



MODULAR PLUG-IN LIMIT SWITCHES

E50 Series Starts at £93



- Easy to Install
- High Reliability
- Low Maintenance
- Modular to Reduced Inventory

E50 Modular Plug-In Limit Switch components are the industry standard with versatility of design and high reliability for low maintenance, installation and inventory costs. Standard FKM 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 to 120 Vac/dc LED indicating light versions simplify setup and troubleshooting operations.

SPECIFICATIONS

Environmental Ratings: IP67, NEMA 1, 3, 3S, 4, 4X, 6, 6P, 13

Material of Construction: Zinc die cast

Switch Gasket Material: FKM

Universal U.S./DIN Mounting

Dimensions: 30 x 60 mm

Conduit Entrance: ½ NPT or 20 mm threading

Contact Operation: Snap action over center mechanism

Contact Material: Fine silver

Maximum Frequency of Operation: 8000 operations per hour

Mechanical Life:

Side Rotary Side: 13,000,000 operations minimum

Top Push: 10,000,000 operations minimum

Electrical Life:

Single Pole: 1,000,000 operations typical at full load

Double Pole: 100,000 operations typical at full load

Available as assembled switches or components

E50ANR1 with E50KL200 Lever, £117.10



Rugged zinc die-cast housing

Conduit, cable and connector wiring options

FKM gasket seals

All models shown smaller than actual size.

E50KL200, £8.10



Dozens of operators to perfectly fit your application

E50DR1, £35



Rotary, top and side push, wobble and specialty operating heads

E50SA, £43.50



Single- or double-pole switch bodies with optional indicating lights

E50KH5, £5.40



A variety of mounting adaptors

Ambient Temperature Range—Standard

Standard without Cable:

-10 to 121°C

Standard with Cable:

-10 to 105°C

Low Temperature without Cable:

-40 to 121°C

Low Temperature with Cable:

-40 to 105°C

Repeat Accuracy—Standard

Side Operated: Within 0.03 mm

Top Operated: Within 0.008 mm

Side Rotary: Within 0.04 mm

Torque Requirements:

Switch Body Screws: 29 to 35 Kg/cm

Operating Head Screws: 16 to 21 Kg/cm

Wire Size: Will accept 0.6 to 2 mm dia., single or stranded wire



ELECTRICAL DATA — MAXIMUM CONTACT RATINGS (SAME POLARITY EACH POLE)								
AC VOLTS	CURRENT AMPERES			VOLT AMPERES		DC VOLTS	CURRENT AMPERES	
	MAKE	BREAK	CONT.*	MAKE	BREAK		MAX MAKE OR BREAK	CONT.*
ALL SWITCHES EXCEPT GRAVITY RETURN AND INDICATING LIGHT VERSIONS								
NEMA A600 RATING						NEMA R300		
120	60	6	10	7200	720	125	0.22	1
240	30	3				250	0.11	1
480	15	1.5						
600	12	1.2						
SWITCHES WITH INDICATING LIGHTS (LED OR NEON)								
NEMA A150 RATING						NEMA R150		
120	60	6	10	7200	720	125	0.22	1
GRAVITY RETURN SWITCHES — MAXIMUM CONTACT RATINGS								
NEMA 6600 RATING — CONTACTS ON SAME POLARITY								
120	30	3	5	3600	360	—	—	—
240	15	1.5						
480	7.5	0.75						
600	6	0.6						

* Thermal rating. Valid only if switch does not have to make or break.

