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ELECTROMECHANICAL RELAY SELECTION GUIDE AND CASE DIMENSIONS



SYSTEM CONTROLS & SWITCHGEARS



Online Solutions for Electrical Needs



Overview

System controls & switchgears is one of the fastest growing companies in India. Established in 1983, a privately owned company has unrivalled experience in the distribution of electrical products. SCS business covers a broad range of Medium Voltage Switchgears, Low Voltage Switchgears, Power Capacitors, Internal wiring accessories, Lighting, Metal Detectors, Energy Management Products and other products. Over the last 3 decades history, we've developed strong relationships with customers. Our strength lives in all of our people, who have extended our tradition of service and integrity to customers in every location and situation, and who take pride in making us one of the most resilient resources in the products we deal.

DISC RELAYS

S.No	ANSI	Application Description	Model	Catalogues Telegram link
1	51 or 51N	Single pole Non-directional IDMT selfpowered O/C or E/F relay	CDG11	https://t.me/scsrelaysupport/117
2	51 or 51 & 51N	Triple pole Non-directional IDMT selfpowered O/C or E/F relay	CDG31	
3		Single pole Non Directional with Highset	CDG21/CAG17	
4	51 & 50 or 51,50, 51N,	Tripole Non Directional with Highset	CDG61/CAG17	https://t.me/scsrelaysupport/118
5		Single pole Non directional extremely Inverse time O/C or E/F relay	CDG14	https://t.me/scsrelaysupport/119
6		Tripole Non directional extremely Inverse time O/C or E/F relay	CDG34	
7	59	Single pole Self powered Inverse time overvoltage	VDG11	https://t.me/scsrelaysupport/56
8	27	Single pole Inverse time under voltage	VDG13	https://t.me/scsrelaysupport/121
9	59N	Single pole inverse time neutral voltage displacement	VDG14	https://t.me/scsrelaysupport/55

HINGED ARMATURE RELAY

S.No	ANSI	Application Description	Model	Telegram link
1	95	Selfpowered Battery E/F relay	CAEM21	
2		Second Rotor E/F	CAEM33	
3	50	AC instantaneous O/C or E/F	CAG12	https://t.me/scsrelaysupport/116
4	87 N, 64 R	Single pole instantaneous with high stability	CAG14	https://t.me/scsrelaysupport/115
5	87	Tri pole instantaneous with high stability	CAG34	
6		Single pole AC instantaneous O/C	CAG17	
7		Tripole AC instantaneous O/C	CAG37	
8	30	Voltage operated auxiliary relay with single coil SR (Single Window)	VAA11	https://t.me/scsrelaysupport/49
9	30	Voltage operated auxiliary relay with two coil SR (Two Window)	VAA21	
10	30	Voltage operated auxiliary relay with three coil SR (Three Window)	VAA31	
11	30	Voltage operated auxiliary relay with single coil SR & HR (Single Window)	VAA12	
12	30	Voltage operated auxiliary relay with two coil SR & HR (Two Window)	VAA22	
13	30	Voltage operated auxiliary relay with three coil SR & HR (Three Window)	VAA32	
14	30	Voltage operated auxiliary relay with single coil HR (Single Window)	VAA13	
15	30	Voltage operated auxiliary relay with two coil HR (Two Window)	VAA23	
16	30	Voltage operated auxiliary relay with three coil HR (Three Window)	VAA33	
17		Negative potentail biased earth leakage	VAEM22	

18		Rotor E/F	VAEM21	
19		Single pole No-Voltage	VAG11 (NV)	
20	27	Single pole Under Voltage	VAG11 (UV)	
21	59	Single pole Overvoltage	VAG11 (OV)	
22		Single pole instantaneous No-voltage	VAG21 (NV)	
23	27	Single pole instantaneous Under voltage	VAG21 (UV)	
24	59	Single pole instantaneous Overvoltage	VAG21 (OV)	
25	27	Single pole instantaneous U/V with adjustable setting	VAGM22 (UV)	
26	59	Single pole instantaneous O/V with adjustable setting	VAGM22 (OV)	
27		Single element high speed trip relay SR	VAJS13	
28		Two element high speed trip relay SR	VAJS23	
29	86	Single element high speed trip relay HR	VAJH13	https://t.me/scsrelaysupport/42
30	86	Two element high speed trip relay HR	VAJH23	
31		Single element high speed trip relay HR with supervision	VAJHM13	
32		Two element high speed trip relay HR with supervision	VAJHM23	
33		Fuse failure relay with Resistor	VAPM31	
34	95	Trip Supply supervision	VAX21	
35	95	Trip Coil supervision	VAX31	https://t.me/scsrelaysupport/120
36		Test Plug	MPB	https://t.me/scsrelaysupport/46
37		Test Block	MPG	https://t.me/scsrelaysupport/46

STATIC RELAYS

S.No	ANSI	Application Description	Model	Telegram link
38		Single pole definite time static sensitive E/F	CTUM15	
39	25	Check synchronizing	SKD11	https://t.me/scsrelaysupport/48
40	25	Check sync for generator	SKE11	https://t.me/scsrelaysupport/48
41	2	Time Delay relay (delay on pickup)	VTT11	https://t.me/scsrelaysupport/53
41	2	Time Delay relay (delay on dropoff)	VTT12	https://t.me/scsrelaysupport/53
43	2	Definite time delay relay pickup	VTT14	https://t.me/scsrelaysupport/54
44	2	Definite time delay relay dropoff	VTT15	https://t.me/scsrelaysupport/54
45		CT Buswire pilot supervision	VTX31	

