

### CAM SWITCH 1P 12A PANEL MOUNT 45DEG V/METER TR-ST-O-RN-SN-TN

Operator Control Devices > Pushbuttons and Control Switches > Control and Cam Switches > Allen-Bradley Cam Switches > 194 LE Panel Mount



# CAM SWITCH VOLTMETER 3 PHASE AND NEUTRAL 12A PANEL MOUNT

- Designed to international standards to meet your application's most demanding motor control needs.
- Handle operation may be specified for up to 12 positions, with 30, 60, 45 or 90 degrees of positional rotation to suit your requirements.
- Maintained or spring return functions available as required.



Representative Photo Only (actual product may vary based on configuration selections)

SPECIFICATIONS	
Product Series	Bul. 194L
Un, Nominal Operational Voltage, AC	690 V AC
Ui, Rated Insulation Voltage	660 V (rms)
Uimp, Impulse Withstand Voltage	6 kV
Number of Poles	1
Ith, Thermal Current, Open	16 A
Ithe, Thermal Current, Enclosed	12 A
le, Rated Operational Current, AC-1, 690V	12 A@690V
le, Rated Operational Current, AC-21a, 690V	12 A@690V
le, Rated Operational Current, AC-22a, 220-500V	12 A@220-500V
le, Rated Operational Current, AC-22a, 690V	12 A@690V
le, Rated Operational Current, AC-15, 220-240V	5 A@220-240V
le, Rated Operational Current, AC-15, 380-415V	3 A@380-415V
Inc, Rated Conditional Short Circuit Current	6 kA
Series Fuse Current Rating, Max	20 A
Fuse Characteristic Type(s)	gG/gN
Operational Power, AC 2, 240V AC	3 kW
Operational Power, AC 2, 380V AC	5.5 kW
Operational Power, AC 2, 415V AC	5.5 kW
Operational Power, AC 2, 440V AC	5.5 kW
Operational Power, AC 2, 500V AC	7.5 kW
Operational Power, AC 2, 660V AC	7.5 kW
Pe, Rated Operational Power, AC 3, 110V AC, 1Ø	0.75 kW@110V 1Ø
Pe, Rated Operational Power, AC 3, 220-240V AC, 1Ø	1.3 kW@220-240V 1Ø
Pe, Rated Operational Power, AC 3, 380-440V AC, 1Ø	2.2 kW@380-440V 1Ø
Pe, Rated Operational Power, AC 3, 220-240V AC, 3Ø	2.2 kW@220-240V 3Ø
Pe, Rated Operational Power, AC 3, 380-440V AC, 3Ø	4 kW@380-440V 3Ø
Pe, Rated Operational Power, AC 3, 500V AC, 3Ø	5.5 kW@500V 3Ø

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Pe, Rated Operational Power, AC 3, 660V AC, 3Ø	5.5 kW@660V 3Ø
Operational Power, AC 4, 220-240V AC	0.75 kW
Operational Power, AC 4, 380-415V AC	1.5 kW
Operational Power, AC 4, 440-550V AC	1.5 kW
kW Rating, AC-23a, 110V, 1ph	0.75 kW @110V
kW Rating, AC-23a, 220-240V, 1ph	1.3 kW@220-240V
kW Rating, AC-23a, 380-440V, 1ph	2.2 kW@380-440V
kW Rating, AC-23a, 220-240V, 3ph	2.2 kW@220-240V
kW Rating, AC-23a, 380-440V, 3ph	4 kW@380-440V
kW Rating, AC-23a, 500V, 3ph	5.5 kW @500V, 3ph
kW Rating, AC-23a, 660V, 3ph	5.5 kW
Max Contacts @24V DC, Resistive Load, DC21a	1
le, Rated Current, DC-21a, Resistive Load @24V per contact	12 A@24V/contact
lm, Rated Make/Break Capacity, DC-21a, Resistive@25.2V DC per contact	18 A
Max Contacts @48V DC, Resistive Load, DC21a	1
le, Rated Current, DC-21a, Resistive Load @48V per contact	10 A@48V/contact
lm, Rated Make/Break Capacity, DC-21a, Resistive@50.4V DC per contact	15 A
Max Contacts @60V DC, Resistive Load, DC21a	1
le, Rated Current, DC-21a, Resistive Load @60V per contact	8 A@60V/contact
lm, Rated Make/Break Capacity, DC-21a, Resistive@63V DC per contact	12 A
Max Contacts @110V DC, Resistive Load, DC21a	1
le, Rated Current, DC-21a, Resistive Load @110V per contact	2 A@110V/contact
Im, Rated Make/Break Capacity, DC-21a, Resistive@115.5V DC per contact	3 A
Max Contacts @220V DC, Resistive Load, DC21a	1
le, Rated Current, DC-21a, Resistive Load @220V per contact	0.5 A@220V/contact
Im, Rated Make/Break Capacity, DC-21a, Resistive@231V DC per contact	0.75 A
Max Contacts @440V DC, Resistive Load, DC21a	1
le, Rated Current, DC-21a, Resistive Load @440V per contact	0.35 A@440V/contact
Im, Rated Make/Break Capacity, DC-21a, Resistive@462V DC per contact	0.52 A
Max Contacts @24V DC, Inductive Load, DC21a	1
le, Rated Current, DC-21a, Inductive Load @24V per contact	8 A@24V/contact
Im, Rated Make/Break Capacity, DC-21a, Inductive@26.4V DC per contact	8.8 A
Max Contacts @30V DC, Inductive Load, DC21a	1
le, Rated Current, DC-21a, Inductive Load @30V per contact	4.5 A@30V/contact
lm, Rated Make/Break Capacity, DC-21a, Inductive@33V DC per contact	4.95 A
Max Contacts @48V DC, Inductive Load, DC21a	1
le, Rated Current, DC-21a, Inductive Load @48V per contact	1.5 A@48V/contact
	1.65 A
Im, Rated Make/Break Capacity, DC-21a, Inductive@52.8V DC per contact	
	1



