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E50 Heavy-Duty Plug-In Switches

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Drawings Online

E50 Heavy-Duty Plug-In Switches

Product Description

E50 Modular Plug-In Limit Switch Components from Eaton's electrical sector are the industry standard with versatility of design and high reliability for low maintenance, installation and inventory costs. Standard Viton gaskets, seals and boots and a zinc die cast enclosure provide exceptional chemical resistance to the common coolants, cleansing agents, and hydraulic fluids found in machine tool, automotive, waste water treatment and other heavy-duty industrial applications. Mounting dimensions accommodate both U.S. and DIN standards for easy retrofit installations. Super bright 24–120 Vac/dc LED indicating light versions simplify setup and troubleshooting operations.

Features

- Modular, plug-in components (head, body and receptacle) provide application flexibility, reduced inventory and less downtime
- Manufactured to take the physical and environmental abuse (including cutting fluids and chemicals) of harsh industrial environments
- Chemical resistant Viton gaskets, seals and boots are standard, and so are captive, posi-drive screws
- The switches have terminal identification on the nameplate for a visual wiring checkout without guesswork. Heads and switch bodies can be replaced without rewiring
- E50 devices can be ordered in separate components or as complete assembled switches
- 600V rating, ridge-topped contacts and wiping action assure continuity even to logic level circuits
- Keyed, four direction head positioning
- Standard 5° pre-travel and 90° total travel
- 24–120 Vac/dc LED and 120 Vac neon indicating lights available
- Rotary heads are field convertible CW, CCW, or both, without special tools
- Epoxy filled, pin connector or pigtail pin connector receptacles available

Standards and Certifications

- UL Listed
- CSA Certified
- IEC.947.5.1
- TUV—E9271605E02
- CE (where shown)

DANGER

THIS SENSOR IS NOT A SAFETY DEVICE AND IS NOT INTENDED TO BE USED AS A SAFETY DEVICE. This sensor is designed only to detect and read certain data in an electronic manner and perform no use apart from that, specifically no safety-related use. This sensor product does not include self-checking redundant circuitry, and the failure of this sensor product could cause either an energized or de-energized output condition, which could result in death, serious bodily injury, or property damage.

For the most current information on this product, visit our Web site: www.eaton.com

For Customer Service in the U.S. call 1-877-ETN CARE (386-2273), in Canada call 1-800-268-3578.
For Application Assistance in the U.S. and Canada call 1-800-426-9184.

Operating Heads

E50 Heavy-Duty Plug-In Switches, Operating Heads

	Description	Travel to Operate Contacts	Travel to Reset Contacts	Total Travel	Force to Operate Contacts	Minimum Return Force	Operating Temperature ① Without Cable	Operating Temperature ① With Pre-Wired Cable	Catalog Number
Side Rotary 	**Side Rotary** (requires an operating lever, see **Page V8-T2-80**)								
	Standard spring return ②	5°	2°	90°	3 in-lbs	4.5 in-oz	10° to 200°F (–12° to 94°C) ③	10° to 200°F (–12° to 94°C) ③	**E50DR1**
	Low temperature spring return ②	5°	2°	90°	3 in-lbs	4.5 in-oz	–40° to 175°F (–40° to 79°C)	–31° to 175°F (–34° to 79°C)	**E50DR19**
	Low force spring return ②	15°	6°	90°	1.5 in-lbs	2.5 in-oz	10° to 200°F (–12° to 94°C) ③	10° to 200°F (–12° to 94°C) ③	**E50DL1**
	Maintained two-position	50°	50°	90°	3 in-lbs	—	14° to 200°F (–10° to 94°C)	14° to 200°F (–10° to 94°C)	**E50DM1**
	Side Pushbutton								
Spring Return 	Spring return	0.065 in	0.030 in	0.250 in	4 lbs	8 oz	14° to 200°F (–10° to 94°C)	14° to 200°F (–10° to 94°C)	**E50DS1**
Adjustable Spring Return 	Adjustable spring return	0.065 in	0.030 in	0.250 in	4 lbs	8 oz	14° to 200°F (–10° to 94°C)	14° to 200°F (–10° to 94°C)	**E50DS2**
Side Push Roller 	**Side Push Roller**								
	Spring return ④	0.065 in	0.030 in	0.250 in	4 lbs	8 oz	14° to 200°F (–10° to 94°C)	14° to 200°F (–10° to 94°C)	**E50DS3** ⑤
		0.065 in	0.030 in	0.250 in	4 lbs	8 oz	14° to 200°F (–10° to 94°C)	14° to 200°F (–10° to 94°C)	**E50DS4** ⑤
Side Pushbutton 	**Side Pushbutton**								
	Maintained	0.200 in	0.130 in	0.320 in	5 lbs	5 lbs	14° to 200°F (–10° to 94°C)	14° to 200°F (–10° to 94°C)	**E50DH1**
	Top Pushbutton								
Spring Return 	Spring return	0.040 in	0.020 in	0.280 in	4 lbs	8 oz	14° to 250°F (–10° to 121°C)	14° to 221°F (–10° to 105°C)	**E50DT1**
Adjustable Spring Return 	Adjustable spring return	0.040 in	0.020 in	0.280 in	4 lbs	8 oz	14° to 250°F (–10° to 121°C)	14° to 221°F (–10° to 105°C)	**E50DT2**

Notes

① Temperature ranges below 32°F (0°C) are based on absence of freezing moisture or water.
② CW (clockwise) and CCW (counterclockwise) operation, easily convertible to CW only or CCW only operation.
③ For CW and CCW operation. For CW only or CCW only operation, high temperature limit increases to 250°F (121°C) without cable, and 221°F (105°C) with pre-wired cable.
④ Roller can be converted in the field between horizontal and vertical.
⑤ Roller shaft is 0.38 in (9.5 mm) longer on E50DS4, see Dimensions on **Page V8-T2-66**.