Limit Switches

Operators



Contents

Description	Page
Operators	
Product Selection	
Roller Type Operators	V8-T2-81
Rod Type Operators	V8-T2-83
Wobble Type Operators	V8-T2-84
Dimensions	V8-T2-84
Drawings	

Operators

Product Description

The Operators presented here are used with Eaton's E50 Plug-In and 6P+ limit switches, as well as our 10316 rotary type limit switches. A wide variety of styles and sizes are available to provide optimum performance for nearly any application.

Features

- Wide variety of operator types for rotary and wobble style limit switches
- Rollers and rods available in metal and nonmetal contact surfaces



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 safetyrelated 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.

Operators

Note: Only operators with Nylatron rods or rollers should be used with explosion-proof limit switches.

Operators-Roller Type, continued Approximate Dimensions in Inches (mm) Minimum Required Catalog **Roller Type** Lever Length ^② **Roller Diameter Roller Width** D Е F Number Return Torque 1 E50KL532 Bantam Lever Metal 0.45 in-oz 0.69 (17.5) 0.85 (22.0) 0.18 (4.6) E50KL532 E50KL340 **Precision Adjustment** Nylatron 0.65 in-oz 0.69 (17.5) 0.75 (19.0) 0.32 (8.1) 0.48 (12.2) 0.24 (6.1) 0.28 (7.1) E50KL340 Roller length: Metal 1.20 in-oz 0.75 (19.0) 0.32 (8.1) 0.48 (12.2) 0.24 (6.1) 0.28 (7.1) E50KL465 1.50 (38.1) 3 0.90 in-oz 0.69 (17.5) Ball bearing 0.25 (6.4) 0.48 (12.2) 0.16 (4.1) 0.22 (5.6) E50KL535 E50KL201 Dimensions, see Page V8-T2-85 Adjustable Roller (Stainless Steel) Ball bearing 2.50 in-oz ④ 1.0 (25.4) to 0.69 (17.5) 0.25 (6.4) 0.23 (5.8) 0.30 (7.6) E50KL539 3.75 (95.2) (5 E50KL201 Nylatron 1.90 in-oz ④ 0.75 (19.0) 0.32 (8.1) 0.29 (7.4) 0.33 (8.4) _ 0.75 (19.0) E50KL201SPL 6 0.32 (8.1) 0.29 (7.4) 0.33 (8.4) ____ E50KL537 Metal 3.40 in-oz ④ 0.75 (19.0) 0.32 (8.1) 0.29 (7.4) 0.33 (8.4) E50KL538 Nylatron 1.90 in-oz ④ 0.75 (19.0) 0.50 (12.7) 0.46 (11.6) 0.48 (12.2) E50KL599 _ Nylatron E50KL537 3.10 in-oz ④ 0.75 (19.0) 1.00 (25.4) 0.90 (22.9) 0.95 (24.1) Large Nylatron 4.50 in-oz ④ 0.5 (12.7) to 4.00 (102.0) 0.11 (2.8) 0.11 (2.8) 0.19 (4.8) E50KL598 3.25 (82.6) Without roller 0.5 (12.7) to E50KL31 1.20 in-oz ④ 3.75 (95.2) Nylatron 2.50 in-oz ④ 1.63 (41.3) to 1.50 (38.1) 0.29 (7.4) 0.26 (6.6) 0.32 (8.1) E50KL443 3.75 (95.2) (5)

Dimensions, see Page V8-T2-86

Return

Torque 1

Operators-Roller Type, continued

Minimum Approximate Dimensions in Inches (mm) Required

Lever Length ^②

R

Roller Diameter



E50KL542

Fork Lever—Both Rollers on One Side									
Ball bearing	_	1.50 (38.1)	0.69 (17.5)	0.25 (6.4)	0.08 (2.0)	0.14 (3.6)	_	_	E50KL545
Nylatron	_		0.75 (19.0)	0.32 (8.1)	0.16 (4.1)	0,20 (5.1)	_	_	E50KL204
Metal	_		0.75 (19.0)	0.32 (8.1)	0.16 (4.1)	0,20 (5.1)	_	_	E50KL544
Nylatron	_		0.75 (19.0)	1.00 (25.4)	0.84 (21.3)	0.88 (22.4)	_	_	E50KL543
Fork Lever	-One Rolle	er Outside, One I	nside						
Ball bearing	—	1.50 (38.1)	0.69 (17.5)	0.25 (6.4)	0.08 (2.0)	0.14 (3.6)	0.64 (16.3)	0.70 (17.8)	E50KL542
Nylatron	_		0.75 (19.0)	0.32 (8.1)	0.16 (4.1)	0.20 (5.1)	0.73 (18,5)	0.77 (19.6)	E50KL203
Metal			0.75 (19.0)	0.32 (8.1)	0.16 (4.1)	0.20 (5.1)	0.73 (18,5)	0.77 (19.6)	E50KL541

Roller Width

D

Ε

F

G

C

Catalog

Number

Dimensions, see Page V8-T2-86.

