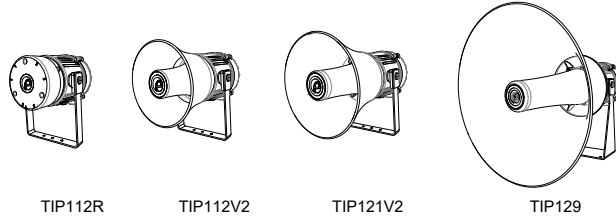


INSTRUCTION & SERVICE MANUAL

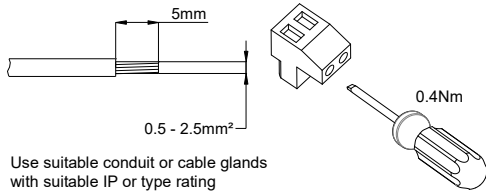
TIP Range Sounders

- IP67/66 & Type 4/4X/13
- -40°C to +66°C (-40°F to +151°F)
- DC: 2.5Kg (5.5lb); AC: 3.0Kg (6.5lb)
- CE, UKCA, EAC & Russian Maritime Register approved



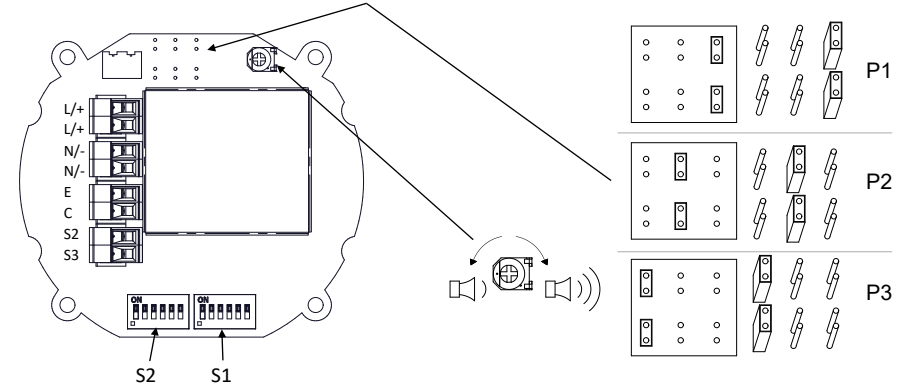
Unit Type Code	Nominal Voltage	Voltage Range	Nominal Current P1 (mA)	Nominal Current P2 (mA)	Nominal Current P3 (mA)	Sound Pressure Level P1, dB(A)			Sound Pressure Level P2, dB(A)			Sound Pressure Level P3, dB(A)			
						Max*	Nom [†]	\bar{x} [‡]	Max*	Nom [†]	\bar{x} [‡]	Max*	Nom [†]	\bar{x} [‡]	
TIP112R024	12 Vdc / 24 Vdc / 48Vdc	10-60Vdc	280/224/122			113.6	110.7	109.7							
TIP112V2024						116.6	113.7	112.7							
TIP121V2024			376/391/223 [§]	440/888/453						120.0	116.6	114.7	123.4	120.1	118.0
TIP129024				376/391/223	440/888/453 [§]				125.3	122.5	120.1	128.6	125.9	123.1	
TIP112R230	115 Vac / 230 Vac	100 - 240Vac 50/60Hz	100/64			113.6	110.7	109.7							
TIP112V2230						116.6	113.7	112.7							
TIP121V2230			173/107 [§]	340/212						120.0	116.6	114.7	123.4	120.1	118.0
TIP129230			173/107	340/212 [§]						125.3	122.5	120.1	128.6	125.9	123.1

*Max = Tone 4 / [†]Nom. = Tone 44 / [‡] \bar{x} = Average over 64 tones / [§] Denotes factory P2/P3 setting