RELAY IN MIDOS CASING

S.No	ANSI	Application Description	Model	Telegram link
1	30	Single element relay with 2 make 2 change over o/p contacts	MVAAM11	https://t.me/scsrelaysupport/123
2	30	Two element relay with 4 change over o/p contacts	MVAAM21	https://t.me/scsrelaysupport/123
3	30	Three element relay with 4 change over o/p contacts	MVAAM31	
4	30	Single element relay with 2 make 2 change over o/p contacts	MVAAM13	https://t.me/scsrelaysupport/123
5	30	Two element relay with 4 make 4 change over o/p contacts	MVAAM23	https://t.me/scsrelaysupport/123
6		Instantaneous under voltage relay	MVAGM21	
7		Single pole high stability circulating current relay with S/R contacts & H/R flag	MCAG14	https://t.me/scsrelaysupport/124
8		Triple pole high stability circulating current relay with S/R contacts & H/R flag	MCAG34	https://t.me/scsrelaysupport/124
9		Trip supply supervision relay having S/R contacts & reverse flag	MVAXM21	https://t.me/scsrelaysupport/122
10		Trip circuit supervision relay with pre-closing & post-closing supervision, having S/R contacts & reverse flag	MVAXM31	https://t.me/scsrelaysupport/122
11	86	Single element voltage operated tripping relay with S/R contacts	MVAJM11 - 10contacts	https://t.me/scsrelaysupport/43
12	86	Single element voltage operated tripping relay with H/R contacts	MVAJM13 - 10contacts	https://t.me/scsrelaysupport/43
13	86	Single element voltage operated tripping relay (high burden) with E/R & H/R contacts	MVAJM15 - 10 Contacts	https://t.me/scsrelaysupport/43
14	86	Single element voltage operated control relay with E/R contacts	MVAJM14 - 10contacts	https://t.me/scsrelaysupport/43

RELAY IN MIDOS CASING				
S.No	ANSI	Application Description	Model	Telegram link
15		Two element voltage operated tripping relay (high burden) with E/R & H/R contacts	MVAJM25 -20 Contacts	
16		Self reset high or low burden tripping relay with instantaneous or delayed cut off contact with 5 std o/p contacts	MVAJ051-L	
17		Hand reset high or low burden tripping relay with instantaneous or delayed cut off contact with 5 std o/p contacts	MVAJ053-L	
18		Electrically reset high or low burden tripping relay with instantaneous or delayed cut off contact with 5 std o/p contacts	MVAJ054-L	
19		Hand & Electrically reset high or low burden tripping relay with instantaneous or delayed cut off contact with 5 std o/p contacts	MVAJ055-L	
20		Self reset high or low burden tripping relay with instantaneous or delayed cut off contact with 10 std o/p contacts	MVAJ101-L	
21		Hand reset high or low burden tripping relay with instantaneous or delayed cut off contact with 10 std o/p contacts	MVAJ103-L	
22		Electrically reset high or low burden tripping relay with instantaneous or delayed cut off contact with 10 std o/p contacts	MVAJ104-L	
23		Hand & Electrically reset high or low burden tripping relay with instantaneous or delayed cut off contact with 10 std o/p contacts	MVAJ105-L	
24		Hand reset high or low burden tripping relay with instantaneous or delayed cut off contact with 20 std o/p contacts	MVAJ203-L	

RELAY IN MIDOS CASING				
S.No	ANSI	Application Description	Model	Telegram link
25		Electrically reset high or low burden tripping relay with instantaneous or delayed cut off contact with 20 std o/p contacts	MVAJ204-L	
26		Hand & Electrically reset high or low burden tripping relay with instantaneous or delayed cut off contact with 20 std o/p contacts	MVAJ205-L	
27		Voltage selection relay with S/R contacts & H/R flag	MVAPM32	
28		Static digital time delay relay, delayed on pick up	MVTTM14	
29		Static digital time delay relay, delayed on drop off	MVTTM15	

INDUSTRIAL RELAY				
S.No	ANSI	Application Description	Model	Telegram link
1		Single Pole Metrosil - 1A	MET1088	
2		Single Pole Metrosil - 5A	MET1196	
3		Static industrial Timer	TImEE(RQT)	

SCS
SYSTEM CONTROLS & SWITCHGEARS

ODS SWITCH MODELS

S.No	ANSI	Application Description	Model	Telegram link
1		ODS 2WAY 120DEG LOCK FREE SPRING RETURN	S02LF120SRPM101	
2		ODS 2WAY 120DEG NON-LOCK SPRING RETURN	S02N120SRPM101	
3		ODS 2WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE	S02N120SRSPM102	
4		ODS 4WAY 120DEG LOCK FREE SPRING RETURN	S04LF120SRPM101	
5		ODS 4WAY 120DEG LOCK FREE SPRING RETURN	S04LF120SRPM117	
6		ODS 4WAY 120DEG LOCK FREE SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S04LF120SRSL2PM122	
7		ODS 4WAY 120DEG LOCK FREE SPRING RETURN WITH SEQUENCE	S04LF120SRSPM104	
8		ODS 4WAY 90DEG LOCK FREE STAYPUT	S04LF90SPPM102	
9		ODS 4WAY 120DEG NON-LOCK SPRING RETURN	S04N120SRPM101	
10		ODS 4WAY 90DEG NON-LOCK STAYPUT	S04N90SPPM101	
11		ODS 4WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE	S04N120SRSPM106	
12		ODS 4WAY 90DEG NON-LOCK STAYPUT	S04N90SPPM103	
13		ODS 6WAY 120DEG LOCK FREE SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S06LF120SRL2PM111A	
14		ODS 6WAY 120DEG LOCK FREE SPRING RETURN WITH SEQUENCE	S06LF120SRSPM105	
15		ODS 6WAY 90DEG LOCK FREE STAYPUT	S06LF90SPPM107	
16		ODS 6WAY 120DEG LOCK FREE SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S06LF120SRSL2PM106	
17		ODS 6WAY 120DEG NON-LOCK SPRING RETURN + 2BELL ALARM	S06N120SRL2PM111	
18		ODS 6WAY 120DEG NON-LOCK SPRING RETURN	S06N120SRPM104	
19		ODS 6WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S06N120SRSL2PM124	

ODS SWITCH MODELS

S.No	ANSI	Application Description	Model	Telegram link
20		ODS 6WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE	S06N120SRSPM116	
21		ODS 6WAY 90DEG NON-LOCK STAYPUT	S06N90SPPM102	
22		ODS 8WAY 120DEG LOCK FREE SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S08LF120SRSL2PM123	
23		ODS 8WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE	S08LF120SRSPM118	
24		ODS 8WAY 90DEG LOCK FREE STAYPUT	S08LF90SPPM102	
25		ODS 8WAY 120DEG LOCK TRAPPED SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S08LT120SRSL2PM108	
26		ODS 8WAY 120DEG LOCK TRAPPED SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S08LT120SRSL2PM123	
27		ODS 8WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S08N120SRSL2PM115	
28		ODS 8WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S08N120SRSL2PM123	
29		ODS 8WAY 135DEG NON-LOCK STAYPUT	S08N135SPPM103	
30		ODS 8WAY 90DEG NON-LOCK STAYPUT	S08N90SPPM102	
31		ODS 10WAY 180DEG LOCK FREE STAYPUT	S10LT180SPPM107	
32		ODS 10WAY 90DEG LOCK TRAPPED STAYPUT	S10LT90SPPM104	
33		ODS 10WAY 90DEG NON-LOCK STAYPUT	S10N90SPPM126	
34		ODS 10WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S10N120SRL2PM104	
35		ODS 12WAY 180DEG LOCK FREE STAYPUT	S12LF180SPPM108	

