



MICRO SWITCH™ Premium
Large Basic Switches
DT | MN | MT | TB Series



MICRO SWITCH™ Premium Large Basic Switches

MICRO SWITCH™ premium large snap-action series are designed for repeatability and enhanced life. These series of precision switches feature application-specific characteristics. From double-break circuitry to handling power duty electrical loads, MICRO SWITCH™ premium large snap-action series switches are suitable for a variety of applications.

DT Series switches consist of two independent single-pole double throw (dpdt) contacts in one housing controlled by an integral common actuator. The DPDT contact configuration provides a contact for the control circuit and a different contact for the signal or auxiliary circuit.

MT Series magnetic blow-out switches are designed to switch high-capacity (125 Vdc/250 Vdc) electrical loads. An integral magnet around the contact gap deflects the arc away from the contacts, extending switch life. Vents between the cover and housing allow the hot gas to escape.

Easy to gang mount, MN Series single pole double throw double-break switches are for use with limit or control mechanisms on machine tools, presses, or other industrial equipment.

MICRO SWITCH™ TB Series miniature single pole double throw double break switches offer a means of controlling circuits similar to the MN series switches except in a smaller package.

What makes our switches better?

- Industry-leading temperature ranges of -55 °C to 85 °C [-67 °F to 185 °F]
- Switches with DPDT circuits (each pole electrically independent) can control two independent circuits in small package size eliminating need for a second switch or a two-pole relay, thereby reducing total system cost
- High capacity Vdc available for power duty control of electrical loads, such as dc motors and dc solenoids



Great system design flexibility

VALUE • DESIGN FLEXIBILITY • RELIABILITY

Features and Benefits

YEARS OF PERFORMANCE - NO MATTER THE ENVIRONMENT

MICRO SWITCH™ DT and TB Series feature **industry-leading temperature ranges** of -55 °C to 85 °C [-67 °F to 185 °F] for years of reliable performance in the harshest of conditions. Honeywell's large basics feature **rugged construction** and **enhanced mechanical life**.

FLEXIBILITY OF PRODUCT CHARACTERISTICS

Honeywell's large basics boast a broad and deep array of product options and characteristics to **meet a wide variety of application and system requirements**. A range of accessories, including brackets and enclosures, is also offered.

Control two independent circuits in one small package

POWER DUTY CONTROL

High capacity dc available for power duty control of electrical loads such as those found on dc motors.

ONE SMALL SWITCH OFFERS BIG BENEFITS

DPDT circuits (with each pole electrically independent) are able to control two independent circuits in small package size.

Power duty control options

EASY INSTALLATION REDUCES OVERALL COSTS

The switch's elongated mounting hole allows for **easier, more accurate mounting**.

REDUCE TOTAL SYSTEM COST

Unique design options prevent the need for two individual switches/levers or two-pole relays which can help reduce total system cost.

EQUIPMENT CERTIFICATION OPTIONS

Agency coverage to assist in equipment certification.

MILITARY APPROVALS

MIL-PRF-8805 DPDT switches available for military specified applications.

Potential Applications



DC MOTOR & SOLENOID CONTROL CIRCUITS

Utilized for dc control in back-up control systems

INDUSTRIAL EQUIPMENT

Used in fork lifts with a DPDT contact for control contact & signal contact

MACHINE TOOLS

Can be used to control circuits such as start, stop, or jog functions



MANUALLY OPERATED DEVICES

Controls start-stop or on-off functions on equipment for drill presses, conveyors

