



Dimensions

GE Protective Relays

Dimensions are subject to change and should not be used for construction without approval.

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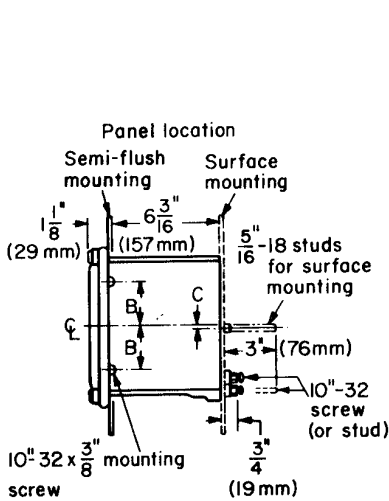


Fig. 8.
Side view,
single-end V1 case

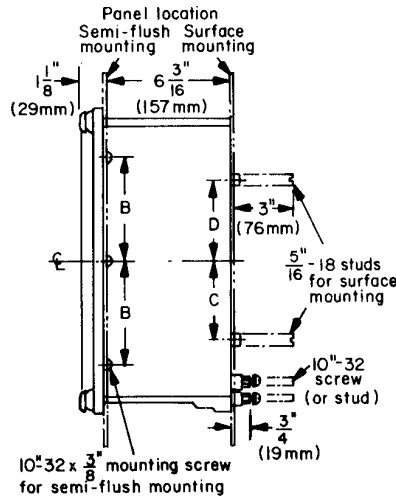


Fig. 9
Side view, L1, M1, and S1
single-end cases

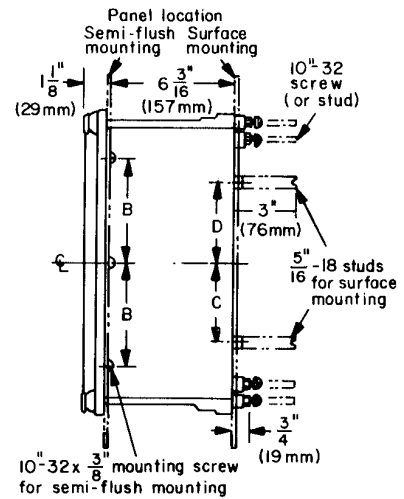


Fig. 10
Side-view, L2, M2, and S2
double-end cases

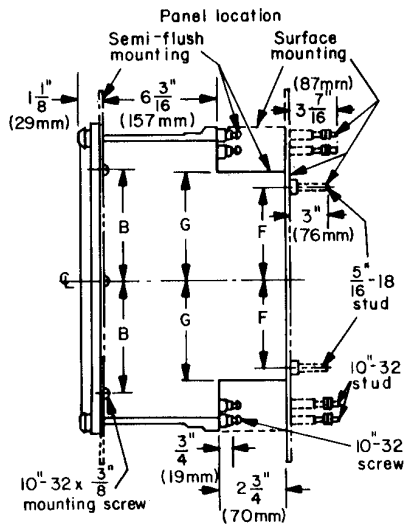


Fig. 11
Side view, L2B, L2D, and M2D deep
cases only

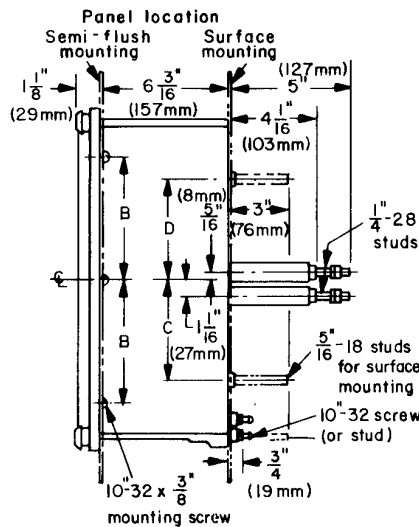


Fig. 12
Side view, L1E, M1E, and S1E
single-end cases (nondrawout)

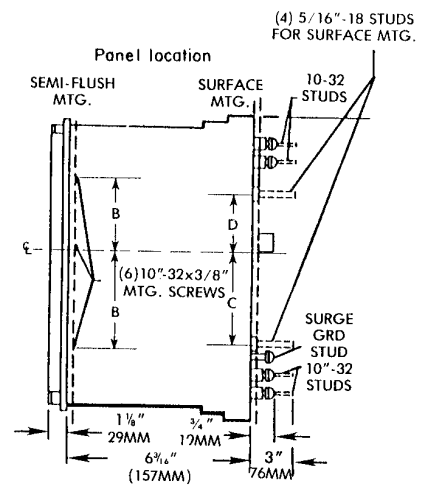


Fig. 13
Side view
double-end L2T case



Dimensions

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DRAWOUT CASE DIMENSIONS

Size	Figure	Case	Connecting Plugs	DIMENSIONS IN INCHES						
				A	B①	C②	D	E⑤	F	G
V1	8	Very Small	One	7	1 1/8	3/32	...	3 11/32	...	...
S1	9	Small	One	9 1/8	2 3/16	1 5/32	1 27/32	4 1 3/32	...	...
S1E④	12	Small	One	9 1/8	2 3/16	1 5/32	1 27/32	4 1 3/32	...	...
S2	10	Small	Two	10 5/16	2 25/32	1 3/4	1 3/4	5	...	...
M1	9	Medium	One	15 1/8	5 3/16	4 5/32	4 5/32	7 13/32	...	...
M1E④	12	Medium	One	15 1/8	5 3/16	4 5/32	4 5/32	7 13/32	...	...
M2	10	Medium	Two	16 5/16	5 25/32	4 3/4	4 3/4	8	...	...
M2D	11	Medium Deep	Two	16 5/16	5 25/32	N/A	N/A	8	4 3/4	5 5/8
L1	9	Large	One	20 5/16	7 25/32	6 3/4	6 3/4	10	...	...
L1E④	12	Large	One	20 5/16	7 25/32	6 3/4	6 3/4	10	...	...
L2	10	Large	Two	20 5/16	7 25/32	6 3/4	6 3/4	10	...	...
L2B③	11	Large Deep	Two	20 5/16	7 25/32	N/A	N/A	10	N/A	7 5/8
L2D	11	Large Deep	Two	20 5/16	7 25/32	N/A	N/A	10	6 3/4	7 5/8
L2T	13	Large	Two	20 5/16	7 25/32	6 3/4	7 25/32	10	N/A	N/A

Size	Figure	Case	Connecting Plugs	DIMENSIONS IN MILLIMETERS						
				A	B①	C②	D	E⑤	F	G
V1	4	Very Small	One	178	29	2	...	85	...	...
S1	5	Small	One	232	56	29	47	112	...	...
S1E④	8	Small	One	232	56	29	47	112	...	...
S2	6	Small	Two	262	71	44	44	127	...	...
M1	5	Medium	One	384	132	106	106	188	...	...
M1E④	8	Medium	One	384	132	106	106	188	...	...
M2	6	Medium	Two	414	147	121	121	203	...	...
M2D	7	Medium Deep	Two	414	147	N/A	N/A	203	121	143
L1	5	Large	One	516	198	171	171	254	...	...
L1E④	8	Large	One	516	198	171	171	254	...	...
L2	6	Large	Two	516	198	171	171	254	...	...
L2B③	7	Large Deep	Two	516	198	N/A	N/A	254	N/A	194
L2D	7	Large Deep	Two	516	198	N/A	N/A	254	171	194
L2T	13	Large	Two	516	198	171	198	254	N/A	N/A

① 4 screws in "V" & "S" 6 in "M" and "L" size cases.

② 2 studs in "V" & "S" 4 in "M" and "L" size cases.

③ Same depth except louvers extending additional 1/4" prevent surface mounting.

④ Size E style case is not completely drawout since bushings on rear of case must first be removed.

⑤ These are maximum dimensions.