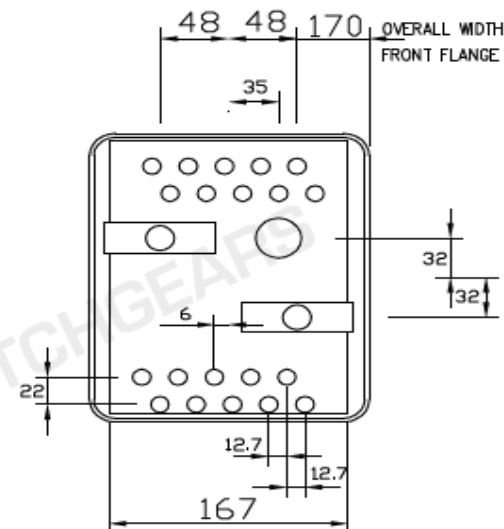
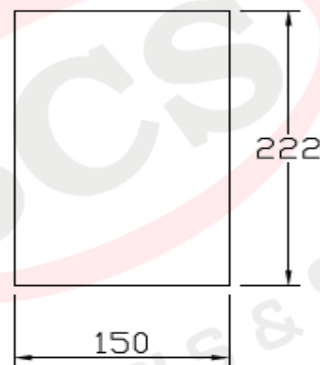
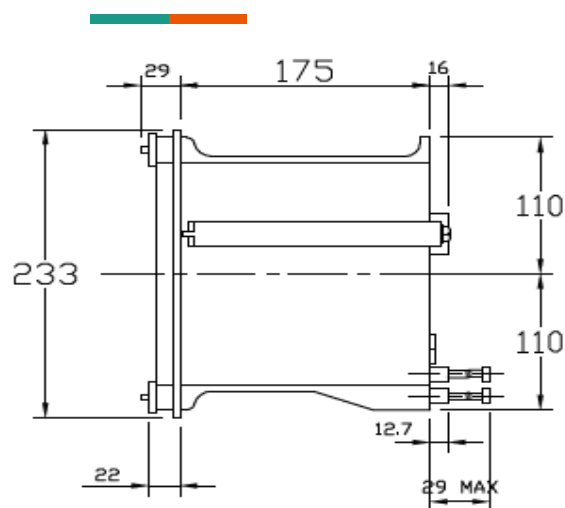
ODS SWITCH MODELS				
S.No	ANSI	Application Description	Model	Telegram link
36		ODS 12WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE + 4BELL ALARM	S12N120SRSL4PM177	
37		ODS 14WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE + 4BELL ALARM	S14N120SRSL4PM102	
38		ODS 16WAY 90DEG LOCK FREE STAYPUT	S16LF90SPPM103	
39		ODS 16WAY 120DEG NON-LOCK SPRING RETURN + 2BELL ALARM	S16N120SRL2PM101	
40		ODS 16WAY 120DEG NON-LOCK SPRING RETURN WITH SEQUENCE + 2BELL ALARM	S16N120SRL2PM102	
41		ODS 16WAY 180DEG NON-LOCK STAYPUT	S16N180SPPM103	
42		ODS 20WAY 90DEG NON-LOCK STAYPUT	S20N90SPPM106	
43		ODS 22WAY 120DEG NON-LOCK SPRING RETURN + 2BELL ALARM	S22N120SRL2PM108	
44		ODS 24WAY 135DEG NON-LOCK STAYPUT	S24LF135SPPM101	
45		ODS 30WAY 90DEG LOCK TRAPPED STAYPUT	S30LT90SPPM105A	

NOT-THE BLUE COLOUR SELECTED NON STANDARD

S.No.	Relay Type	Case	Case size	Maximum overall dimensions		
				Height	Width	Depth*
1	CDG11	AF	1D Vert 10T	233 mm	170 mm	203 mm
2	CDG31	EG	3D Horz	233 mm	454 mm	203 mm
3	CDG61	EG	3D Horz	233 mm	454 mm	203 mm
4	CAG12	AF	1D Vert 10T	233 mm	170 mm	203 mm
		ZF	1/2 NV 12T	153 mm	124 mm	130 mm
5	CTUM15	AF	1D Vert 10T	233 mm	170 mm	203 mm
		ZG	1/2 H 12T	153 mm	124 mm	130 mm
6	CAEM33	AF	1D Vert 10T	233 mm	170 mm	203 mm
7	CAG14	AF	1D Vert 10T	233 mm	170 mm	203 mm
8	CAG34	AF	1D Vert 10T	233 mm	170 mm	203 mm
9	VDG11	AF	1D Vert 10T	233 mm	170 mm	203 mm
10	VDG13	AF	1D Vert 10T	233 mm	170 mm	203 mm
11	VDG14	AF	1D Vert 10T	233 mm	170 mm	203 mm
12	VAG11	YF	1/4N V 10T	118 mm	105 mm	115 mm
13	VAG21	ZG	1/2 NV 12T	153 mm	124 mm	130 mm
14	VAJH13	YF	1/4N V 10T	118 mm	105 mm	115 mm
15	VAJH23	ZG	1/2N H 20T	124 mm	153 mm	130 mm