OPERATING HEAD SPECIFICATIONS

DESCRIPTION FOR OPERATING HEADS	MODEL NO.	TRAVEL TO OPERATE CONTACTS	TRAVEL TO RESET CONTACTS	TOTAL TRAVEL	FORCE TO OPERATE CONTACTS	MIN. RETURN FORCE	OPERATING TEMPERATURE °C (SEE NOTE 1)	
							WITHOUT CABLE	WITH PRE-WIRED CABLE
Side Rotary Standard Spring Return (See Note 2)	E50DR1	5°	2°	90°	3.5 Kg-cm	324 g-cm	-12 to 94 (See Note 3)	-12 to 94 (See Note 3)
Low Force Spring Return (See Note 2)	E50DL1	15°	6°	90°	1.7 Kg-cm	180 g-cm	-12 to 94 (See Note 3)	-12 to 94 (See Note 3)
Maintained 2-Position	E50DM1	50°	50°	90°	3.5 Kg-cm	—	-10 to 94	-10 to 94
Side Pushbutton, Spring Return	E50DS1	2 mm	0.8 mm	0.64 mm	1.8 Kg-cm	227 g-cm	-10 to 94	-10 to 94
Side Pushbutton, Adjustable Spring Return	E50DS2	2 mm	0.8 mm	0.64 mm	1.8 Kg-cm	227 g-cm	-10 to 94	-10 to 94
Side Push Roller, Spring Return (See Note 4)	E50DS3	2 mm	0.8 mm	0.64 mm	1.8 Kg-cm	227 g-cm	-10 to 94	-10 to 94
Side Pushbutton, Maintained	E50DH1	5 mm	3.3 mm	8 mm	2.4 Kg-cm	2.3 Kg	-10 to 94	-10 to 94
Top Pushbutton, Spring Return	E50DT1	1 mm	0.51 mm	7 mm	1.8 Kg-cm	227 g	-10 to 121	-10 to 105
Top Pushbutton, Adjustable Spring Return	E50DT2	1 mm	0.51 mm	7 mm	1.8 Kg-cm	227 g	-10 to 121	-10 to 105
Top Push Roller, Spring Return	E50DT3	1 mm	0.51 mm	7 mm	1.8 Kg-cm	227 g	-10 to 121	-10 to 105
Wobble Head, Spring Return (req. wobble operator)	E50DW1	10°	6°	15°	2.3 Kg-cm	173 g-cm	-10 to 121	-10 to 105

Notes:

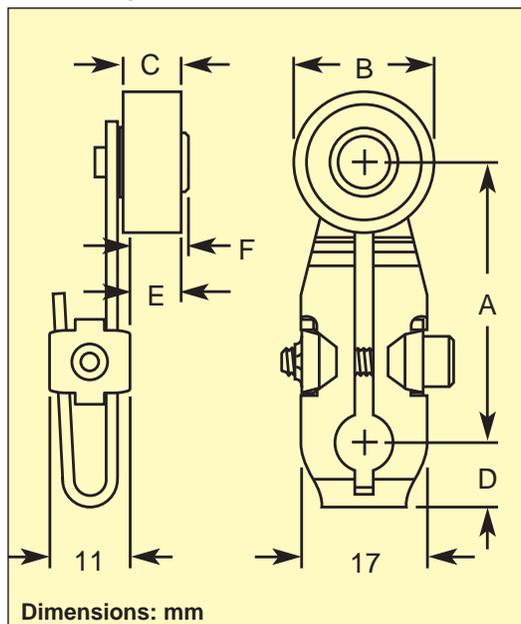
- 1 Temperature ranges below 0°C are based on absence of freezing moisture or water.
- 2 CW (clockwise) and CCW (counterclockwise) operation, easily convertible to CW only or CCW only operation.
- 3 For CW and CCW operation. For CW only or CCW only operation, high temperature limit increases to 121°C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