Notes

Roller Type

- ① Caution: When selecting lever, the minimum required return torque of lever should not exceed minimum return force available in operating head as given in operating head specifications.
- ⁽²⁾ Length from the operating shaft axis to the roller axis (or to the tip for non-roller operators).
- ③ Maximum length dimension between operating shaft axis to roller axis for comparison.
- Precision adjustable to lesser dimensions.
- ⁽⁴⁾ Applies when lever is extended to the maximum dimension.
- ⁽⁶⁾ By reassembling lever, minimum length can be reduced another 0.5 in (12.7 mm).
- In High-grade stainless steel.

Limit Switches

Operators



Adjustable Roller

Approximate Dimensions in mm [in]

Catalog Number	A Lever Length ^①	B Roller Diameter	C Roller Width	D	E
E50KL539	25.4 [1.0] to	17.5 [0.69]	6.4 [0.25]	5.8 [0.23]	7.6 [0.30]
E50KL201	- 95.2 [3.75] @	19.0 [0.75]	8.1 [0.32]	7.4 [0.29]	8.4 [0.33]
E50KL201SPL 3	_	19.0 [0.75]	8.1 [0.32]	7.4 [0.29]	8.4 [0.33]
E50KL538	_	19.0 [0.75]	8.1 [0.32]	7.4 [0.29]	8.4 [0.33]
E50KL599	_	19.0 [0.75]	12.7 [0.50]	11.6 [0.46]	12.2 [0.48]
E50KL537	-	19.0 [0.75]	25.4 [1.00]	22.9 [0.90]	24.1 [0.95]
E50KL598	12.7 [0.50] to 82.6 [3.25]	102.0 [4.00]	2.8 [0.11]	4.8 [0.19]	24.1 [0.95]
E50KL31	12.7 [0.50] to 95.2 [3.75]	_	_	—	_
E50KL443	41.3 [1.63] to 95.2 [3.75] ^②	38.1 [1.50]	7.4 [0.29]	6.6 [0.26]	8.1 [0.32]

Fork Lever-Both Rollers on One Side

Approximate Dimensions in mm [in]

Catalog Number	A Lever Length 1	B Roller Diameter	C Roller Width	D	E
E50KL545	38.1 [1.50]	17.5 [0.69]	6.4 [0.25]	2.0 [0.08]	3.6 [0.14]
E50KL204	38.1 [1.50]	19.0 [0.75]	8.1 [0.32]	4.1 [0.16]	5.1 [0.20]
E50KL544	38.1 [1.50]	19.0 [0.75]	8.1 [0.32]	4.1 [0.16]	5.1 [0.20]
E50KL543	38.1 [1.50]	19.0 [0.75]	25.4 [1.00]	21.3 [0.84]	22.4 [0.88]

$\begin{array}{c} 54\\ (2.12) \xrightarrow{-1} \\ (1.50) \xrightarrow{-27} \\ (1.50) \xrightarrow{-27} \\ (1.06) \xrightarrow{-10} \\ (1.06) \xrightarrow{-10} \\ (0.62) \xrightarrow{-10} \\ (0.48) \xrightarrow{-10} \\ (0.4$

1.061

E→

12

[0.48]

10 [0.38]

⊢ 1.0 [0.04]

Fork Lever-One Roller Outside, One Inside

Approximate Dimensions in mm [in]

Catalog Number	A Lever Length ^①	B Roller Diameter	C Roller Width	D	E	F	G
E50KL542	38.1 [1.50]	17.5 [0.69]	6.4 [0.25]	2.0 [0.08]	3.6 [0.14]	16.3 [0.64]	17.8 [0.70]
E50KL203	38.1 [1.50]	19.0 [0.75]	8.1 [0.32]	4.1 [0.16]	5.1 [0.20]	18.5 [0.73]	19.6 [0.77]
E50KL541	38.1 [1.50]	19.0 [0.75]	8.1 [0.32]	4.1 [0.16]	5.1 [0.20]	18.5 [0.73]	19.6 [0.77]

Notes

В

Dia

16

[0.62]

 $^{\odot}\,$ Length from the operating shaft axis to the roller axis (or to the tip for non-roller operators).

⁽²⁾ By reassembling lever, minimum length can be reduced another 12.7 mm [0.5 in].

³ High-grade stainless steel.

2.8