WELDERS

Often used in dc control circuits



MICRO SWITCH™ Premium Large Basic Switches

Table 1. Specifications

Characteristic	DT Series	MT Series	MN Series	TB Series
				
Differentiator	same size as the MICRO SWITCH™ BZ Series, but double pole double throw (DPDT)	designed for power duty dc loads	double-break contacts	smaller double-break package
Use	design permits several different wiring configurations	control circuits to switch high capacity (125 Vdc and 250 Vdc) systems	limit or control mechanisms	limit or control mechanisms
Ampere rating	10 A	10 A	15 A	10 A
Circuitry	DPDT	SPDT	SPDT DB	SPDT DB
Operating force	3,34 N to 5,56 N [12.0 oz to 20.0 oz] max.	3,34 N to 5,00 N [12 oz to 18 oz] max.	1,95 N to 3,1 N [7.0 oz to 11.0 oz]	1,95 N to 3,89 N [7 oz to 14 oz] max.
Termination	screw	solder, screw	screw	solder, screw
Actuator	pin plunger, straight plunger, straight lever, reversed lever, roller lever	pin plunger, straight lever, roller lever, flexible leaf, flexible leaf with roller	pin plunger	pin plunger
Voltage	125 Vac, 250 Vac, 28 Vdc	125 Vdc, 250 Vdc	480 Vac	250 Vac
Agency approvals	UL recognized; CSA certified, MIL-PRF-8805	UL recognized	UL recognized; CSA certified	UL recognized, CSA certified
Operating temperature	-55 °C to 85 °C [-67 °F to 185 °F]	-55 °C to 82 °C [-67 °F to 180 °F]	-55 °C to 85 °C [-67 °F to 185 °F]	-55 °C to 125 °C [-67 °F to 257 °F]
Contacts	silver	silver	silver	silver
Housing	general purpose phenolic	arc resistant melamine	general purpose phenolic	general purpose phenolic
Expected mechanical life	3,000,000 operations	100,000 operations	10,000,000 cycles	7,000,000 operations

O.F. • Operating force
R.F. • Release force
P.T. • Pretravel
O.T. • Overtravel
D.T. • Differential travel
O.P. • Operating position

DT SERIES ORDER GUIDE

	Catalog Listing	Recommended For	Electrical Data and UL Codes	O.F. N [oz]	R.F. min. N [oz]	P.T. max. mm [in]	O.T. min. mm [in]	D.T. mm [in]	O.P. * mm [in]
	DT-2R-A7 MS25008-1	Pin plunger, MIL-PRF-8805 applications	10 A J	3,35 to 5,56 [12 to 20]	0,56 [2]	1,91 [0.075]	0,13 [0.005]	1,02 to 1,52 [0.040 to 0.060]	15,6 [0.615 ±0.015]
	DT-2RS1-A7	Straight plunger	10 A J	3,35 to 5,56 [12 to 20]	0,28 [1]	1,91 [0.075]	0,51 [0.020]	1,02 to 1,52 [0.040 to 0.060]	28,2 ±0,038 [1.11 ±0.015]
	DT-2RV3-A7	Straight lever, reversed lever position	10 A J	1,11 to 1,95 [4 to 7]	0,14 [0.5]	6,86 [0.270]	0,25 [0.010]	2,92 to 4,83 [0.115 to 0.190]	18,3 [0.719]
	DT-2RV-A7	Straight lever	10 A J	0,97 to 1,67 [3.5 to 6]	0,28 [1]	25,4 [1]	1,57 [0.062]	12,4 to 19,2 [0.490 to 0.755]	21,8 [0.859]
	DT-2RV216-A7	Roller lever (centered SST roller)	10 A J	11,1 [2.5 lb]	1,11 [4]	1,02 [0.040]	0,13 [0.005]	0,51 to 0,76 [0.020 to 0.030]	31 [1.219]
	DT-2RV22-A7	26,2 mm [1.03 in] roller lever (SST roller)	10 A J	2,5 to 3,89 [9 to 14]	0,83 [3]	9,9 [0.39]	0,79 [0.031]	4,95 to 7,75 [0.195 to 0.305]	30,2 ±0,38 [1.188 ±0.015]
	DT-2RV212-A7	30,2 mm [1.19 in] reversed roller lever (SST roller)	10 A J	2,5 to 4,17 [9 to 15]	0,42 [1.5]	3,3 [0.130]	0,13 [0.005]	1,27 to 2,16 [0.050 to 0.085]	29,4 [1.156]
	DT-2RV23-A7	48,22 [1.9 in] reversed roller lever (SST roller)	10 A J	1,53 to 2,64 [5.5 to 9.5]	0,21 [0.75]	4,45 [0.175]	0,25 [0.010]	2,16 to 3,43 [0.085 to 0.135]	29,4 [1.156]
	DT-2RV2-A7	48,3 mm [1.90 in] roller lever (SST roller)	10 A J	1,25 to 2,09 [4.5 to 7.5]	0,42 [1.5]	18,27 [0.72]	1,19 [0.047]	9,27 to 14,4 [0.365 to 0.565]	31,8 [1.250]

