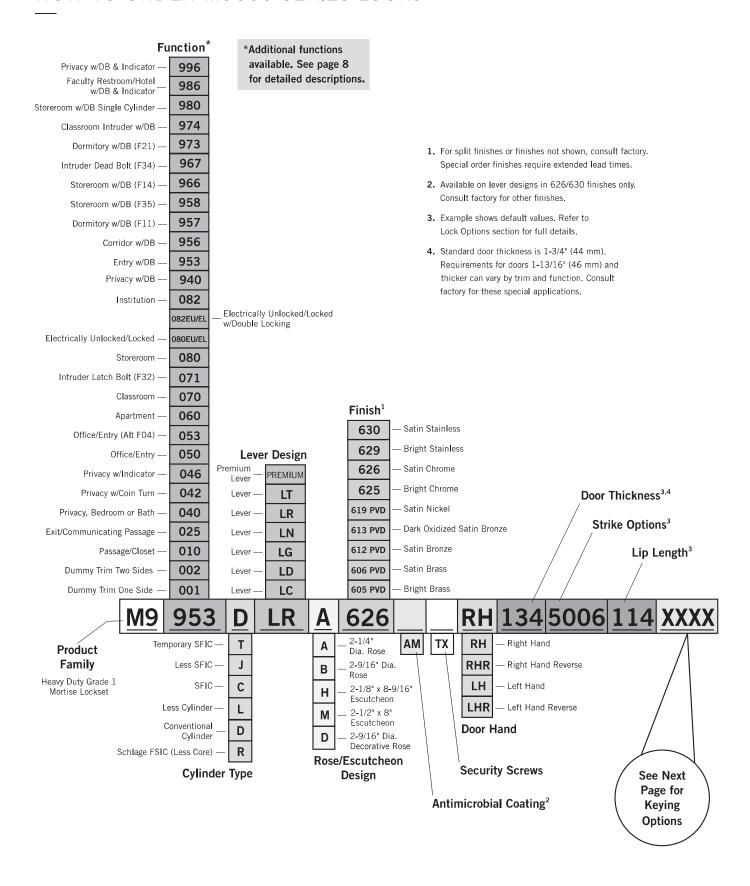


LR Lever with B Rose



KB Knob with B Rose

### HOW TO ORDER M9000 SERIES LOCKS



## HOW TO ORDER KEYWAYS

Keying Standard 0-Bitted OBIT Keyways Construction СМК Master Keyed MKD Master Keyed Non-Stock Keyed **NSK** Keyed Alike, KA4 Sets of 4 Keyed Alike, KA2 Sets of 2 Keyed Different KD SC KD SC Schlage C SE - Schlage E - DORMA SKC D100 CA - Corbin 60 CD - Corbin 59A1 CE — CorbinRusswin L4 RA - Russwin 981 - Russwin D1 RB GA — Sargent LA — Schlage F

SF

WA

YA

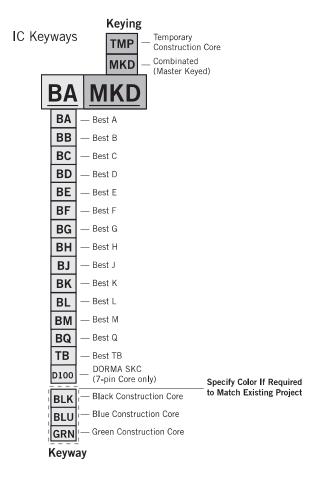
YG

Keyway

— Weiser E

– Yale 8

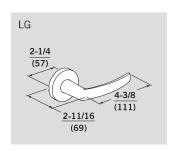
– Yale GA

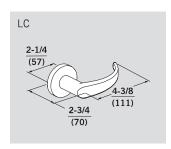


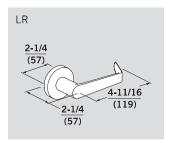
# TRIM OPTIONS

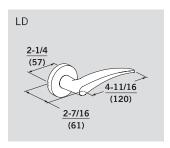
#### Standard Levers

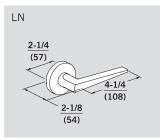
Retrofit Keyways Available 0-Bitted Only