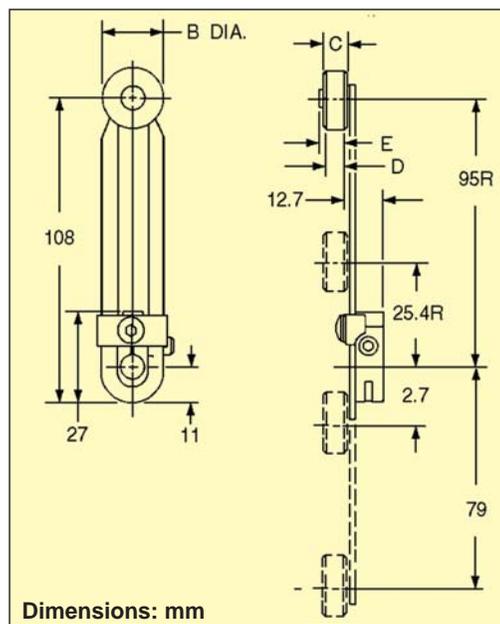
LEVER SPECIFICATIONS

STANDARD ROLLER (STAINLESS STEEL)								
MODEL NO.	ROLLER TYPE	A LEVER LENGTH mm	B ROLLER DIAMETER mm	C ROLLER WIDTH mm	D mm	E mm	F mm	MIN. REQ RETURN TORQUE
E50KL200	Nylatron	38.1	19.0	8.1	8.6	3.3	4.3	38 g-cm
E50KL355	Metal							79 g-cm
ADJUSTABLE ROLLER (STAINLESS STEEL)								
E50KL201	Nylatron	25.4 to 95.2	19.0	8.1	7.4	8.4	4.3	137 g-cm
E50KL538	Metal			245 g-cm				
E50KL537	Nylatron			25.4	22.9	24.1	—	223 g-cm
E50KL443	Nylatron	41.3 to 95.2	38.1	7.4	6.6	8.1	—	180 g-cm

Dimensions for
E50KL200
E50KL355
See lever specifications



Dimensions for Adjustable Roller
E50KL201
E50KL538
E50KL537
E50KL443

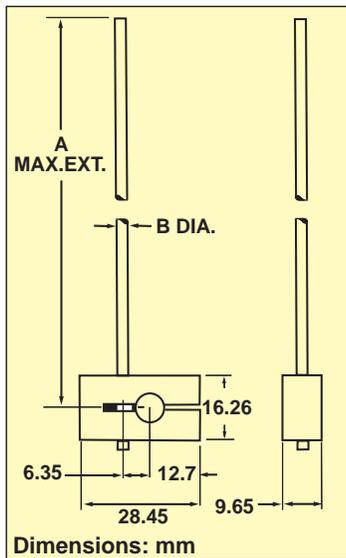


ADJUSTABLE ROD SPECIFICATIONS

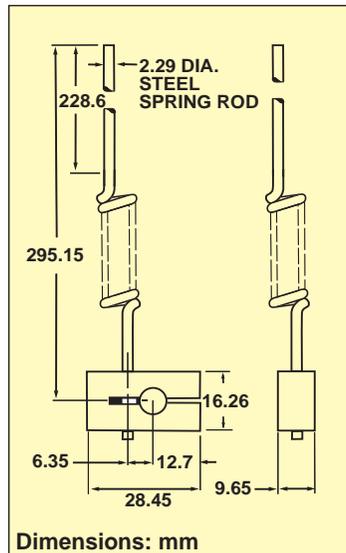
ADJUSTABLE RODS APPROXIMATE DIMENSIONS				
MODEL NO.	A ROD LENGTH mm	B ROD DIAMETER mm	ROD TYPE	MIN. REQ. RETURN TORQUE
E50KL202	140 max	3.2	Metal	66 g-cm
E50KL220	229 max	4.8	Stainless Steel	504 g-cm
E50KL226	305 max	3.2	Bendable Steel	360 g-cm
CLAMPS FOR ADJUSTABLE RODS				
E50KL35	Clamp for 4.8 diameter rods			
E50KL36	Clamp for 3.2 diameter rods			
SPRING RODS				
E50KL556	308	6.4	Nylon	252 g-cm
E50KL421	295	2.3	Stainless Steel	202 g-cm
NYLATRON LOOP				
E50KL142	152	4	Nylatron	29 g-cm