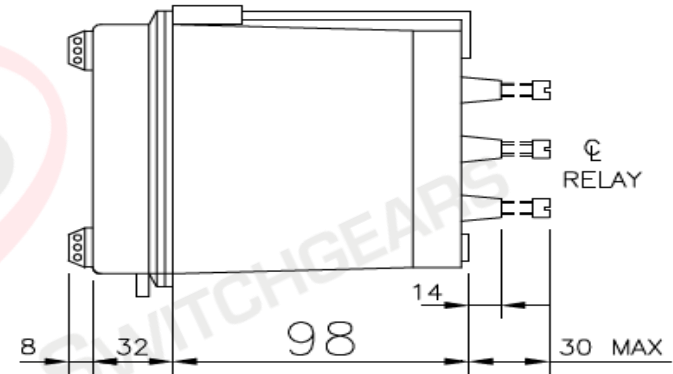
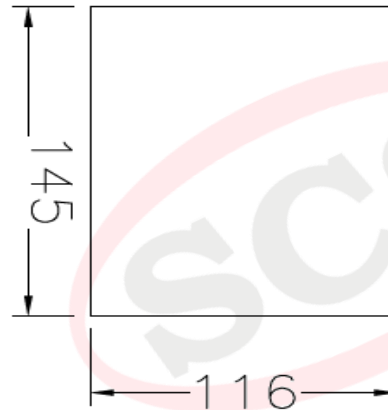
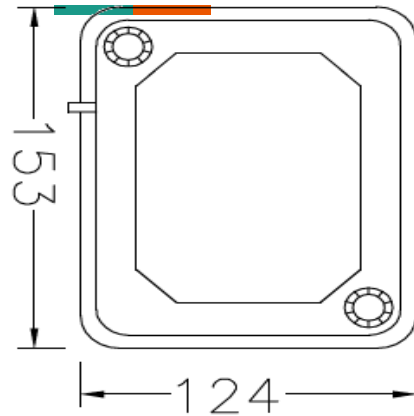
16	VAJHM13	YF	1/4N Horz 15T	118 mm	105 mm	120 mm
17	VAJHM23	ZG	1/2N H 20T	124 mm	153 mm	130 mm
18	VAA11	YF	1/4N V 10T	118 mm	105 mm	115 mm
19	VAA12	YF	1/4N V 10T	118 mm	105 mm	115 mm
20	VAA13	YF	1/4N V 10T	118 mm	105 mm	115 mm
21	VAA21	YF	1/4N V 10T	118 mm	105 mm	115 mm
		ZG	1/2N H 20T	124 mm	153 mm	130 mm
22	VAA22	YF	1/4N V 10T	118 mm	105 mm	115 mm
		ZG	1/2N H 20T	124 mm	153 mm	130 mm
23	VAA23	YF	1/4N V 10T	118 mm	105 mm	115 mm
		ZG	1/2N H 20T	124 mm	153 mm	130 mm
24	VAA31	ZG	1/2N H 20T	124 mm	153 mm	130 mm
25	VAA32	ZG	1/2N H 20T	124 mm	153 mm	130 mm
26	VAA33	ZG	1/2N H 20T	124 mm	153 mm	130 mm
27	VAX31	ZG	1/2N H 20T	124 mm	153 mm	130 mm
28	Case Size 2,3,4,6 Hinged Armature MIDOS)					

Case and Panel cut-out dimensions for case 1D Vert 10T (all dimensions in mm)



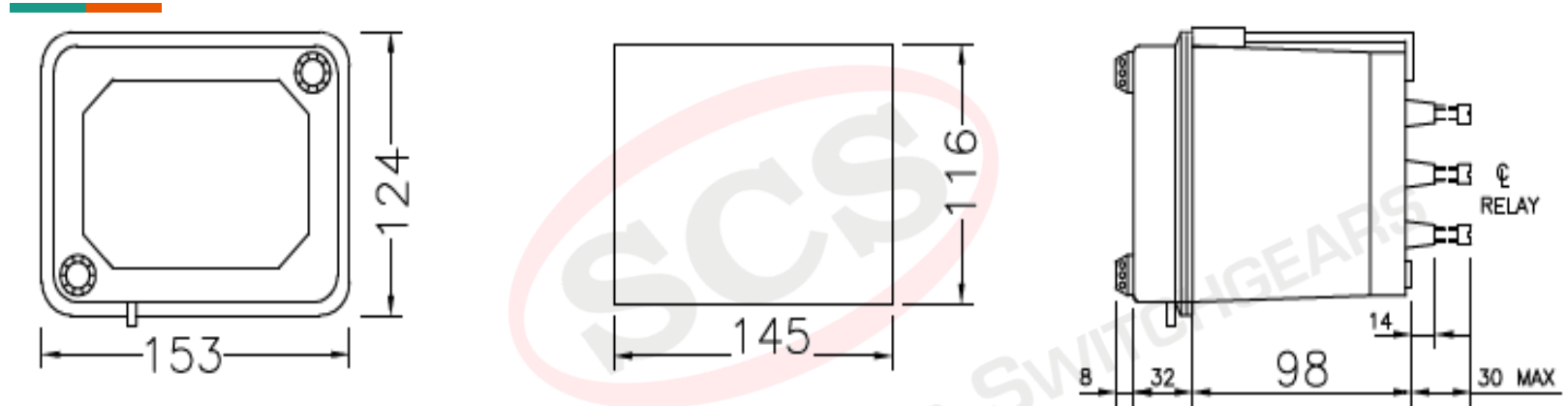
Case size	Maximum overall dimensions		
	Height mm	Width mm	Depth* mm
1D Vert.	233	170	203

Case and panel cut -out dimensions for case
1/2 N VERT. 12T (All dimensions in mm)



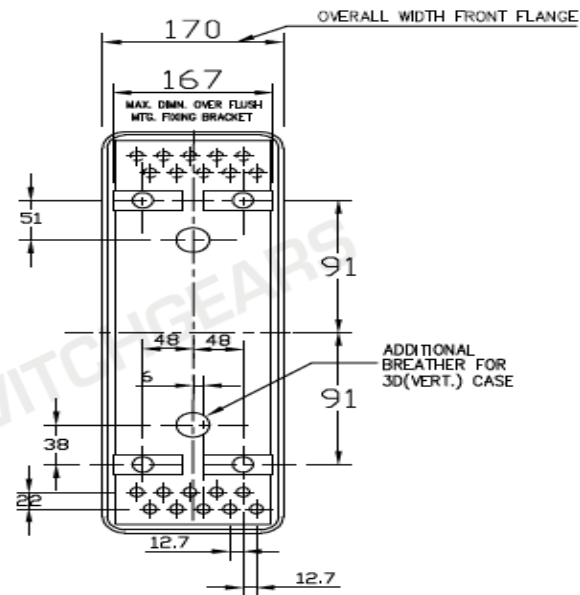
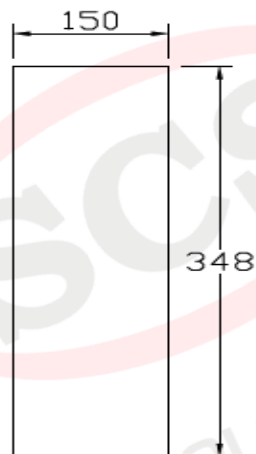
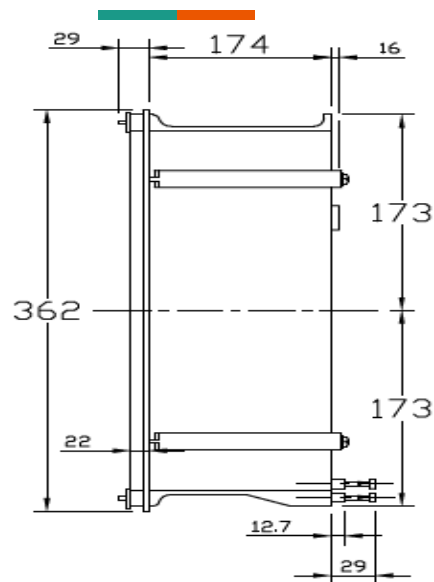
Case size	Maximum overall dimensions		
	Height mm	Width mm	Depth* mm
1/2N Vert.	153	124	130

