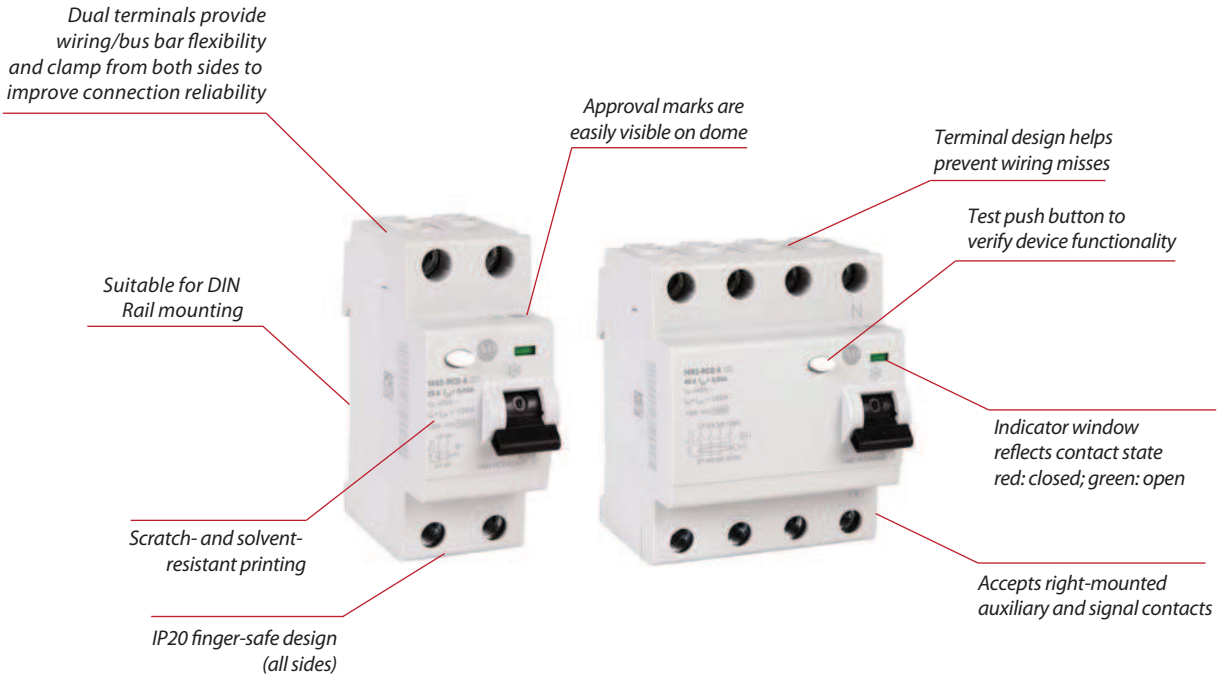
1492-RCD Residual Current Devices



The Bulletin 1492-RCD line includes Residual Current Devices, also known as Residual Current Circuit Breakers, for detecting and interrupting leakage current to ground. By detecting small leakage currents and disconnecting all ungrounded connectors quickly, RCDs can prevent injury to exposed personnel and damage to equipment.

RCDs are used in series with miniature circuit breakers for additional circuit protection from not only overload and short circuit, but also ground fault. Many short circuits begin as undetected ground faults. Using an RCD in an application may detect problems before costly equipment damage and downtime occurs.

These devices are Type A Residual Current Devices to IEC Standards.