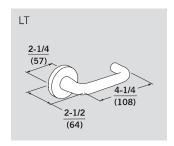




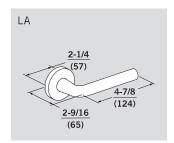


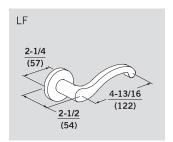


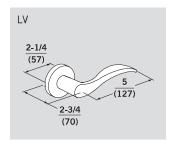


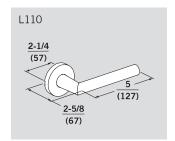


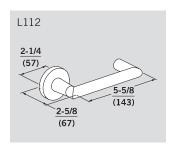
#### **Premium Levers**

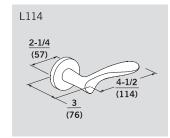


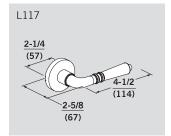


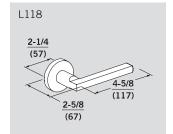


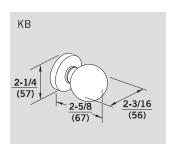




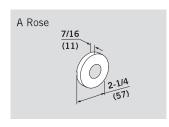


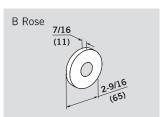


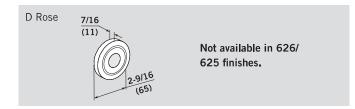




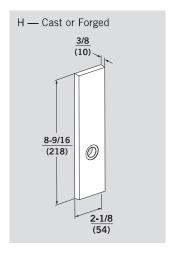
#### Wrought Roses

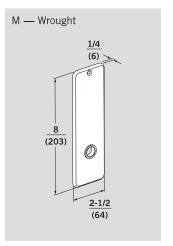






#### Escutcheons





**NOTE:** Levers with returns return to within 1/2" (13 mm) of the door face.

# **FUNCTIONS**

Function	Series	Outside/Inside	Description
Dummy Trim One Side	M9001		Used as pull or matching trim on pairs of doors.
Dummy Trim Two Sides	M9002		Used as pull or matching trim on pairs of doors.
Dummy Trim One Side	M9003 (w/lockcase)		<ul> <li>Used as pull or matching trim on pairs of doors.</li> <li>Trim always rigid.</li> </ul>
Dummy Trim Two Sides	M9004 (w/lockcase)		<ul> <li>Used as pull or matching trim on pairs of doors.</li> <li>Trim always rigid.</li> </ul>
Passage/Closet	M9010	F01	■ Latch bolt operated by trim either side.
Exit/ Communicating Passage	M9025	F31	<ul> <li>Latch bolt operated by inside trim.</li> <li>Blank trim or no outside trim.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>



**CAUTION:** Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Function	Series	Outside/Inside	Description
Privacy, Bedroom or Bath	M9040	F22	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by inside turn.</li> <li>When locked, outside trim unlocked by inside trim, by closing door, by rotating inside turn, or by emergency release.</li> </ul>
Privacy with Coin Turn Outside	M9042		<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by inside turn or coin turn outside.</li> <li>When locked, outside trim unlocked by inside trim, by closing door, by rotating inside turn, or by rotating coin turn outside.</li> </ul>
Privacy with Indicator	M9046		<ul> <li>Latch bolt operated by trim either side, except when outside trim is locked by inside turn.</li> <li>When locked, outside trim unlocked by inside trim, by rotating inside turn, or by coin turn outside.</li> <li>When outside trim is locked, "OCCUPIED" message is displayed.</li> <li>Latch bolt deadlocked when outside trim is locked.</li> </ul>
Office/Entry	M9050	10 F04	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by stopworks.</li> <li>When outside trim locked, latch bolt retracted by key outside or operated by inside trim.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>
Office/Entry	M9053	12 F04	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by key outside or by inside turn.</li> <li>When outside trim locked, latch bolt retracted by key outside or by inside trim.</li> <li>Outside trim remains locked until inside turn rotated to unlocked position or unlocked by key.</li> <li>Auxiliary latch deadlocks latch bolt when door locked.</li> </ul>
Office/Entry with Automatic Unlocking	M9056		<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by key outside or by inside turn.</li> <li>When outside trim locked, latch bolt retracted by key outside or by inside trim.</li> <li>Outside trim unlocked by key outside or by inside turn.</li> <li>Rotating inside trim simultaneously retracts latch bolt and unlocks outside trim.</li> <li>Auxiliary latch deadlocks latch bolt when door locked.</li> </ul>
Apartment	M9060	13 Fo9 12	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by key inside.</li> <li>When outside trim locked, latch bolt retracted by key outside or by inside trim.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>