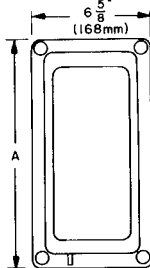
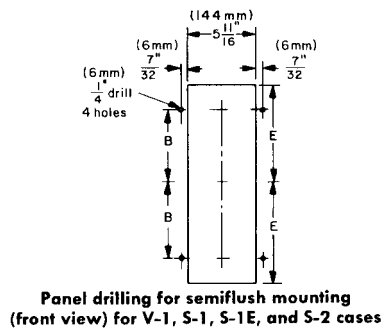
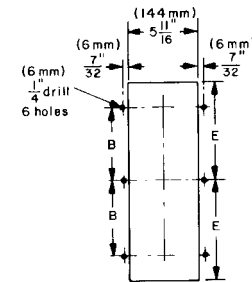


Fig. 14
Front view,
all sizes



Panel drilling for semiflush mounting
(front view) for V-1, S-1, S-1E, and S-2 cases



Panel drilling for semiflush mounting (front view) for M-1,
M-1E, M-2, M-2D, L-1, L-1E, L-2, L-2B and L-2D

Fig. 15. Drawout relays for semiflush mounting



Dimensions

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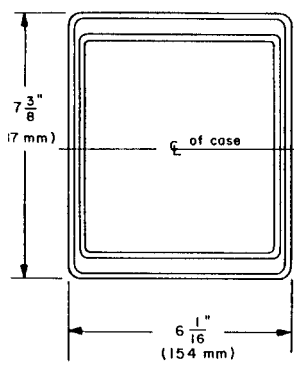


Fig. 1. Type C1 case relay mounting (front view)

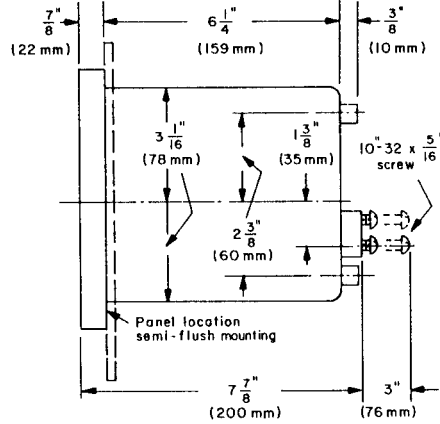


Fig. 2. Type C1 case relay mounting (side view)

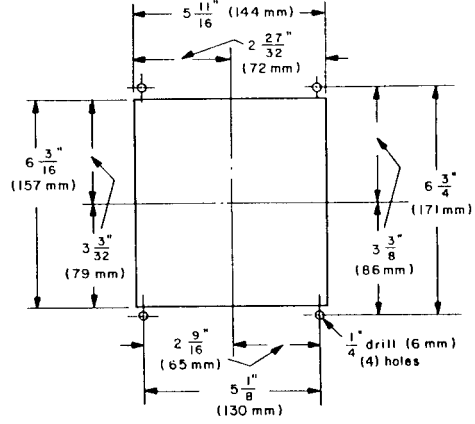


Fig. 3. Panel drilling for semiflush mounting for Type C1 case relays

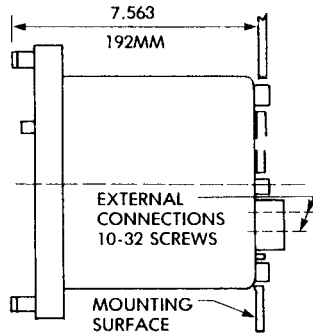


Fig. 4 Type C1 case relays recommended for surface mounting (side view) for panels no larger than 0.188 in. (5mm) thick

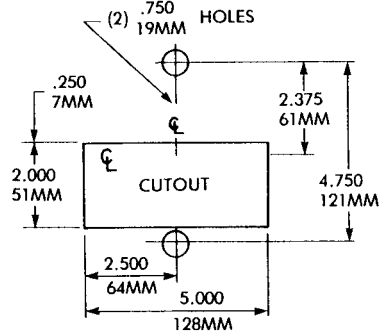


Fig. 5 Panel drilling for surface mounting for Type C1 case relays on panels no larger than 0.188 in. (5mm) thick

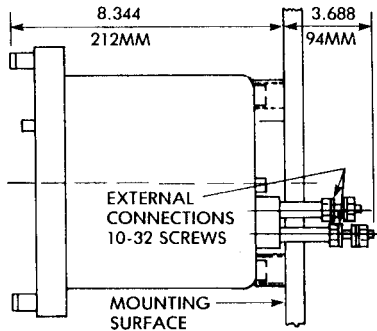


Fig. 6 Types C1 case relays recommended for surface mounting (side view) for panels larger than 0.188 in. (5mm) thick

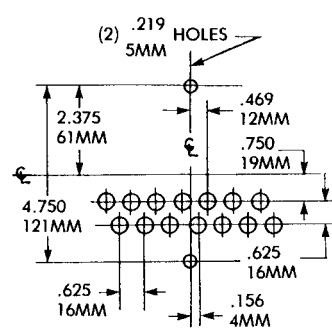


Fig. 7 Panel drilling for surface mounting for Type C1 case relays on panels larger than 0.188 in. (5mm) thick



Dimensions

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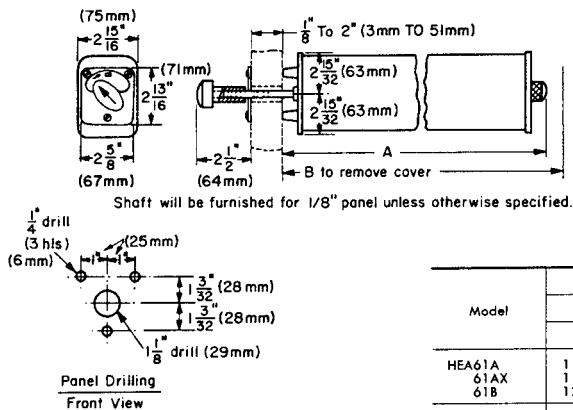


Fig. 16
Type HEA61, HEA62 Relay

Model	Dimensions			
	Inches		Millimeters	
	A	B	A	B
HEA61A	11 3/16	21	287	533
61AX	11 3/16	21	287	533
61B	12 13/16	23 15/16	325	608
61BX	12 13/16	23 15/16	325	608
61C	15 1/8	28 11/16	383	729
61CX	15 1/8	28 11/16	383	729
61D	15	28 5/8	381	727
61E	12 5/8	23 3/8	319	608
61J	11 5/8	21	287	533
61L	11 3/8	21	287	533
61M	9 1/8	15 3/4	230	400
61N	12 5/8	23 3/8	319	608
61S	12 13/16	23 15/16	325	608
61T	15	28 5/8	381	727
61V	14 1/4	27 1/8	362	689
62A	11 3/8	21	287	533
62B	12 13/16	23 15/16	325	608
62C	15	28 5/8	381	727

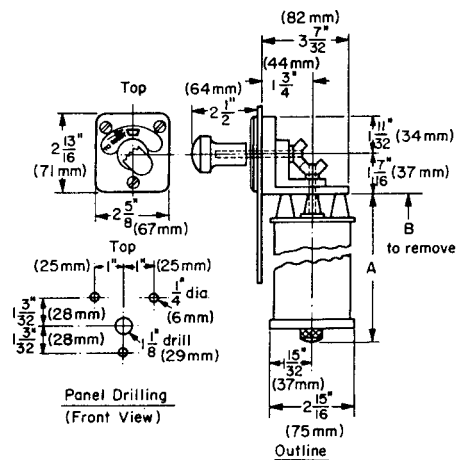


Fig. 17
Type HEA right angle (down)

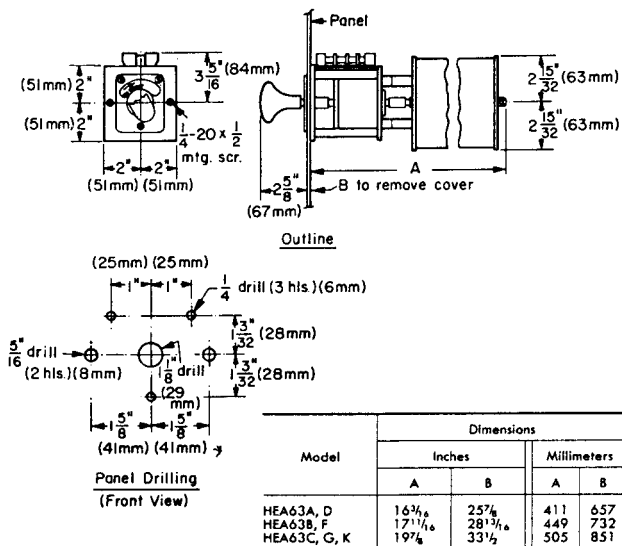


Fig. 18
Type HEA63 Relay

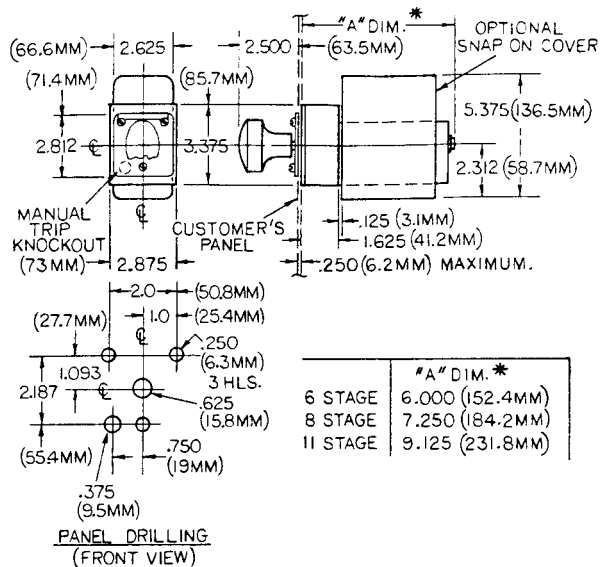


Fig. 19
Type HSA Relay

Dimensions and Data



Dimensions

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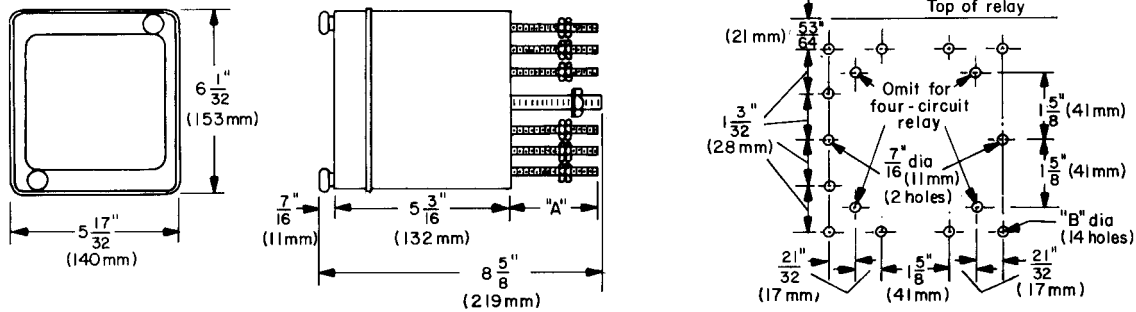