Features

- Provides protection against current leakage to ground (earth) caused by an insulation loss between a live conductor and an exposed conductive part (such as an abraded wire, or a grounded person touching the live conductor)
- Suitable for protection against AC and pulsating DC (rectified AC) earth leakage current
- 30 mA sensitivity devices for personnel protection (consult local requirements)
- 100, 300 and 500 mA sensitivity devices for equipment protection
- Dual terminals allow a more secure connection of two wires, or both a wire and bus bar
- Reversible line and load connections

1492-RCD Residual Current Devices	
Current Ratings	25, 40, 63, 80 A
Rated Sensitivity IΔn	30, 100, 300, 500 mA
Poles	2, 4
Standards Compliance	UL 1053 ANSI/NFPA 70 EN 61008 CSA C22.2 No.144 GB 16916
Certifications	cURus Recognized, File No. E53935 CE Marked CCC Certified VDE Certified RoHS Compliant

Catalog Number Explanation

Note: Examples given in this section are for reference purposes. This basic explanation should not be used for product selection; some combinations may not produce a valid catalog number.

1492	-	RCDA	2	A	25	
		a	*b*	*c*	*d*	*e*

a

Type	
Code	**Description**
RCDA	Residual Current Device, Type A

b

Poles	
Code	**Description**
2	2-Pole
4	4-Pole

c

Sensitivity IΔn	
Code	**Rated Sensitivity [mA]**
A	30
B	100
C	300
D	500

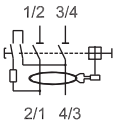
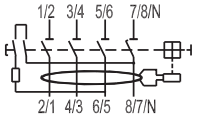
d

Rated Current (I_n)	
Code	**Current [A]**
25	25
40	40
63	63
80	80

e

Delay Option (available on select 4-pole devices)	
Code	**Description**
	Can be left blank
S	With Delay

Product Selection

				
			4-Pole (3-Pole + Neutral)	
Sensitivity (mA)	Rated Current (A)	2-Pole (1-Pole + Neutral)	Standard	With Delay
30	25	1492-RCDA2A25	1492-RCDA4A25	—
	40	1492-RCDA2A40	1492-RCDA4A40	—
	63	—	1492-RCDA4A63	—
	80	—	1492-RCDA4A80	—
100	25	1492-RCDA2B25	1492-RCDA4B25	—
	40	1492-RCDA2B40	1492-RCDA4B40	1492-RCDA4B40S
	63	—	1492-RCDA4B63	1492-RCDA4B63S
300	25	1492-RCDA2C25	1492-RCDA4C25	—
	40	1492-RCDA2C40	1492-RCDA4C40	1492-RCDA4C40S
	63	—	1492-RCDA4C63	1492-RCDA4C63S
	80	—	1492-RCDA4C80	—
500	25	—	1492-RCDA4D25	—
	40	—	1492-RCDA4D40	—
	63	—	1492-RCDA4D63	—
	80	—	1492-RCDA4D80	—
Diagram				

Specifications

General Data		
Poles		2,4
Rated current I_n		25, 40, 63, 80 A
Rated sensitivity IΔn	2-pole	30, 100, 300 mA
	4-pole	30, 100, 300, 500 mA
Electrical Ratings		
Rated short-circuit strength		10 kA with 63 A gG/gL back-up fuse, 10 kA with 80 A gG/gL back-up fuse for 80 A device
Rated operational voltage U_e per IEC/EN		230/400V AC
Rated voltage U_e per UL		480Y/277V AC
Max. operating voltage of circuit test		254V AC
Min. operating voltage of circuit test		110V
Rated frequency		50/60 Hz
Rated conditional short-circuit		10 kA (SCPD - fuse gG 100 A)
Rated residual breaking capacity		1 kA
Rated impulse withstand voltage U_{imp} (1.2/50μs)		4 kV
Dielectric test voltage at ind. freq. for 1 min.		2.5 kV
Electrical endurance		10,000 operations
Mechanical		
Indicator window		Red ON/green OFF
Protection degree	Housing	IP4X
	Terminals	IP2X
Environmental		
Ambient temperature (with daily average +35 °C)		-25...+55 °C
Storage temperature		-40...+70 °C
Mechanical endurance		20,000 operations
Installation		
Terminal type		Dual terminal
Cross-section of wire - solid, stranded, flexible (front/back terminal slot)	25...63 A	25/25 mm^2
		18...4 AWG
	80 A	35/35 mm^2
		18. . . 2 AWG
Cross-section of bus bars (front/back terminal slot)	25...63 A	10/10 mm^2
	80 A	16/16 mm^2
Tightening torque	25...63 A	2.8 N·m
		25 in·lb
	80 A	4.8 N·m
		43 in·lb
Mounting		DIN Rail EN 60715 (35 mm) with fast clip device
Supply		Optional