Case and panel cut -out dimensions for case
1/2N H 20T (All dimensions in mm)



Case Size	Maximum overall dimensions		
	Height mm	Width mm	Depth* mm
$\frac{1}{2}$ N Hor.	124	153	130

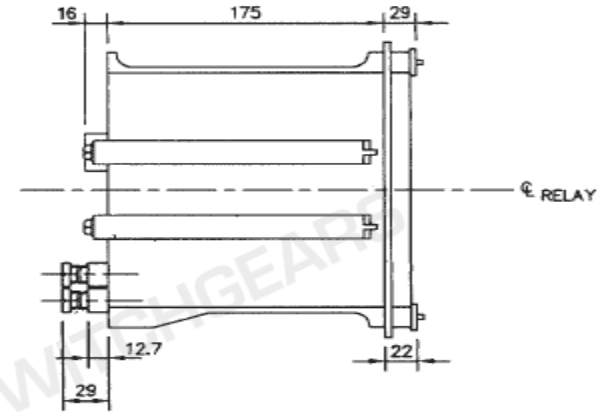
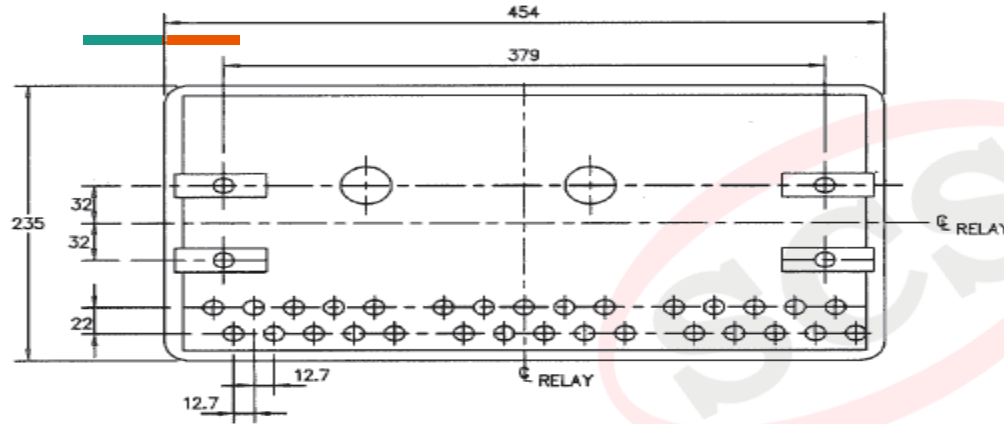
Case and panel cut-out dimensions for case 1 1/2 D (All dimensions in mm)



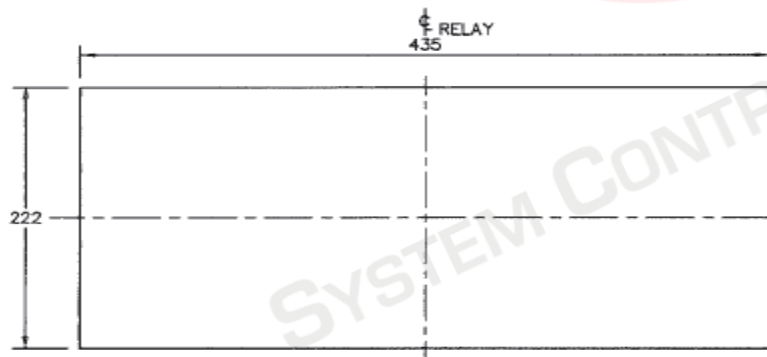
Case	Height	Width	Depth*
1½D	362 mm	170 mm	203 mm

*Add 76 mm for maximum length of terminal studs, alternatively, 29 mm for terminal screws.

Case and panel cut-out dimensions for case 3D hor draw out (all dimensions in mm)

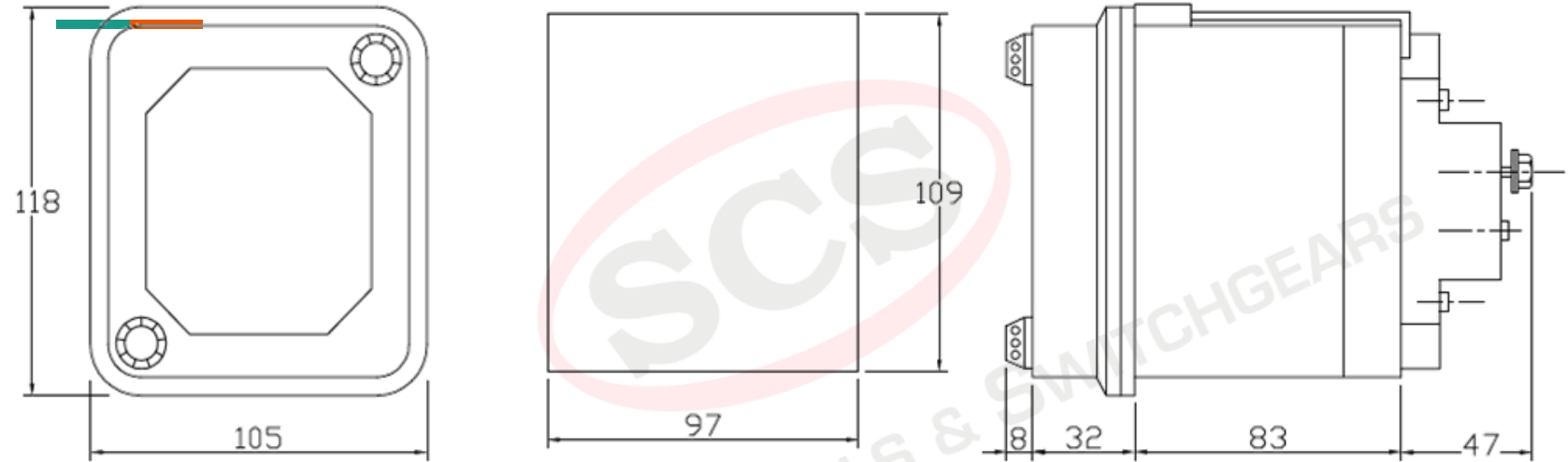


SIZE 3D (HORIZONTAL) SINGLE ENDED CASE



Case size	Maximum overall dimensions		
	Height mm	Width mm	Depth * mm
3D Hor.	233	454	203
3D Vert.	524	170	203