Function	Series	Outside/Inside	Description
Classroom	M9070	12 F05	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by key outside.</li> <li>When outside trim locked, latch bolt operated by inside trim.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>
Classroom Intruder Latch Bolt	M9071	F32	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by key either side.</li> <li>When outside trim locked, latch bolt operated by key either side or by operating inside trim.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>
Holdback	M9076	12 F06	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by key outside.</li> <li>Latch bolt can be locked in a retracted position by key.</li> <li>When outside trim locked, latch bolt operated by key outside or trim inside, unless latch bolt locked in retracted position.</li> <li>Auxiliary latch deadlocks latch bolt.</li> <li>NOTE: Not approved for use on UL fire listed applications.</li> </ul>
Holdback Double Cylinder	M9077		<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by key either side.</li> <li>Latch bolt can be locked in a retracted position by key.</li> <li>When outside trim locked, latch bolt operated by key outside or trim inside, unless latch bolt locked in retracted position.</li> <li>Auxiliary latch deadlocks latch bolt.</li> <li>NOTE: Not approved for use on UL fire listed applications.</li> </ul>
Storeroom	M9080	10 F07	<ul> <li>Latch bolt retracted by key outside or operated by inside trim.</li> <li>Outside trim always rigid.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>
Electrically Locked Fail Safe	M9080EL M9080ELRX M9080ELRXLM	11 EL	<ul> <li>Outside trim locked when power is on.</li> <li>Outside trim unlocked when power is interrupted.</li> <li>Latch by key outside.</li> <li>Inside trim always unlocked.</li> <li>Auxiliary latch deadlocks latch bolt.</li> <li>RX—Request to exit</li> <li>LM—Latch monitoring</li> </ul>
Electrically Unlocked Fail Secure	M9080EU M9080EURX M9080EURXLM	EU EU	<ul> <li>Outside trim unlocked when power is on.</li> <li>Outside trim locked when power is interrupted.</li> <li>Latch by key outside.</li> <li>Inside trim always unlocked.</li> <li>Auxiliary latch deadlocks latch bolt.</li> <li>RX—Request to exit</li> <li>LM—Latch monitoring</li> </ul>



**CAUTION:** Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Function	Series	Outside/Inside	Description
Electrically Locked Fail Safe with Double Locking	M9082EL	11 ELL	<ul> <li>Outside and inside trim locked when power is on.</li> <li>Outside and inside trim unlocked when power is interrupted.</li> <li>Latch by key either side.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>
Electrically Unlocked Fail Secure with Double Locking	M9082EU	EU EU	<ul> <li>Outside and inside trim unlocked when power is on.</li> <li>Outside and inside trim locked when power is interrupted.</li> <li>Latch by key either side.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>
Institution	M9082	10 F30	<ul> <li>Latch bolt operated by key either side.</li> <li>Auxiliary latch deadlocks latch bolt.</li> <li>Trim both sides always rigid.</li> </ul>
Privacy with Dead Bolt	M9940	F19	<ul> <li>Latch bolt operated by trim either side, except when projected dead bolt locks outside trim and deadlocks latch.</li> <li>Dead bolt operated by turn inside.</li> <li>Dead bolt operated by emergency release outside.</li> <li>Inside trim operates both bolts simultaneously and unlocks outside trim.</li> </ul>
Privacy with Dead Bolt and Coin Turn Outside	M9942		<ul> <li>Latch bolt operated by trim either side, except when projected dead bolt locks outside trim and deadlocks latch.</li> <li>Dead bolt operated by turn inside or coin turn outside.</li> <li>Rotating outside coin turn retracts dead bolt and unlocks outside trim.</li> <li>Inside trim operates both bolts simultaneously and unlocks outside trim.</li> </ul>
Entry with Dead Bolt	M9953	F20	<ul> <li>Latch bolt operated by trim either side, except when outside locked by stopworks.</li> <li>Dead bolt operated by key outside or turn inside.</li> <li>Key operates both dead bolt and latch bolt.</li> <li>Inside lever operates both bolts; outside trim remains locked.</li> <li>Latch bolt deadlocked when outside lever locked, or dead bolt projected.</li> <li>When dead bolt retracted, outside trim unlocked by stopworks.</li> </ul>
Security Entrance	M9954		<ul> <li>Latchbolt operated by trim either side, except when outside trim locked by key outside or turn inside</li> <li>Dead bolt operated by key outside, turn inside and retracted by inside lever</li> <li>Key outside retracts deadbolt only — not latch</li> <li>Inside lever operates both bolts; outside trim remains locked until unlocked by key outside</li> <li>Deadlocking latch bolt</li> </ul>



