Honeywell

MICRO SWITCH™ Medium-Duty Limit Switches

E6/V6 Series

Datasheet

MICRO SWITCH™ E6/V6 Series Medium-Duty Limit Switches

Honeywell MICRO SWITCH™ E6/V6 Series medium-duty limit switches are designed for a wide variety of indoor and outdoor applications. Typical applications include equipment for commercial, industrial, transportation, and agriculture industries. The electrostatic applied epoxy coating to the zinc housings enhance the durability of the product in most environments. The E6/V6 family of switches incorporates the Honeywell MICRO SWITCH™ BZ switch element which has the reliable snap-spring mechanism with more than 60 years of proven service.

The sealed (actuators with boots) E6/V6 Series switches are preferred for applications where there could be exposure to liquid and/or particulate environments. The general purpose (actuators without boot seals) E6/V6 Series switches are ideal for applications where there will not be exposure to liquid or dust environments.

The compact size of these limit switches permits installation where there is limited space available on equipment. Most SPDT (Single Pole Double Throw) E6/V6 catalog listings are certified to UL, CSA, and CE while the DPDT (Double Pole Double Throw) E6/V6 catalog listings are certified to UL and CSA.

What makes our switches better?

- Designed with MICRO SWITCH™ BZ, BM, or DT basic switches to deliver precise switching of electrical and mechanical operating characteristics
- High capacity (22 A) available with BME6 Series switch
- Small footprint with easy access to wiring terminals
- Available in a configuration suited to the application with variety of actuators, circuitries, connectivities, and mounting options

HIGH PERFORMANCE • DURABILITY
CUSTOMIZATION • EASY TO INSTALL

Features and Benefits

DESIGNED FOR DEMANDING ENVIRONMENTS AND APPLICATIONS

MICRO SWITCH™ E6/V6 Series switches feature an electrostatic epoxy coated zinc housing for durability in most indoor and outdoor environments, and a wide variety of actuators to solve most application requirements.

Side and flange mounting options

RELIABLY HANDLES ELECTRICAL LOADS

The E6/V6 Series are available with SPDT contacts with momentary or maintained action, or DPDT contacts with momentary action. These switches also offer gold-plated switch contacts for logic-level circuits and silver alloy contacts for power duty circuits. The internal ground screw is provided to meet electrical codes as required.

DESIGN FLEXIBILITY

These limit switches are offered with multiple connectivity options: three different conduit offerings, four-pin “mini” style connector, pre-wired 16-gage four-conductor cable, pigtail with three-pin Deutsch connector.

GLOBAL APPROVALS

E6/V6 Series switches are UL, CSA, and CE certified for most SPDT catalog listings. The DPDT catalog listings are UL and CSA certified.

LOW TEMPERATURE OPTIONS

The E6/V6 Series’ standard temperature range is -32 °C to 71 °C [-25 °F to 160 °F] with an optional -40 °C [-40 °F] low temperature.

Figure 1. MICRO SWITCH™ E6 Side Mount and V6 Flange Mount with Features and Options

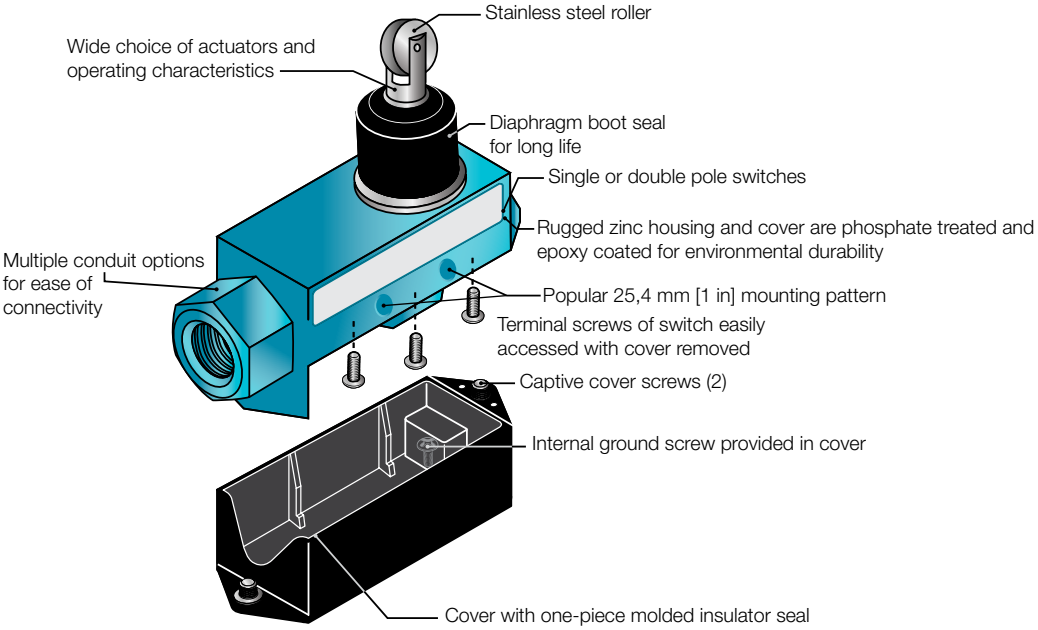


Figure 1A. E6 Side mount with boot sealed actuator (typical)

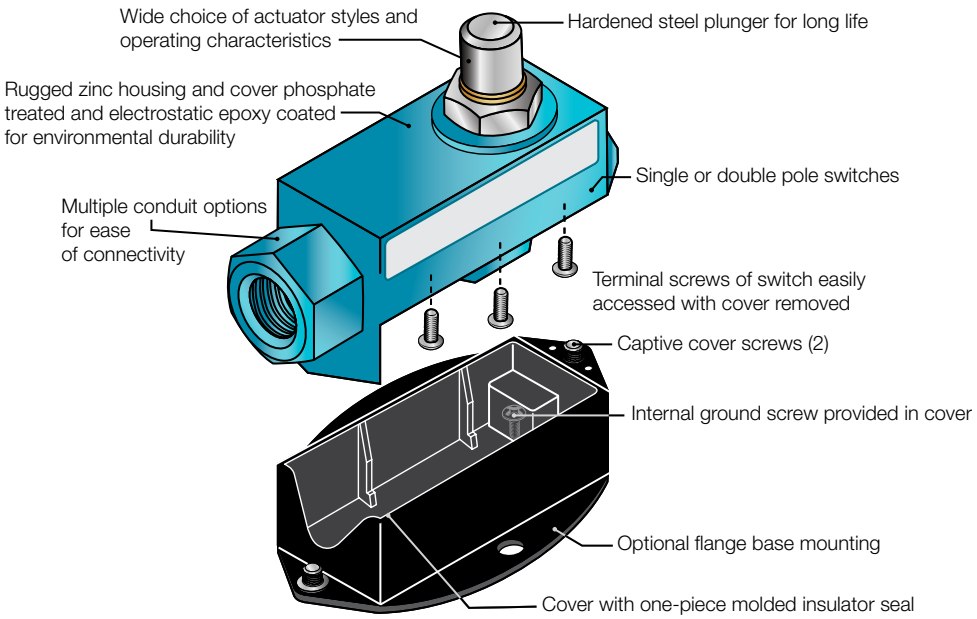


Figure 1B. V6 Flange mount without boot sealed actuator (typical)

Potential Applications

INDUSTRIAL

- Packaging equipment (balers, door interlocks)
- Air curtains (control of air movement)
- Conveyors (diverters, gates)

TRANSPORTATION

- Construction machinery and equipment (door and panel interlocks)
- Rail maintenance equipment (door and panel interlocks, position sensing)
- Agricultural equipment (grain handling)

Table 1. Specifications

Characteristic	Parameter
Actuators	top pin plunger (with and without boot seal) top roller plunger, parallel with long axis of switch (with and without boot seal) cross roller plunger, perpendicular with long axis of switch (with and without boot seal) manually operated (with boot seal) roller arm, adjustable (with and without boot seal) one-way roller lever (with boot seal) low-force rod lever (with and without boot seal) wobble (with boot seal) manual reset switches: top pin plunger, top roller plunger, adjustable roller arm, wobble
Housing material	electrostatic epoxy coated zinc die-cast
Termination	see table 2 below
Sealing	actuator with boot seal: NEMA 1, 3, 4, IP66 actuator without seal boot: NEMA 1, IP40
Switching options	SPDT (snap-action contacts, 1NO/1NC) SPDT-DB (double break snap-action contacts, 1NO/1NC) DPDT (snap-action contacts, 2NO/2NC)
Mechanical endurance	up to five million cycles for BZx6 and BMx6 switches; up to two million cycles for DTx6 switches
Electrical endurance	up to 50K cycles at full rated load
Operating temperature	-32 °C to 71 °C [-25 °F to 160 °F] (standard) -40 °C to 71 °C [-40 °F to 160 °F] (optional low temperature)
Agency approvals	UL, CSA, CE

Table 2. Terminations

Catalog Listing Suffixes	Description
none	0.5 - 14 NPT conduit thread
S	0.5 - 14 NPSM conduit thread
M	M20 - 1,5 mm conduit thread
R	four-pin “mini” style connector
F1	305 mm [12 in] pigtail STOW-A, three conductor, 16-gage cable with three-pin Deutsch connector
F3	914 mm [36 in] 16-gage, four-conductor STO, PVC jacketed cable

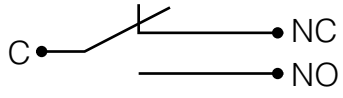
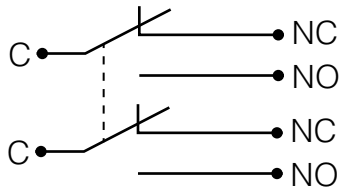
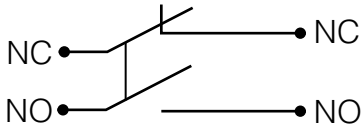
Table 3. Electrical Ratings

