

MILITARY - ENVIRONMENTALLY SEALED SWITCHES MIL-DTL-3950 Lever Lock Switches

Series - 8503, 8504, 8505

| FEATURES | | SPECIFICATIONS | | CURRENT RATINGS | | | | | | |
|--|---|----------------|----------------|-------------------|-----------|----------------|----------------|--------------------|----------------|----------------|
| <ul style="list-style-type: none"> Environmentally sealed 1, 2 and 4 pole circuitry 2 & 3 position with maintained and momentary action Locking actuator for safety Molded-in terminal inserts and terminal numbers | <ul style="list-style-type: none"> Environmentally sealed per MIL-DTL-3950 MS approved and QPL'd per MIL-DTL-3950 Thermoset molding materials meet flame retardant requirements Bushing: 15/32" - 32 thread Temperature Range: -85°F to +160°F (-65°C to +71°C) Life: 20,000 operations at rated load 40,000 operations mechanical life | No. of Poles | Catalog Number | Type of Operation | 28VDC | | | 115VAC 60 or 400Hz | | |
| | | | | | Lamp Load | Resistive Load | Inductive Load | Lamp Load | Resistive Load | Inductive Load |
| | | 1 | 8503 | Maintained | 5 | 20 | 15 | 3 | 15 | 10 |
| | | | | Momentary | 4 | 15 | 10 | 2 | 15 | 7 |
| | | 2 | 8504 | Maintained | 7 | 20 | 15 | 4 | 15 | 15 |
| | | | | Momentary | 5 | 18 | 10 | 2 | 11 | 8 |
| | | 4 | 8505 | Maintained | 5 | 20 | 12 | 4 | 15 | 15 |
| | | | | Momentary | 4 | 18 | 10 | 2 | 11 | 8 |

Minimum Rating: "Intermediate Current" per MIL-DTL-3950.

LEVER LOCK SELECTION TABLE



8503



8504



8505

| CIRCUIT WITH LEVER IN . . . | | | | ONE POLE | | TWO POLE | | FOUR POLE | |
|-----------------------------|-----------------|------------------------|--------------------------|-----------------------|----------------|-----------------------|----------------|-----------------------|----------------|
| Up Position | Center Position | Down Position (Keyway) | Lever Lock Bushing Style | Flush Screw Terminals | | Flush Screw Terminals | | Flush Screw Terminals | |
| | | | | MS Part Number | Catalog Number | MS Part Number | Catalog Number | MS Part Number | Catalog Number |
| ON → | ← OFF → | ← ON | A | MS24658-21A | 8503K1 | MS24659-21A | 8504K1 | MS24660-21A | 8505K1 |
| ON | ← OFF → | ← ON | B | -21B | K27 | -21B | K27 | -21B | K27 |
| ON → | ← OFF → | ← ON | D | -21D | K5 | -21D | K5 | -21D | K5 |
| ON | ← OFF → | ← ON | E | -21E | K2 | -21E | K2 | -21E | K2 |
| ON → | ← OFF → | ← ON | F | -21F | K28 | -21F | K28 | -21F | K28 |
| ON | ← OFF → | ← ON | G | MS24658-21G | 8503K3 | MS24659-21G | 8504K3 | MS24660-21G | 8505K3 |
| ON → | ← OFF → | ← ON | H | -21H | K29 | -21H | K29 | -21H | K29 |
| ON | ← OFF → | ← ON | J | -21J | K30 | -21J | K30 | -21J | K30 |
| ON → | ← OFF → | ← ON | K | -21K | K31 | -21K | K31 | -21K | K31 |
| ON | ← OFF → | ← ON | L | -21L | K32 | -21L | K32 | -21L | K32 |
| ON → | ← OFF → | ← ON | M | MS24658-21M | 8503K33 | MS24659-21M | 8504K33 | MS24660-21M | 8505K33 |
| ON | ← OFF → | ← ON | N | -21N | K4 | -21N | K4 | -21N | K4 |
| ON | ← OFF → | ← ON | P | -21P | K34 | -21P | K34 | -21P | K34 |
| ON → | NONE | ← OFF | D | -22D | K10 | -22D | K10 | -22D | K10 |
| ON → | NONE | ← OFF | F | -22F | K35 | -22F | K35 | -22F | K35 |
| ON | NONE | ← OFF | G | MS24658-22G | 8503K9 | MS24659-22G | 8504K9 | MS24660-22G | 8505K9 |
| ON → | NONE | ← ON | D | -23D | K6 | -23D | K6 | -23D | K6 |
| ON → | NONE | ← ON | F | -23F | K36 | -23F | K36 | -23F | K36 |
| ON | NONE | ← ON | G | -23G | K7 | -23G | K7 | -23G | K7 |
| ON | ← OFF | NONE | E | -24E | K16 | -24E | K16 | -24E | K16 |
| ON → | ← OFF → | NONE | F | MS24658-24F | 8503K37 | MS24659-24F | 8504K37 | MS24660-24F | 8505K37 |
| ON → | ← OFF → | NONE | K | -24K | K38 | -24K | K38 | -24K | K38 |
| ON → | ← OFF → | NONE | M | -24M | K11 | -24M | K11 | -24M | K11 |
| ON → | NONE | ON * | F | -26F | K20 | -26F | K20 | -26F | K20 |
| * ON | ← OFF → | ON * | E | MS24658-27E | 8503K12 | MS24659-27E | 8504K12 | MS24660-27E | 8505K12 |
| * ON | ← OFF → | ON * | L | -27L | K39 | -27L | K39 | -27L | K39 |
| * ON | ← OFF → | ON * | N | -27N | K14 | -27N | K14 | -27N | K14 |
| NONE | ← OFF → | ON * | E | -28E | K15 | -28E | K15 | -28E | K15 |
| ON → | NONE | OFF * | F | -29F | K21 | -29F | K21 | -29F | K21 |
| OFF → | NONE | ON * | F | MS24658-30F | 8503K19 | MS24659-30F | 8504K19 | MS24660-30F | 8505K19 |
| ON | ← OFF → | ON * | E | -31E | K18 | -31E | K18 | -31E | K18 |
| ON → | ← OFF → | ON * | F | -31F | K40 | -31F | K40 | -31F | K40 |
| ON → | ← OFF → | ON * | K | -31K | K41 | -31K | K41 | -31K | K41 |
| ON | ← OFF → | ON * | L | -31L | K13 | -31L | K13 | -31L | K13 |