Function	Series	Outside/Inside	Description
Corridor with Dead Bolt	M9956	11 F13	<ul> <li>Latch bolt operated by trim either side, except when projected dead bolt locks outside trim and deadlocks latch.</li> <li>Dead bolt and latch retracted by key outside.</li> <li>Dead bolt projected by turn inside or key outside.</li> <li>Inside trim operates both bolts and unlocks outside trim.</li> </ul>
Dormitory with Dead Bolt	M9957	F11	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked either by stopworks or projected dead bolt.</li> <li>Dead bolt operated by key either side.</li> <li>Dead bolt deadlocks latch bolt.</li> <li>Inside trim operates both bolts simultaneously; outside trim remains locked.</li> </ul>
Storeroom with Dead Bolt	M9958	F35	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by stopworks.</li> <li>Dead bolt operated by key either side.</li> <li>Latch bolt operated by inside lever.</li> </ul>
Dormitory/Exit with Dead Bolt	M9959	11 F12	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked either by stopworks or projected dead bolt.</li> <li>Dead bolt operated by key outside or turn inside.</li> <li>Dead bolt deadlocks latch bolt.</li> <li>Inside trim operates both bolts simultaneously; outside trim remains locked.</li> </ul>
Cylinder × Turn Dead Bolt (only)	M9960	F17	■ Dead bolt operated by key outside or by turn inside.
Cylinder × Blank Dead Bolt (only)	M9961	F18	■ Dead bolt operated by key outside only.
Cylinder × Cylinder Dead Bolt (only)	M9962	F16	■ Dead bolt operated by key either side.



**CAUTION:** Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Function	Series	Outside/Inside	Description
Classroom Dead Bolt (only)	M9963		<ul> <li>Dead bolt operated by key outside.</li> <li>Turn inside retracts but does not project dead bolt.</li> </ul>
Storeroom with Dead Bolt	M9966	F29	<ul><li>Latch bolt operated by trim either side.</li><li>Dead bolt operated by key either side.</li></ul>
		11 F14	
Intruder Dead Bolt	M9967	F34	<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by key either side.</li> <li>Dead bolt operated by key either side.</li> <li>Inside trim operates both bolts and unlocks outside trim.</li> <li>Latch bolt deadlocked when dead bolt thrown.</li> </ul>
Dormitory with Dead Bolt	M9973	F21	<ul> <li>Latch bolt operated by trim either side.</li> <li>Dead bolt operated by key outside or by turn inside.</li> </ul>
Classroom Intruder with Dead Bolt	M9974		<ul> <li>Latch bolt operated by trim either side, except when outside trim locked by projection of dead bolt.</li> <li>Dead bolt projected or retracted by key either side.</li> <li>Inside trim operates both bolts simultaneously; outside trim remains locked.</li> <li>Key either side unlocks outside trim allowing latch bolt to be retracted by trim.</li> <li>Auxiliary latch deadlocks latch bolt.</li> </ul>
Storeroom with Dead Bolt	M9980		<ul> <li>Latch bolt operated by key outside or by trim inside.</li> <li>Outside trim always rigid.</li> <li>Dead bolt projected by key outside or by turn inside.</li> <li>Inside trim operates both bolts simultaneously.</li> <li>Auxiliary latch or dead bolt deadlocks latch bolt.</li> </ul>
Faculty Restroom/ Hotel with Dead Bolt	M9985	F15	<ul> <li>Latch bolt operated by key outside or trim inside.</li> <li>Outside trim always rigid.</li> <li>Latch bolt retracted by key outside.</li> <li>Dead bolt projected by turn inside, and all keys, except emergency key, are shut out.</li> <li>Inside trim operates both bolts simultaneously.</li> <li>Auxiliary latch or dead bolt deadlocks latch bolt.</li> </ul>



Function	Series	Outside/Inside	Description
Faculty Restroom/ Hotel with Dead Bolt and Indicator	M9986		<ul> <li>Latch bolt operated by key outside or trim inside.</li> <li>Outside trim always rigid.</li> <li>Latch bolt retracted by key outside.</li> <li>Dead bolt projected by turn inside, and all keys, except emergency key, are shut out.</li> <li>Inside trim operates both bolts simultaneously.</li> <li>Auxiliary latch or dead bolt deadlocks latch bolt.</li> <li>Indicator message reads OCCUPIED/VACANT or SECURED/UNSECURED.</li> </ul>
Privacy with Dead Bolt and Indicator	M9996		<ul> <li>Latch bolt operated by trim either side.</li> <li>Dead bolt operated by key outside (key required in the event of an emergency) or by turn inside.</li> <li>Projecting dead bolt locks outside trim, deadlocks latch, and displays OCCUPIED message.</li> <li>Inside trim operates both bolts simultaneously and unlocks outside trim.</li> <li>Optional message SECURED/UNSECURED included.</li> </ul>

# **ELECTROMECHANICAL OPTIONS**

#### **Electromechanical Functions**

- Electrically locked (fail safe).
- Electrically unlocked (fail secure).