Rating Code	UL, CSA Rating	CE Rating
A	15 A @ 125 Vac, 250 Vac or 480 Vac; 2 A @ 600 Vac; 1/8 HP @ 125 Vac, 1/4 HP @ 250 Vac; 0.5 A @ 125 Vdc, 0.25 A @ 250 Vdc	EN60947-5-1, IEC60947-5-1 AC15, B300
B	10 A @ 125 Vac, 250 Vac 0.3 A @ 125 Vdc, 0.15 A @ 250 Vdc	–
C	15 A @125 Vac, 250 Vac or 480 Vac; 1/4 HP @ 125 Vac, 1/2 HP @ 250 Vac; 0.5 A @ 125 Vdc, 0.25 A @ 250 Vdc	EN60947-5-1, IEC60947-5-1 AC15, B300
D	8 A @ 125 Vac, 250 Vac or 480 Vac; 2 A @ 600 Vac; 1/8 HP @ 125 Vac, 1/4 HP @ 250 Vac; 0.5 A @ 125 Vdc, 0.25 A @ 250 Vdc	EN60947-5-1, IEC60947-5-1 AC15, B300
E	10 A @ 125 Vac, 250 Vac or 480 Vac; 2 A @ 600 Vac; 1/8 HP @ 125 Vac, 1/4 HP @ 250 Vac; 0.5 A @ 125 Vdc, 0.25 A @ 250 Vdc	EN60947-5-1, IEC60947-5-1 AC15, B300
F	15 A @125 Vac, 250 Vac or 480 Vac; 1/4 HP @ 125 Vac, 1/2 HP @ 250 Vac; 1.0 A @ 125 Vdc, 0.5 A @ 250 Vdc	EN60947-5-1, IEC60947-5-1 AC15, B300
G	22 A @125 Vac, 250 Vac or 480 Vac; 1/4 HP @ 125 Vac, 1/2 HP @ 250 Vac; 0.5 A @ 125 Vdc, 0.25 A @ 250 Vdc	–
H	1A @ 125 Vac (Gold-plated contacts)	IEC 61058-1 1A, 250 Vac

Table 4. CE Electrical Rating, EN60947-5-1, IEC 60947-5-1

Designation & Category	Vac	Amps Make	Amps Break	Continuous Current (A)	VA Rating Make	VA Rating Break
AC15, B300	120	30	3.0	5	3600	360
AC15, B300	240	15	1.5	5	3600	360

Table 5. Switching

SPDT	DPDT	SPDT-DB
		

MICRO SWITCH™ Medium-Duty Limit Switches

PRODUCT NOMENCLATURE

BZ — **E6** — **—** — **2** — **R** — **N**

Switch Type

BZ Series Basic Switch SPDT, 15 A

DT Series Basic Switch DPDT, 10 A

BM Series Basic Switch SPDT, 22 A

Enclosure Type

E6	Side mount
V6	Flange mount

Internal Basic Switch Construction

	For use with "X" actuator, maintained contact[2] (blank)
2	Standard
7	Special[2]

Contact

R	Standard (Single-break)
A	Double-break (BZ basic switch only)

Plunger Type

N	Seal boot
Q	No seal boot

Actuator Modifications[3]

	Pin plunger (blank)
X	Maintained contact with reset plunger[2]
2	Adjustable roller lever
4	Manual, palm button
7	#8 mounting screws
8 **80**	Roller plunger
18	Coil spring wobble stick
28	One-way roller lever
34	Low temp.
62	Rod lever
72 **722**	Gold-contact switch
81	Cross roller plunger

Additional Modifications

	0.5-14 NPT conduit thread (blank)
C3	Pre-leaded, 3 ft cable, conduit area epoxy sealed
F1	12-inch pigtail cable with 3-pin Deutsch connect.
F3	Epoxy sealed, 3 ft of cable
F5	Epoxy sealed, 5 ft of cable
F6	Epoxy sealed, 6 ft of cable
FR	Epoxy sealed, 4-pin "mini style" connector
R	4-pin "mini style" connector
S	1/4-14 NPSM conduit threads
M	M20 x 1,5 mm conduit thread

NOTE:
1. Not all combinations of model codes are available. Contact your Honeywell rep or distributor for assistance.
2. BZ Series only.
3. More than one actuator modification may be permissible. For example, BZE6-2RN8034 is a roller plunger with low temperature seals.

E6/V6 Series

Table 6. Order Guide • E6 Series Switches, Side Mount with Boot Seal

For catalog listings not shown, please contact your Honeywell distributor or representative.

	Catalog Listing	Switch type, Circuitry	Electrical Rating [page 6]	Operate Force N [oz]	Operate Point mm [in]	Pretravel mm [in] max.	Over Travel mm [in] min.	Differential Travel mm [in] max.	Comments
Pin Plunger	**BZE6-2RN**	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	
	BZE6-2RN-F1	BZ, SPDT	E, 10 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	12 in. pigtail, 3 wire STO cable w/ Deutsch connector
	BZE6-2RN-F3	BZ, SPDT	E, 10 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	Epoxy sealed with 36 in. 4 wire STO cable
	BZE6-2RN-M	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	M20-1,5 conduit thread
	BZE6-2RN-R	BZ, SPDT	D, 8 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	4-pin "mini" style connector
	BZE6-2RN-S	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	0.5-14 NPSM conduit thread
	BZE6-2RN7	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	#8 mounting screws
	BZE6-2RN34	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	Low temperature -40 °C [-40 °F]
	BZE6-2RN72	BZ, SPDT	H, 1 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	Gold-plated contacts
	BZE6-2AN	BZ, SPDT, Double break	F, 15 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	Recommended for dc applications
	BME6-2RN	BM, SPDT	G, 22 A	2,50 to 6,67 [9 to 24]	43,66 ±0,76 [1.719 ±0.030]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	Higher current ac applications
	DTE6-2RN	DT, DPDT	B, 10 A	7,23 to 16,4 [26 to 59]	46,02 ±0,76 [1.812 ±0.030]	2,80 [0.110]	3,17 [0.125]	1,52 [0.060]	Double pole applications
Inline Roller Plunger	**BZE6-2RN80**	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to24]	56,7 ±1,14 [2.232 ±0.045]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	
	BZE6-2RN8034	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to24]	56,7 ±1,14 [2.232 ±0.045]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	Low temperature -40 °C [-40 °F]
	DTE6-2RN80	DT, DPDT	B, 10 A	5,56 to 13,3 [20 to 48]	59,6 ±1,0 [2.345 ±0.040]	2,80 [0.110]	3,17 [0.125]	1,52 [0.060]	Double pole applications
	DTE6-2RN8034-M	DT, DPDT	B, 10 A	5,56 to 13,3 [20 to 48]	59,6 ±1,0 [2.345 ±0.040]	2,80 [0.110]	3,17 [0.125]	1,52 [0.060]	Low temp. -40 °C [-40 °F], M20 -1,5 conduit, Double pole applications
Cross Roller Plunger	**BZE6-2RN81**	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to24]	56,7 ±1,14 [2.232 ±0.045]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	

MICRO SWITCH™ Medium-Duty Limit Switches

Table 6, continued. Order Guide • E6 Series Switches, Side Mount with Boot Seal

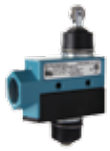
For catalog listings not shown, please contact your Honeywell distributor or representative.

	Catalog Listing	Switch type, Circuitry	Electrical Rating [page 6]	Operate Force N [oz]	Operate Point mm [in]	Pretravel mm [in] max.	Over Travel mm [in] min.	Differential Travel mm [in] max.	Comments
Roller Lever	**BZE6-2RN2**	BZ, SPDT	A, 15 A	2,78 to 5,57 [10 to 20]	71,42 Ref [2.812]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	
	BZE6-2RN2-S	BZ, SPDT	A, 15 A	2,78 to 5,57 [10 to 20]	71,42 Ref [2.812]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	0.5-14 NPSM conduit thread
	BZE6-2RN234	BZ, SPDT	A, 15 A	2,78 to 5,57 [10 to 20]	71,42 Ref [2.812]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	Low temperature -40 °C [-40 °F]
	BZE6-2RN272	BZ, SPDT	H, 1 A	2,78 to 5,57 [10 to 20]	71,42 Ref [2.812]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	Gold-plated contacts
	DTE6-2RN2	DT, DPDT	B, 10 A	2,78 to 8,35 [10 to 30]	69,44 Ref [2.734]	6,76 [0.266]	5,56 [0.219]	4,19 [0.165]	Double pole applications
One-way Roller Lever	**BZE6-2RN28**	BZ, SPDT	A, 15 A	2,22 to 5,56 [8 to 20]	-	5,94 [0.234]	5,56 [0.219]	0,15 [0.006]	
	BZE6-2RN28-S	BZ, SPDT	A, 15 A	2,22 to 5,56 [8 to 20]	-	5,94 [0.234]	5,56 [0.219]	0,15 [0.006]	0.5-14 NPSM conduit thread
	DTE6-2RN28	DT, DPDT	B, 10 A	5,56 to10 [20 to 36]	-	7,92 [0.312]	5,56 [0.219]	4,19 [0.165]	Double pole applications
Low-force Rod Lever	**BZE6-2RN62**	BZ, SPDT	A, 15 A	0,83 to 1,95 [3 to 7]	-	18,24 [0.718]	21,29 [838]	5,82 [0.229]	
Coil-spring Wobble	**BZE6-2RN18**	BZ, SPDT	A, 15 A	1,95 N max. [7.0 oz max.]	-	15°	20° Ref	-	
	BZE6-2RN1872	BZ, SPDT	H, 1 A	1,95 N max. [7.0 oz max.]	-	15°	20° Ref	-	Gold-plated contacts
Manual Palm Button	**BZE6-2RN4**	BZ, SPDT	A, 15 A	2,78 to 5,57 [10 to 20]	80,0 Ref [3.15]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	

E6/V6 Series

Table 6. continued. Order Guide • E6 Series Switches, Side Mount with Boot Seal

For catalog listings not shown, please contact your Honeywell distributor or representative.