* except where stated ±0,76 mm [±0.030 in]

ELECTRICAL DATA AND UL CODES

Table 2. DT Series UL Electrical Ratings

Code	Circuitry	Electrical data and UL codes
J	DPDT 	10 A, 125 Vac or 250 Vac; 0.3 A, 125 Vdc; 0.15 A, 250 Vdc UL Code L59

MICRO SWITCH™ Premium Large Basic Switches

O.F. • Operating force
R.F. • Release force
P.T. • Pretravel
O.T. • Overtravel
D.T. • Differential travel
O.P. • Operating position

MT SERIES ORDER GUIDE

	Catalog Listing	Recommended For	Electrical Data and UL Codes	O.F. N [oz]	R.F. min. N [oz]	P.T. max. mm [in]	O.T. min. mm [in]	D.T. mm [in]	O.P. max. mm [in]
	MT-4R-A28	Pin plunger	10 A K	3,34 to 5,0 [12 to 18]	1,39 [5]	1,02 [0.04]	0,13 [0.005]	0,1 to 0,18 [0.004 to 0.007]	15,9 ±0,38 [0.625 ±0.015]
	MT-4RV-A28	Straight lever	10 A K	0,56 [2]	0,14 [0.5]	12,7 [0.5]	1,19 [0.047]	2,16 [0.085]	19,1 [0.750]
	MT-4RV2-A28	48,3 mm [1.90 in] lever with SST roller	10 A K	0,76 [2.75]	0,07 [0.25]	8,89 [0.35]	0,79 [0.031]	1,65 [0.065]	30,2 [1.188]
	MT-4RV22-A28	26,2 mm [1.03 in] lever with SST roller	10 A K	1,25 [4.5]	0,28 [1]	5,08 [0.20]	0,38 [0.015]	0,89 [0.035]	31,3 [1.234]
	MT-4RL-A28	49,5 mm 1.95 in] flexible leaf	10 A K	3,34 [12]	0,28 [1]	6,35 [0.25]	1,52 [0.060] max.	–	19,1 [0.750]
	MT-4RL2-A28	46,2 mm [1.82 in] flexible leaf with SST roller	10 A K	3,34 [12]	0,28 [1]	6,35 [0.25]	1,52 [0.060] max.	–	30,2 [1.188]

* ±0,76 mm [±0.030 in]

ELECTRICAL DATA AND UL CODES

Table 3. MT Series UL Electrical Ratings

Code	Circuitry	Electrical data and UL codes
K	SPDT (un- less other- wise noted in order guide) 	Rating established with switch non-polarized 10 A, 125 Vac or Vdc; 1/4 HP, 125 Vac or Vdc UL Code L 168
		Non-polarized: 10 A res. or 1/4 HP, 125 Vdc; 3 A max. res. 250 Vdc
		Polarized*: 10 A res. or 1/2 HP, 125 Vdc; 3 A max. res., 250 Vdc

*To polarize, connect negative side of line to common terminal. To achieve the same effect, mount switch with brass screws, using a non-magnetic barrier (at least 1/4 N thick) between the switch and mounting surface

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3MN SERIES ORDER GUIDE

	Catalog Listing	Recommended For	Electrical Data and UL Codes	O.F. N [oz]	R.F. min. N [oz]	P.T. max. mm [in]	O.T. min. mm [in]	D.T. mm [in]	O.P.* max. mm [in]
	3MN1	General purpose	15 A V	3,34 to 5,56 [12 to 20]	1,67 [6]	1,52 [0.060]	2,03 [0.080]	0,38 to 0,63 [0.015 to 0.025]	2,16 [0.085]
	3MN6	Lower force	15 A V	1,95 to 3,1 [7 to 11]	1,11 [4]	1,52 [0.060]	2,03 [0.080]	0,38 to 0,63 [0.015 to 0.025]	2,16 [0.085]

