

M Series Half-inch Rotary Switches

Features/Benefits

- Multi-pole and multi-positions
- Panel and PCB mounting
- Stainless steel actuator
- Non-shorting contacts
- RoHS Compliant
- IP67 (F option only)

Typical Applications

- Test equipment
- Industrial equipment
- Medical equipment



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Models Available

Specifications

CONTACT RATING: Q contact material: Carry-6 AMPS continuous. Switch-250 mA max. @ 125 V AC or 28 DC. Non-shorting contacts standard. See page K-16 for additional ratings.

ELECTRICAL LIFE: 10,000 make-and-break cycles at 150 mA, 125 V AC or 28 DC.

CONTACT RESISTANCE: Below 20 mΩ typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: 10^{10} Ω min.

DIELECTRIC STRENGTH: 600 Vrms min. @ sea level.

OPERATING & STORAGE TEMPERATURE: -30°C to 85°C.

OPERATING TORQUE: 4-7 ounces-inches typ. initial.

SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

Materials

HOUSING AND BUSHING: Zinc alloy, bright zinc plated, with clear chromate finish.

ACTUATOR: Zinc alloy, nickel plated or stainless steel.

BASE: Diallylphthalate (DAP) or melamine phenolic, with insert molded terminals.

ROTOR: Glass filled polyester (UL 94V-0).

MOVABLE CONTACTS:

Non-shorting: Q contact material: Copper alloy, silver plated. See page K-16 for additional contact materials.

STATIONARY CONTACT & ALL TERMINALS: Q contact material: Copper alloy, silver plated. All terminals insert molded. All terminals present regardless of number of switch positions. See page K-16 for additional contact materials.

CONTACT SPRING: Music wire, phosphate coated.

STOP PIN: Stainless steel.

STOP RING: Brass.

HARDWARE: Nut: Brass, nickel plated; Lockwasher: Steel, nickel plated.

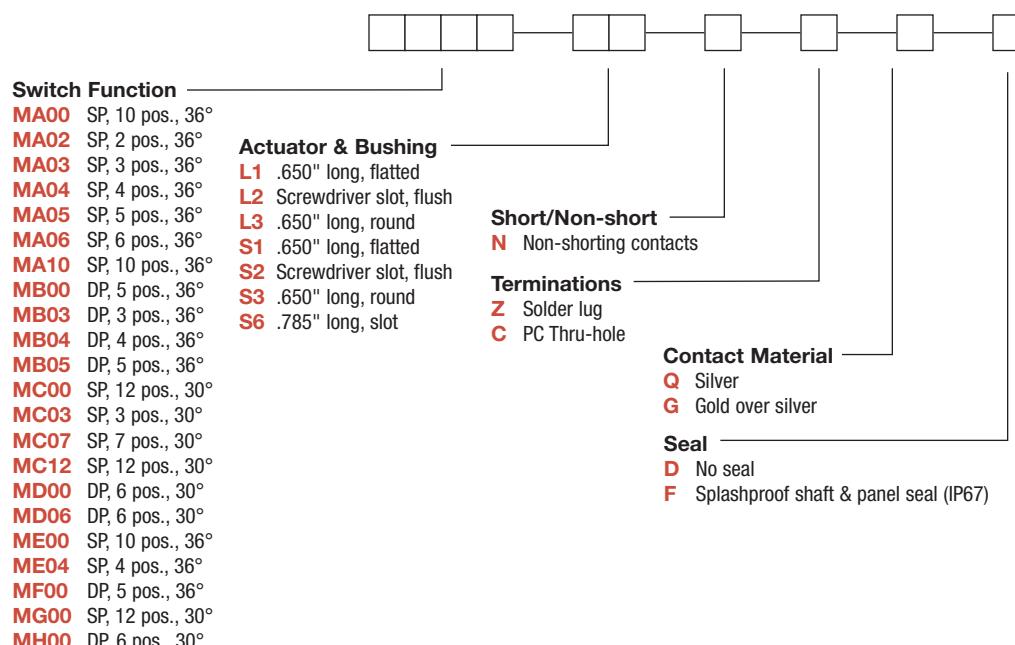


K

Rotary

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages K-14 thru K-17. For additional options not shown in catalog, consult Customer Service Center.