	Catalog Listing	Switch type, Circuitry	Electrical Rating [page 6]	Operate Force N [oz]	Operate Point mm [in]	Pretravel mm [in] max.	Over Travel mm [in] min.	Differential Travel mm [in] max.	Comments
Pin Plunger w Manual Reset	**BZE6-RNX1**	BZ, SPDT	A, 15 A	1,67 to 5,56 [6 to 20]	43,64 ± 0,76 [1.718 ±0.030]	1,98 [0.078]	5,56 [0.219]	NA	Reset position: 53,19 [2.094] max.
 **Inline roller plunger w/ manual reset**	**BZE6-RN80X2**	BZ, SPDT	A, 15 A	5,85 to 15,57 [21 to 56]	56,70 ± 1,14 [2.232 ± 0.045]	1,98 [0.078]	4,75 [0.187]	NA	Reset position: 53,19 [2.094] max.
Roller Lever w/ Manual Reset	**BZE6-RN2X1**	BZ, SPDT	A, 15 A	4,45 N max. [16 oz max.]	71,42 Ref [2.812 in.]	4,83 [0.188]	5,56 [0.219]	NA	Reset position: 50,40 ± 1,14 [1.984 ± 0.045]
Coil Spring Wobble w/ Manual Reset	**BZE6-RN18X1**	BZ, SPDT	A, 15 A	1,95 N max. [7.0 oz max.]	-	15°	20° Ref	NA	Reset position: 50,40 ± 1,14 [1.984 ± 0.045]