* Momentary contact.

→ Indicates direction against which lever is locked.

See page A71 for circuit diagrams.

Ⓛ Reference bushing styles on page A26.

MILITARY - ENVIRONMENTALLY SEALED SWITCHES

Series - 8503, 8504, 8505

MIL-DTL-3950 Lever Lock Switches

LEVER LOCK SELECTION TABLE, CONT'D



8503



8504



8505

| CIRCUIT WITH LEVER IN . . . | | | ONE POLE | | TWO POLE | | FOUR POLE | | |
|-----------------------------|-----------------|------------------------|--------------------------|-----------------------|----------------|-----------------------|----------------|-----------------------|----------------|
| Up Position | Center Position | Down Position (Keyway) | Lever Lock Bushing Style | Flush Screw Terminals | | Flush Screw Terminals | | Flush Screw Terminals | |
| | | | | MS Part Number | Catalog Number | MS Part Number | Catalog Number | MS Part Number | Catalog Number |
| ON→ | ← OFF | ON * | M | MS24658-31M | 8503K17 | MS24659-31M | 8504K17 | MS24660-31M | 8505K17 |
| ON | ← OFF | ON * | N | -31N | K8 | -31N | K8 | -31N | K8 |
| * ON | ← ON | NONE | E | -32E | K23 | -32E | K23 | -32E | K23 |
| ON | ← ON | NONE | E | -33E | K24 | -33E | K24 | -33E | K24 |
| ON→ | ON | NONE | F | -33F | K25 | -33F | K25 | -33F | K25 |
| ON→ | ← ON | NONE | K | MS24658-33K | 8503K26 | MS24659-33K | 8504K26 | MS24660-33K | 8505K26 |
| ON→ | ← ON | NONE | M | -33M | K42 | -33M | K42 | -33M | K42 |
| ON→ | ← ON → | ← ON | A | — | — | MS27408-1A | K43 | MS27409-1A | K43 |
| ON | ← ON → | ← ON | B | — | — | -1B | K44 | -1B | K44 |
| ON→ | ON | ← ON | D | — | — | -1D | K45 | -1D | K45 |
| ON | ← ON → | ON | E | — | — | MS27408-1E | 8504K46 | MS27409-1E | 8505K46 |
| ON→ | ON | ON | F | — | — | -1F | K47 | -1F | K47 |
| ON | ON | ← ON | G | — | — | -1G | K48 | -1G | K48 |
| ON→ | ON→ | ON | H | — | — | -1H | K49 | -1H | K49 |
| ON | ← ON | ← ON | J | — | — | -1J | K50 | -1J | K50 |
| ON→ | ← ON → | ON | K | — | — | MS27408-1K | 8504K51 | MS27409-1K | 8505K51 |
| ON | ON→ | ON | L | — | — | -1L | K52 | -1L | K52 |
| ON→ | ← ON | ON | M | — | — | -1M | K53 | -1M | K53 |