#### Electrical Requirements for Solenoid Functions

Voltage: 24 VDC regulated,

filtered.

Current: 0.21 A.

UL and CUL listed for use on fire doors.

- Solenoids are rated for continuous duty.
- Repeated operation at voltage exceeding +/-10% is not recommended.

#### **Monitoring Options**

Single pole double throw (SPDT) type C switches, rated 2 A @ 30 VDC

**RX** — Request-to-exit signaling switch.

- A single switch mounted internally in the lock body that provides independent monitoring of inside lever rotation.
- Available on the following functions: M9010, M9025, M9050, M9080, M9080EL, M9080EU.

When ordering specify **RX**. Example: M9010RX.

LM — Latch bolt monitor.

- A single switch mounted internally in the lock body signaling latch bolt position.
- Available on the following functions: M9010, M9025, M9050, M9053, M9070, M9071, M9080, M9082,M9080EL, M9080EU, M9080ELRX, M9080EURX, M9082EL, M9082EU.

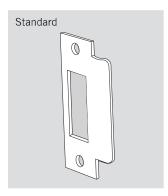
When ordering specify **LM**. Example: M9080EURXLM.

RX and LM monitoring available on the following functions: M9010, M9025, M9050, M9080, M9080EL, M9080EU. When ordering specify **RX LM**. Example: M9010RXLM.

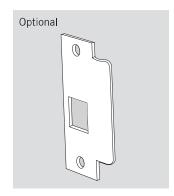
**NOTE:** Opening the lock case or the replacement of the solenoid or switches in the field by non-authorized personnel voids UL label and lock warranty.

### LOCK OPTIONS

#### Strikes



**5006** — ANSI 1-1/4"  $\times$  4-7/8" curved lip strike. 1-1/4" lip length. Default non-handed strike for all M9000 Series lock functions. Strikes are available in the following lip lengths: 7/8", 1-1/2", 1-3/4", 2", and 2-1/4". Includes dust box.



**5007** — ANSI 1-1/4"  $\times$  4-7/8" curved lip strike. 1-1/4" lip length. Optional handed strike for the following non-dead bolt functions: M9010, 9040, 9042, 9046, 9050, 9053, 9056, 9070, 9076, 9080, 9080EL/EU, 9080EL/EURX, 9060, 9071, 9077, 9082, 9082EL/EU. Includes dust box.

**NOTE:** Handed strikes are not available in extended lip lengths.

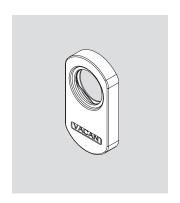
#### Tactile Warning (Knurling)



Grooved or knurled levers available on LR, LT and LG designs only. All other lever and knob designs available with abrasive coating only.

#### **Occupancy Indicators**

Occupancy indicators for M9000 Series with sectional trim are available for dead bolt applications where door status confirmation is required. Available keyed or non-keyed and can be used outside, inside, or on both sides of door. Emergency override on non-keyed available.



**79019** — Indicator for rose trim used with cylinder, reading OCCUPIED/VACANT or SECURED/UNSECURED. Both readings supplied.



**79020** — Indicator for rose trim used without cylinder, emergency access, reading OCCUPIED/ VACANT.



**79021** — Indicator for rose trim used without cylinder, reading SECURED/UNSECURED. No emergency access. Used on inside of door with 79019 on outside.



**79022** — Indicator with cointurn for rose trim used without cylinder, reading OCCUPIED/ VACANT.

#### NOTES:

- Occupancy indicators are for use on 1-3/4"–2-1/8" thick doors. Consult factory for thicker door applications.
- Indicators will work on the following functions but may have unexpected operation on lock sets that remain locked when the dead bolt is retracted: M9046, 9056, 9940, 9942, 9953, 9956, 9957, 9959, 9960, 9961, 9962, 9966, 9967, 9968, 9973, 9974, 9980, 9985, 9986, 9996
- Specify Finish. Example: 79019 626.



www.dorma.com

