

E50 Heavy-Duty Plug-In Switches

2



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.9475.1
- 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.

Contents

Description

Page

E50 Heavy-Duty Plug-In Switches

Product Selection

Assembled Switches—Standard	V8-T2-55
Assembled Switches—Special Purpose	V8-T2-58
Operating Heads	V8-T2-59
Switch Bodies	V8-T2-60
Receptacles	V8-T2-61
Compatible Connector Cables	V8-T2-62

Accessories	V8-T2-62
-----------------------	----------

Technical Data and Specifications	V8-T2-64
---------------------------------------------	----------

Circuit Diagrams	V8-T2-65
----------------------------	----------

Wiring Diagrams	V8-T2-65
---------------------------	----------

Dimensions	V8-T2-66
----------------------	----------



Drawings
Online

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.

2.6

Limit Switches

E50 Heavy-Duty Plug-In Switches

Assembled Switches—Special Purpose

2

E50 Heavy-Duty Plug-In Switches, Assembled—Special Purpose

Operating Data— Nominal Switches	Assembled Switch Catalog Number	Switch Body Only Catalog Number	Receptacle Only Catalog Number	Operating Head Only Catalog Number
Neutral Position (requires an operating lever, see Page V8-T2-80)				
5° Travel	E50NN1 ①	E50SN	E50RB	E50DN1 ①
5° Travel; stainless steel shaft	E50NN1SPL ②	—	—	—
15° Travel	E50NN2	E50SN	E50RB	E50DN2 ①
Travel to operate contacts:	—	—	—	5° or 15° ③
Travel to reset contacts:	—	—	—	2°
Total travel:	—	—	—	90°
Force to operate contacts:	—	—	—	1.8 in-lbs
Minimum return force:	—	—	—	2.5 in-oz
Operating temperature:	—	—	—	14° to 200°F (–10° to 94°C)
Two-Step				
Two-Step CW, CCW, or both, Convertible (requires an operating lever, see Page V8-T2-80)				
—	E50TD1	E50ST	E50RB	E50DD1
Travel to operate contacts:	—	—	—	1st step 10°; 2nd step 20°
Travel to reset contacts:	—	—	—	4° each
Total travel:	—	—	—	90°
Force to operate contacts:	—	—	—	3 in-lbs
Minimum return force:	—	—	—	4.5 in-oz
Operating temperature:	—	—	—	CW or CCW: 14° to 250°F (–10° to 121°C) CW and CCW: 14° to 200°F (–10° to 94°C)
Gravity Return (requires E50KL220, E50KL226 or equivalent operating lever, see Page V8-T2-80)				
Without indicating light	E50GG1	E50SG	E50RA	E50DG1
With LED indicating light (24–120 Vac/dc)	E50GLG1	E50SGL	E50RA	E50DG1
With neon indicating light (120 Vac)	E50NGG1	E50SGN	E50RA	E50DG1
Travel to operate contacts:	—	—	—	10° to 170°
Travel to reset contacts:	—	—	—	8°
Total travel:	—	—	—	360°
Force to operate contacts:	—	—	—	3.0 in-oz
Minimum return force:	—	—	—	Gravity
Operating temperature:	—	—	—	14° to 200°F (–10° to 94°C)
Circuit Diagrams , see Page V8-T2-65 .				

Notes

- ① Add **9** suffix to the model number for low temperature –40° to 174°F (–40 to 79°C) versions.
- ② Low temperature rating –40° to 174°F (–40° to 79°C)
- ③ Depending upon model selected.