MICRO SWITCH™ Medium-Duty Limit Switches

DIMENSIONS

Figure 2. Top pin plunger, side mount with boot seal

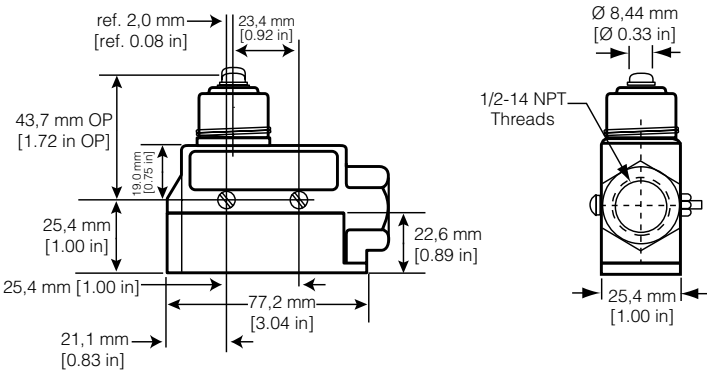


Figure 3. Top roller plunger, side mount with boot seal

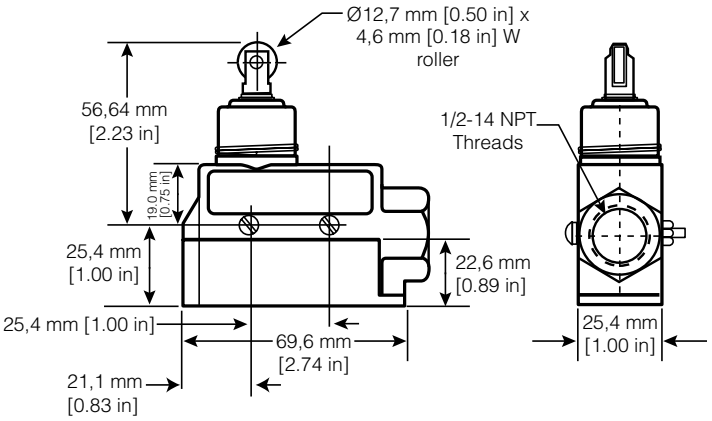


Figure 4. Cross roller plunger, side mount with boot seal

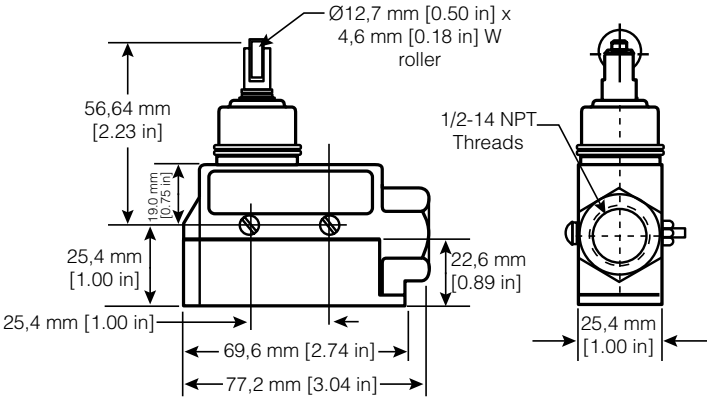


Figure 5. Roller lever, adjustable, side mount with boot seal

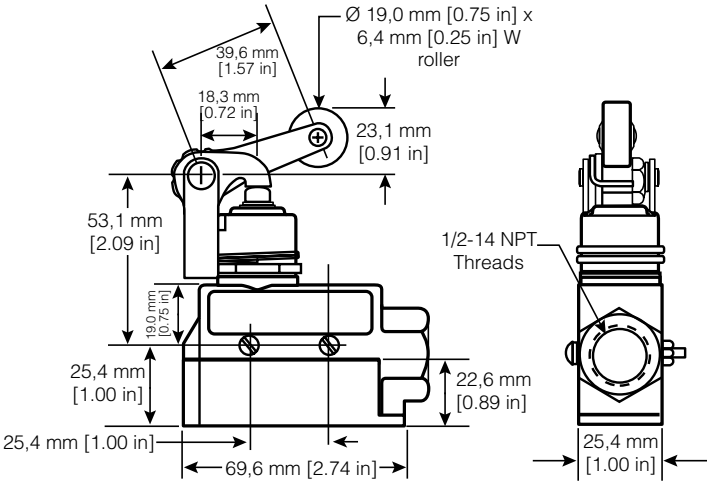


Figure 6. One-way roller lever, side mount with boot seal

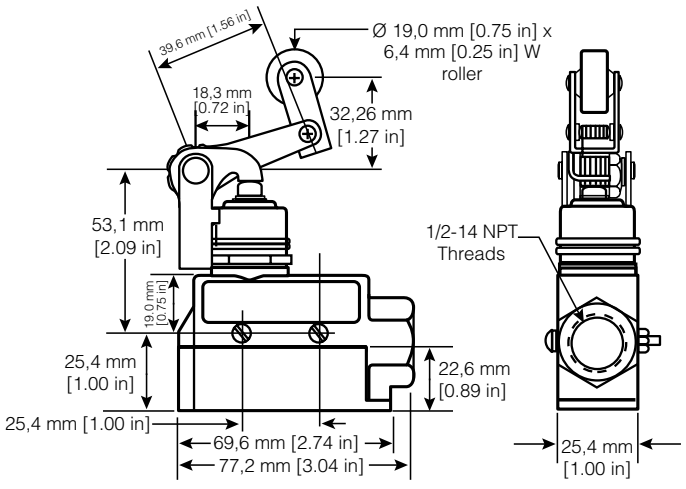


Figure 7. Rod lever, side mount with boot seal

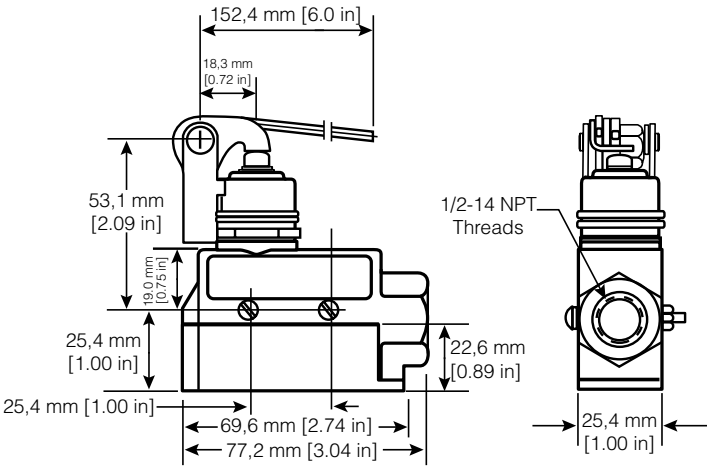


Figure 8. Manual palm button, side mount with boot seal

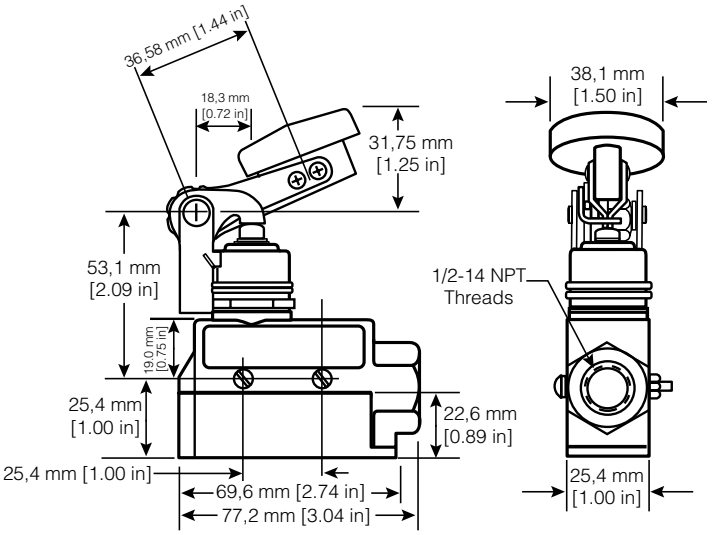


Figure 9. Coil wobble, side mount with boot seal

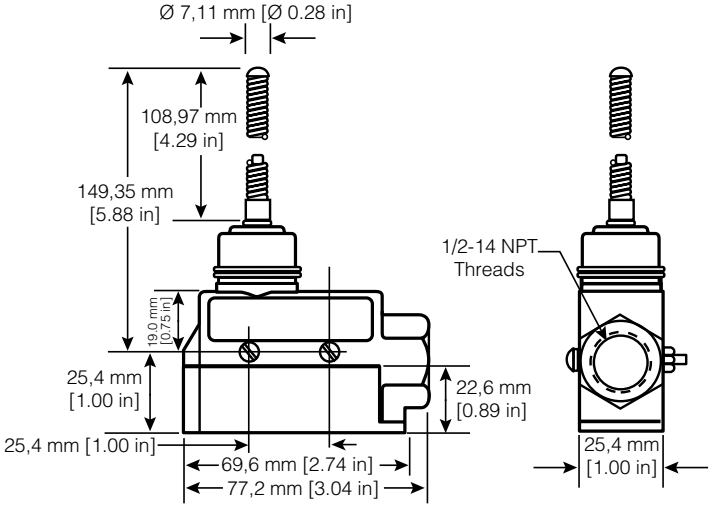


Figure 10. Top pin plunger, reset, side mount with boot seal

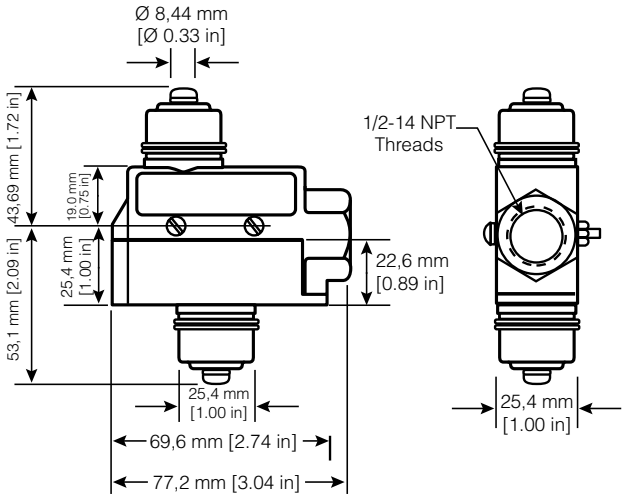


Figure 11. Top roller plunger, reset, side mount with boot seal

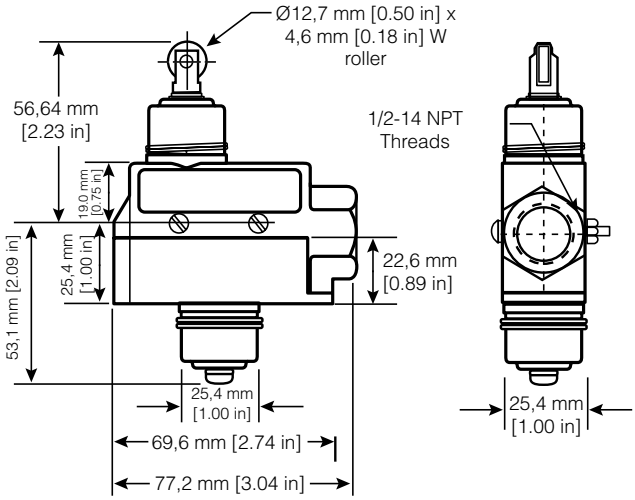


Figure 12. Roller lever plunger, reset, side mount with boot seal

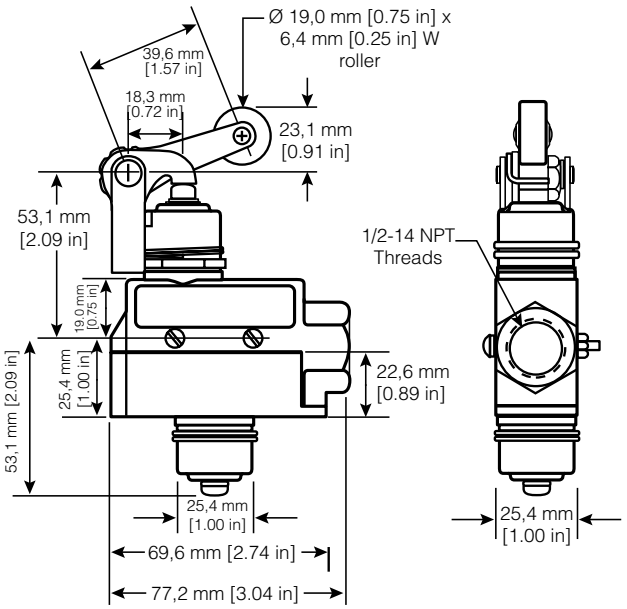
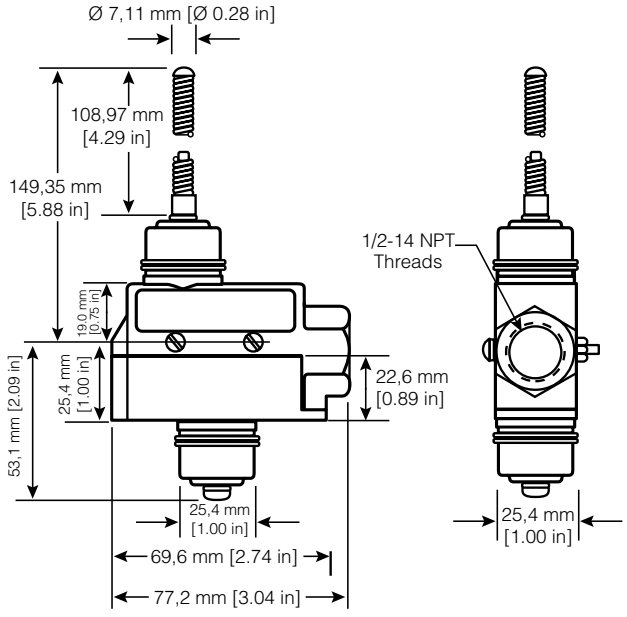


Figure 13. Coil wobble plunger, reset, side mount with boot seal



MICRO SWITCH™ Medium-Duty Limit Switches

Table 7. Order Guide • E6 Series Switches, Side Mount without Boot Seal

For catalog listings not shown, please contact your Honeywell distributor or representative.

	Catalog Listing	Switch type, Circuitry	Electrical Rating [page 6]	Operate Force N [oz]	Operate Point mm [in]	Pretravel mm [in] max.	Over Travel mm [in] min.	Differential Travel mm [in] max.	Comments
Pin Plunger	**BZE6-2RQ**	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	38,1 ±0,76 [1.5 ±0.030]	0,38 [0.015]	5,56 [0.219]	0,05 [0.002]	
	BZE6-2RQ-S	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	38,1 ±0,76 [1.5 ±0.030]	0,38 [0.015]	5,56 [0.219]	0,05 [0.002]	0.5-14 NPSM conduit thread
	BZE6-2RQ7	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	38,1 ±0,76 [1.5 ±0.030]	0,38 [0.015]	5,56 [0.219]	0,05 [0.002]	#8 mounting screws
	BZE6-2RQ72	BZ, SPDT	H, 1 A	2,50 to 3,61 [9 to 13]	38,1 ±0,76 [1.5 ±0.030]	0,38 [0.015]	5,56 [0.219]	0,05 [0.002]	Gold-plated contacts
	BME6-2RQ	BM, SPDT	G, 22 A	2,50 to 3,61 [9 to 13]	38,1 ±0,76 [1.5 ±0.030]	0,38 [0.015]	5,56 [0.219]	0,05 [0.002]	Higher current ac applications
	DTE6-2RQ	DT, DPDT	B, 10 A	5,56 to 11,12 [20 to 40]	47,88 ±0,76 [1.885 ±0.030]	3,81 [0.150]	2,24 [0.088]	1,52 [0.060]	Double pole applications
Inline Roller Plunger	**BZE6-2RQ8**	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	49,61 ±1,14 [1.953 ±0.045]	0,38 [0.015]	3,56 [0.140]	0,05 [0.002]	
	BZE6-2RQ8-S	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	49,61 ±1,14 [1.953 ±0.045]	0,38 [0.015]	3,56 [0.140]	0,05 [0.002]	0.5-14 NPSM conduit thread
	BZE6-2RQ8722	BZ, SPDT	H, 1 A	2,50 to 3,61 [9 to 13]	49,61 ±1,14 [1.953 ±0.045]	0,38 [0.015]	3,56 [0.140]	0,05 [0.002]	Gold-plated contacts
Cross Roller Plunger	**BZE6-2RQ81**	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	49,61 ±1,14 [1.953 ±0.045]	0,38 [0.015]	3,56 [0.140]	0,05 [0.002]	
	BZE6-2RQ81-S	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	49,61 ±1,14 [1.953 ±0.045]	0,38 [0.015]	3,56 [0.140]	0,05 [0.002]	0.5-14 NPSM conduit thread
	BME6-2RQ81	BM, SPDT	G, 22 A	2,50 to 3,61 [9 to 13]	49,61 ±1,14 [1.953 ±0.045]	0,38 [0.015]	3,56 [0.140]	0,05 [0.002]	Higher current ac applications
	DTE6-2RQ81	DT, DPDT	B, 10 A	6,67 to 13,34 [24 to 48]	49,61 ±1,14 [1.953 ±0.045]	3,58 [0.141]	3,18 [0.125]	1,52 [0.060]	Double pole applications
Roller Lever	**BZE6-2RQ2**	BZ, SPDT	A, 15 A	2,78 to 5,00 [10 to 18]	61,11 Ref [2.406]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	
	BZE6-2RQ2-S	BZ, SPDT	A, 15 A	2,78 to 5,00 [10 to 18]	61,11 Ref [2.406]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	0.5-14 NPSM conduit thread
	DTE6-2RQ2	DT, DPDT	B, 10 A	2,78 to 5,57 [10 to 20]	69,44 Ref [2.734]	6,76 [0.266]	5,56 [0.219]	4,19 [0.165]	Double pole applications
One-way Roller Lever	**BZE6-2RQ28**	BZ, SPDT	A, 15 A	2,22 to 5,00 [8 to 18]	-	5,94 [0.234]	5,56 [0.219]	0,15 [0.006]	
Low-force Rod Lever	**BZE6-2RQ62**	BZ, SPDT	A, 15 A	0,56 to 1,39 [2 to 5]	-	18,24 [0.718]	21,29 [0.838]	5,82 [0.229]	
	BZE6-2RQ62-S	BZ, SPDT	A, 15 A	0,56 to 1,39 [2 to 5]	-	18,24 [0.718]	21,29 [0.838]	5,82 [0.229]	0.5-14 NPSM conduit thread
	DTE6-2RQ62	DT, DPDT	B, 10 A	1,39 to 3,34 [5 to 12]	-	27,94 [1,100]	21,29 [0.838]	14,22 [0.560]	Double pole applications

E6/V6 Series

Table 7, continued. Order Guide • E6 Series Switches, Side Mount without Boot Seal

For catalog listings not shown, please contact your Honeywell distributor or representative.

	Catalog Listing	Switch type, Circuitry	Electrical Rating [page 6]	Operate Force N [oz]	Operate Point mm [in]	Pretravel mm [in] max.	Over Travel mm [in] min.	Differential Travel mm [in] max.	Comments
Manual Palm Button	**BZE6-2RQ4**	BZ, SPDT	A, 15 A	2,78 to 5,00 [10 to 18]	-	-	5,56 [0.219]	0,15 [0.006]	
Pin Plunger w Manual Reset	**BZE6-RQX2**	BZ, SPDT	A, 15 A	1,67 to 2,64 [6 to 9.5]	38,1 ±0,76 [1.5 ±0.030]	0,30 [0.012]	4,75 [0.187]	NA	Reset position: 46,84 [1.844] max.
Inline Roller Plunger w/ Manual Reset	**BZE6-RQ8X2**	BZ, SPDT	A, 15 A	1,47 to 2,64 [6 to 9.5]	51,18 ± 1,14 [2.015 ±0.045]	0,30 [0.012]	3,56 [0.140]	NA	Reset position: 46,84 [1.844] max.
Cross Roller Plunger w/ Manual Reset	**BZE6-RQ81X2**	BZ, SPDT	A, 15 A	1,47 to 2,64 [6 to 9.5]	51,18 ± 1,14 [2.015 ±0.045]	0,30 [0.012]	3,56 [0.140]	NA	Reset position: 46,84 [1.844] max.
Roller Lever w/ Manual Reset	**BZE6-RQ2X2**	BZ, SPDT	A, 15 A	3,34 approx. [12 oz]	61,11 Ref [2.406]	4,83 [0.188]	5,56 [0.219]	NA	Reset position: 46,84 [1.844] max.