| ON | ← ON | ON | N | — | — | -1N | K54 | -1N | K54 |
| ON | ON→ | ← ON | P | — | — | -1P | K55 | -1P | K55 |
| ON | ← ON → | ON* | E | — | — | MS27408-2E | 8504K56 | MS27409-2E | 8505K56 |
| ON→ | ON | ON* | F | — | — | -2F | K57 | -2F | K57 |
| ON→ | ← ON → | ON* | K | — | — | -2K | K58 | -2K | K58 |
| ON | ON→ | ON* | L | — | — | -2L | K59 | -2L | K59 |
| ON→ | ← ON | ON* | M | — | — | -2M | K60 | -2M | K60 |
| ON | ← ON | ON* | N | — | — | MS27408-2N | 8504K61 | MS27409-2N | 8505K61 |
| * ON | ← ON → | ON* | E | — | — | -3E | K62 | -3E | K62 |
| * ON | ON→ | ON* | L | — | — | -3L | K63 | -3L | K63 |
| * ON | ← ON | ON* | N | — | — | -3N | K64 | -3N | K64 |
| ON→ | ← ON → | ← ON | A | — | — | -4A | K65 | — | — |
| ON | ← ON → | ← ON | B | — | — | MS27408-4B | 8504K66 | — | — |
| ON→ | ON | ← ON | D | — | — | -4D | K67 | — | — |
| ON | ← ON → | ON | E | — | — | -4E | K68 | — | — |
| ON→ | ON | ON | F | — | — | -4F | K69 | — | — |
| ON | ON | ← ON | G | — | — | -4G | K70 | — | — |
| ON→ | ON → | ON | H | — | — | MS27408-4H | 8504K71 | — | — |
| ON | ← ON | ← ON | J | — | — | -4J | K72 | — | — |
| ON→ | ← ON → | ON | K | — | — | -4K | K73 | — | — |
| ON | ON→ | ON | L | — | — | -4L | K74 | — | — |
| ON→ | ← ON | ON | M | — | — | -4M | K75 | — | — |
| ON | ← ON | ON | N | — | — | MS27408-4N | 8504K76 | — | — |
| ON | ON→ | ← ON | P | — | — | -4P | K77 | — | — |
| ON | ← ON → | ON* | E | — | — | -5E | K78 | — | — |
| ON→ | ON | ON* | F | — | — | -5F | K79 | — | — |
| ON→ | ← ON → | ON* | K | — | — | -5K | K80 | — | — |
| ON | ON→ | ON* | L | — | — | MS27408-5L | 8504K81 | — | — |
| ON→ | ← ON | ON* | M | — | — | -5M | K82 | — | — |
| ON | ← ON | ON* | N | — | — | -5N | K83 | — | — |
| * ON | ← ON → | ON* | E | — | — | -6E | K84 | — | — |
| * ON | ON→ | ON* | L | — | — | -6L | K85 | — | — |
| * ON | ← ON | ON* | N | — | — | -6N | K86 | — | — |
| ON | ← ON-OFF→ | ← ON | B | — | — | -7B | K87 | — | — |

* Momentary contact.

→ Indicates direction against which lever is locked.

See page A71 for circuit diagrams.

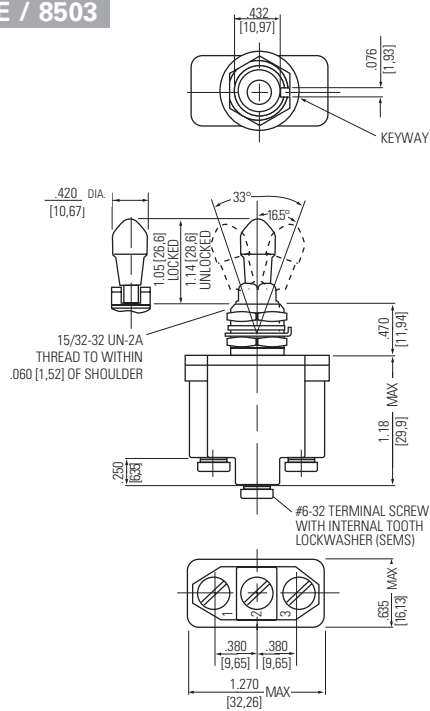
① Reference bushing styles on page A26.