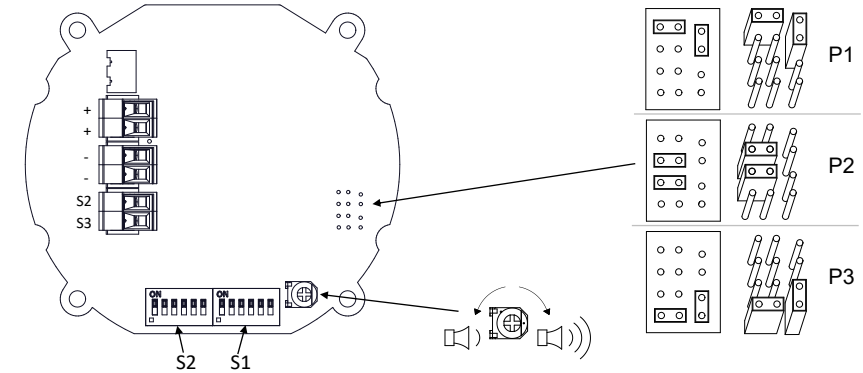


Attention: Installation must be carried out by an electrician in compliance with the latest codes and regulations.
 Attention: L'installation doit être effectuée par un électricien conformément aux derniers codes et réglementations.
 Achtung: Die Installation muss von einem Elektriker gemäß den neuesten Vorschriften und Bestimmungen durchgeführt werden.
 Attenzione: L'installazione deve essere eseguita da un elettricista in conformità con i codici e le normative più recenti.
 Atención: La instalación debe ser realizada por un electricista de acuerdo con los últimos códigos y regulaciones.
 Atenção: A instalação deve ser realizada por um electricista de acordo com os códigos e regulamentos mais recentes.
 Внимание: установка должна выполняться электриком в соответствии с последними нормами и правилами.
 Attention: Disconnect from power source before installation or service to prevent electric shock
 Attention: Débranchez-le de la source d'alimentation avant l'installation ou l'entretien pour éviter tout choc électrique.
 Achtung: Vor Installation oder Wartung von der Stromquelle trennen, um einen Stromschlag zu vermeiden.
 Attenzione: scollegare dall'alimentazione prima dell'installazione o dell'assistenza per evitare scosse elettriche.
 Atención: desconéctelo de la fuente de alimentación antes de la instalación o el servicio para evitar descargas eléctricas.
 Atenção: Desconecte da fonte de alimentação antes da instalação ou serviço para evitar choque elétrico
 Внимание: отключите от источника питания перед установкой или обслуживанием, чтобы предотвратить поражение электрическим током.

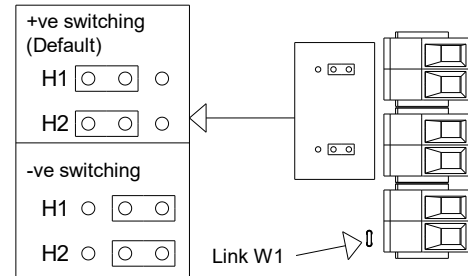
AC See D207-06-001



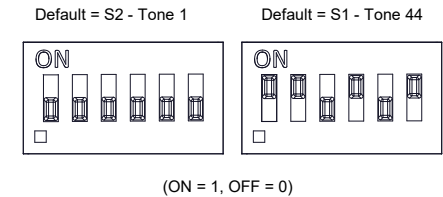
DC See D207-06-005



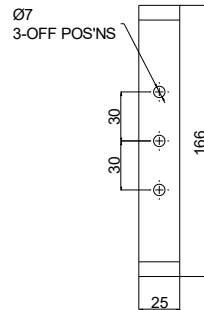
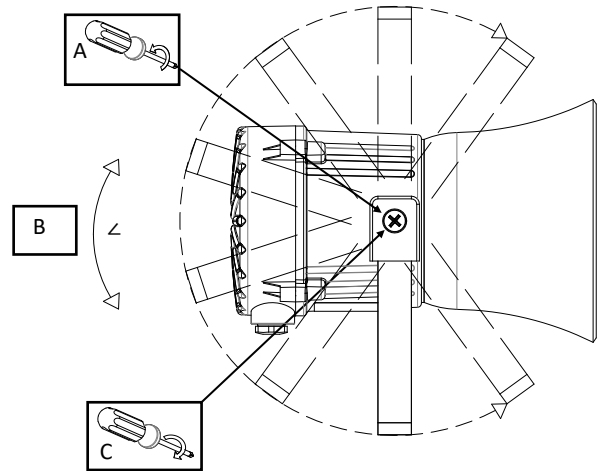
(DC Only, see D207-06-001)



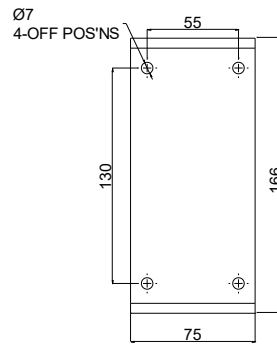
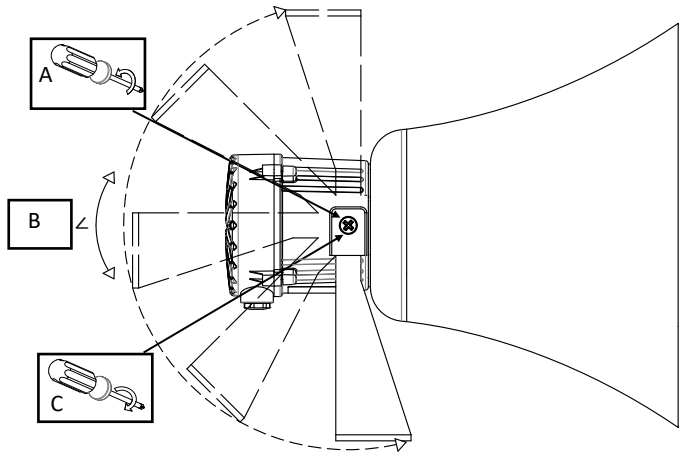
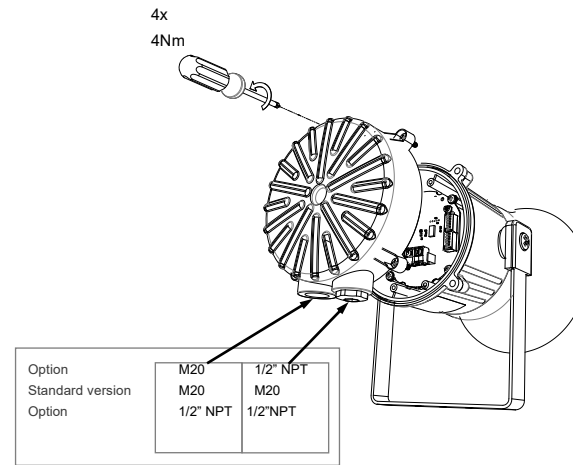
(AC & DC, see D221-95-001)