MICRO SWITCH™ Medium-Duty Limit Switches

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Figure 14. Top pin plunger, side mount

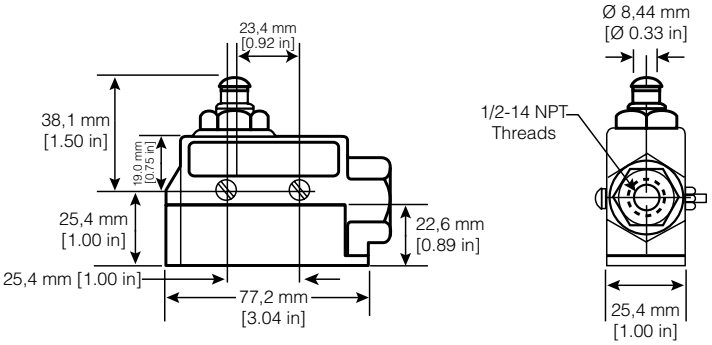


Figure 15. Top roller plunger, side mount

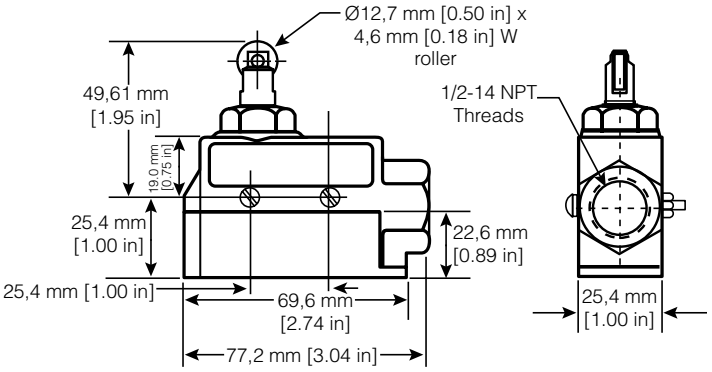


Figure 16. Cross roller plunger, side mount

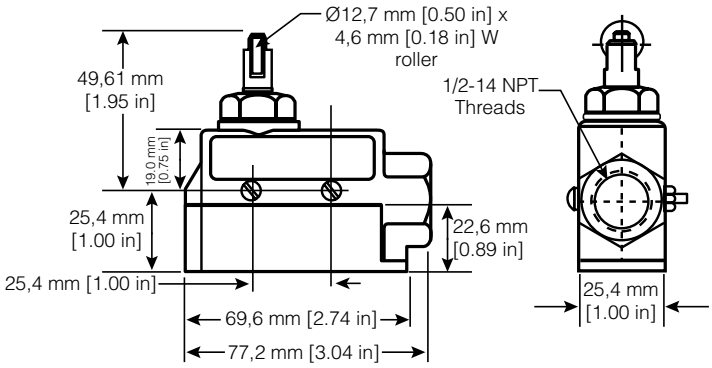


Figure 17. Roller lever, adjustable, side mount

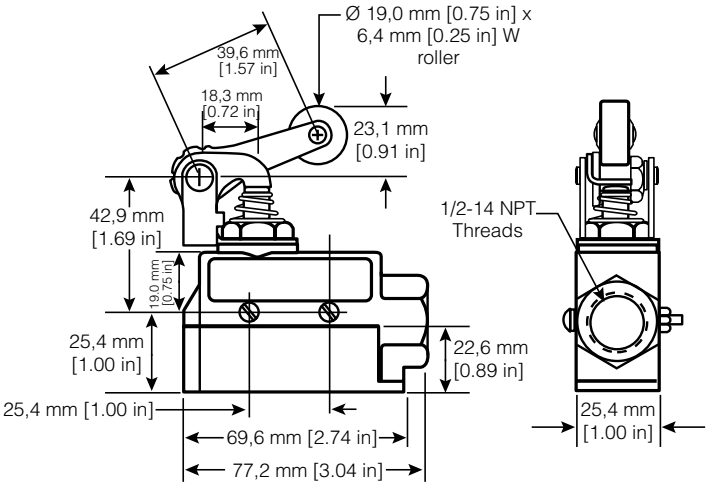


Figure 18. One-way roller lever, side mount

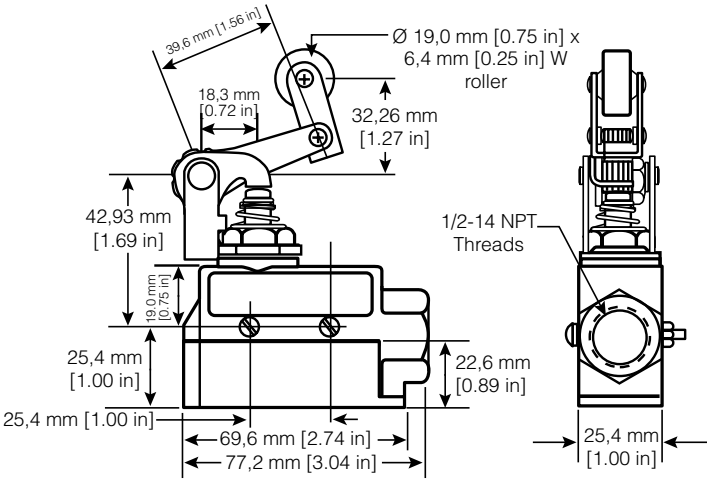


Figure 19. Rod lever, side mount

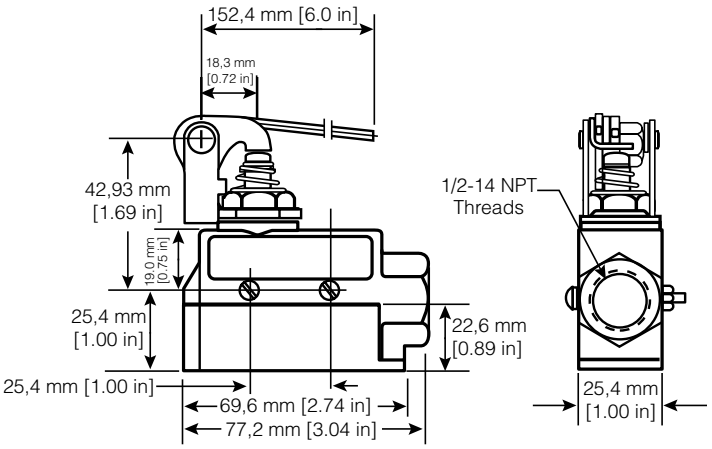


Figure 20. Manual palm button, side mount

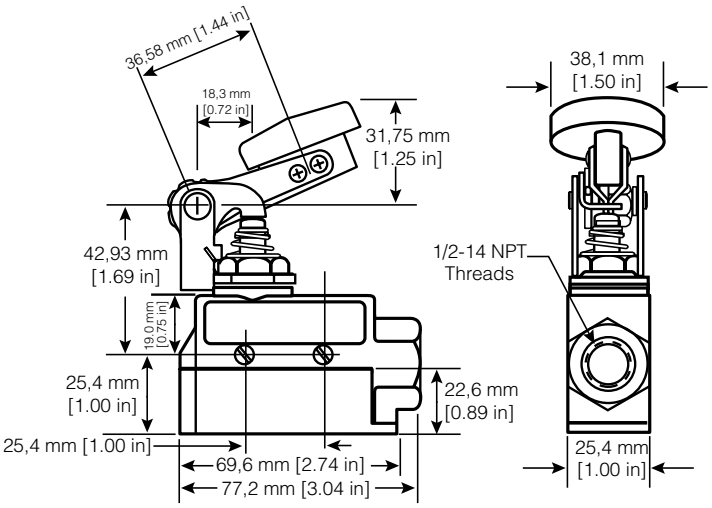


Figure 21. Top pin plunger, reset, side mount

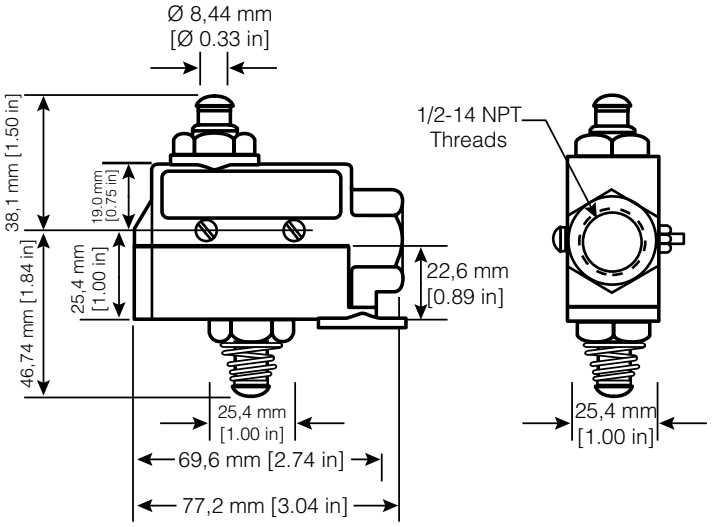


Figure 22. Roller plunger, reset, side mount

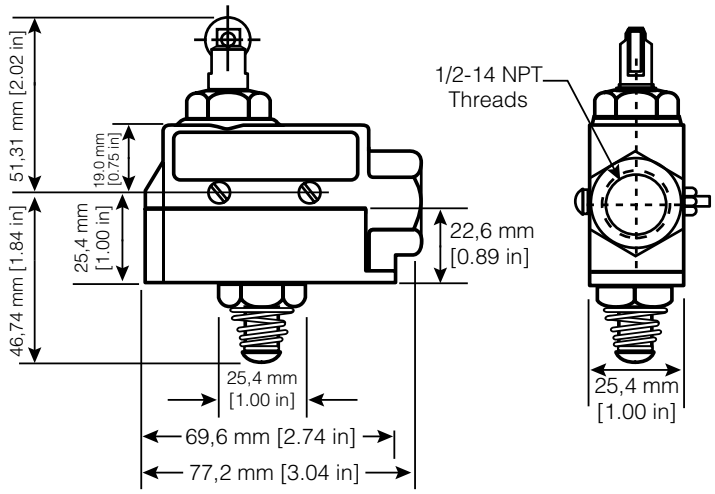


Figure 23. Cross roller plunger, reset, side mount

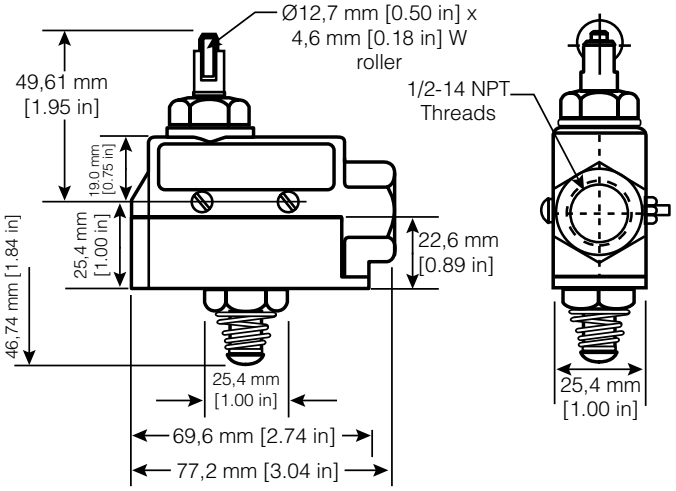
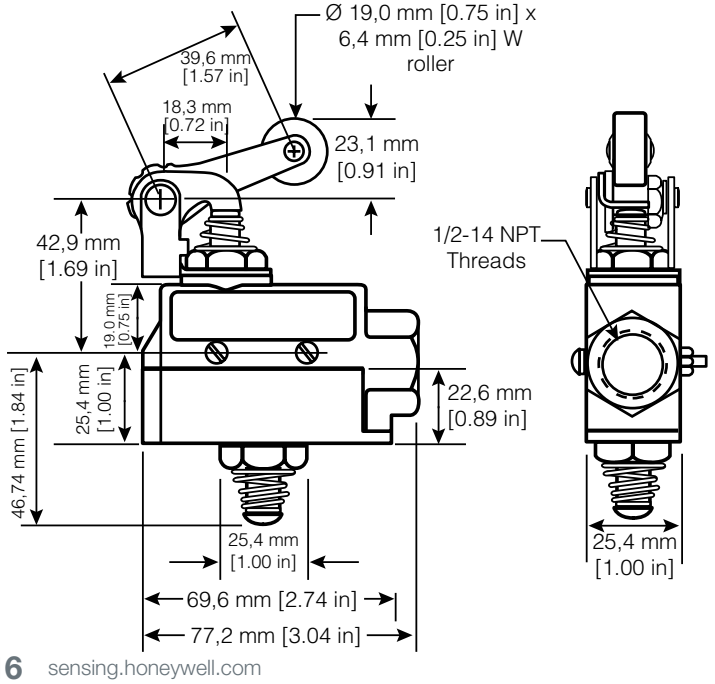