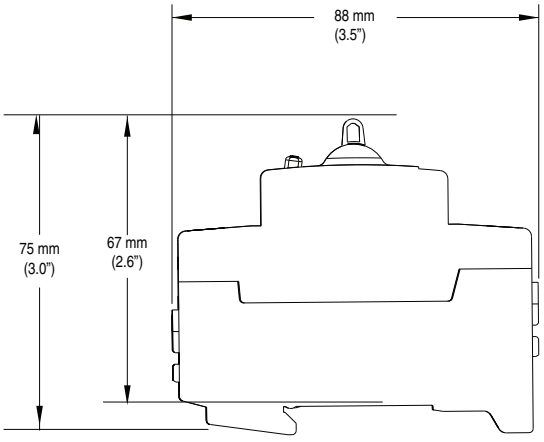
Approximate Dimensions and Weight		
Dimensions (H x D x W)	2-pole	88 x 67 x 35 mm
	4-pole	88 x 67 x 70 mm
Weight	2-pole	200 g (7.1 oz.)
	4-pole	350 g (12.3 oz.)
Combination with Auxiliary Elements		
Auxiliary contact		Yes
Signal contact		Yes

Power Loss Due to Current

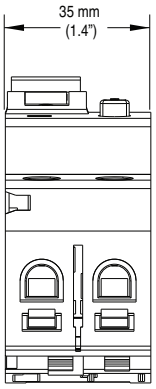
	Power Loss [W]	
Rated Current [A]	2-pole	4-pole
25	1	1.3
40	2.4	3.2
63	3.2	4.4
80	8.8	33.3

Approximate Dimensions

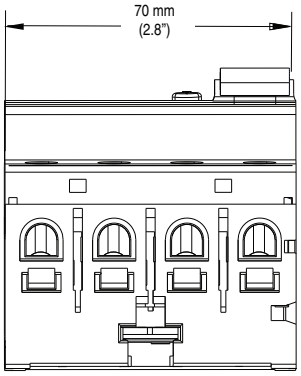
Note: Dimensions are shown in millimeters (inches). Dimensions are not intended for manufacturing purposes.