INSTRUCTION & SERVICE MANUAL
TIP Range Sounders



TIP112R, TIP112V2, TIP121V2




TIP129

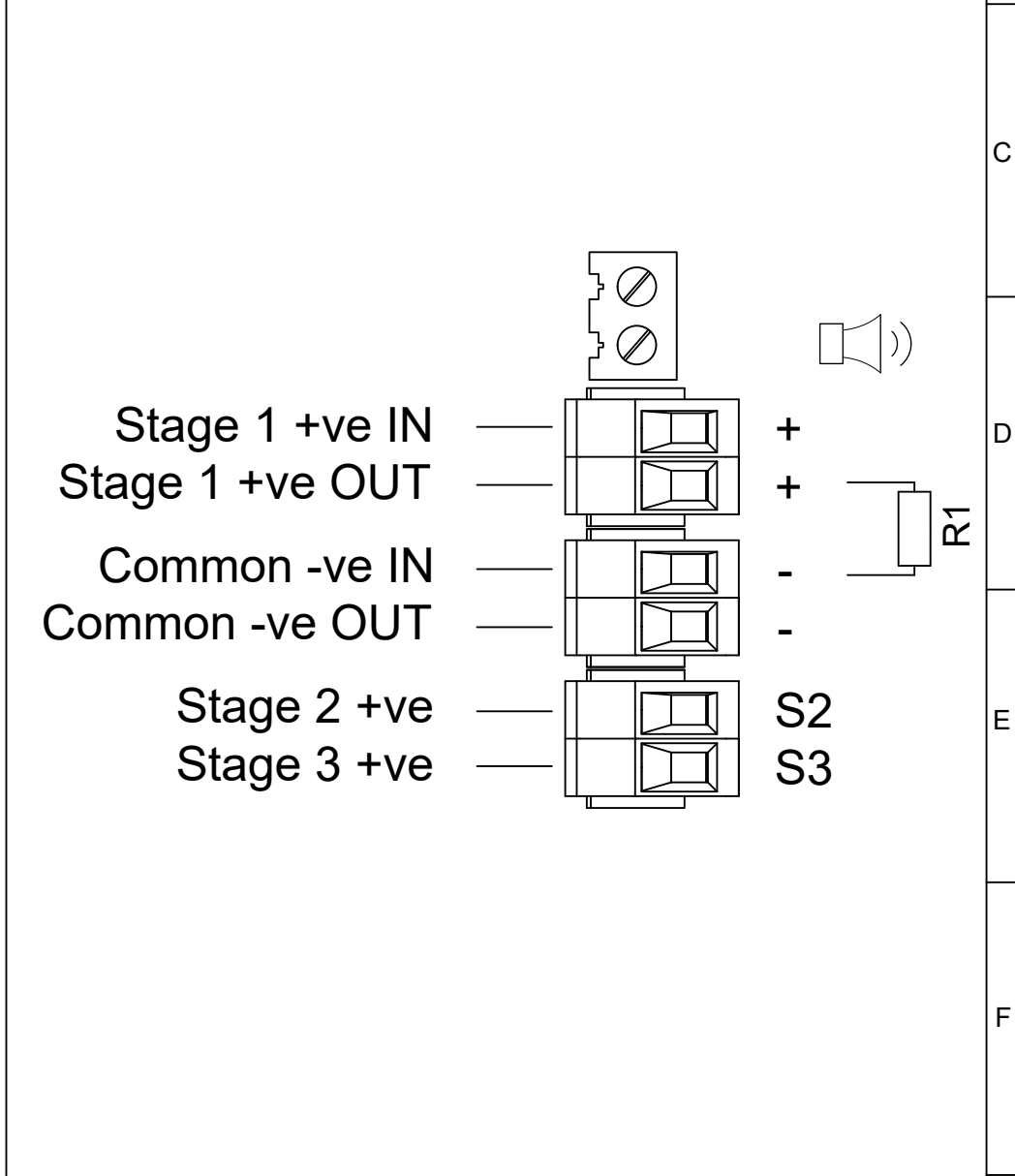
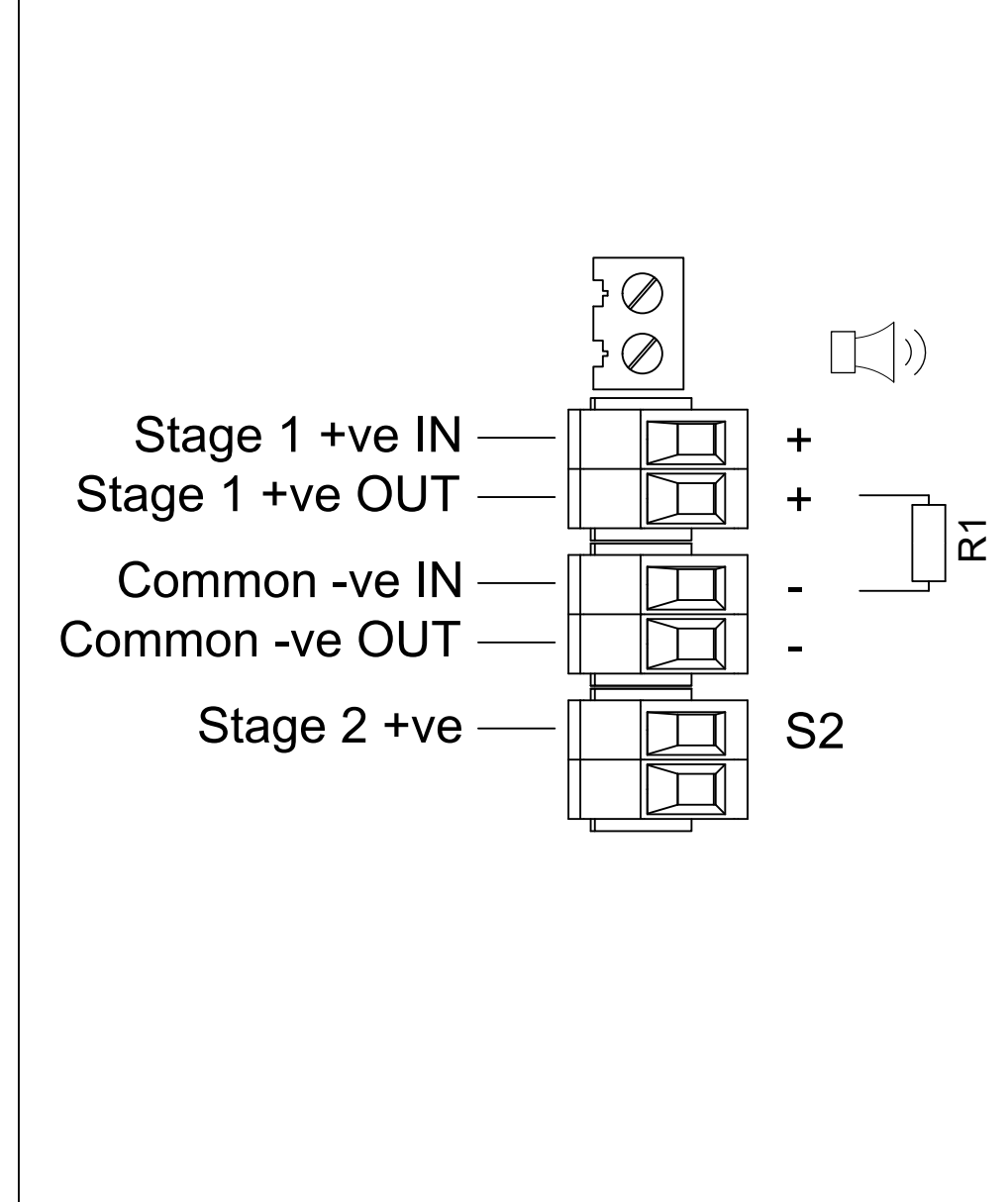
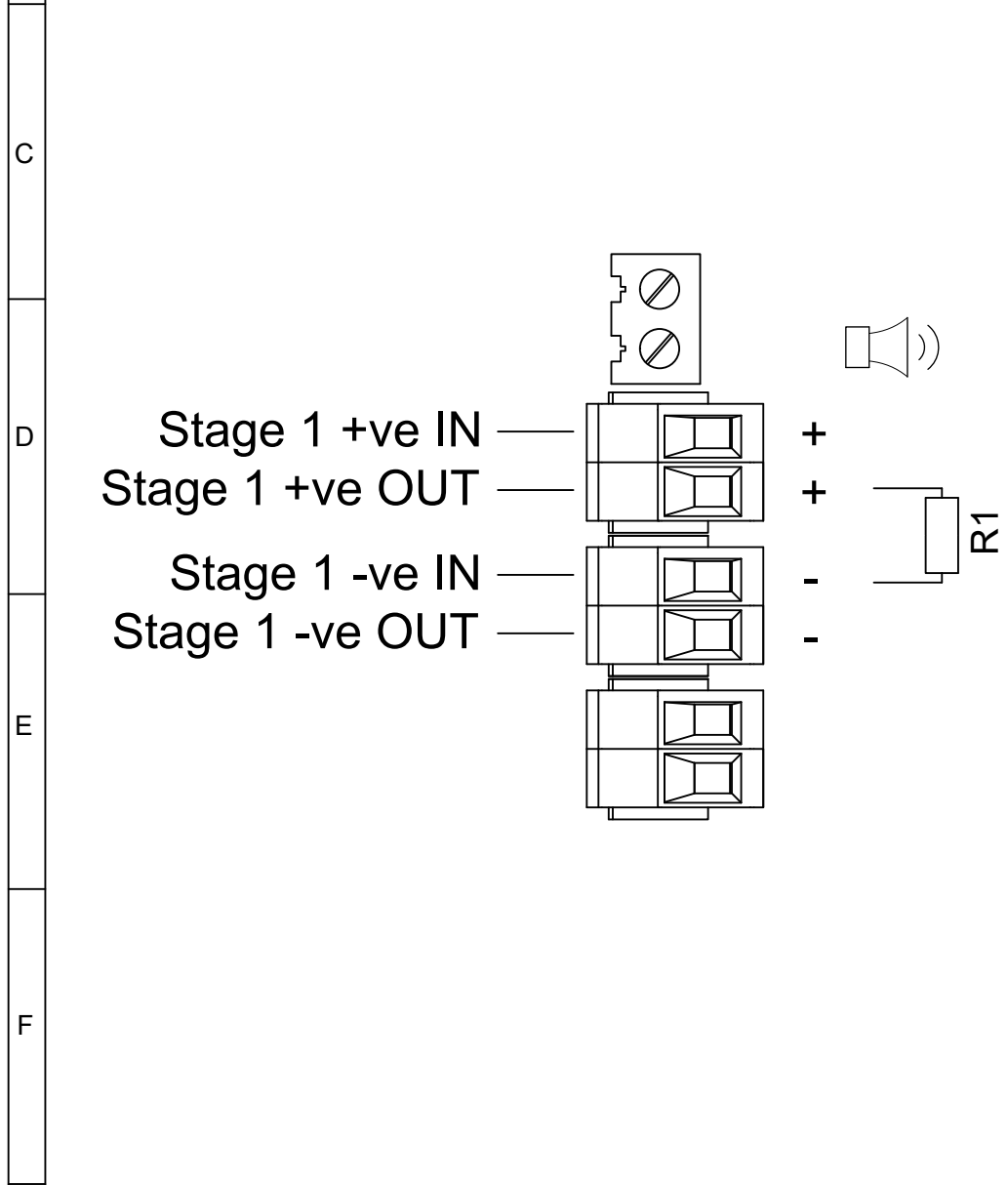
Stage 1 Set DIP SW 1 Tone No.	Tone Description	Tone Visual	Stage 1 & 2 DIP SW 1/2 Settings 1 2 3 4 5 6	Stage 3 Set DIP SW 1 (S3)	Stage 4 Set DIP SW 1 (S2 + S3)
1	1000Hz PFEER Toxic Gas		0 0 0 0 0	2	44
2	1200/500Hz @ 1Hz DIN /PFEER P.T.A.P.		1 0 0 0 0	3	44
3	1000Hz @ 0.5Hz(1s on, 1soff) PFEER Gen. Alarm		0 1 0 0 0 0	2	44
4	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s NF C 48-265		1 1 0 0 0 0	24	1
5	544Hz(100mS)/440Hz (400mS) NF S 32-001		0 0 1 0 0 0	19	1
6	1500/500Hz - (0.5s on , 0.5s off) x3 + 1s gap AS4428		1 0 1 0 0 0	44	1
7	500-1500Hz Sweeping 2 sec on 1 sec off AS4428		0 1 1 0 0 0	44	1
8	500/1200Hz @ 0.26Hz (3.3son, 0.5s off) Netherlands - NEN 2575		1 1 1 0 0 0	24	35
9	1000Hz (1s on, 1s off)x7 + (7s on, 1s off) IMO Code 1a		0 0 0 1 0 0	34	1
10	1000Hz (1s on, 1s off)x7 + (7s on, 1s off) IMO Code 1a		1 0 0 1 0 0	34	1
11	420Hz(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern		0 1 0 1 0 0	1	8
12	1000Hz(0.5s on, 0.5s off)x3 + 1s gap ISO 8201 Temporal Pattern		1 1 0 1 0 0	1	8