* ±0,38 mm [±0.015 in]

ELECTRICAL DATA AND UL CODES

Table 4. 3MN Series UL Electrical Ratings

Code	Circuitry	Electrical data and UL codes
V	Two-circuit, double break 	Motor Control 15 A, 120 Vac, 240 Vac, 480 Vac or 600 Vac; 1/2 HP, 120 Vac; 1 HP, 240 Vac; 0.8 A, 115 Vdc; 0.4 A, 230 Vdc

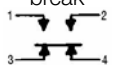
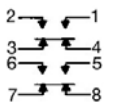
TB SERIES ORDER GUIDE

	Catalog Listing	Recommended For	Electrical Data and UL Codes	O.F. N [oz]	R.F. min. N [oz]	P.T. max. mm [in]	O.T. min. mm [in]	D.T. mm [in]	O.P.* max. mm [in]
	1TB1-1	Two-circuit, doublebreak, end screw terminals	10 A Z	1,95 to 3,61 [7 to 13]	1,11 [4]	1,52 [0.060]	0,25 [0.010]	0,25 to 0,64 [0.010 to 0.025]	11,7 [0.460]
	1TB1-2	Two-circuit, doublebreak, end solder terminals	10 A Z	1,95 to 3,61 [7 to 13]	1,11 [4]	1,52 [0.060]	0,25 [0.010]	0,25 to 0,64 [0.010 to 0.025]	11,7 [0.460]
	1TB1-3	Two-circuit, doublebreak, front solder terminals	10 A Z	1,95 to 3,61 [7 to 13]	1,11 [4]	1,52 [0.060]	0,25 [0.010]	0,25 to 0,64 [0.010 to 0.025]	11,7 [0.460]
	41TB5-3	Four-circuit, doublebreak, front solder terminals	10 A Z	5,56 to 10 [20 to 36]	2,22 [8]	1,78 [0.070]	0,25 [0.010]	0,64 to 1,14 [0.025 to 0.045]	4,70 [0.185]

* ±0,38 mm [±0.015 in]

ELECTRICAL DATA AND UL CODES

Table 5. TB Series UL Electrical Ratings

Code	Circuitry	Electrical data and UL codes
Z	Two-circuit, double break 	10 A, 125 Vac or 250 Vac, or 30 Vdc
	Four-circuit, double break 	UL/CSA rating: 10 A, 125 Vac or 250 Vac; 1/2 HP, 125 Vac

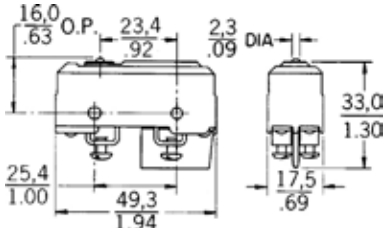
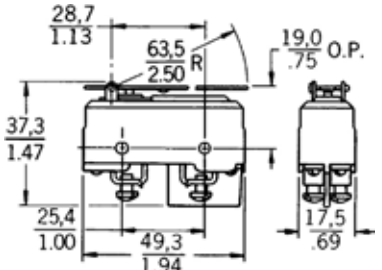
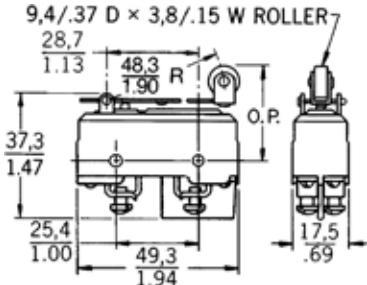
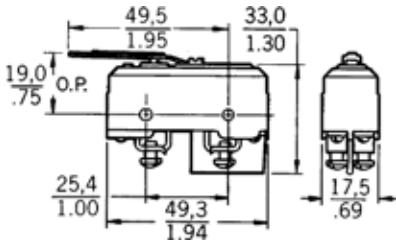
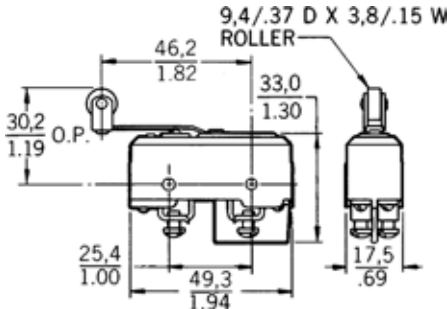
MICRO SWITCH™ Premium Large Basic Switches