2-, 4-Pole



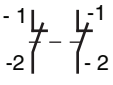
2-Pole



4-Pole

Accessories

Right Mount

Photo	Product Description ‡★Δ	Contacts	Standards	Certifications	UL/CSA Max. Current/Voltage	IEC Ratings Current/Voltage	Cat. No.
	Auxiliary/Signal Contact	1 N.O./N.C. (1 C.O.) 	UL 1077 CSA 22.2 No. 235 EN 60947-5-1 GB 14048.5	UL Recognized CSA Certified CE Marked VDE Certified CCC Certified	1 A @ 480V AC 2 A @ 277V AC 1.5 A @ 125V DC 2 A @ 60V DC 4 A @ 24V DC	2 A @ 230V (AC-14) 1 A @ 400V (AC-14) 1.5 A @ 110V (DC-12) 1 A @ 220V (DC-12) 4 A @ 24V (DC-13) 2 A @ 60V (DC-13)	189-ASCR3
	Auxiliary Contact	1 N.O./N.C. (1 C.O.) 	UL 1077 CSA 22.2 No. 235 EN 60947-5-1 GB 14048.5	UL Recognized CSA Certified CE Marked VDE Certified CCC Certified	1 A @ 480V AC 2 A @ 277V AC 1.5 A @ 125V DC 2 A @ 60V DC 4 A @ 24V DC	2 A @ 230V (AC-14) 1 A @ 400V (AC-14) 1.5 A @ 110V (DC-12) 1 A @ 220V (DC-12) 4 A @ 24V (DC-13) 2 A @ 60V (DC-13)	189-AR3
		1 N.O. + 1 N.C. 	UL 1077 CSA 22.2 No. 235 EN 60947-5-1 GB 14048.5	UL Recognized CSA Certified CE Marked VDE Certified CCC Certified	1 A @ 400V AC 2 A @ 230V AC 1 A @ 50V DC 2 A @ 30V DC	2 A @ 230V (AC-14) 1 A @ 400V (AC-14) 2 A @ 30V (DC-12) 1 A @ 50V (DC-12) 2 A @ 30V (DC-13) 1 A @ 50V (DC-13)	189-AR11
		2 N.C. 	UL 1077 CSA 22.2 No. 235 EN 60947-5-1 GB 14048.5	UL Recognized CSA Certified CE Marked VDE Certified CCC Certified	1 A @ 400V AC 2 A @ 230V AC 1 A @ 50V DC 2 A @ 30V DC	2 A @ 230V (AC-14) 1 A @ 400V (AC-14) 2 A @ 30V (DC-12) 1 A @ 50V (DC-12) 2 A @ 30V (DC-13) 1 A @ 50V (DC-13)	189-AR02
		2 N.O. 	UL 1077 CSA 22.2 No. 235 EN 60947-5-1 GB 14048.5	UL Recognized CSA Certified CE Marked VDE Certified CCC Certified	1 A @ 400V AC 2 A @ 230V AC 1 A @ 50V DC 2 A @ 30V DC	2 A @ 230V (AC-14) 1 A @ 400V (AC-14) 2 A @ 30V (DC-12) 1 A @ 50V (DC-12) 2 A @ 30V (DC-13) 1 A @ 50V (DC-13)	189-AR20

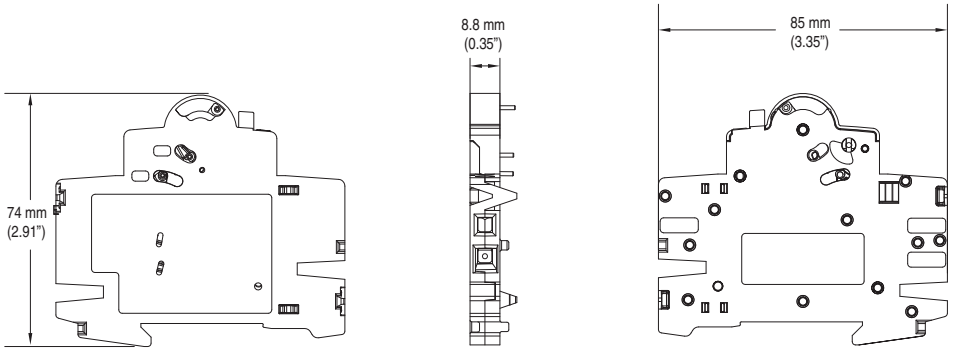
‡ A maximum of one C.O. type signal contact, and one C.O. type auxiliary contact ***OR*** two C.O. type auxiliary contacts may be installed per 1492-RCD.

★ A maximum of one 189-AR11, -AR02, or -AR20 auxiliary contact may be installed per 1492-RCD. They may not be combined with C.O. type contacts.