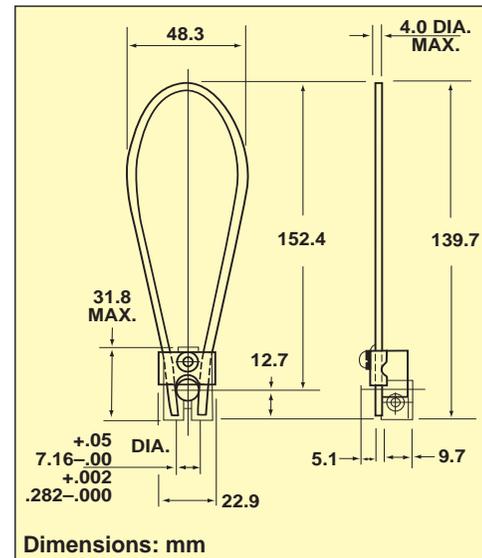
Dimensions for Adjustable Rods
 E50KL202
 E50KL220
 E50KL226
 (See page 688 to order)



Dimensions for Spring Rods
 E50KL556
 E50KL421
 (See page 688 to order)



Dimensions for Nylatron Loop
 E50KL142
 (See page 688 to order)



E50ANR1, £109



E50NN1, £115

All models shown smaller than actual size.

To Order (Specify Model Number)

MOST POPULAR MODELS HIGHLIGHTED!

MODEL NO.	PRICE	DESCRIPTION - ASSEMBLED SWITCHES REQUIRES LEVER
E50AL1	£104	E50SA body, pre-assembled, single pole, 1 NO/1 NC, side rotary head with low force spring return, no indicating light
E50AM1	115	E50SA body, pre-assembled, single pole, 1 NO/1 NC, side rotary head with maintained 2-position, no indicating light
E50ANR1	109	E50SAN body, pre-assembled, single pole, 1 NO/1 NC, side rotary head with standard spring return, neon indicating light (not CE)
E50AR1	93	E50SA body, pre-assembled, single pole, 1 NO/1 NC, side rotary head with standard spring return, no indicating light
E50AT3	115	E50SA body, pre-assembled, single pole, 1 NO/1 NC, top pushbutton head with adjustable spring return, no indicating light
E50BR1	114	E50SB body, pre-assembled, double pole, 2 NO/2 NC, side rotary head with standard spring return, no indicating light
E50NN1	116	E50SN body, pre-assembled, neutral position special purpose side rotary head, 5-degree operating travel
E50AR16P	116	E50 6P+ version, pre-assembled, single pole, side rotary head with standard spring return, no indicating light

Comes with complete instruction sheet.

Ordering Example: E50AL1, pre-assembled, single pole, 1 NO/1 NC, Side rotary head with low force spring return, no indicating light, E50KL200, Nylatron roller, £104 + 8.10 = £112.10.



All models shown smaller than actual size.



Components

To Order (Specify Model Number)

MOST POPULAR MODELS HIGHLIGHTED!

MODEL NO.	PRICE	DESCRIPTION – HEADS
E50DH1	£64.00	Side pushbutton, maintained
E50DL1	45.00	Side rotary, low force spring return (Photo similar to E50DR1)
E50DM1	56.00	Side rotary, maintained 2-position (Photo similar to E50DR1)
E50DN1	39.00	Side rotary, neutral position (Photo similar to E50DR1)
E50DR1	35.00	Side rotary, standard spring return
E50DS1	49.50	Side pushbutton, spring return
E50DS2	58.00	Side pushbutton, adjustable spring return
E50DS3	60.00	Side push roller, spring return
E50DT1	43.50	Top pushbutton, spring return
E50DT2	51.00	Top pushbutton, adjustable spring return
E50DT3	54.00	Top push roller, spring return
E50DW1	39.00	Standard duty wobble head, spring return

Comes with complete instruction sheet.
Ordering Example: E50DH1, side pushbutton, £64.

E50SA, £43.50

E50SAL, £59

All models shown smaller than actual size.