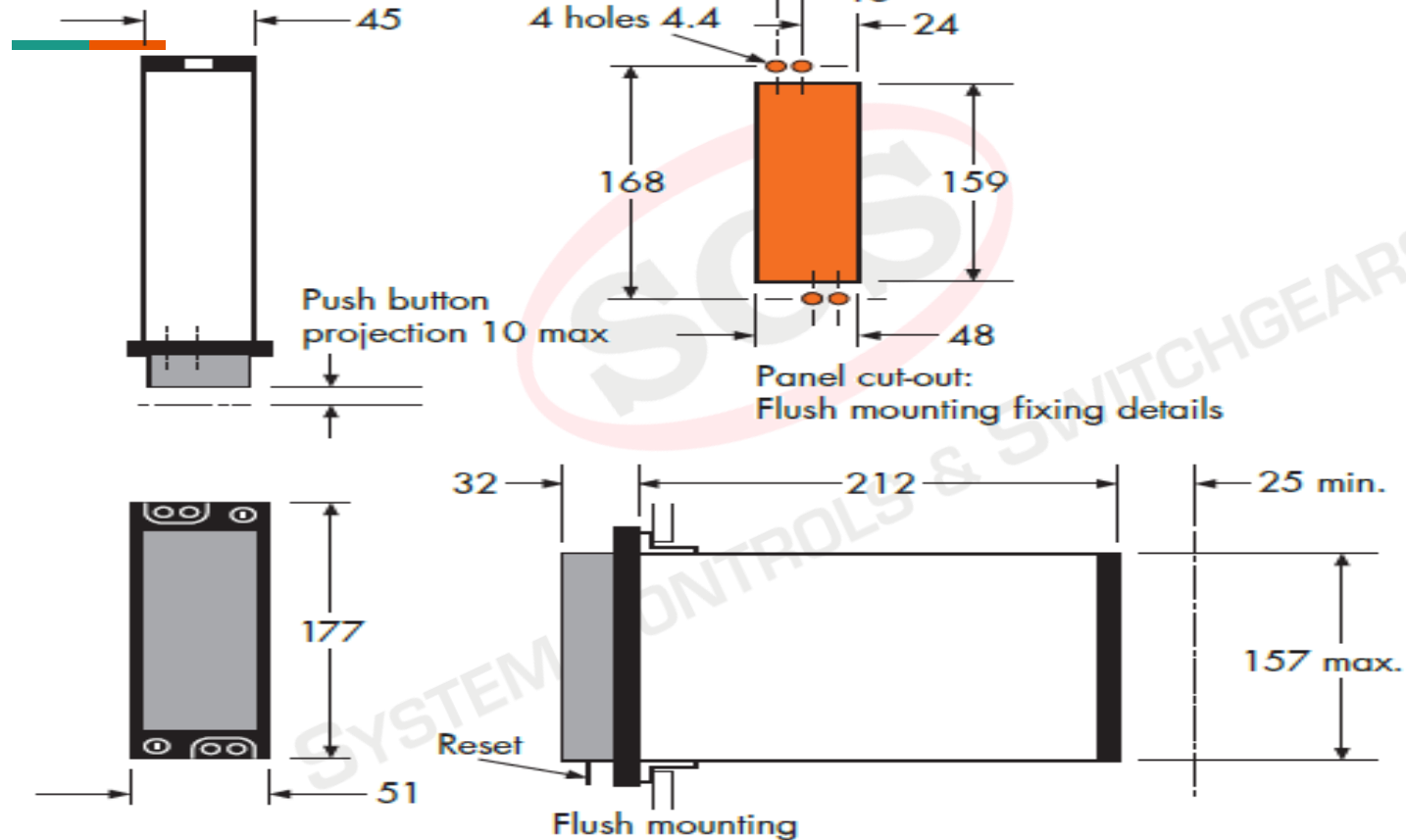
Case and Panel cut-out dimensions for case 1/4N (all dimensions in mm)