C&K

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

M Series

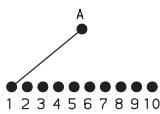
Half-inch Rotary Switches

SWITCH FUNCTION

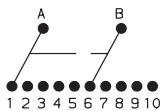


36° INDEXING			
NO. POLES	MODEL NO. WITH STOP PINS	MODEL NO. WITH STOP RINGS	SWITCH FUNCTION
SP	MA00	ME00	10 Positions No Stops
	MA02	—	2 Positions
	MA03	—	3 Positions
	MA04	ME04	4 Positions
	MA05	—	5 Positions
	MA06	—	6 Positions
	MA10	—	10 Positions
DP	MB00	MF00	5 Positions No Stops
	MB03	—	3 Positions
	MB04	—	4 Positions
	MB05	—	5 Positions

SP MODELS 36° INDEXING SCHEMATIC

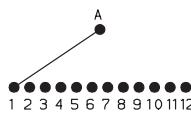


DP MODELS 36° INDEXING SCHEMATIC

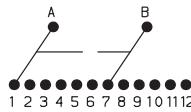


30° INDEXING			
NO. POLES	MODEL NO. WITH STOP PINS	MODEL NO. WITH STOP RINGS	SWITCH FUNCTION
SP	MC00	MG00	12 Positions No Stops
	MC03	—	3 Positions
	MC07	—	7 Positions
DP	MC12	—	12 Positions
	MD00	MH00	6 Positions No Stops
	MD06	—	6 Positions

SP MODELS 30° INDEXING SCHEMATIC



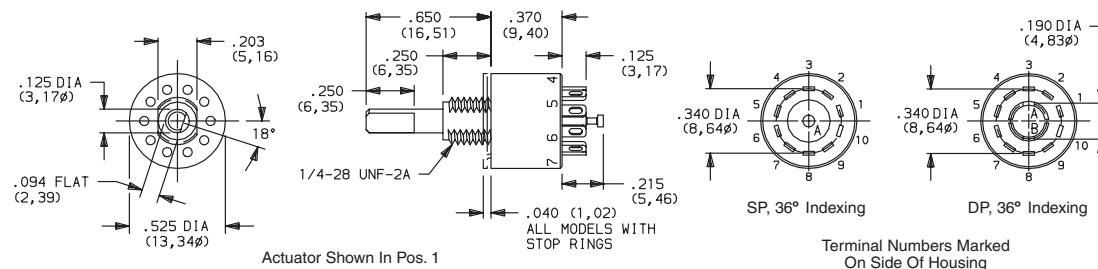
DP MODELS 30° INDEXING SCHEMATIC



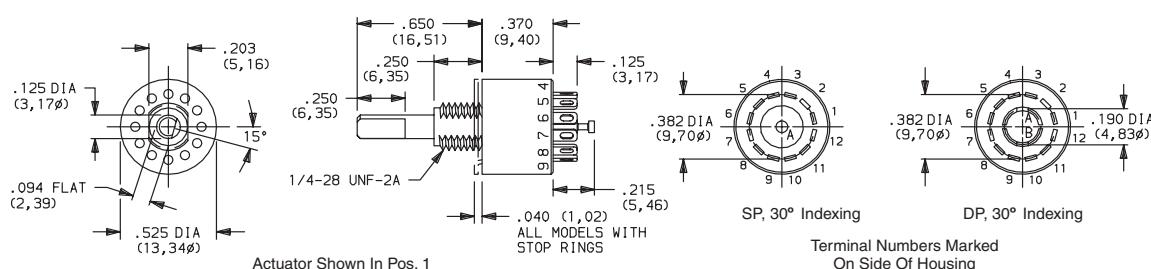
All models **C&K** with all options when ordered with S1-S6 stainless steel actuator options.

NOTE: Number of positions or stops preset at factory (NOTE: MX00 models have full 360 rotation with no stops. Stop pins or stop rings supplied for user-selectable stops, see above). All terminals present regardless of number of switch positions. Hardware is available separately, see section "Technical Data and Additional Hardware".