DT SERIES • STANDARD ACTUATOR OPTIONS, SCREW TERMINALS, & DIMENSIONS (mm/in)
(for reference only)

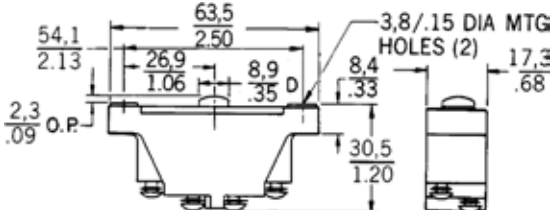
DT Series: Pin plunger 2.3 .09 DIA 23.4 9.2 15.7 .62 O.P. 16.7 .66 25.4 1.00 49.3 1.94 17.5 .69 MOUNTING HOLES ACCEPT PINS OR SCREWS OF 3.53/.139 DIA	DT Series: Straight lever 28.7 1.13 63.5 2.50 R 21.8 .86 O.P. 36.6 1.44 25.4 1.00 49.3 1.94 17.5 .69 NC C NO	DT Series: Straight lever (reversed) 63.5 2.50 R 1.3 .05 31.2 1.23 18.3 .72 O.P. 25.4 1.00 49.3 1.94 17.5 .69 NC C NO
DT Series: Roller lever 9.4/.37 D × 3.8/.15 W ROLLER 28.7 1.13 48.3 1.90 R 31.8 1.25 O.P. 36.6 1.44 25.4 1.00 49.3 1.94 17.5 .69 NC C NO	DT Series: Roller lever 9.4/.37 D × 3.8/.15 W ROLLER 28.7 1.13 26.2 1.03 R 30.2 1.19 O.P. 36.6 1.44 25.4 1.00 49.3 1.94 17.5 .69 NC C NO	DT Series: Roller lever (reversed) 9.4/.37 D × 3.8/.15 W ROLLER 48.3 1.90 R 1.3 .05 31.2 1.23 25.4 1.00 49.3 1.94 17.5 .69 NC C NO
DT Series: Roller lever (reversed) 9.4/.37 D × 3.8/.15 W ROLLER 30.2 1.19 R 1.3 .05 31.2 1.23 25.4 1.00 49.3 1.94 17.5 .69 NC C NO	DT Series: Roller lever (reversed) 9.4/.37 D × 3.8/.15 W ROLLER 12.4 .49 31.0 1.22 O.P. 25.4 1.00 49.3 1.94 17.5 .69 NC C NO	DT Series: Straight plunger 23.4 9.2 3.3 .13 DIA 28.2 1.11 O.P. 25.4 1.00 49.3 1.94 17.5 .69 31.2 1.23 NC C NO

DT | MT | MN | TB Series

MT SERIES • STANDARD ACTUATOR OPTIONS, SCREW TERMINALS, & DIMENSIONS (mm/in)
(for reference only)