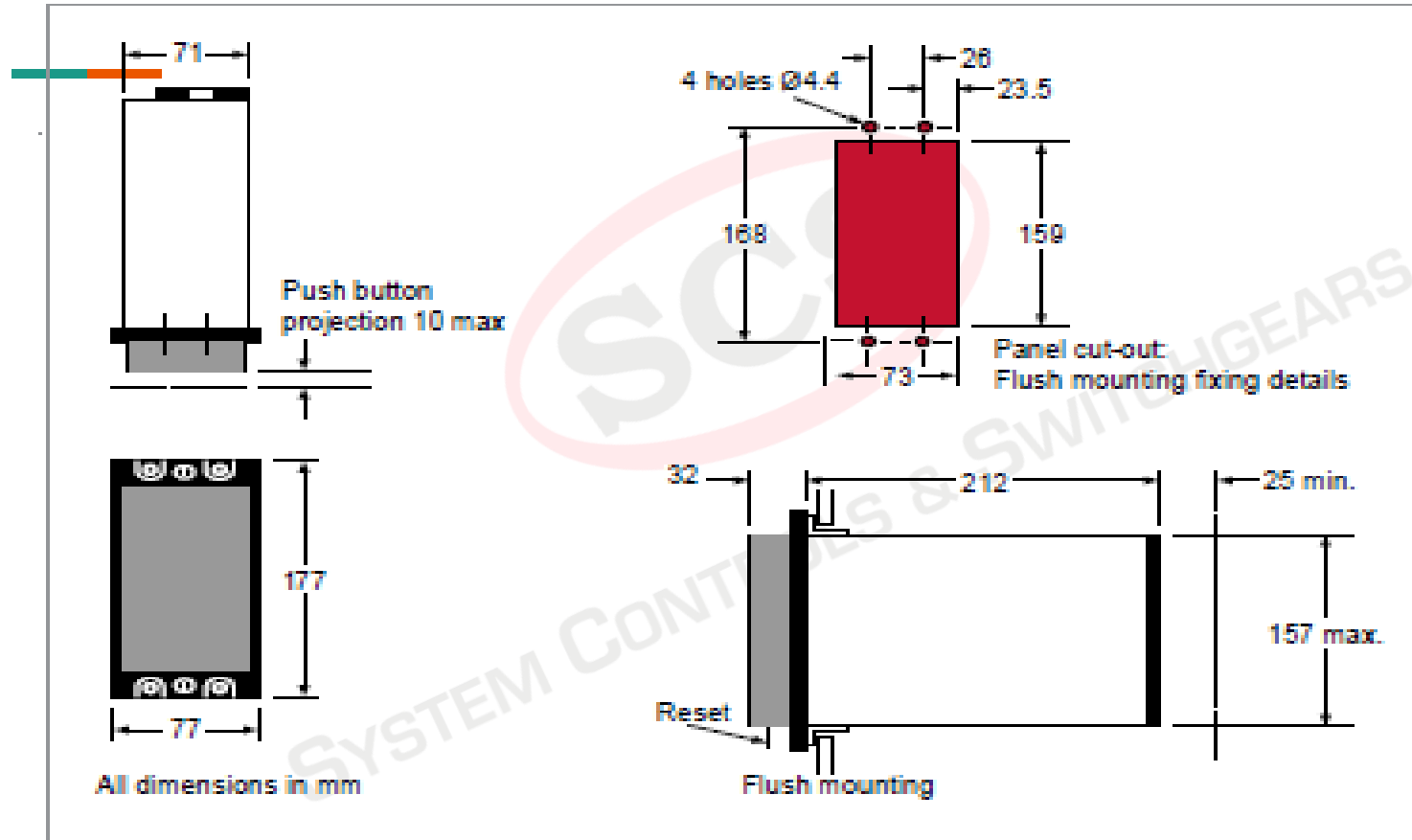
Case Size	Maximum number of terminals	Maximum overall dimensions		
1/4N	10	118	105	120

Case Outline Size 2.