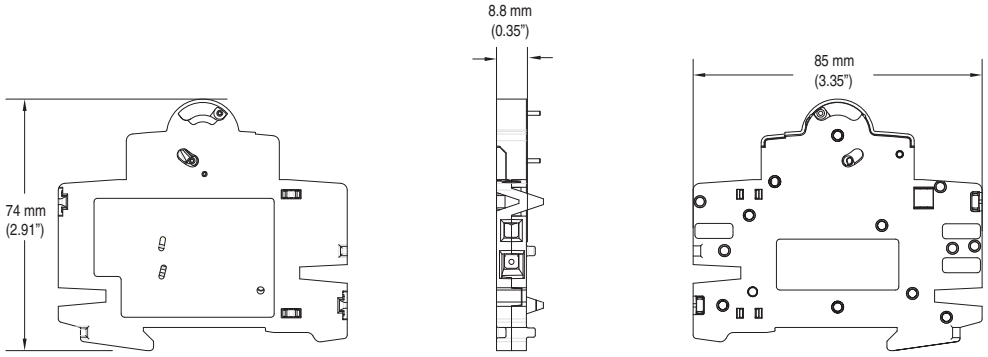
Δ A maximum of three accessories of any type may be installed per 1492-RCD. The signal contact must be mounted closest to the RCD, then the auxiliary contact(s). For allowed combinations, and installation instructions please contact your local Rockwell Automation sales office or Allen-Bradley distributor.

Accessory Approximate Dimensions

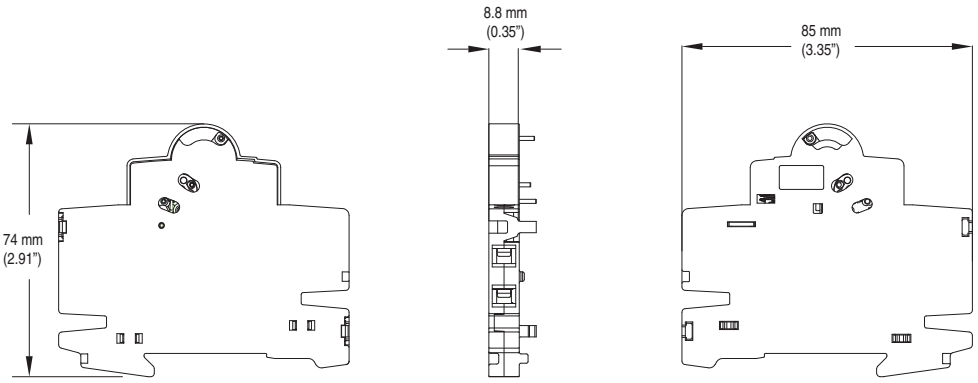
Note: Dimensions are shown in millimeters (inches). Dimensions are not intended for manufacturing purposes.



189-ASCR3



189-AR3



189-AR11, 189-AR02, 189-AR20

Bus Bars

1492-RCD Cuttable Bus Bars

Description	Pins	Pkg. Qty.	Cat. No. ★
2-Phase MCB to RCD	4	10	189-CL204
4-Phase MCB to RCD	8	10	189-CL408

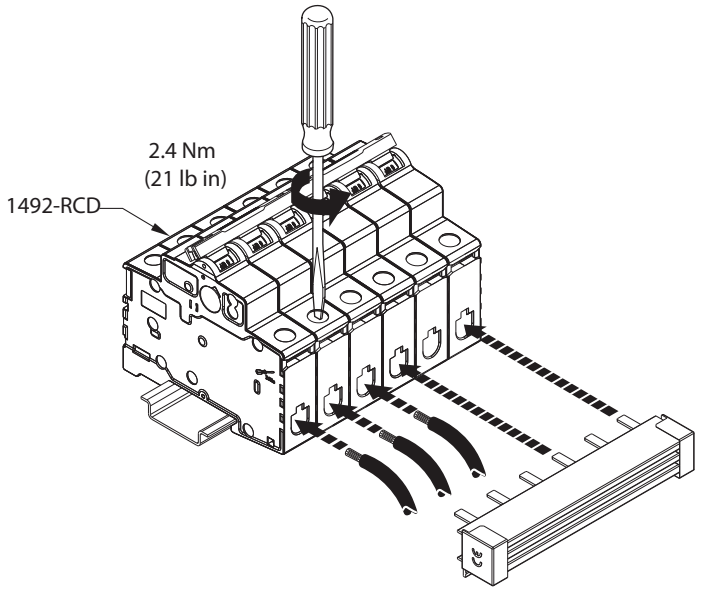
★ These devices are CE Marked, but not certified to any UL, CSA, or other standard.