MT Series: Pin plunger  Technical drawing of the MT Series Pin plunger actuator. The front view shows a rectangular body with two screw terminals at the bottom. Dimensions include: top width 16.0 mm (.63 in), top terminal spacing 23.4 mm (.92 in), top terminal diameter 2.3 mm (.09 in), body width 49.3 mm (1.94 in), body height 25.4 mm (1.00 in), bottom terminal spacing 17.5 mm (.69 in), and total height 33.0 mm (1.30 in). The side view shows a cylindrical plunger with a diameter of 6.35 mm (.25 in).	MT Series: Straight lever  Technical drawing of the MT Series Straight lever actuator. The front view shows a rectangular body with two screw terminals at the bottom. Dimensions include: top width 28.7 mm (1.13 in), top terminal spacing 63.5 mm (2.50 in), top terminal diameter 19.0 mm (.75 in), body width 49.3 mm (1.94 in), body height 25.4 mm (1.00 in), bottom terminal spacing 17.5 mm (.69 in), and total height 37.3 mm (1.47 in). The side view shows a cylindrical plunger with a diameter of 6.35 mm (.25 in).	MT Series: Roller lever  Technical drawing of the MT Series Roller lever actuator. The front view shows a rectangular body with two screw terminals at the bottom. Dimensions include: top width 28.7 mm (1.13 in), top terminal spacing 48.3 mm (1.90 in), top terminal diameter 19.0 mm (.75 in), body width 49.3 mm (1.94 in), body height 25.4 mm (1.00 in), bottom terminal spacing 17.5 mm (.69 in), and total height 37.3 mm (1.47 in). The side view shows a cylindrical plunger with a diameter of 6.35 mm (.25 in).
MT Series: Flexible leaf lever  Technical drawing of the MT Series Flexible leaf lever actuator. The front view shows a rectangular body with two screw terminals at the bottom. Dimensions include: top width 49.5 mm (1.95 in), top terminal spacing 33.0 mm (1.30 in), top terminal diameter 19.0 mm (.75 in), body width 49.3 mm (1.94 in), body height 25.4 mm (1.00 in), bottom terminal spacing 17.5 mm (.69 in), and total height 33.0 mm (1.30 in). The side view shows a cylindrical plunger with a diameter of 6.35 mm (.25 in).	MT Series: Flexible leaf roller lever  Technical drawing of the MT Series Flexible leaf roller lever actuator. The front view shows a rectangular body with two screw terminals at the bottom. Dimensions include: top width 46.2 mm (1.82 in), top terminal spacing 33.0 mm (1.30 in), top terminal diameter 19.0 mm (.75 in), body width 49.3 mm (1.94 in), body height 25.4 mm (1.00 in), bottom terminal spacing 17.5 mm (.69 in), and total height 30.2 mm (1.19 in). The side view shows a cylindrical plunger with a diameter of 6.35 mm (.25 in).	

MN SERIES • STANDARD ACTUATOR OPTIONS, SCREW TERMINALS, & DIMENSIONS (mm/in)

MN Series: Pin plunger  Technical drawing of the MN Series Pin plunger actuator. The front view shows a rectangular body with two screw terminals at the bottom. Dimensions include: top width 54.1 mm (2.13 in), top terminal spacing 63.5 mm (2.50 in), top terminal diameter 2.3 mm (.09 in), body width 49.3 mm (1.94 in), body height 25.4 mm (1.00 in), bottom terminal spacing 17.5 mm (.69 in), and total height 30.5 mm (1.20 in). The side view shows a cylindrical plunger with a diameter of 6.35 mm (.25 in).

MICRO SWITCH™ Premium Large Basic Switches

TB SERIES • STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS (mm/in) (for reference only)

TB Series: Pin plunger, screw terminals	TB Series: Pin plunger, solder terminals
TB Series: Pin plunger, solder terminals (front)	TB Series: Pin plunger, solder terminals (front), four circuit

LARGE SNAP-ACTION SWITCH ACCESSORIES

Brackets

Description	8MA1	8MA2	17MA1-B
			
Description	Adjustable mounting bracket with adjustment slot on left	Adjustable mounting bracket with adjustment slot on right	Conversion mounting bracket
Housing material	Steel	Steel	Corrosion-resistant metal
Measurements	60,2 mm W x 21,3 mm H x 7,4 mm D [2.37 in W x 0.84 in H x 0.29 in D]		66,8 mm W x 19,0 mm D [2.63 in W x 0.75 in D]
Features	sturdy plated steel construction; fast, easy screwdriver adjustment; can be used with all standard basic switches		converts standard basic switches from side to top mount; corrosion resistant; snaps into switch mounting holes without tools