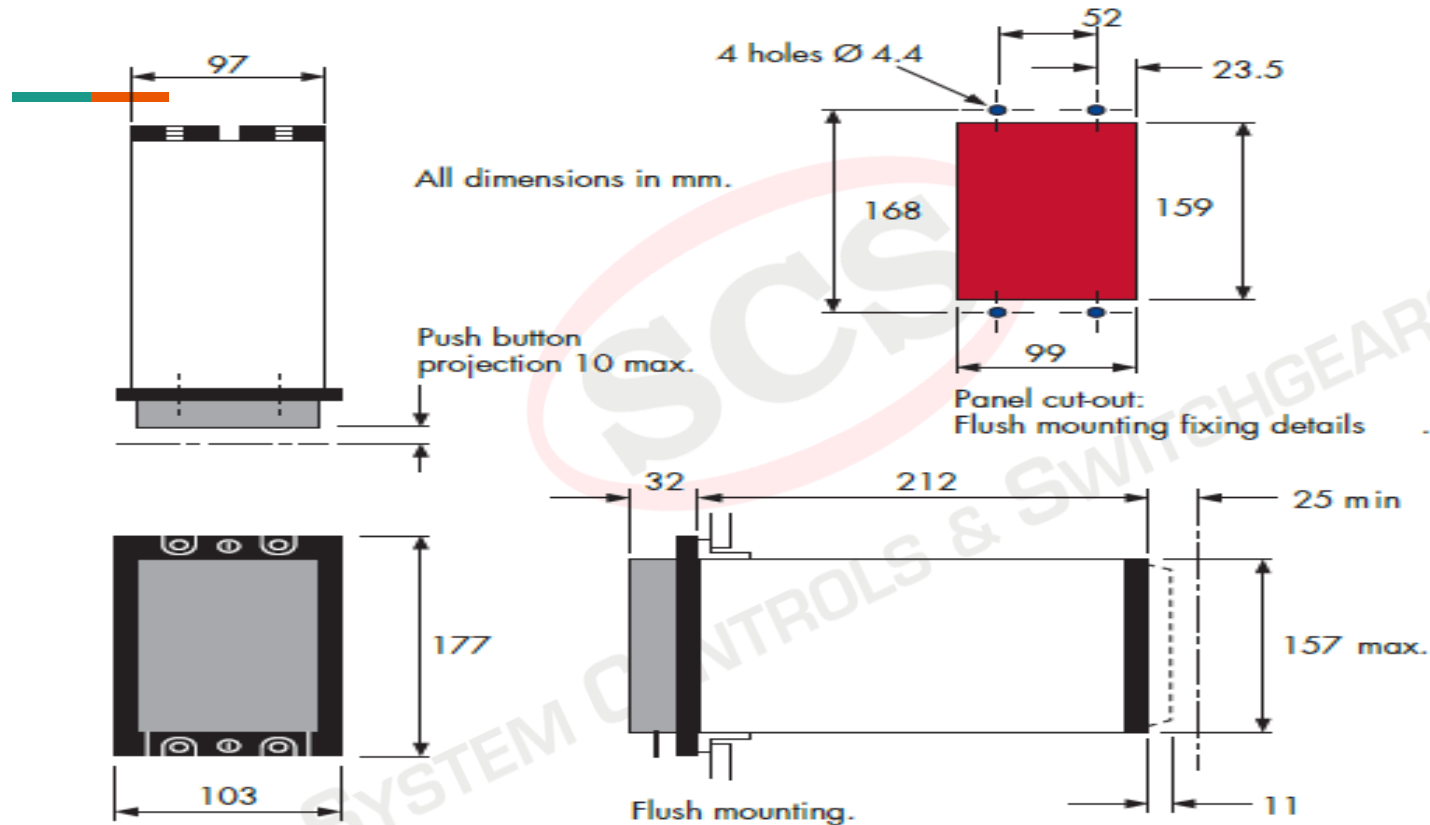
Case Outline Size 2



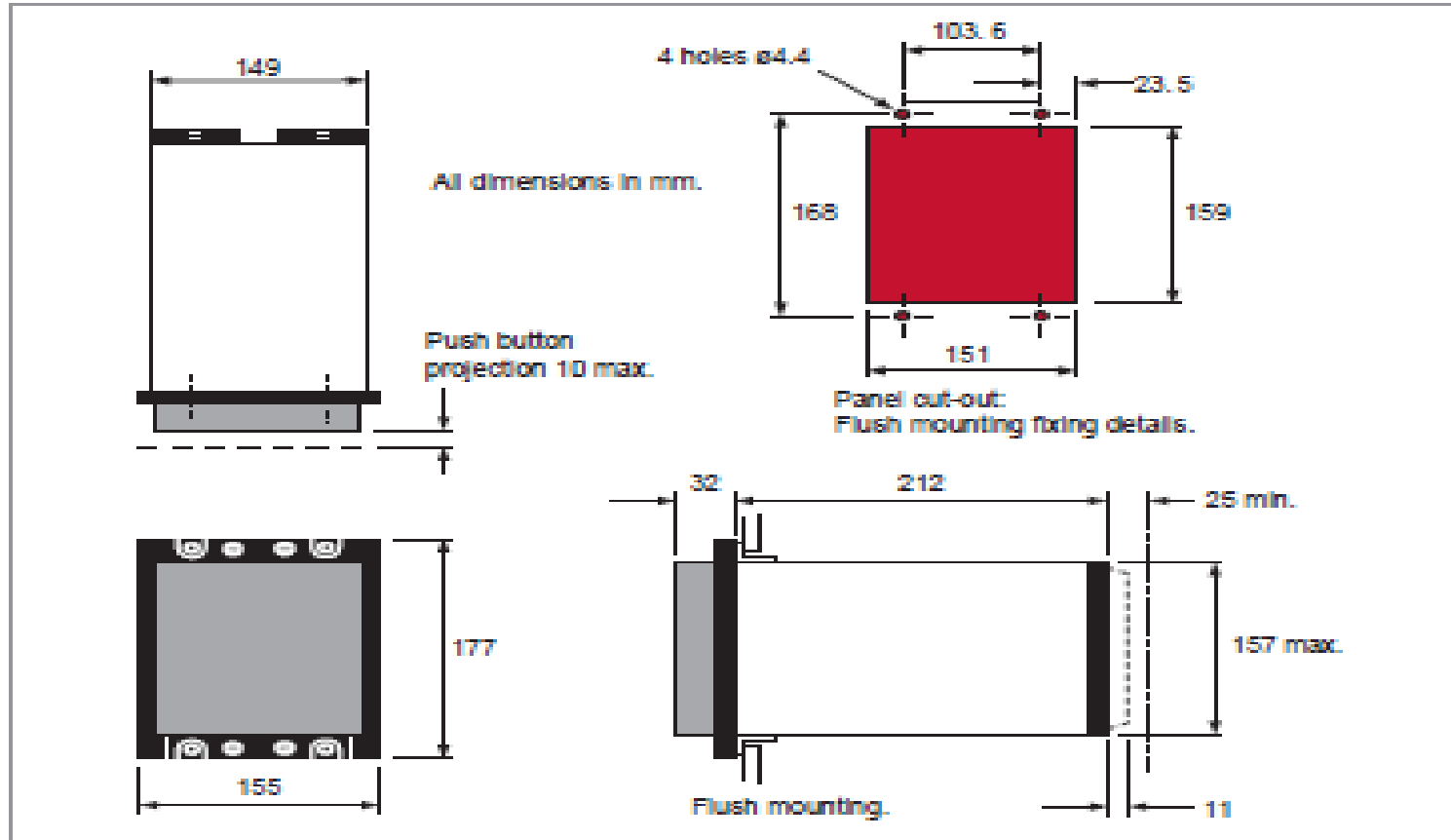
Case Outline Size 3.

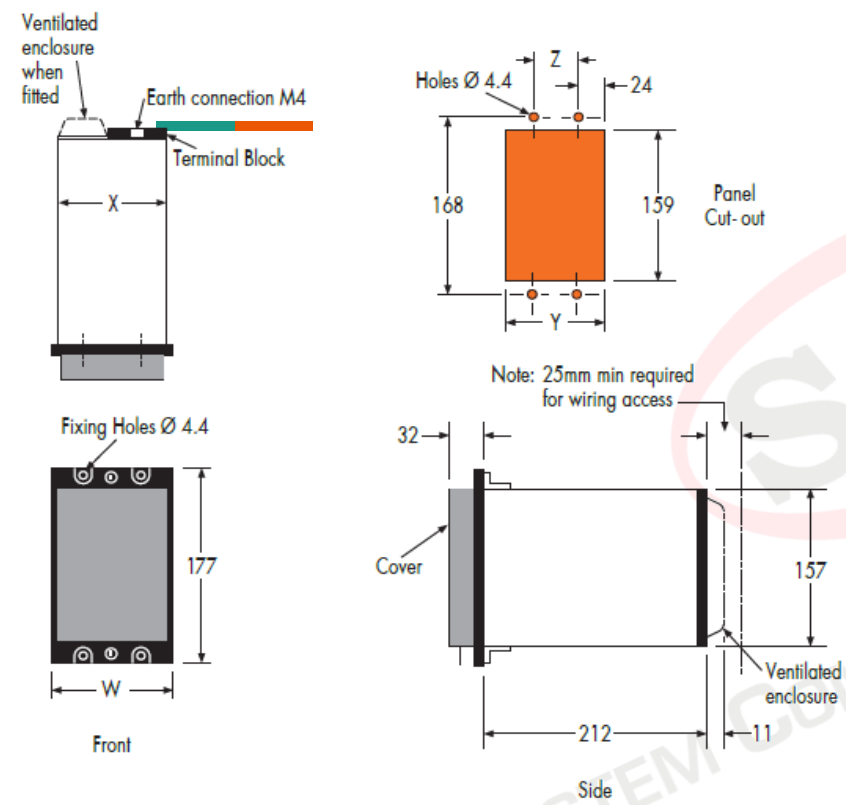


Case Outline Size 4.



Case outline: size 6





Case Size					
Dimensions	3	4	6	8	16
in mm					
W	77	103	155	206	414
X	71	97	149	200	408
y	73	99	151	203	411
z	26	51.8	103.6	155.4	362.6

Figure: Case and panel cut-out dimensions for relay case sizes 3 to 16

❖ Disclaimer:-

Info given herein is for ease of understanding. Customized tech info is for specific purpose SCS suggests you to take confirmation on technical details from GE experts SCS does not take responsibility or claim this will suit your needs.



SYSTEM CONTROLS & SWITCHGEARS

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011-45631903

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