1492-RCD Bus Bar Accessories

Description	Pkg. Qty.	Cat. No. ★
Terminal Power Feed, 6...25 mm^2	10	189-CLT25
Terminal Power Feed, 6...50 mm^2	10	189-CLT50
Dedicated Power Feed, 50 mm^2	10	189-CLT50D
For 2-phase bus bar‡	10	189-CL3EC
For 4-phase bus bar	10	189-CL4EC
Protective Shroud for unused pins	10	189-CLPS

★ These devices are CE Marked, but not certified to any UL, CSA, or other standard.

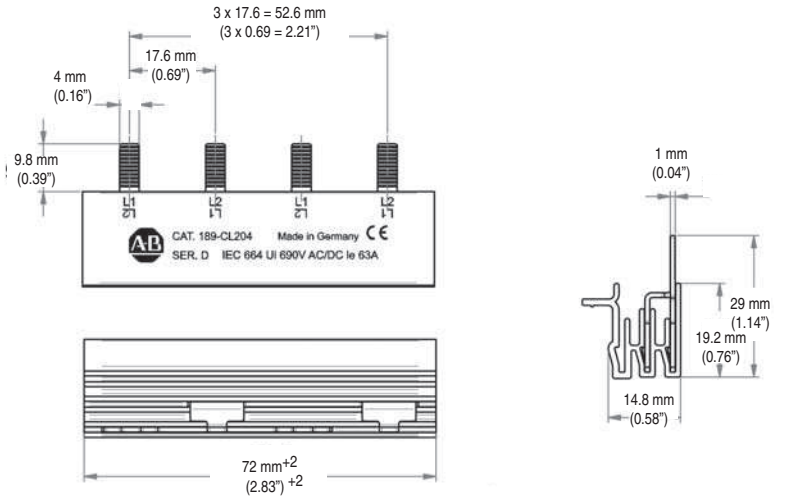
‡ 189-CL3EC also used for 2- and 3-phase MCB bus bars.



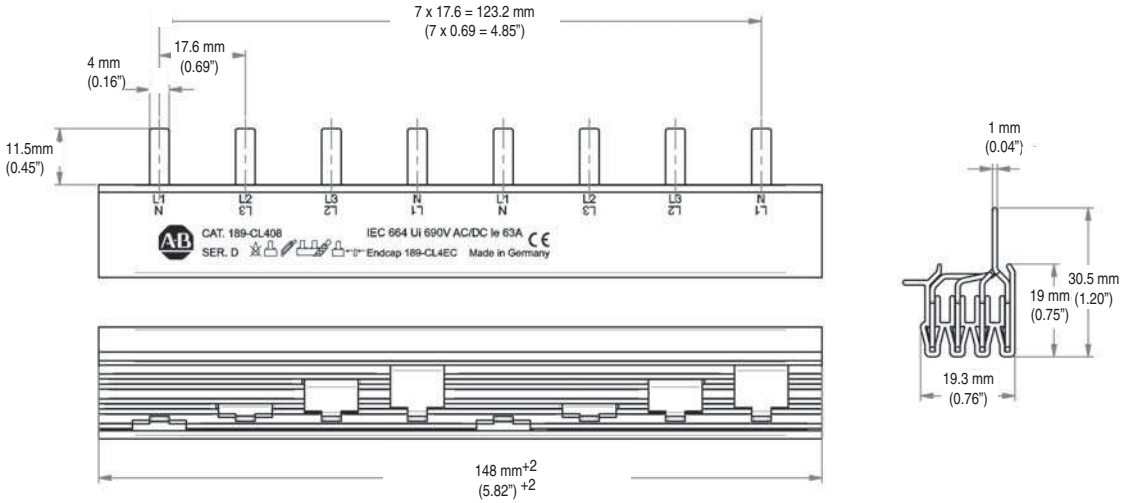
Bus Bar Approximate Dimensions

Note: Dimensions are shown in millimeters (inches). Dimensions are not intended for manufacturing purposes.