Fig. 20. Back-connected Type HFA Relay for surface mounting

Type of Panel	A	B
Insulating	3 1/16" (78mm)	7/16" (11mm)
Steel—1/8" or 1/4"	1 1/16" (40mm)	9/16" (14mm)

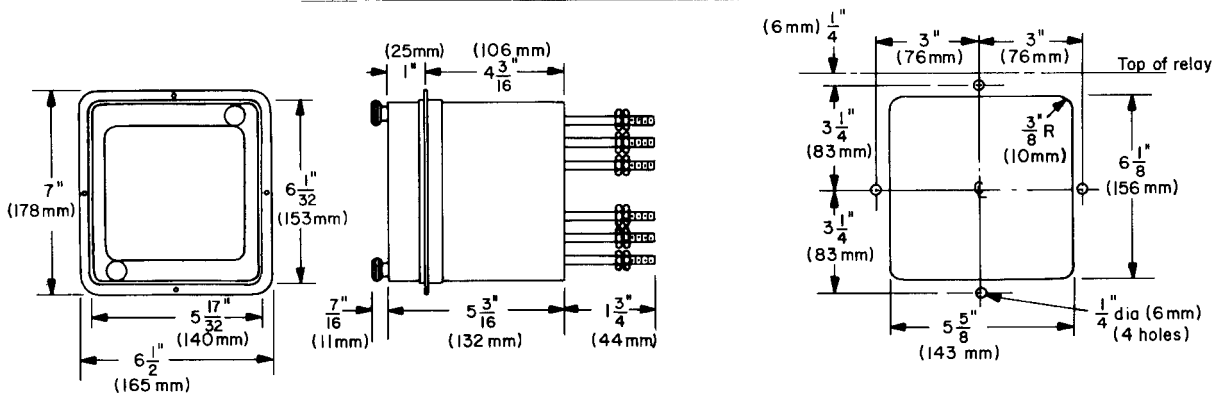


Fig. 21. Back-connected Type HFA Relays for semiflush mounting

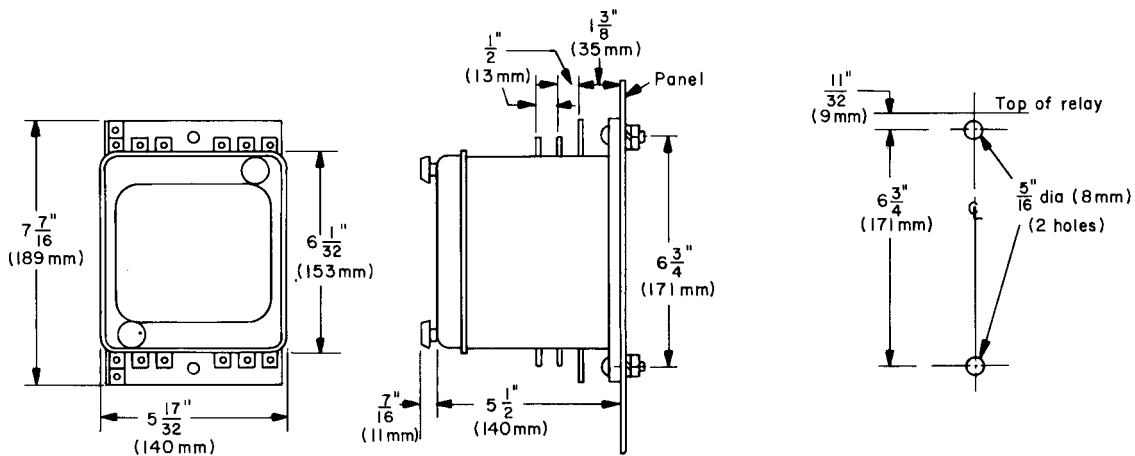


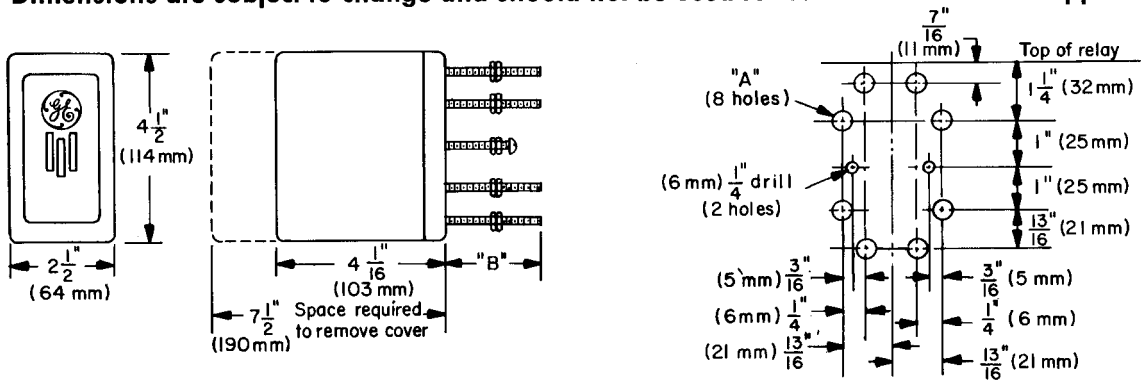
Fig. 22. Front-connected Type HFA Relay for surface mounting



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Type of Panel	A ^①	B
Insulating	7 1/16" (111 mm)	2 13/16" (71 mm)
Steel	7 1/8" (14 mm)	1 3/8" (35 mm)

① Number of holes varies with relay type.

Fig. 23. Types HAA, HGA, HGC, HMA25A, HMA125A, NGA, NGV, and SAM back-connected Relays for surface mounting

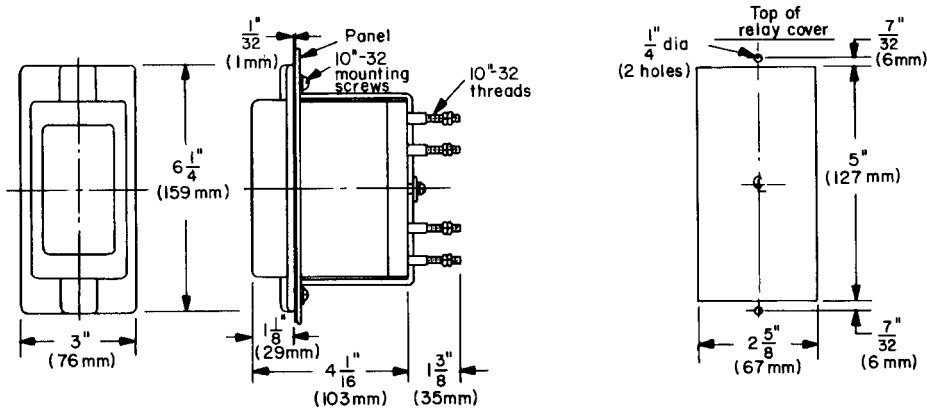


Fig. 24. Types HAA, HGA, HMA24A, HMA124A, NGA, NGV, and SAM back-connected semiflush Relays