13	422/775Hz - (0.85 on, 0.5 off) x3 + 1s gap NFPA - Temporal Coded		0 0 1 1 0 0	1	8
14	1000/2000Hz @ 1Hz Singapore		1 0 1 1 0 0	3	35
15	300Hz Continuous (f=300)		0 1 1 1 0 0	24	1
16	440Hz Continuous (f=440)		1 1 1 1 0 0	24	1
17	470Hz Continuous (f=470)		0 0 0 0 1 0	24	8
18	500Hz Continuous IMO code 2 (Low) (f=500)		1 0 0 0 1 0	24	8
19	554Hz Continuous (f=554)		0 1 0 0 1 0	24	8
20	660Hz Continuous (f=660)		1 1 0 0 1 0	24	35
21	800Hz IMO code 2 (High) (f=800)		0 0 1 0 1 0	24	35
22	1200Hz Continuous (f=1200)		1 0 1 0 1 0	24	35
23	2000Hz Continuous (f=2000)		0 1 1 0 1 0	3	35
24	2400Hz Continuous (f=2400)		1 1 1 0 1 0	20	35
25	440Hz @0.83Hz (50 cycles/minute) Intermittent (f=440, a=0.6, b=0.6)		0 0 0 1 1 0	44	8
26	470Hz @0.9Hz - 1.1s Intermittent (f=470, a=0.55, b=0.55)		1 0 0 1 1 0	44	8
27	470Hz @5Hz - (5 cycles/second) Intermittent (f=470, a=0.1, b=0.1)		0 1 0 1 1 0	44	8
28	544Hz @ 1.14Hz - 0.875s Intermittent (f=470, a=0.43, b=0.44)		1 1 0 1 1 0	24	8
29	655Hz @ 0.875Hz Intermittent (f=655, a=0.57, b=0.57)		0 0 1 1 1 0	24	8
30	660Hz @0.28Hz - 1.8sec on, 1.8sec off Intermittent (f=660, a=1.8, b=1.8)		1 0 1 1 1 0	24	8
31	660Hz @3.34Hz - 150mS on, 150mS off Intermittent (f=660, a=0.15, b=0.15)		0 1 1 1 1 0	24	8