Figure 24. Roller lever, reset, side mount



MICRO SWITCH™ Medium-Duty Limit Switches

Table 8. Order Guide • V6 Series Switches, Flange Mount with Boot Seal

For catalog listings not shown, please contact your Honeywell distributor or representative.

	Catalog Listing	Switch type, Circuitry	Electrical Rating [page 6]	Operate Force N [oz]	Operate Point mm [in]	Pretravel mm [in] max.	Over Travel mm [in] min.	Differential Travel mm [in] max.	Comments
Pin plunger	**BZV6-2RN**	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to 24]	69,09 ±1,52 [2.720 ±0.060]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	
	BZV6-2RN-S	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to 24]	69,09 ±1,52 [2.720 ±0.060]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	0.5-14 NPSM conduit thread
	BZV6-2RN34	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to 24]	69,09 ±1,52 [2.720 ±0.060]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	Low temperature -40 °C [-40 °F]
	DTV6-2RN	DT, DPDT	B, 10 A	7,23 to 16,4 [26 to 59]	71,42 ±0,76 [2.812 ±0.030]	2,79 [0.110]	3,18 [0.125]	1,52 [0.060]	Double pole applications
Inline Roller Plunger	**BZV6-2RN80**	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to24]	82,09 ±1,14 [3.232 ±0.045]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	
Cross Roller Plunger	**BZV6-2RN81**	BZ, SPDT	A, 15 A	2,50 to 6,67 [9 to24]	82,09 ±1,14 [3.232 ±0.045]	1,98 [0.078]	5,56 [0.219]	0,05 [0.002]	
Roller Lever	**BZV6-2RN2**	BZ, SPDT	A, 15 A	2,78 to 5,57 [10 to 20]	96,82 Ref [3.812]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	
	DTV6-2RN2	DT, DPDT	B, 10 A	2,78 to 8,35 [10 to 30]	94,84 Ref [3.734]	6,76 [0.266]	5,56 [0.219]	4,19 [0.165]	Double pole applications
One-way Roller Lever	**BZV6-2RN28**	BZ, SPDT	A, 15 A	2,22 to 5,56 [8 to 20]	-	5,94 [0.234]	5,56 [0.219]	0,15 [0.006]	
Low-force Rod Lever	**BZV6-2RN62**	BZ, SPDT	A, 15 A	0,83 to 1,95 [3 to 7]	-	18,24 [0.718]	21,29 [0.838]	5,82 [0.229]	

E6/V6 Series

Table 8, continued. Order Guide • V6 Series Switches, Flange Mount with Boot Seal

For catalog listings not shown, please contact your Honeywell distributor or representative.

	Catalog Listing	Switch type, Circuitry	Electrical Rating [page 6]	Operate Force N [oz]	Operate Point mm [in]	Pretravel mm [in] max.	Over Travel mm [in] min.	Differential Travel mm [in] max.	Comments
Coil-spring Wobble	**BZV6-2RN18**	BZ, SPDT	A, 15 A	1,95 N. max. [7.0 oz max.]	-	15°	20° Ref	-	
Manual Palm Button	**BZV6-2RN4**	BZ, SPDT	A, 15 A	2,78 to 5,57 [10 to 20]	105,56 Ref. [4.156]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	
Pin Plunger w Manual Reset	**BZV6-RNX1**	BZ, SPDT	A, 15 A	1,67 to 5,56 [6 to 20]	69,09 ±1,52 [2.720 ±0.060]	1,98 [0.078]	4,78 [0.188]	NA	Reset position: 26,97 [1.062] max.

MICRO SWITCH™ Medium-Duty Limit Switches

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Figure 25. Top pin plunger, flange mount with boot seal