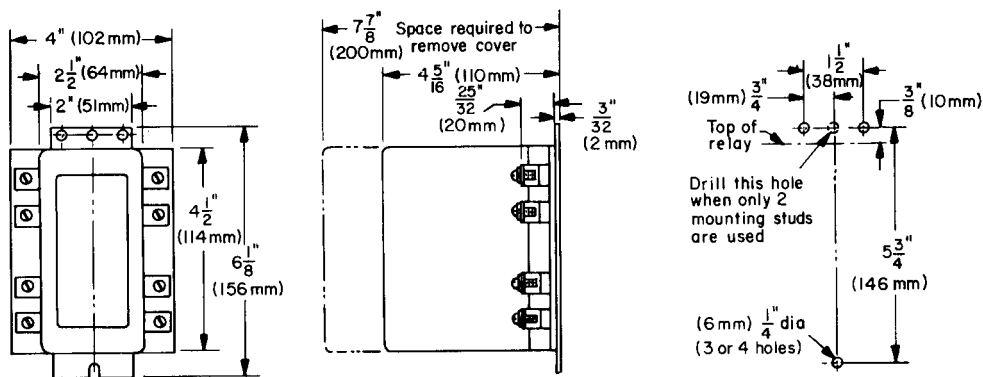


Fig. 25. Types HAA, NGA and NGV front-connected Relays for surface mounting



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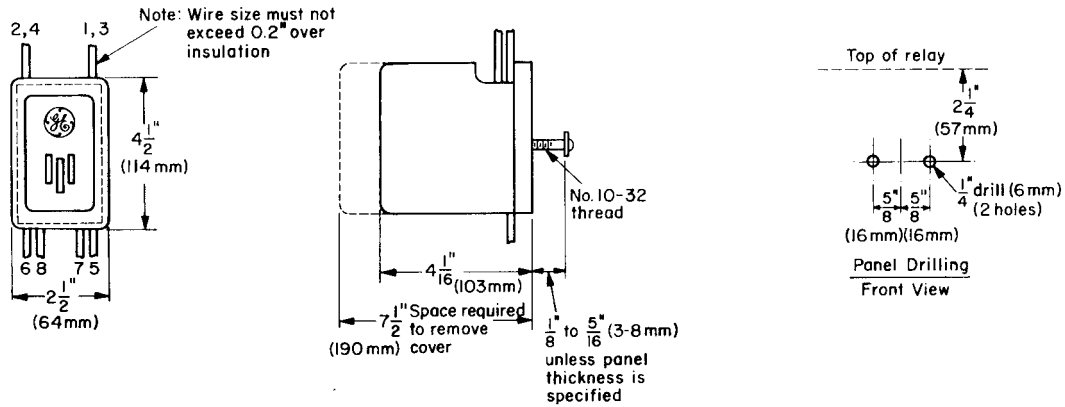


Fig. 26. Types HGA and HGC front-connected Relays for surface rear mounting

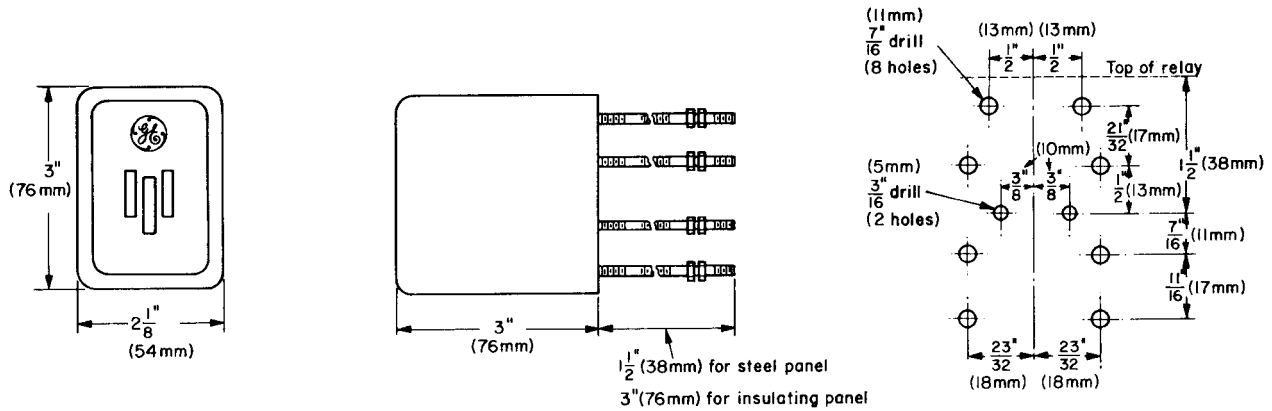


Fig. 27. Type HMA back-connected Relay for surface mounting
(For HMA 25A and HMA 125A see Fig. 23
For HMA 24A and HMA 124A see Fig. 24)

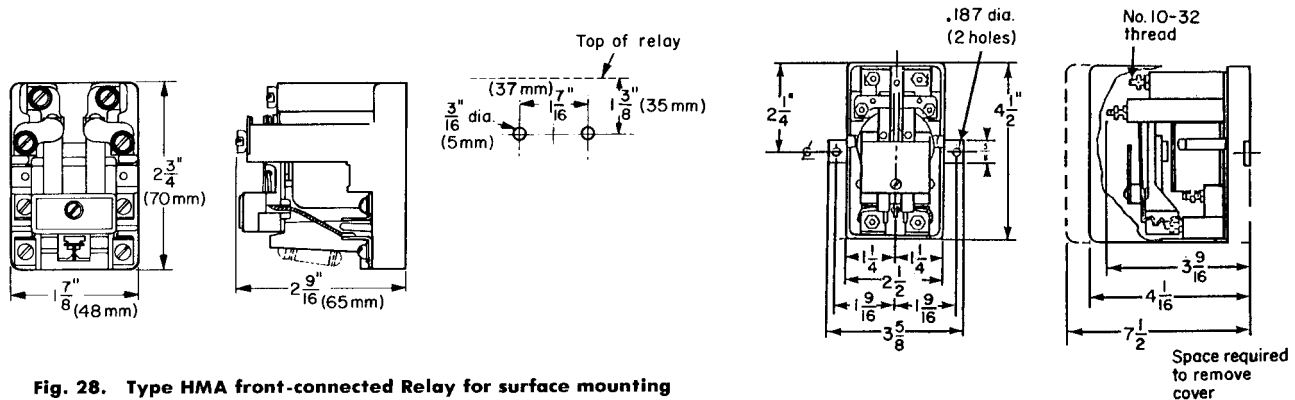


Fig. 28. Type HMA front-connected Relay for surface mounting

Fig. 28A.
Outline and Panel Drilling Dimensions
for Types HGA111S and HGA111S Relays

Dwg. 0165A7757-2



Dimensions

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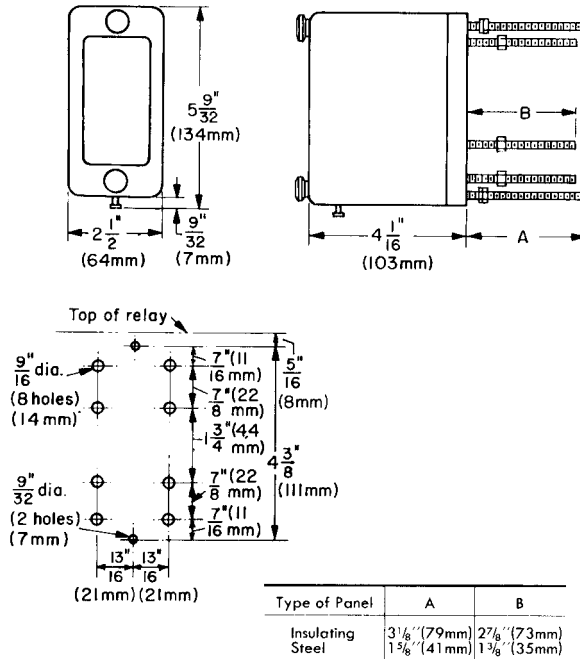


Fig. 29. Types PJC and PJV Relays

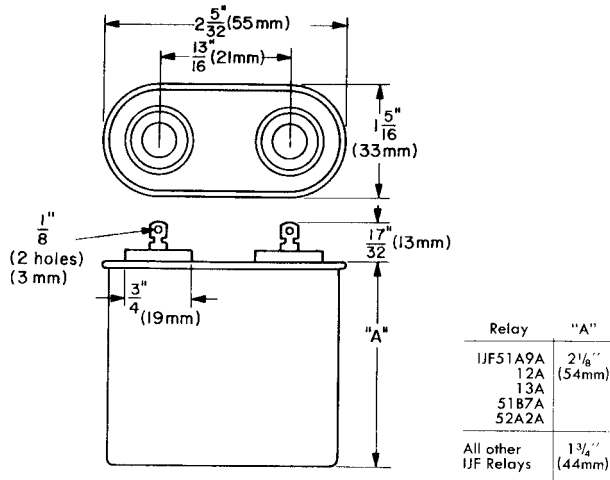


Fig. 30. Capacitor furnished with Type IJF Relay (mounting clips not shown)