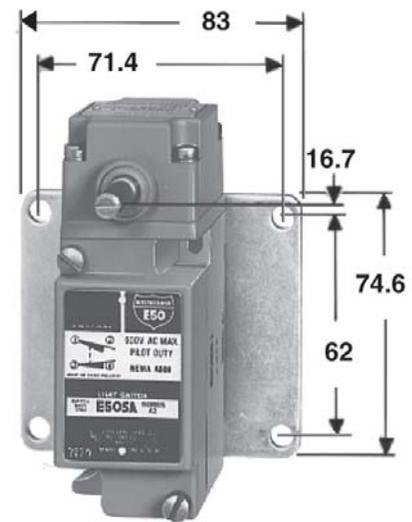
Body

MODEL NO.	PRICE	DESCRIPTION
E50SA	£43.50	Single pole, 1 NO/1 NC, no indicating light
E50SAL	59.00	Single pole, 1 NO/1 NC, LED indicating light
E50SAN	59.00	Single pole, 1 NO /1 NC, neon indicating light
E50SB	57.00	Double pole, 2 NO/2 NC, no indicating light
E50SN	62.00	Neutral position, 15° travel
E50SA6P	81.00	E50 6P+ version switch component, body, single pole, 1 N O / 1 N C, no indicating light

Comes with complete instruction sheet. **Ordering Example: E50SA, single pole body, £43.50.**



E50KH5, £5.40
Shown with E50ANR1, £109

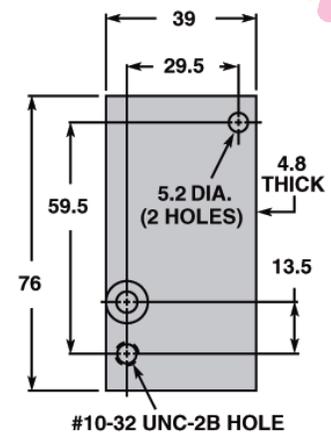


E50KH3, £16
Shown with E50ANR1, £109



Dimensions: mm

E50KH10, £7.20



Mounting Adaptor

MOST POPULAR MODELS HIGHLIGHTED!

MODEL NO.	PRICE	DESCRIPTION
E50KH3	£16.00	E50 Mounting adaptor for horizontal and vertical adjustment
E50KH10	7.20	E50 mounting adaptor allows E50 to easily replace AB 802M Series
E50KH5	5.40	E50 mounting adaptor plate allows E50 to easily replace SqD 9007 type T, national Acme Type D-1200M, Denison LoxSwitch Model L-100W

Comes with complete instruction sheet. **Ordering Example: E50KH10, mounting adaptor, £7.20.**

E50KL200, £8.10



E50KL142, £13.25



E50KL556, £13.75

E50KL537, £18.75

E50KL220, £13.75

E50KL202, £13.75

All models shown smaller than actual size.

Lever Arms

MOST POPULAR MODELS HIGHLIGHTED!

MODEL NO.	PRICE	DESCRIPTION
E50KL200	£8.10	Standard nyatron roller
E50KL355	8.10	Standard metal roller
E50KL201	13.25	Adjustable nyatron roller
E50KL537	18.75	Adjustable nyatron roller
E50KL538	13.25	Adjustable metal roller
E50KL443	18.75	Adjustable stainless steel roller
E50KL202	13.25	Adjustable rod, 140 mm length, 3 mm diameter
E50KL220	13.25	Adjustable rod, 229 mm length, 5 mm diameter
E50KL226	13.25	Adjustable rod, 305 mm length, 3 mm diameter
E50KL36	10.75	Clamps for adjustable diameter rods 3.2 mm
E50KL421	13.25	Stainless steel spring rod, 295 mm length, 2 mm diameter
E50KL556	13.75	Spring rod, 308 mm length, 6 mm diameter, nylon
E50KL142	13.25	Nyatron loop

Comes with complete instruction sheet. **Ordering Example: E50KL200, nyatron roller, £8.10.**



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