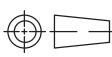
Rotary
K



Part number shown: MA00L1NZQD



Part number shown: MC00L1NZQD



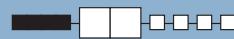
Third Angle
Projection

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

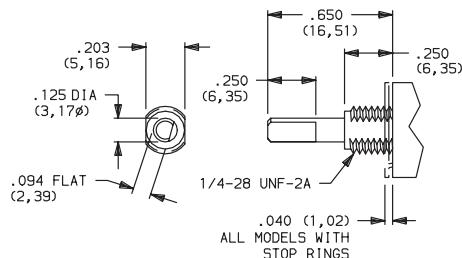
C&K

M Series Half-inch Rotary Switches

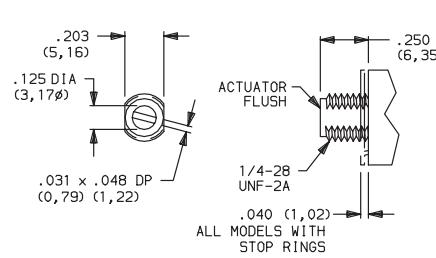
ACTUATOR (ZINC ALLOY)



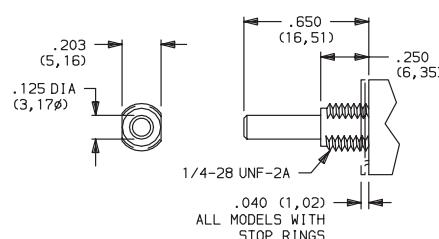
L1 .650" LONG, FLATTED



L2 SCREWDRIVER SLOT, FLUSH



L3 .650" LONG, ROUND

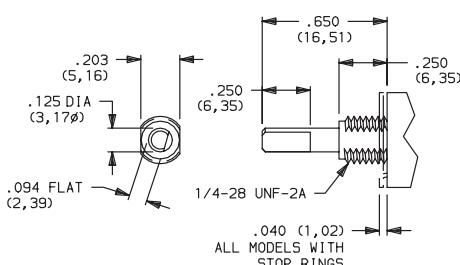


All actuators shown in pos. 1

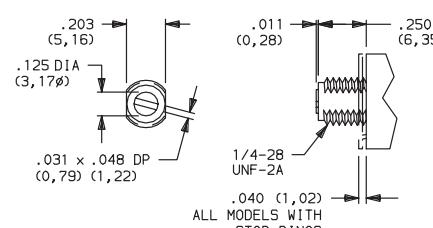
ACTUATOR (STAINLESS STEEL)



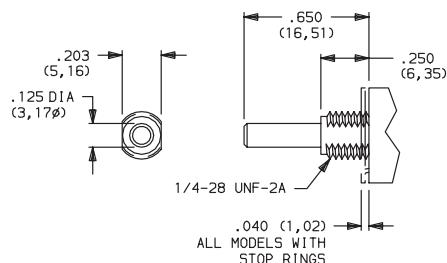
S1 .650" LONG, FLATTED



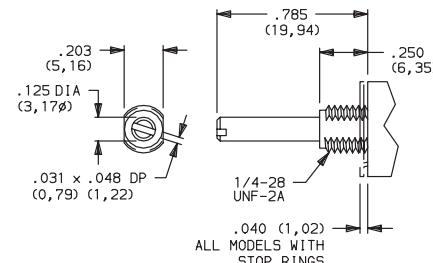
S2 SCREWDRIVER SLOT, FLUSH



S3 .650" LONG, ROUND

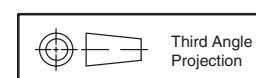


S6 .785" LONG, SLOT



All actuators shown in pos. 1

All models when ordered with stainless steel actuators.



Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change



M Series

Half-inch Rotary Switches

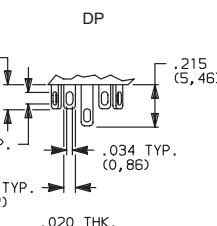
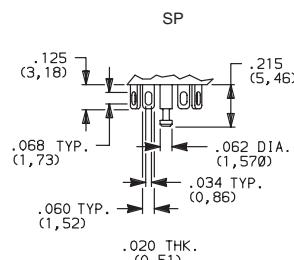
SHORTING/NON-SHORTING CONTACTS

N NON-SHORTING CONTACTS

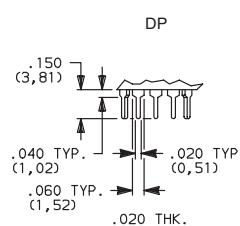
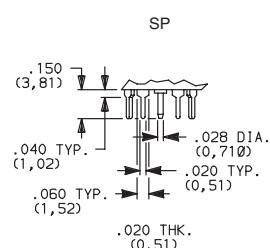
Break-before-make