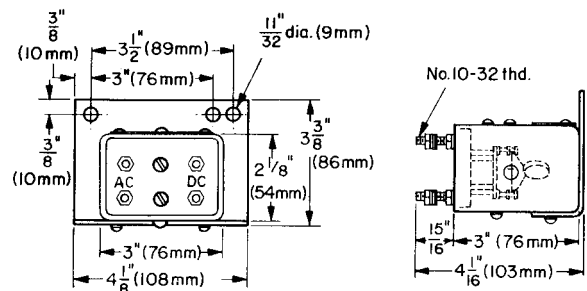


Fig. 31. Rectifier furnished with Type HFA65, HFA66, HFA18H, and H6A18J Relays



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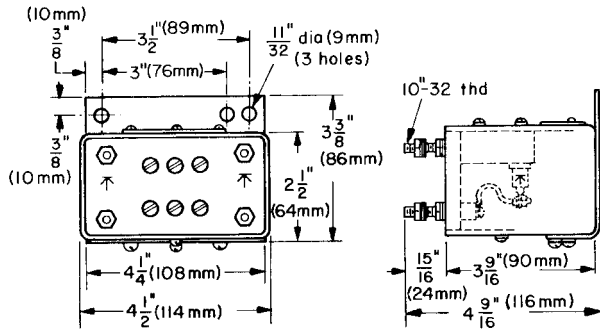


Fig. 32. Trip rectifier Cat. Nos. 102L218G7, G8, G9 (2-unit)

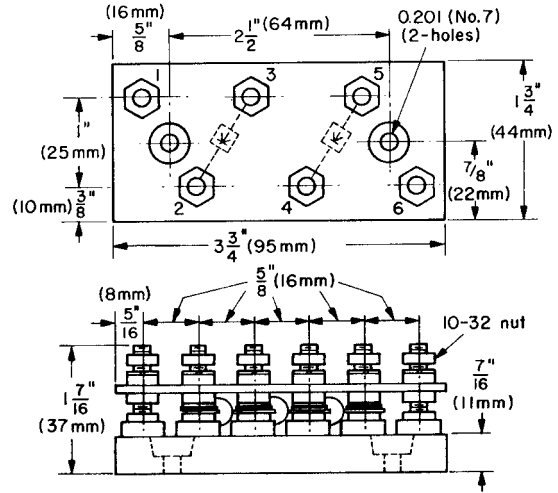


Fig. 33. Rectifier board, Cat. Nos. 295B233G8, G10

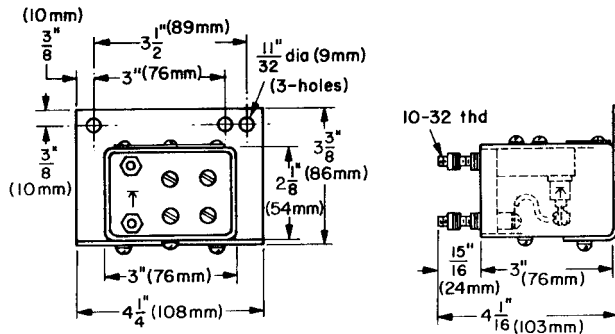


Fig. 34. Trip rectifier Cat. Nos. 102L218G10, G11, G12 (1-unit)

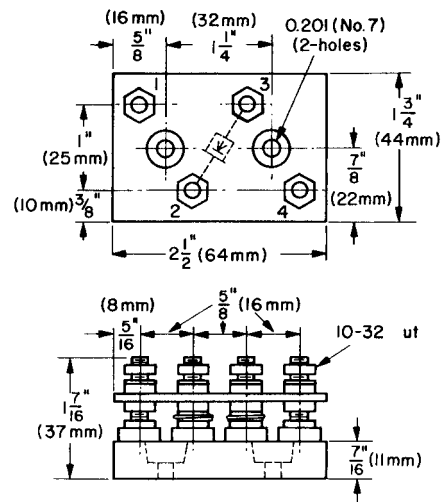


Fig. 35. Rectifier board, Cat. Nos. 295B233G5, G7



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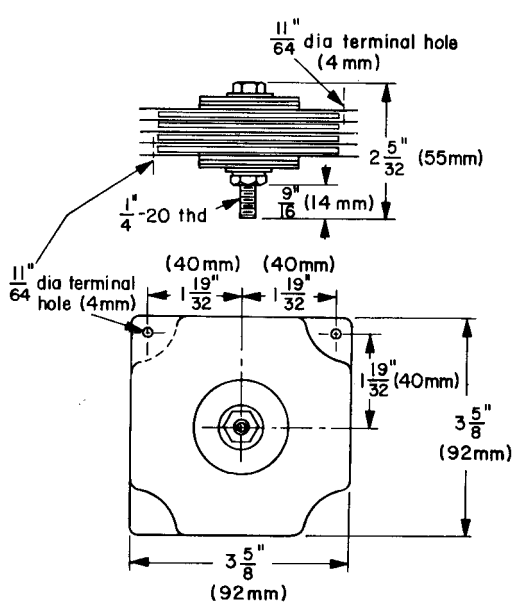


Fig. 36. Voltage limiter for current transformer secondaries
Cat. No. 6118766G3

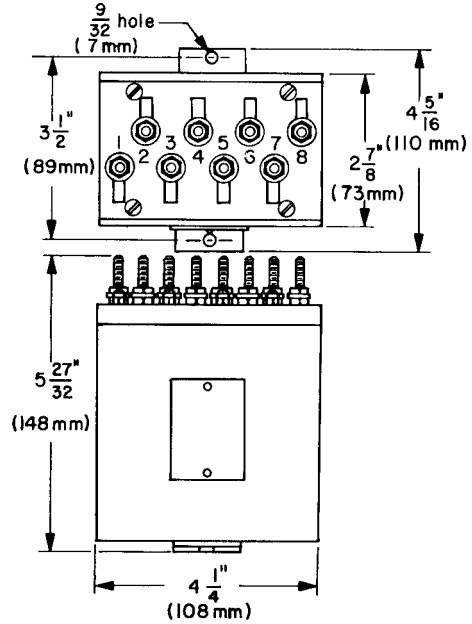


Fig. 37. Dimensions of auxiliary autotransformer
Cat. No. 3661843

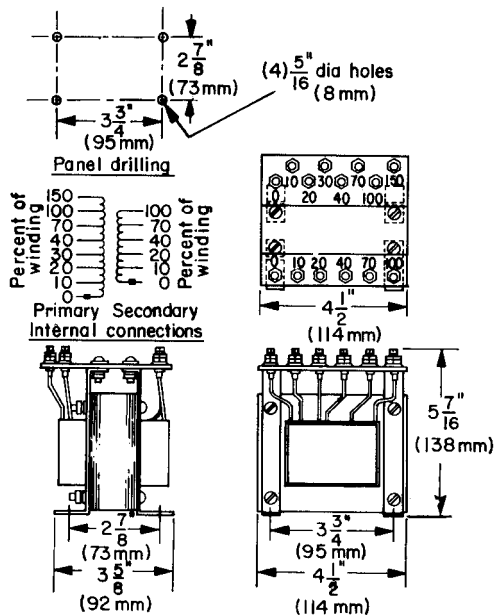


Fig. 38. Auxiliary transformer (for use with type GCXG51A Relays)
Cat. No. 367A0266

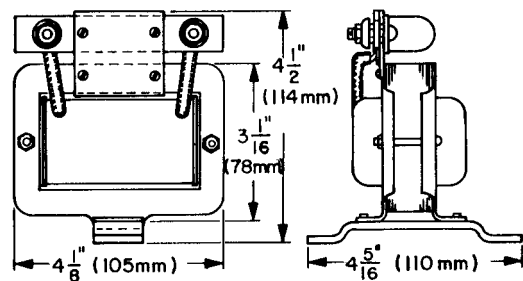


Fig. 39. Dimensions of tripping reactor Model No. 12XBC11A



Dimensions

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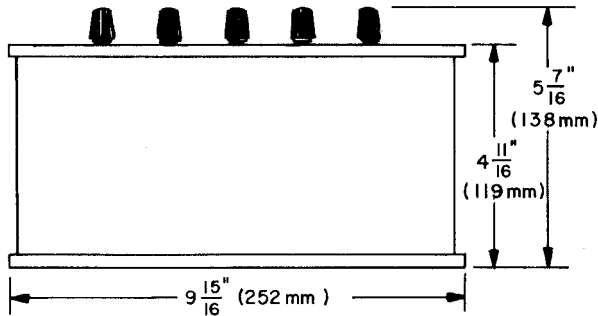
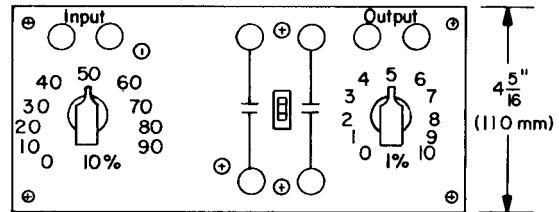
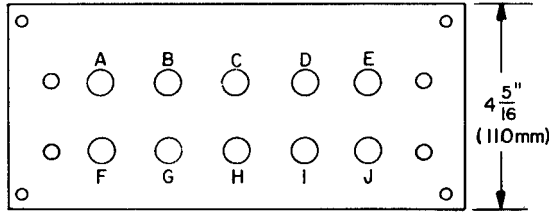