MILITARY - ENVIRONMENTALLY SEALED SWITCHES

MIL-DTL-3950 Lever Lock Switches

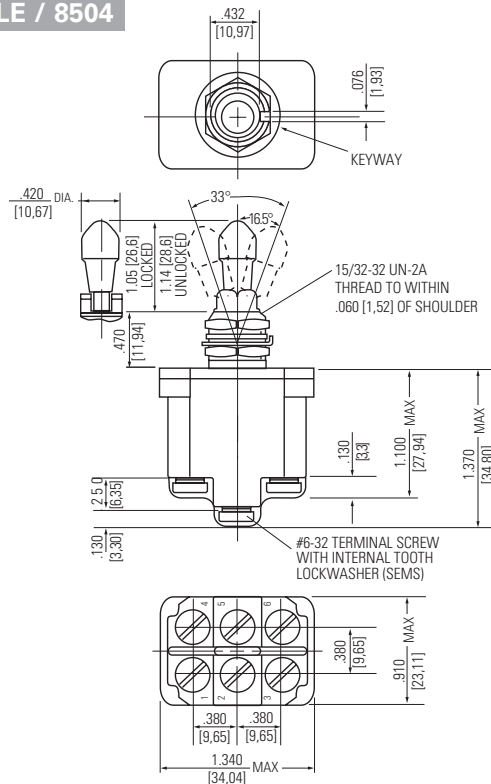
Series - 8503, 8504, 8505

MOUNTING DIMENSIONS - ONE POLE / 8503



Terminal Identification

MOUNTING DIMENSIONS - TWO POLE / 8504



Terminal Identification

STANDARD
0.00 = inches
[0,0] = mm

Mounting dimensions for reference only.

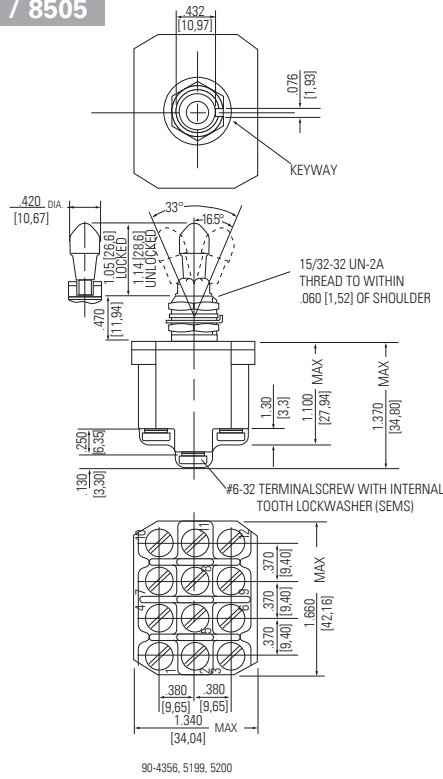
Non-functional terminals not supplied.

MILITARY - ENVIRONMENTALLY SEALED SWITCHES

Series - 8503, 8504, 8505

MIL-DTL-3950 Lever Lock Switches

MOUNTING DIMENSIONS - FOUR POLE / 8505



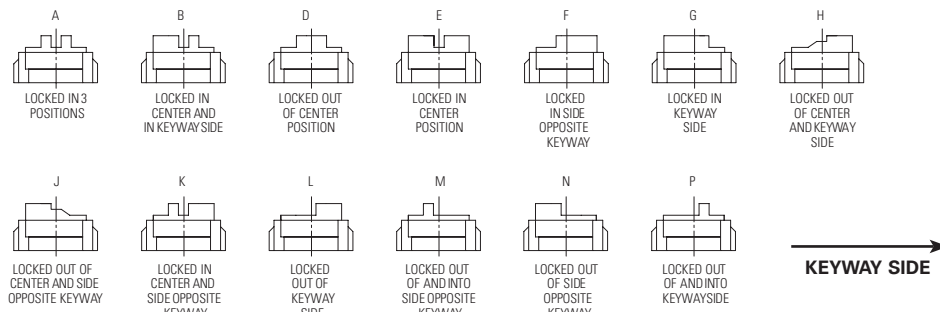
Terminal Identification

Non-functional terminals not supplied.

OPTIONS/ACCESSORIES

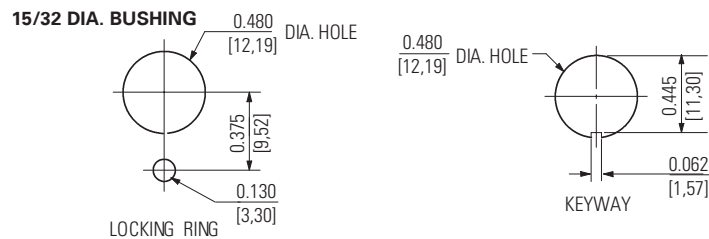
- Special mounting hardware
- Mounting hardware furnished assembled
- Terminal screws furnished assembled
- Substitute SEMS screws
- Special circuits
- Panel seal, part number 32-341 (See Accessories and Custom Components section)
- Special shaped caps available
- Custom wiring harnesses

LEVER LOCK - BUSHING STYLES



Figures A thru P do not represent details of construction. They schematically illustrate locking function.

PANEL CUTOUT DIMENSIONS



STANDARD
0.00 = inches
[0,0] = mm

Mounting dimensions for reference only.