32	745Hz @ 1Hz Intermittent (f=745, a=0.5, b=0.5)		1 1 1 1 1 0	24	8
33	800Hz - 0.25sec on, 1 sec off Intermittent (f=800, a=0.25, b=1)		0 0 0 0 0 1	24	8
34	800Hz @ 2Hz IMO code 3.a (High) Intermittent (f=800, a=0.25, b=0.25)		1 0 0 0 0 1	24	19
35	1000Hz @ 1Hz Intermittent (f=1000, a=0.5, b=0.5)		0 1 0 0 0 1	24	19
36	2400Hz @ 1Hz Intermittent (f=2400, a=0.5, b=0.5)		1 1 0 0 0 1	24	19
37	2900Hz @ 5Hz Intermittent (f=2900, a=0.1, b=0.1)		0 0 1 0 0 1	24	19
38	363/518Hz @ 1Hz Alternating (f=363, f1=518, a=0.1)		1 0 1 0 0 1	8	19
39	450/500Hz @ 2Hz Alternating (f=450, f1=500, a=0.25)		0 1 1 0 0 1	8	19
40	554/440Hz @ 1Hz Alternating (f=440, f1=554, a=0.5)		1 1 1 0 0 1	24	19
41	554/440Hz @ 0.625Hz Alternating (f=440, f1=554, a=0.8)		0 0 0 1 0 1	8	19
42	561/760Hz @0.83Hz (50 cycles/minute) Alternating (f=561, f1=760, a=0.6)		1 0 0 1 0 1	8	19
43	780/600Hz @ 0.96Hz Alternating (f=600, f1=780, a=0.52)		0 1 0 1 0 1	8	19
44	800/1000Hz @ 2Hz Alternating (f=800, f1=1000, a=0.25)		1 1 0 1 0 1	24	19
45	970/800Hz @ 2Hz Alternating (f=800, f1=970, a=0.25)		0 0 1 1 0 1	8	19
46	800/1000Hz @ 0.875Hz Alternating (f=800, f1=1000, a=0.57)		1 0 1 1 0 1	24	19