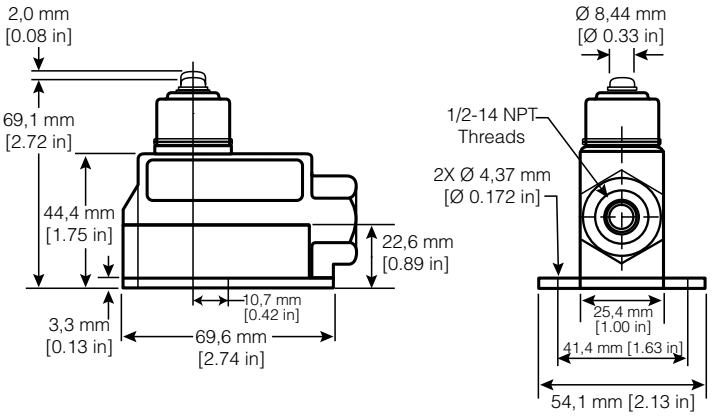


Figure 26. Top roller plunger, flange mount with boot seal

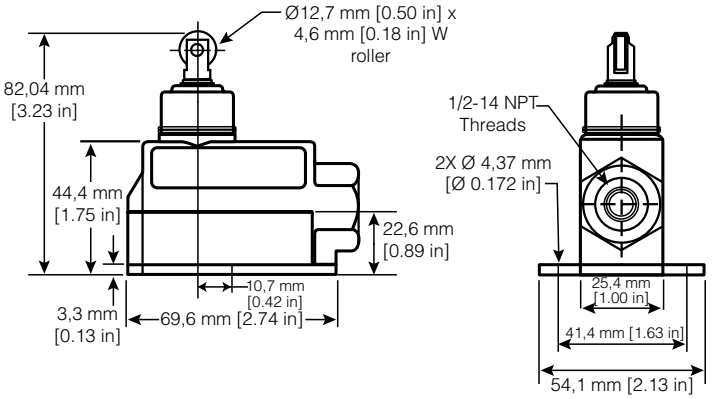


Figure 27. Cross roller plunger, flange mount with boot seal

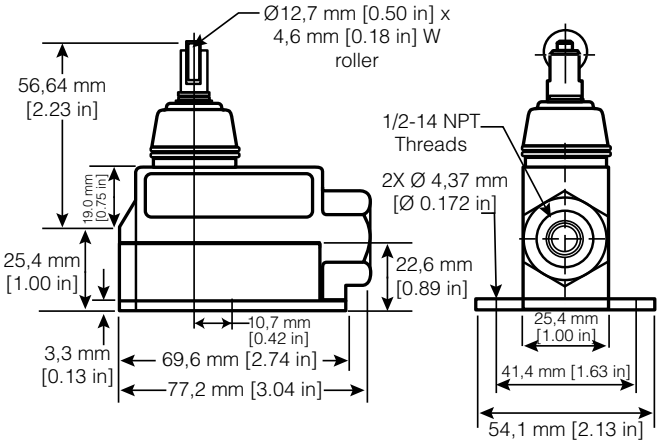


Figure 28. Roller lever adjustable, flange mount with boot seal

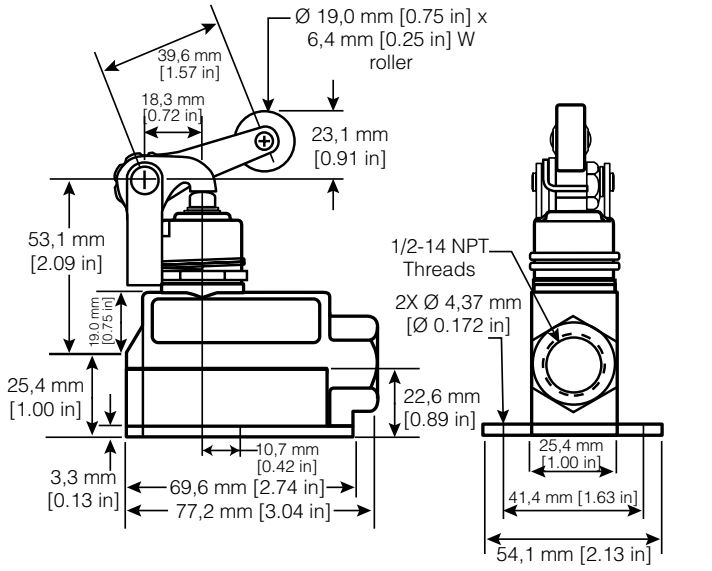


Figure 29. One-way roller lever, flange mount with boot seal

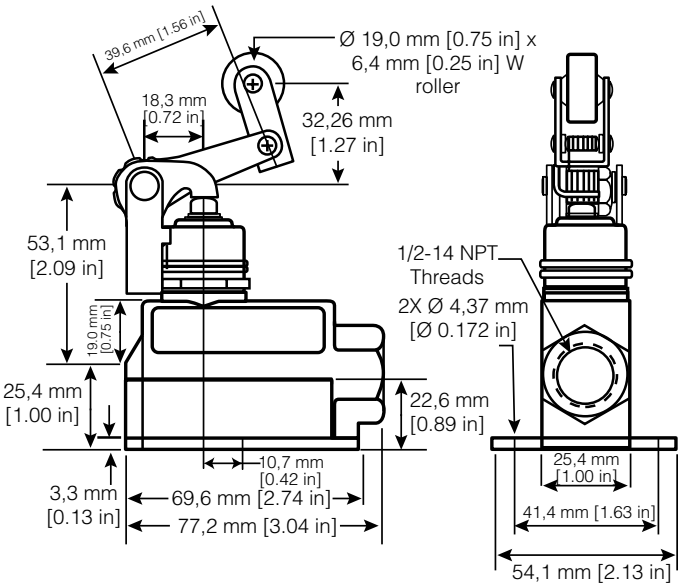


Figure 30. Rod lever, flange mount with boot seal

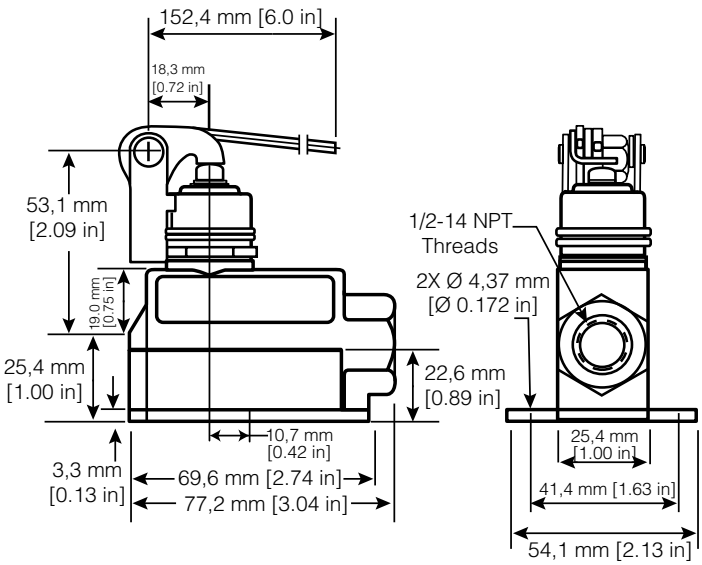


Figure 31. Manual palm button, flange mount with boot seal

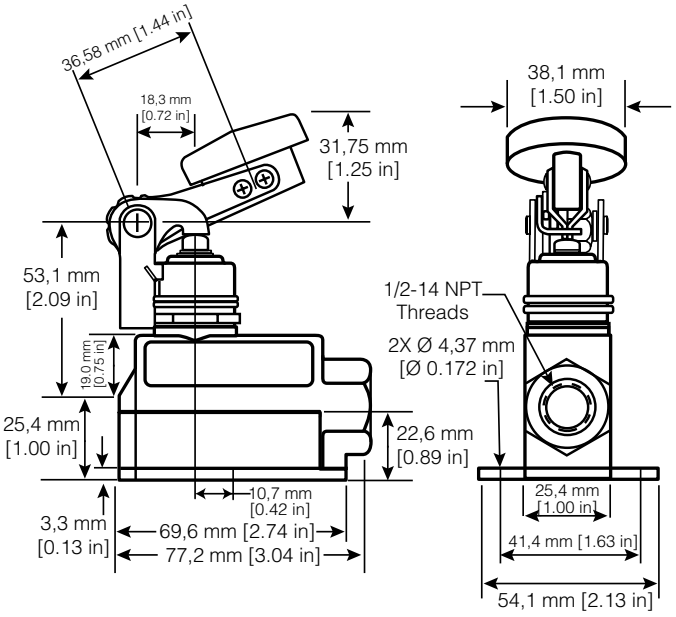


Figure 32. Coil wobble, flange mount with boot seal

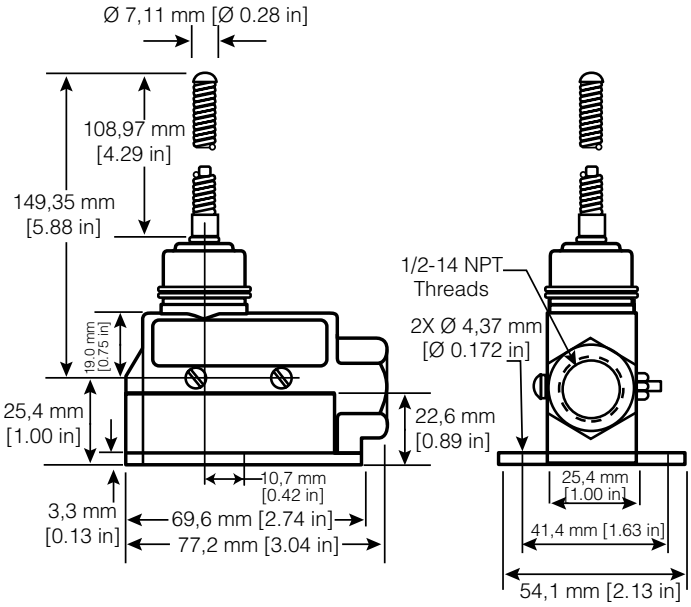
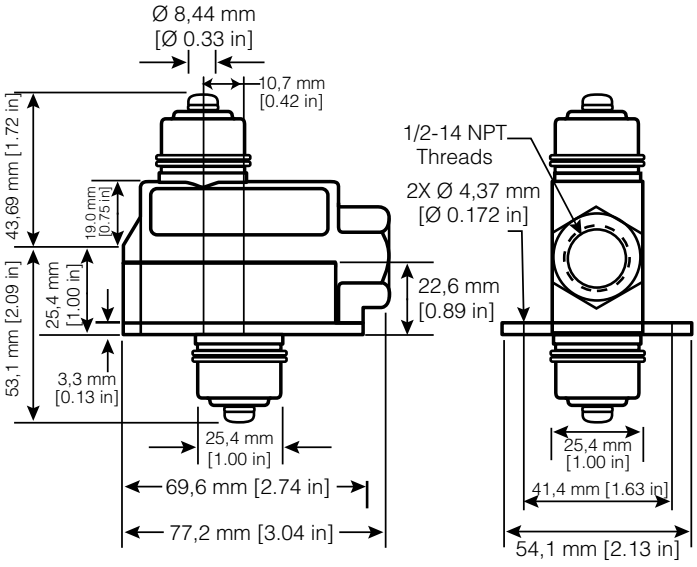


Figure 33. Top pin plunger, reset, flange mount with boot seal



MICRO SWITCH™ Medium-Duty Limit Switches

Table 9. Order Guide • V6 Series Switches, Flange Mount without Boot Seal

For catalog listings not shown, please contact your Honeywell distributor or representative.

	Catalog Listing	Switch type, Circuitry	Electrical Rating [page 6]	Operate Force N [oz]	Operate Point mm [in]	Pretravel mm [in] max.	Over Travel mm [in] min.	Differential Travel mm [in] max.	Comments
Pin plunger	**BZV6-2RQ**	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	63,50 ±1,14 [2.50 ±0.045]	0,38 [0.015]	5,56 [0.219]	0,05 [0.002]	
Inline Roller Plunger	**BZV6-2RQ8**	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	75,01 ±1,52 [2.953 ±0.060]	0,38 [0.015]	3,56 [0.140]	0,05 [0.002]	
Cross Roller Plunger	**BZV6-2RQ81**	BZ, SPDT	A, 15 A	2,50 to 3,61 [9 to 13]	75,01 ±1,52 [2.953 ±0.060]	0,38 [0.015]	3,56 [0.140]	0,05 [0.002]	
Roller Lever	**BZV6-2RQ2**	BZ, SPDT	A, 15 A	2,78 to 5,00 [10 to 18]	86,51 Ref [3.406]	4,83 [0.188]	5,56 [0.219]	0,15 [0.006]	
Low-force Rod Lever	**BZV6-2RQ62**	BZ, SPDT	A, 15 A	0,56 to 1,39 [2 to 5]	-	18,24 [0.718]	21,29 [0.838]	5,82 [0.229]	