2- and 4-Phase Bus Bars



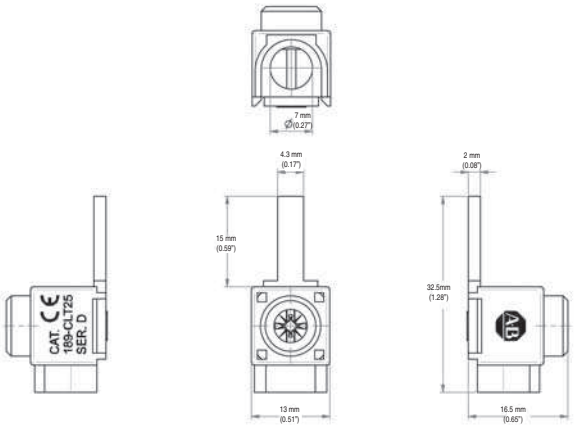
189-CL204



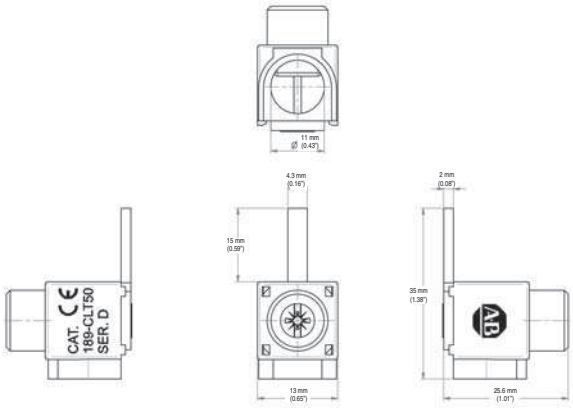
189-CL408

Bus Bar Accessory Approximate Dimensions

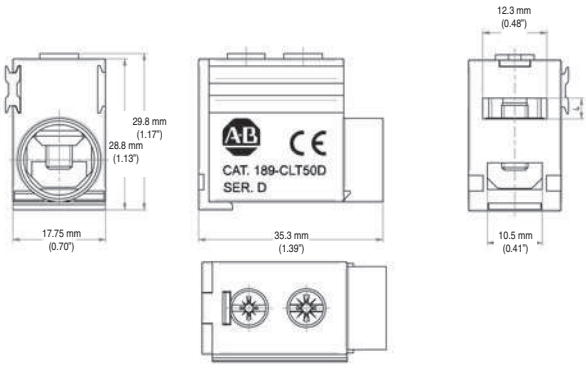
Note: Dimensions are shown in millimeters. Dimensions are not intended for manufacturing purposes.



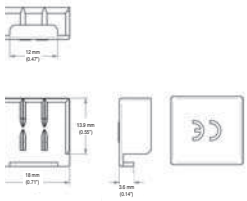
189-CLT25



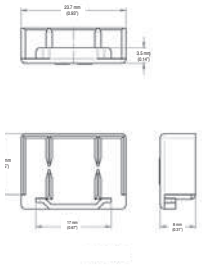
189-CLT50



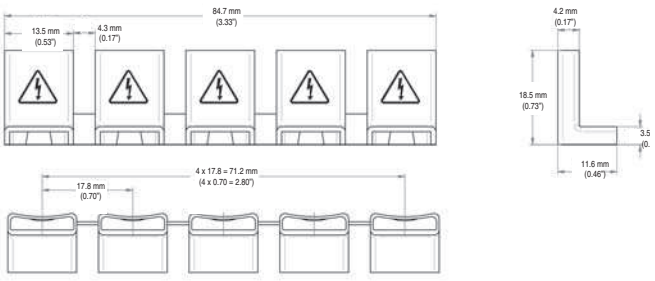
189-CLT50D



189-CL3EC



189-CL4EC



189-CLPS