47	2400/2900Hz @ 2Hz Alternating (f=2400, f1=2900, a=0.25)		0 1 1 1 0 1	24	19
48	500/1200Hz @ 0.3Hz Sweeping (f=500, f1=1200, a=3.34)		1 1 1 1 0 1	24	12
49	560/1055Hz @ 0.18Hz Sweeping (f=560, f1=1055, a=5.47)		0 0 0 0 1 1	24	12
50	560/1055Hz @ 3.3Hz Sweeping (f=560, f1=1055, a=0.3)		1 0 0 0 1 1	24	12
51	600/1250Hz @ 0.125Hz Sweeping (f=600, f1=1250, a=8)		0 1 0 0 1 1	24	12
52	660/1200Hz @ 1Hz Sweeping (f=660, f1=1200, a=1)		1 1 0 0 1 1	24	12
53	800/1000Hz @ 1Hz Sweeping (f=800, f1=1000, a=1)		0 0 1 0 1 1	24	12
54	800/1000Hz @ 7Hz Sweeping (f=800, f1=1000, a=0.14)		1 0 1 0 1 1	24	12
55	800/1000Hz @ 50Hz Sweeping (f=800, f1=1000, a=0.02)		0 1 1 0 1 1	24	12
56	2400/2900Hz @ 7Hz Sweeping (f=2400, f1=2900, a=0.14)		1 1 1 0 1 1	24	12
57	2400/2900Hz @ 1Hz Sweeping (f=2400, f1=2900, a=1)		0 0 0 1 1 1	24	12
58	2400/2900Hz @ 50Hz Sweeping (f=2400, f1=2900, a=0.02)		1 0 0 1 1 1	24	12
59	2500/3000Hz @ 2Hz Sweeping (f=2500, f1=3000, a=0.5)		0 1 0 1 1 1	24	12
60	2500/3000Hz @ 7.7Hz Sweeping (f=2500, f1=3000, a=0.13)		1 1 0 1 1 1	24	12
61	800Hz Motor Siren (f=800, a=1.6)		0 0 1 1 1 1	24	12
62	1200Hz Motor Siren (f=1200, a=2)		1 0 1 1 1 1	24	12
63	2400Hz Motor Siren (f=2400, a=1.7)		0 1 1 1 1 1	24	12
64	Simulated Bell		1 1 1 1 1 1	21	12