Fig. 40. Test resistor, Cat. No. 6158546

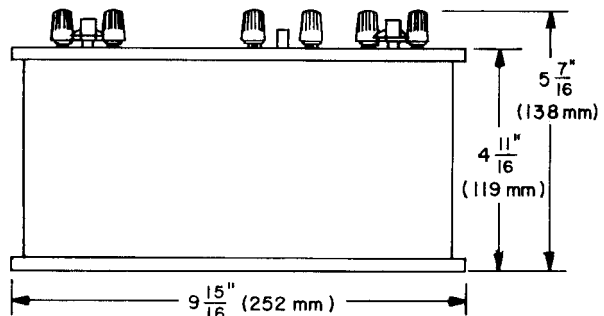


Fig. 41. Test box, Cat. No. 102L201

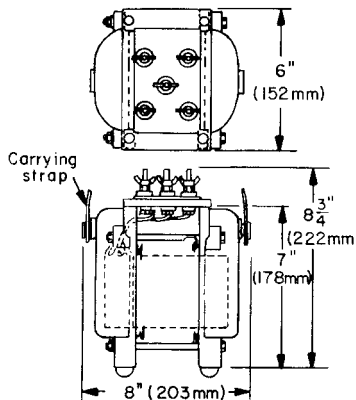


Fig. 42. Test reactor, Cat. No. 6054975G1

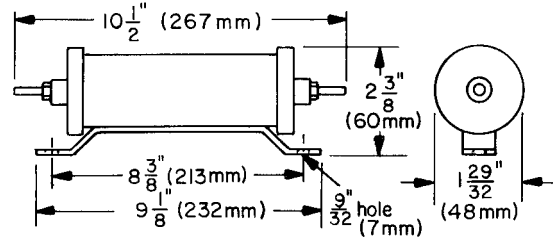


Fig. 43. Single-unit cage resistor

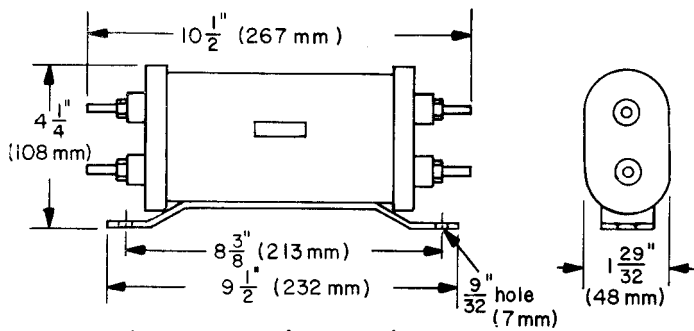


Fig. 44. Two-unit cage resistor

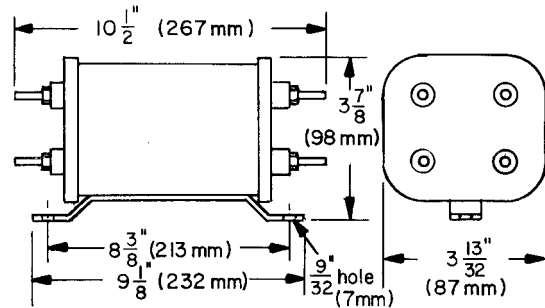


Fig. 45. Three- or four-unit cage resistor



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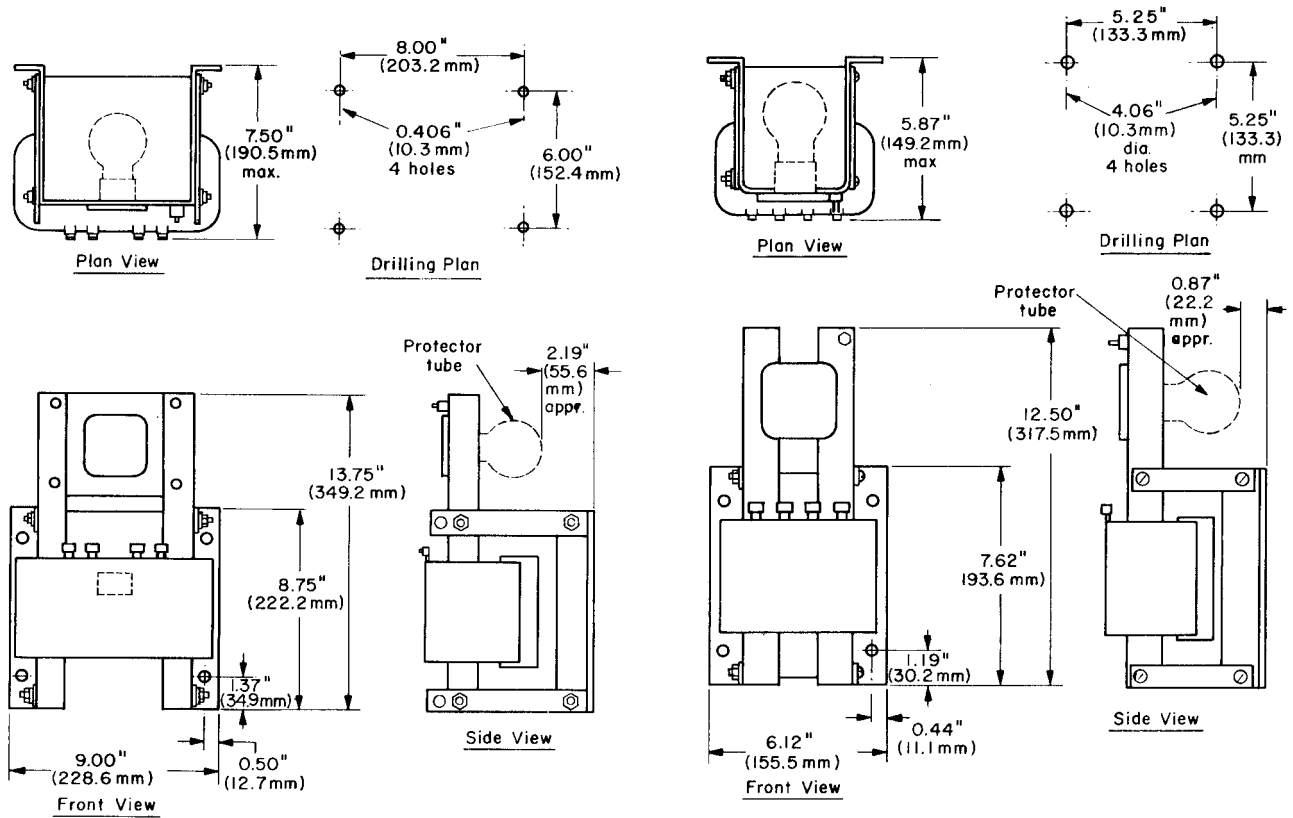


Fig. 46. Neutralizing reactor furnished with SPD, SPA wire pilot systems

Fig. 47. Mutual drainage reactor furnished with SPD, SPA wire pilot systems

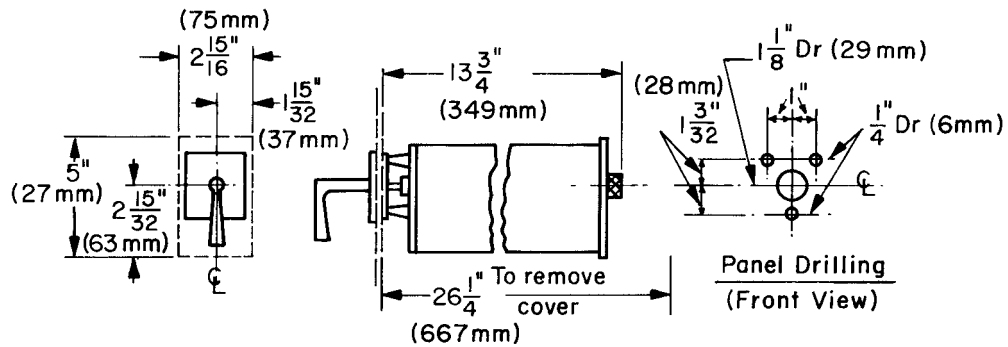


Fig. 48. Meter switch furnished with SPD, SPA wire pilot systems



Dimensions

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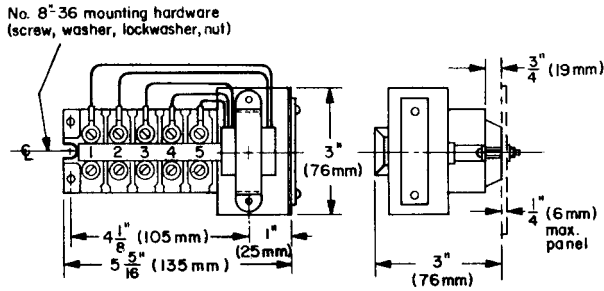
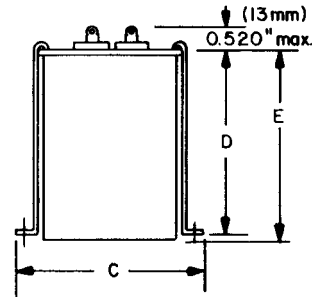
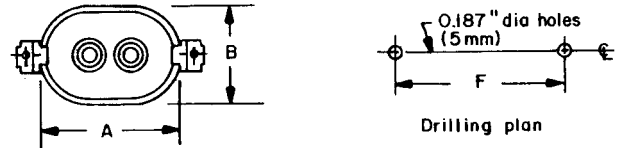