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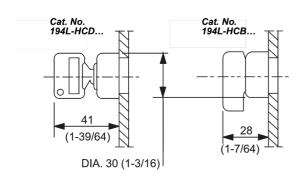
Im, Rated Make/Break Capacity, DC-21a, Inductive@66V DC per contact	1.1 A
Max Contacts @110V DC, Inductive Load, DC21a	6
le, Rated Current, DC-21a, Inductive Load @110V per contact	0.4 A @110V/contact
Im, Rated Make/Break Capacity, DC-21a, Inductive@121V DC per contact	0.44 A@121V induct.
Current, Breaking Capacity, 220V AC	72 A
Power factor, breaking @ 220V AC	≥0.65
Current, Breaking Capacity, 380V AC	72 A
Power factor, breaking @ 380V AC	≥0.65
Current, Breaking Capacity, 660V AC	53 A
Power factor, breaking @ 660V AC	≥0.65
Switching Function	Voltmeter switch
Switching Angle	45°
Wire / Conductor Size, Rigid Cable, Min	2 x 1 mm² min
Wire / Conductor Size, Rigid Cable, Max	2 x 2.5 mm² max
Wire / Conductor Size, Flex Cable, Min	2 x 0.75 mm² min
Wire / Conductor Size, Flex Cable, Max	2 x 2.5 mm² max
Mounting	Panel Mount
Mechanical Service Life	1000000 cycles
Mechanical Operation Rate, Max	1200 cycles/hr
Electrical Operation Rate, Max	120 cycles/hr
Operating Temperature, Min	-20 °C min
Operating Temperature, Max	60 °C max
Storage Temperature, Min	-30 °C min
Storage Temperature, Max	70 °C max
Standards Compliance	EN 60947-3 IEC 60947-3 UL 508
Certifications	VDE UL CSA CE
REFERENCES	
IECEx Certificate -	
Supplier Declaration of Conformity:	
Installation Guide: -	
User Manual: -	
Manufacturer Datasheet: -	
Manufacturer Catalogue & Product Selection: 194LE128251_Manufacturer	Product Selection Guide

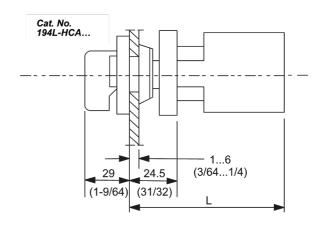


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	L				
	No. of Contacts				
Cat. No.	1 – 2	3 – 4	5 – 6	7 – 8	9 – 10
194L-E12/16	67.5 (2-21/32)	77.5 (3-3/64)	87.5 (3-7/16)	97.5 (3-27/32)	107.5 (4-15/64)
194L-E20/25	69 (2-23/32)	81.5 (3-7/32)	94 (3-45/64)	106.5 (4-3/16)	119 (4-11/16)

**Dimension Diagram** 



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		L			
		No. of Contacts			
Cat. No.	1 – 2	3 – 4	5 – 6	7 – 8	9 – 10
194L-E12/16	44 (1-47/64)	54 (2-1/8)	64 (2-33/64)	74 (2-29/32)	84 (3-5/16)
194L-E20/25	44.5 (1-3/4)	57 (2-1/4)	69.5 (2-3/4)	82 (3-15/64)	94.5 (3-23/32)

#### Control Knob

Cat. No.	Р	Q
194L-HE4A		48 (1-57/64) x 48 (1-57/64)
194L-HE4I	28 (1-7/64) -	40 (1-07/04) X 40 (1-07/04)
194L-HE4S		48 (1-57/64) x 62 (2-7/16)
194L-HE6A		64 (2-33/64) x 64 (2-33/64)
194L-HE6I		04 (2-33/04) x 04 (2-33/04)
194L-HE6S		64 (2-33/64) x 78 (3-5/64)
194L-HE6N	34 (1-11/32)	67 (2-41/64) x 67 (2-41/64)
194L-HE6G		07 (2-41/04) x 07 (2-41/04)

**Technical Diagram**