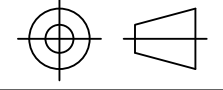
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							ISSUE	MOD No.	REASON - INITIAL - DATE
							A		INTRODUCTION RSR - 05/03/2021
							B		Configuration titles amended RSR - 19/05/2021
							C	ACN0129	Product Versions Updated RSR - 29/03/2023

OPTIONAL LINE MONITORING RESISTOR, CUSTOMER SUPPLIED,
RECOMMENDED MINIMUM VALUES:
14V MAX SYSTEM = 120Ω MIN, 2W MIN OR 1KΩ MIN, 0.5W MIN
28V MAX SYSTEM = 470Ω MIN, 2W MIN OR 2.4KΩ MIN, 0.5W MIN



Single Stage Configuration	Config.: 1a	Two Stage Configuration	Config.: 1b	Three/Four Stage Configuration	Config.: 1c
Line Monitoring Set to positive switching (default)		Common Negative Set to positive switching (default)		Common Negative Set to positive switching (default)	
Stage 1: Apply Power to Stage 1 +ve & Stage 1 -ve		Stage 1: Apply Power to Stage 1 +ve & Common -ve Stage 2: Apply Power to Stage 2 +ve & Common -ve		Stage 1: Apply Power to Stage 1 +ve & Common -ve Stage 2: Apply Power to Stage 2 +ve & Common -ve Stage 3: Apply Power to Stage 3 +ve & Common -ve Stage 4: Apply Power to Stage 2 +ve, Stage 3 +ve & Common -ve	



DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS	DRAWN	DATE	SURFACE FINISH	WEIGHT (Kg)	THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.	EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM	ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE			A3
	R.S.RAIT	05/03/2021					TITLE		TIP112R - TIP112V2 - TIP121V2 - TIP129	
	CHECKED	DATE	MATERIAL				DC SOUNDER WIRING DIAGRAMS			
STANDARDS	B.ISARD	05/03/2021	ALTERNATIVE MATERIAL		© EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE	SCALE	SHEET	DRAWING NUMBER		
M RANGE	R.N.POTTS	05/03/2021				NTS	1 OF 3	D207-06-001		

1	2	3	4	5	6	7	8	9	10
							ISSUE	MOD No.	REASON - INITIAL - DATE
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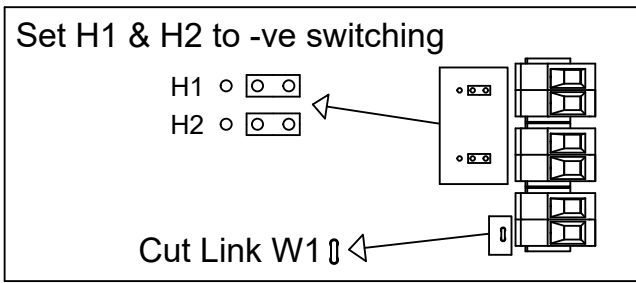
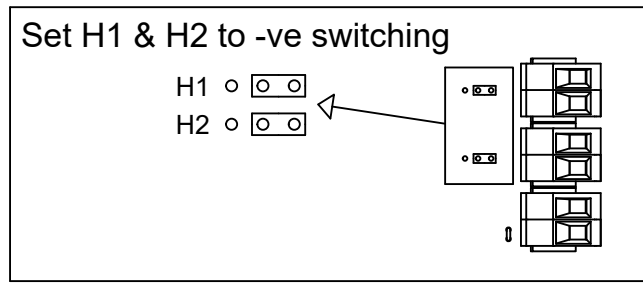
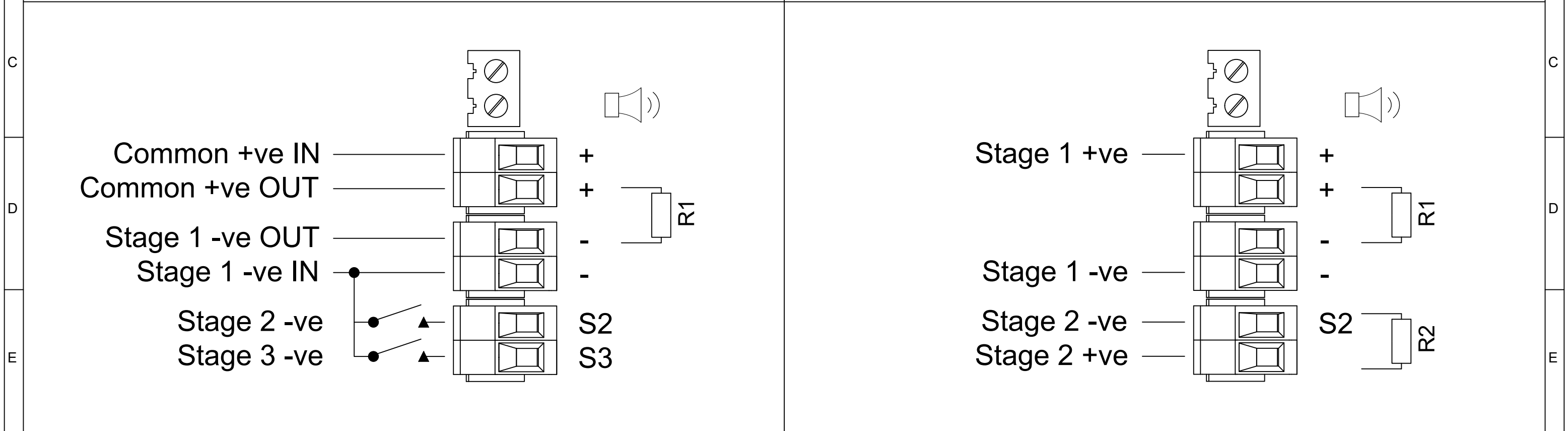
OPTIONAL LINE MONITORING RESISTOR, CUSTOMER SUPPLIED,
RECOMMENDED MINIMUM VALUES:
14V MAX SYSTEM = 120Ω MIN, 2W MIN OR 1KΩ MIN, 0.5W MIN
28V MAX SYSTEM = 470Ω MIN, 2W MIN OR 2.4KΩ MIN, 0.5W MIN