Fig. 49. Auxiliary Meter Transformer furnished with SPD, SPA wire pilot systems



	A	B	C	D	E	F
Bypass Capacitor	2.91" (74mm)	1.19" (30mm)	3.81" (97mm)	3.75" (95mm)	3.88" (99mm)	3.38" (86mm)
Exciting Capacitor	2.16" (55mm)	1.31" (33mm)	2.93" (74mm)	1.64" (42mm)	1.75" (44mm)	2.59" (66mm)

Fig. 50. External Exciting and Bypass capacitors furnished with SPD, SPA wire pilot systems

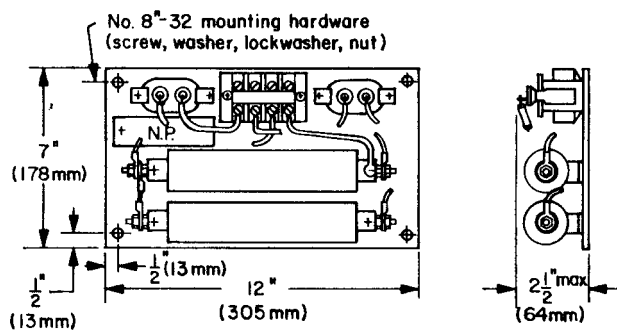


Fig. 51. Exciting package furnished with SPD, SPA wire pilot systems

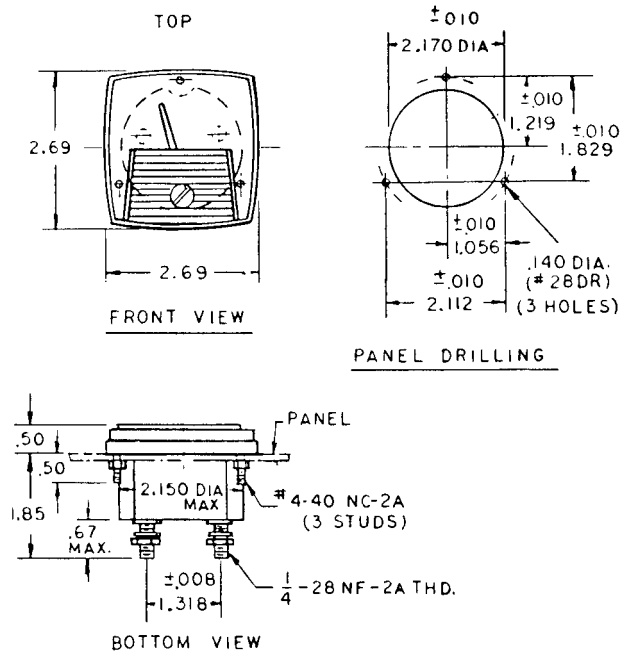


Fig. 52. Outline and Panel-Drilling Dimensions for External AC Milliammeters



Dimensions

GE Protective Relays

Dimensions are subject to change and should not be used for construction without approval.

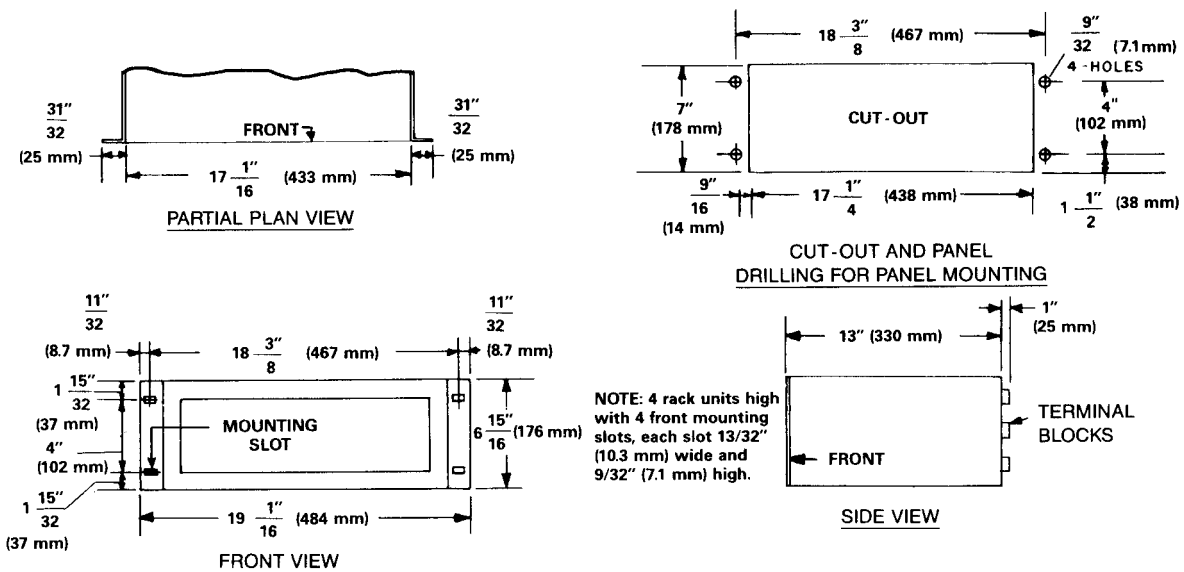


Fig. 53. Modular case Size MC1

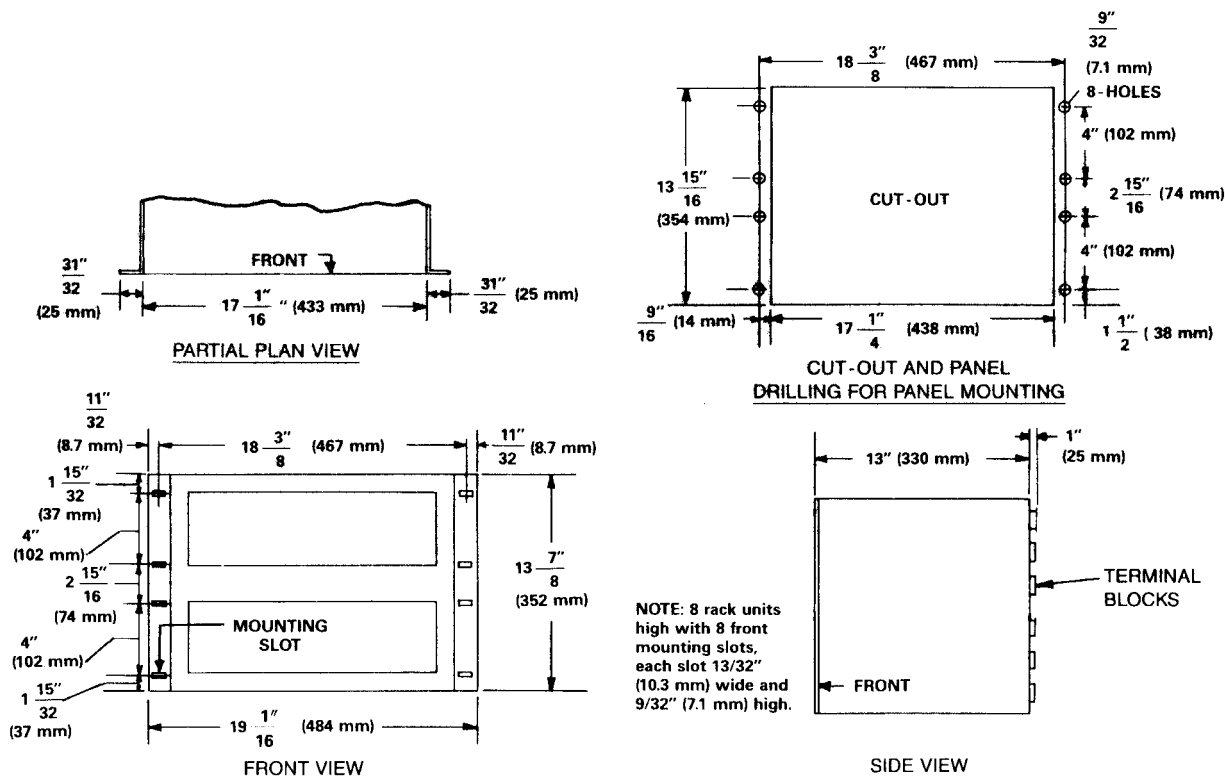


Fig. 54. Modular case Size MC2

ALL DIMENSIONS: inches " (millimeters mm)



Dimensions

GE Protective Relays

Dimensions are subject to change and should not be used for construction without approval.