TERMINATIONS

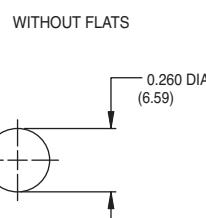
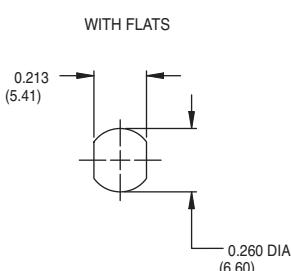
Z SOLDER LUG



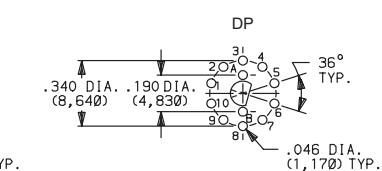
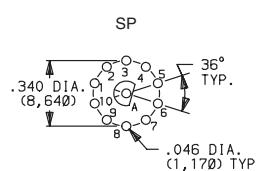
C PC THRU-HOLE



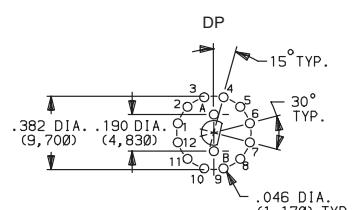
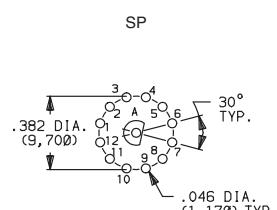
PANEL MOUNTING



PC MOUNTING 36° INDEXING



PC MOUNTING 30° INDEXING



Rotary

Hardware: All models, one mounting nut and lockwasher supplied standard. MA00 thru MD00 models: two stop pins and adhesive mylar washer supplied. ME00 thru MH00 models: two stop rings supplied. Hardware is available separately, see section "Technical Data and Additional Hardware".

* Will withstand 12 in. - lbs of torque with no distortion.

NOTE: Q contact material standard. Terminal numbers marked on side of housing. All terminals insert molded. All terminals present regardless of number of switch positions.

Actuators and schematics shown in pos. 1.

CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATING	
Q	SILVER ^{1, 2}	SILVER ²	POWER	CARRY: 6 AMPS CONTINUOUS. SWITCH: 250 mA @ 125 V AC or 28 V DC.
G	GOLD OVER SILVER ^{3, 4}	GOLD ⁴	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX. @ 20 V AC or DC MAX. or, CARRY: 6 AMPS CONTINUOUS. SWITCH: 250 mA @ 125 V AC or 28 V DC.

* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.

¹ MOVABLE CONTACTS: Non-shorting: Copper alloy, silver plated.

NOTE: Any models supplied with Q, G contact material are RoHS compliant.

² STATIONARY CONTACTS & ALL TERMINALS: Copper alloy, silver plated.

³ MOVABLE CONTACTS: Non-shorting: Copper alloy, with gold plate over nickel plate, over silver plate.

All models  when ordered with S1-S6 stainless steel actuator options.

⁴ STATIONARY CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate over silver plate.



Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

C&K

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

C&K Components:

[537202000](#) [MB00L2NZQD](#) [MD00L1NZQF](#) [MF00L1NZGD](#) [MA00L3NCGD](#) [MA03L1NZQD](#) [MB03S1NZGD](#)
[MB05L1NCGD](#) [MC00L1NZQD](#) [MD00L1NCQD](#) [MD00S1NCGF](#) [MD06L1NZQD](#) [MD06L2NZQD](#) [MA05S6NCGD](#)
[MB04L2NZGD](#) [MA03L2NZGF](#) [MC00L3NCGF](#) [MA04L1NZGD](#) [MA05L3NZGF](#) [MB05L1NZGF](#) [MB03L3NCGD](#)
[MD00L2NCGF](#) [MA04L2NCQF](#) [MC03L2NCQD](#) [MB04L3NCGF](#) [MA10S1NZGF](#) [MA06L2NZGF](#) [MA02L2NCQF](#)
[MA05L2NZGD](#) [MB05L2NZQD](#) [MA00L2NZQF](#) [MA00S6NCGD](#) [MA03S1NZQF](#) [MA05L3NZGD](#) [MB04L1NCGD](#)
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[MB00L3NZGF](#) [MB05L1NCGF](#) [MA03L2NZQF](#) [MA03L1NZQF](#) [MA03L2NCQD](#) [MC12L2NZQD](#) [MD06L2NZQF](#)
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