Die-cast Zinc Enclosures

Description	3PA1	3PA28	3PA2
			
Description	mounted from either side through 3,55 mm [0.140 in] dia. holes on 25,4 mm [1.0 in] centers; conduit/hub 0.5 – 14 NPT internal thread	mounted from either side through 3,55 mm [0.140 in] dia. holes on 25,4 mm [1.0 in] centers. 1/2-14 NPSM internal thread conduit hub	switch secured in enclosure; two 4,37 mm [0.172 in] dia. holes in flange accept #8 screws for mounting on 41,3 mm [1.625 in] centers; conduit/hub 0.5 – 14 NPT internal thread
Housing material	die-cast zinc enclosure (side mount)	die-cast zinc enclosure (side mount)	die-cast zinc enclosure (flange mount)
Measurements	74,8 mm W x 42,9 mm H x 25,4 mm D [2.95 in W x 1.69 in H x 1.00 in D]	74,8 mm W x 42,9 mm H x 25,4 mm D [2.95 in W x 1.69 in H x 1.00 in D]	74,8 mm W x 42,9 mm H x 25,4 mm D [2.95 in W x 1.69 in H x 1.00 in D]
Sealing/Features	NEMA 1; IP40; protects the switch from physical abuse and personnel from contact with exposed terminals		

Plastic Terminal Enclosures

Description	5PA1	5PA2	5PA3
			
Description	Plastic terminal enclosure used with solder terminal switches	Plastic terminal enclosure use with screw terminal switches	Plastic terminal enclosure used with either solder or screw terminal switches with auxiliary actuators assembled
Housing material	plastic	plastic	plastic
Measurements	52,8 mm W x 16,1 mm H [2.08 in W x 0.64 in H]	52,8 mm W x 20,2 mm H x 21,0 mm D [2.08 in W x 0.80 in H x 0.83 in D]	52,8 mm W x 20,2 mm H x 21,0 mm D [2.08 in W x 0.80 in H x 0.83 in D]
Sealing/Features	NEMA 1, IP40; easy to use; screw and solder terminal versions; protect personnel from contact with exposed terminals		

MICRO SWITCH™ Premium Large Basic Switches

AUXILIARY ACTUATOR ORDER GUIDE

	Catalog Listing	Description	Use only with	Overtravel min. mm [in]	Operating Position* mm [in]	Free Position mm [in]
	JR	Roller lever for “S” plunger type DT switches only. Permits cam operation	DT	11,1 mm [0.437 in]	44,45 mm $\pm$ 3,18 mm [1.75 in $\pm$ 0.125 in]	–
	ADD3721R	Adjustable roller lever. Tang on top of actuator can be bent to adjust O.P. and F.P.	DT, MT	9,53 mm [0.375 in] approx.	39,6 mm [1.562 in] approx.	46,03 mm [1.812 in]
	MCD2711	Straight plunger. Panel mount	DT, MT	3,58 mm [0.141 in]	27,79 mm [1.094 in]	30,18 mm [1.188 in]
	MCD2711H	Sealed straight plunger. Panel mount. Elastomer boot seal keeps out liquid splash and dirt. Furnished unassembled.	DT, MT	3,58 mm [0.141 in]	27,79 mm [1.094 in]	30,18 mm [1.188 in]
	MD3211Q	Roller plunger. Panel mount. Roller parallel to long axis of the switch	DT, MT	3,18 mm [0.125 in]	35,7 mm [1.406 in]	37,69 mm [1.484 in]
	MD3211Q1	Cross roller plunger. Panel mount. Roller perpendicular to long axis of the switch	DT, MT	3,18 mm [0.125 in]	35,7 mm [1.406 in]	37,69 mm [1.484 in]
	MCD7711	High overtravel plunger. Panel mount	DT, MT	18,26 mm [0.719 in]	69,1 mm [2.719 in]	71,42 mm [2.812 in]

* except where stated $\pm$ 1,14 mm [$\pm$ 0.045 in]

NOTE: All actuators are for use with pin plunger types only, except catalog listing JR.