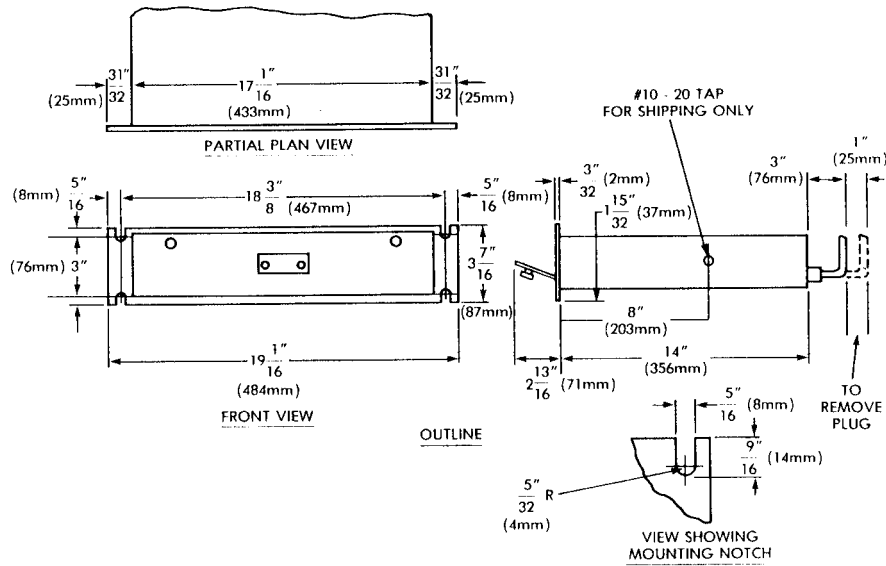


Fig. 55. Outline and mounting dimensions for two rack units
ALL DIMENSIONS: inches " (millimeters mm)

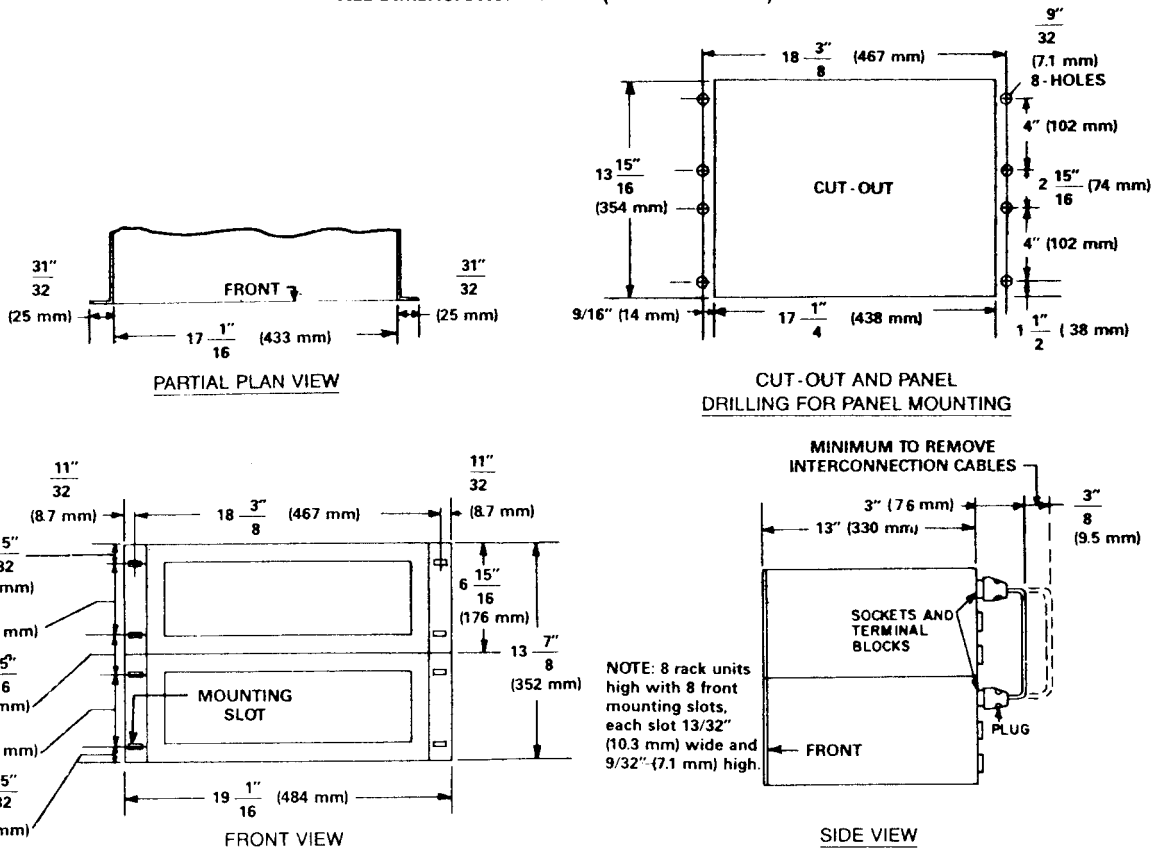


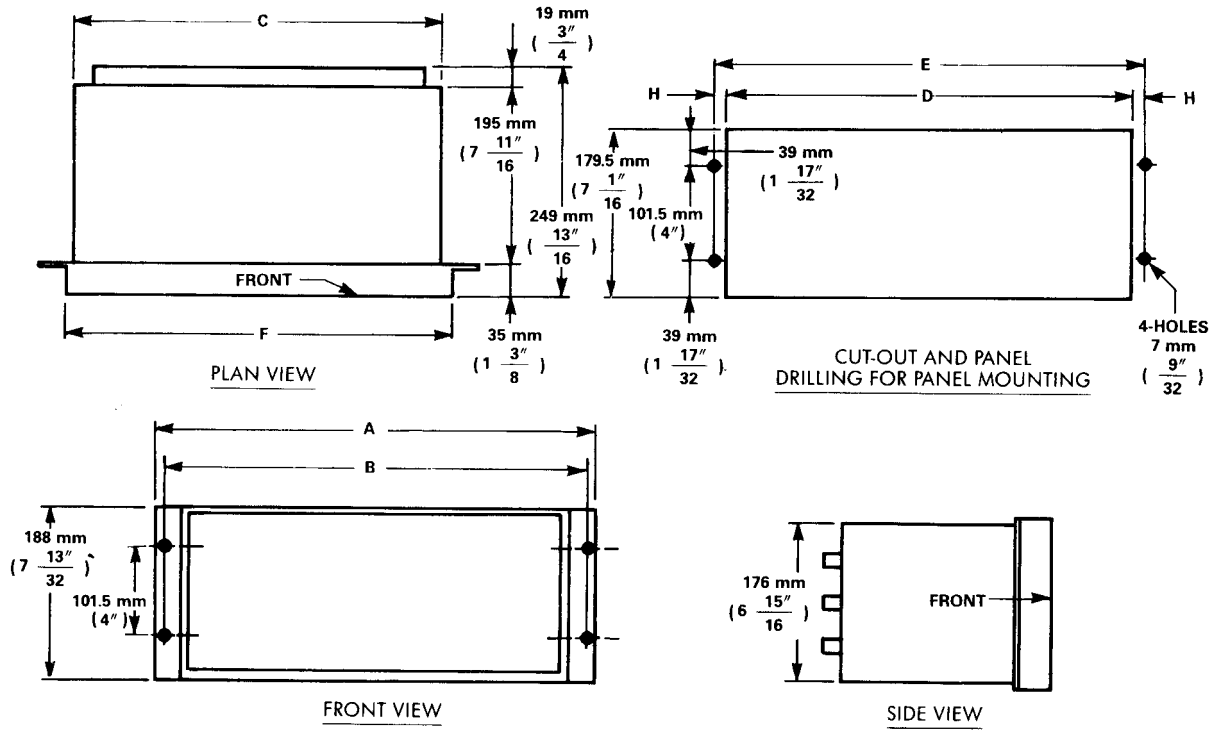
Fig. 56. Modular case Size 2-MC1, with interconnection cables
ALL DIMENSIONS: inches " (millimeters mm)



Dimensions

GE Protective Relays

Dimensions are subject to change and should not be used for construction without approval.



Case Size	Dimensions													
	A		B		C		D		E		F		H	
	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches
MS1	184.5	7 3/32	158.5	6 1/4	132.5	5 7/32	138.5	5 7/16	158.5	6 1/4	144.5	5 11/16	10	1 3/32
MS2	273	10 3/4	247	9 23/32	221	8 23/32	227	8 29/32	247	9 23/32	233	9 3/16	10	1 3/32
MS4	482.5	19	465	18 9/16	433.8	17 9/32	440	17 9/16	465	18 9/16	445.8	17 9/16	12.5	1/2

Fig. 57. Modular case Sizes MS1, MS2 and MS4
ALL DIMENSIONS: millimeters mm (inches ")