DIMENSIONS

Figure 34. Top pin plunger, flange mount

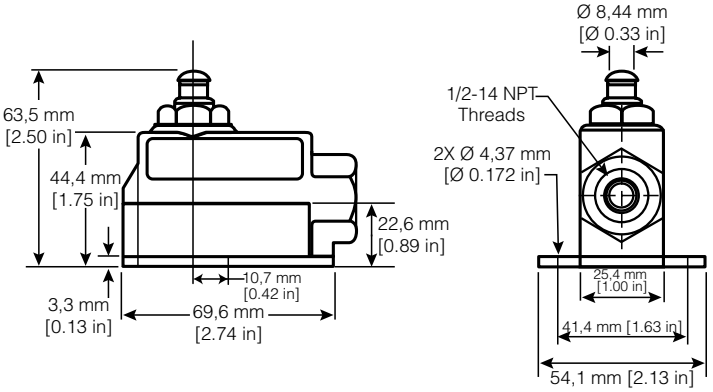


Figure 35. Top roller plunger, flange mount

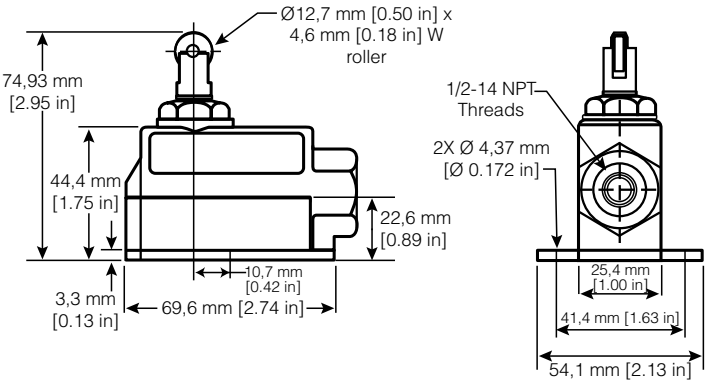


Figure 36. Cross roller plunger, flange mount

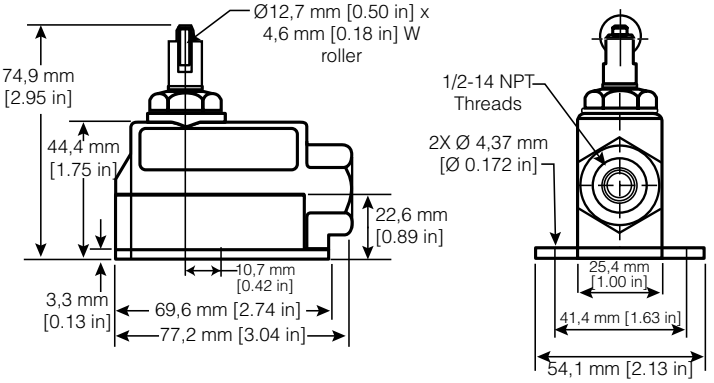


Figure 37. Roller lever adjustable, flange mount

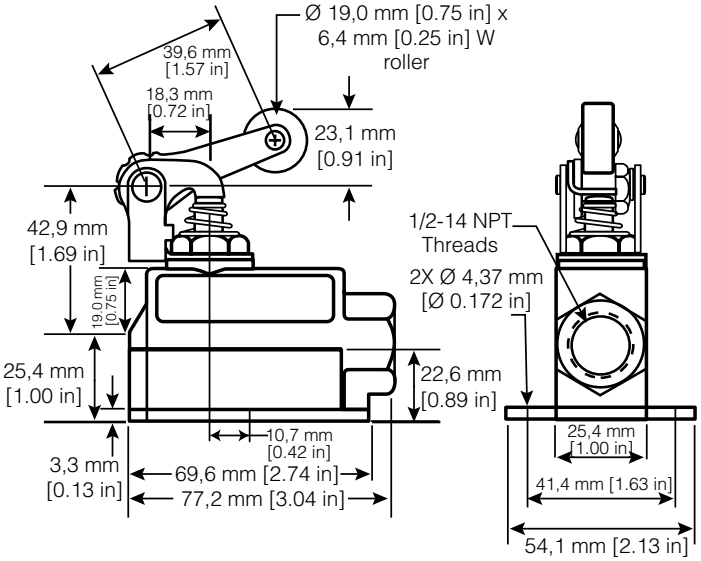
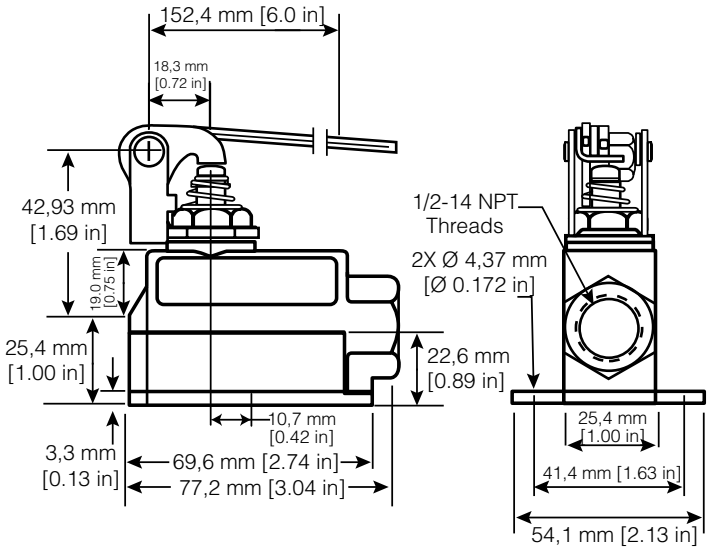


Figure 38. Rod lever, flange mount



MICRO SWITCH™ Medium-Duty Limit Switches

E6/V6 REPLACEMENT PARTS

The metal bottom cover includes the insulator seal and two cover screws
The plunger seal boot includes the plunger seal and retaining hardware
The hardware packet includes mounting hardware and seal boot as noted in the tables

Table 10. Actuator with Boot Seal Replacement Parts

Cat. Listing	Bottom Cover	Plunger Seal Boot[1]	Hardware Packet	Internal Basic Switch	Actuator
BZE6-2RN	3PA13-E6	10PA2	1PA2*	BZ-2RQ77**	Integral to internal basic switch
BZV6-2RN	3PA14-V6	10PA2	1PA2*	BZ-2RQ77**	Integral to internal basic switch
BZE6-2RN7	3PA13-E6	10PA2	1PA46*[2]	BZ-2RN730**	Integral to internal basic switch
BZE6-2RN72	3PA13-E6	10PA2	1PA2*	BZ-2RQ7722**	Integral to internal basic switch
BZE6-2RN80	3PA13-E6	10PA2	1PA47	BZ-2RN784	Integral to internal basic switch
BZE6-2RN2	3PA13-E6	10PA2	1PA13*	BZ-2RN702**	6PA2*
BZV6-2RN2	3PA14-V6	10PA2	1PA13*	BZ-2RN702**	6PA2*
BZE6-2RN18	3PA13-E6	10PA2	-	BZ-2R-A2	6PA195[3]
BZV6-2RN18	3PA14-V6	10PA2	-	BZ-2R-A2	6PA195[3]
DTE6-2RN	3PA13-E6	10PA2	1PA2	DT-2R3-A7	8PA14
DTV6-2RN	3PA14-V6	10PA2	1PA2	DT-2R3-A7	8PA14
DTE6-2RN2	3PA13-E6	10PA2	-	DT-2R3-A7	6PA2*
DTV6-2RN2	3PA14-V6	10PA2	-	DT-2R3-A7	6PA2*

*Includes plunger seal boot
**Includes hardware packet

1. To order replacement low temperature plunger boot seal (switch code 34), specify **10PA1**
2. 1PA46 hardware packet cannot be ordered separately. When BZ-2RN730 internal basic switch is ordered, the 1PA46 hardware packet is included with internal basic switch.
3. To order replacement wobble actuator including internal threaded bushing, specify **6PA188-F**

Table 11. Actuator without Boot Seal Replacement Parts

Cat. Listing	Bottom Cover	Hardware Packet	Internal Basic Switch	Actuator
BZE6-2RQ	3PA13-E6	1PA1	BZ-2RQ66	Integral to internal basic switch
BZV6-2RQ	3PA14-V6	1PA1	BZ-2RQ66	Integral to internal basic switch
BZE6-2RQ8	3PA13-E6	1PA19	BZ-2RQ784**	Integral to internal basic switch
BZV6-2RQ8	3PA14-V6	1PA19	BZ-2RQ784**	Integral to internal basic switch
BZE6-2RQ81	3PA13-E6	1PA19	BZ-2RQ785**	Integral to internal basic switch
BZV6-2RQ81	3PA14-V6	1PA19	BZ-2RQ785**	Integral to internal basic switch
BZE6-2RQ2	3PA13-E6	1PA3	BZ-2RQ68**	6PA1
BZV6-2RQ2	3PA14-V6	1PA3	BZ-2RQ68**	6PA1

**Includes hardware packet

E6/V6 Series

This Honeywell datasheet supports the following MICRO SWITCH™ E6/V6 Series Limit Switch Listings

BZE6-2RN4
BZE6-2RN7
BZE6-2RN80
BZE6-2RQ2
BZE6-RN80X2
BZE6-2AQ
BZE6-2AQ8T
BZE6-2GN
BZE6-2RN
BZE6-2RN18
BZE6-2RN1809-5
BZE6-2RN1810
BZE6-2RN1812
BZE6-2RN183
BZE6-2RN185
BZE6-2RN185-WP
BZE6-2RN187
BZE6-2RN1872
BZE6-2RN18721
BZE6-2RN18-C3
BZE6-2RN19
BZE6-2RN191-S
BZE6-2RN193
BZE6-2RN196-F5
BZE6-2RN2
BZE6-2RN221
BZE6-2RN224
BZE6-2RN234
BZE6-2RN272
BZE6-2RN28
BZE6-2RN281
BZE6-2RN28-S
BZE6-2RN2-F3
BZE6-2RN2-F6
BZE6-2RN2-S
BZE6-2RN2-TW
BZE6-2RN34
BZE6-2RN37
BZE6-2RN39
BZE6-2RN5
BZE6-2RN51
BZE6-2RN62
BZE6-2RN72
BZE6-2RN72-S
BZE6-2RN7-S
BZE6-2RN8
BZE6-2RN8034
BZE6-2RN81
BZE6-2RN-C
BZE6-2RN-F1
BZE6-2RN-F3
BZE6-2RN-F6
BZE6-2RN-FR
BZE6-2RN-M
BZE6-2RN-R
BZE6-2RN-S
BZE6-2RQ
BZE6-2RQ125
BZE6-2RQ136
BZE6-2RQ165
BZE6-2RQ168
BZE6-2RQ219
BZE6-2RQ241
BZE6-2RQ28
BZE6-2RQ2-S
BZE6-2RQ4
BZE6-2RQ5
BZE6-2RQ62
BZE6-2RQ62-S
BZE6-2RQ7
BZE6-2RQ72
BZE6-2RQ8
BZE6-2RQ81
BZE6-2RQ814
BZE6-2RQ81-S
BZE6-2RQ841-BP
BZE6-2RQ8722
BZE6-2RQ8-S
BZE6-2RQ9
BZE6-2RQ9-S
BZE6-2RQ-S
BZE6-3RN
BZE6-3RN18150-C
BZE6-3RN2153
BZE6-3YN2
BZE6-3YNP
BZE6-3YNT
BZE6-3YQ9
BZE6-3YQT
BZE6-7RN
BZE6-7RN18
BZE6-7RN1812
BZE6-7RN51
BZE6-7RN8051
BZE6-7RNT
BZE6-7RQ8
BZE6-7RQ9
BZE6-7RQ9T
BZE6-RN
BZE6-RN18X1
BZE6-RN18X2
BZE6-RN18X3
BZE6-RN2X1
BZE6-RNX1
BZE6-RNX12
BZE6-RNX17
BZE6-RQ
BZE6-RQ2
BZE6-RQ2X2
BZE6-RQ71
BZE6-RQ81X2
BZE6-RQ8X2
BZE6-RQ8X4
BZE6-RQ9
BZE6-RQX2
BZV6-2RN
BZV6-2RN18
BZV6-2RN2
BZV6-2RN28
BZV6-2RN34
BZV6-2RN4
BZV6-2RN62
BZV6-2RN80
BZV6-2RN81
BZV6-2RN-C
BZV6-2RN-S
BZV6-2RQ
BZV6-2RQ2
BZV6-2RQ39
BZV6-2RQ62
BZV6-2RQ8
BZV6-2RQ81
BZV6-2RQ9
BZV6-7RN
BZV6-7RN2T
BZV6-RNX1
10PA1
10PA2
19PA22-E6
3PA13-E6
3PA14-V6
6PA140-E6
6PA147-E6
6PA148-E6
6PA187-E6
BME6-2RN
BME6-2RN2
BME6-2RN373
BME6-2RQ
BME6-2RQ171
BME6-2RQ173
BME6-2RQ273
BME6-2RQ81
DTE6-2RN
DTE6-2RN2
DTE6-2RN28
DTE6-2RN281
DTE6-2RN4
DTE6-2RN80
DTE6-2RN8034-M
DTE6-2RQ
DTE6-2RQ2
DTE6-2RQ62
DTE6-2RQ81
DTE6-2RQ9
DTV6-2RN
DTV6-2RN2
DTV6-2RN4
HSE6-3RNT2

ADDITIONAL INFORMATION

The following associated literature is available on the Honeywell web site at sensing.honeywell.com:

- Product installation instructions
- Product range guide
- Product nomenclature tree
- Product application-specific information
  - Limit and enclosed switch reference standards
  - Application note: Machine tool application guide
  - Application note: Industrial machinery switch 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.

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Sensing and Control
Honeywell
1985 Douglas Drive North
Golden Valley, MN 55422
honeywell.com

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Телефон: 8 (812) 309-75-97 (многоканальный)
Факс: 8 (812) 320-03-32
Электронная почта: ocean@oceanchips.ru
Web: http://oceanchips.ru/
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А