OPERATING CHARACTERISTICS

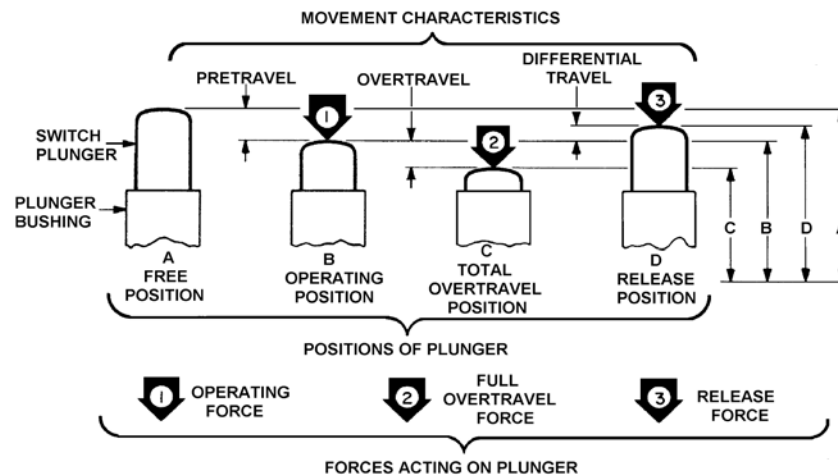


Table 3. Operating Characteristics Definitions

Characteristic	Description
Differential Travel-DT	Plunger or actuator travel from point where contacts “snap-over” to point where they “snap-back.”
Free Position-FP	Position of switch plunger or actuator when no external force is applied.
Full Overtravel Force	Force required to attain full overtravel of actuator.
Operating Position-OP	Position of switch plunger or actuator at which point contacts snap from normal to operated position. With flexible or adjustable actuators, the operating position is measured from the end of the lever or its maximum length. Location of operating position measurement shown on mounting dimension drawings.
Operating Force-OF	Amount of force applied to switch plunger or actuator to cause the contact “snap-over.” Note in the case of adjustable actuators, the force is measured from the maximum length position of the lever.
Overtravel-OT	Plunger or actuator travel safely available beyond operating position.
Pretravel-PT	Distance or angle traveled in moving plunger or actuator from free position to operating position.
Release Force-RF	Amount of force still applied to switch plunger or actuator at the moment contacts snap from operated position to non-operated position.
Total Travel	Distance from actuator free position to overtravel limit position.

This Honeywell datasheet supports the following MICRO SWITCH™ Premium Large Basic Switch Listings

13MN2	1TB86-3	DT-2R4-B6	DT-2RV22-A7	MT-4R	MT-4RL-A28
1TB1-1	2TB242-4	DT-2R711-A7	DT-2RV22-B6	MT-4R27	MT-4R-P1
1TB1-13	3MN1	DT-2R722-A7	DT-2RV239-A7	MT-4R4-A69	MT-4RV
1TB1-2	3MN11	DT-2R-A7	DT-2RV23-A7	MT-4R-A210	MT-4RV22
1TB1-3	3MN19	DT-2R-B6	DT-2RV2-A7	MT-4R-A28	MT-4RV22-A28
1TB242-4	3MN6	DT-2RQ-A7N4	DT-2RV31-A7	MT-4RL	MT-4RV2-A28
1TB24-3	3TB41-15	DT-2RQ-A7N5	DT-2RV3-A7	MT-4RL13-D10	MT-4RV34-A28
1TB244-6	41TB22-3	DT-2RQ-A7N6	DT-2RV3-B6	MT-4RL14-D11	MT-4RV36-D73
1TB25-17	41TB5-3	DT-2RS1-A7	DT-2RV49-B6	MT-4RL2	MT-4RV4-A28
1TB25-D8	DT-2R48-B6	DT-2RV212-A7	DT-2RV-A7	MT-4RL2-A28	MT-4RV-A28
1TB28-2	DT-2R4-A7	DT-2RV216-A7	DT-2RV-B6		

MICRO SWITCH™ Premium Large Basic Switches

ADDITIONAL INFORMATION

The following associated literature is available on the Web at sensing.honeywell.com:

- Product installation instructions
- Product application-specific information
 - Sensors and switches for potential HVAC/R applications
 - Sensors and switches for valve monitors and valve indicators
 - Sensors and switches in oil rig applications
 - Sensors and switches in sanitary valves
- Applying basic switches
- Low energy switching guide
- Product range guide

WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell website, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

Find out more

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office.

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