SWITCHES FOR STAGE OPERATION
CUSTOMER SUPPLIED

Three/Four Stages. Voltage Free 2nd, 3rd & 4th Stage Activation Configuration	Config.: 2	Two Stage Configuration	Config.: 3
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Common Positive Customer Set H1 & H2 to Negative Switching (See Below)	Independent Stage Input Reverse Polarity Stage Monitoring
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Stage 1: Apply Power to Common +ve & Stage 1 -ve Stage 2: Apply Power to Common +ve & Stage 1 -ve & connect Stage 2 -ve to Stage 1 -ve Stage 3: Apply Power to Common +ve & Stage 1 -ve & connect Stage 3 -ve to Stage 1 -ve Stage 4: Apply Power to Common +ve & Stage 1 -ve & connect Stage 2 -ve & Stage 3 -ve to Stage 1 -ve	Stage 1: Apply Power to Stage 1 +ve & Stage 1 -ve Stage 2: Apply Power to Stage 1 +ve & Stage 1 -ve & connect Stage 2 -ve to Stage 1 -ve
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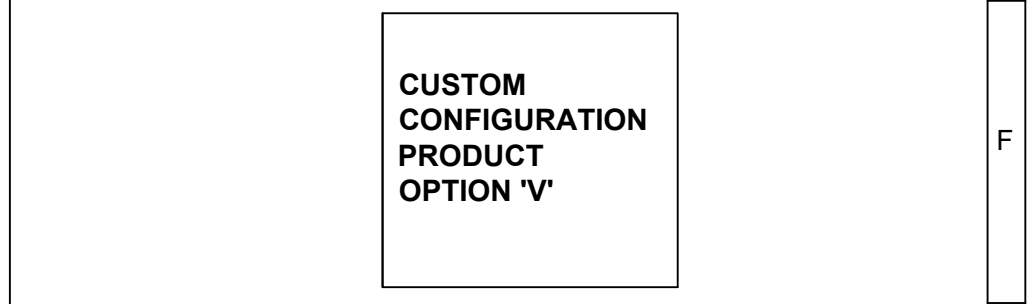
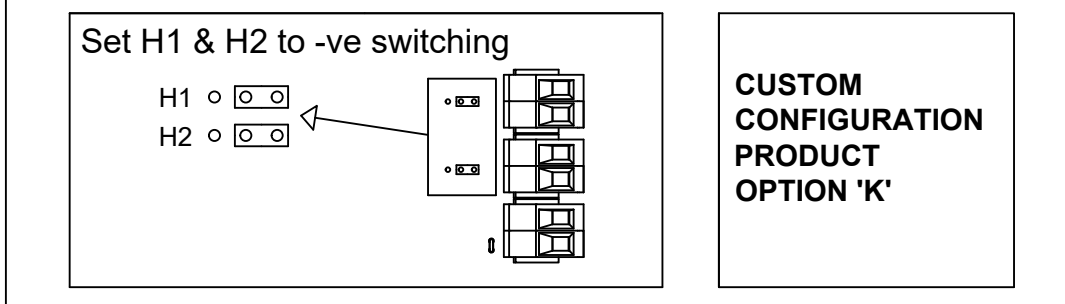
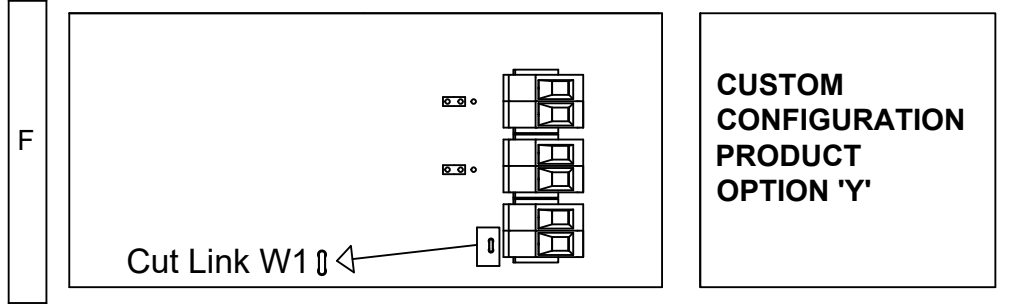
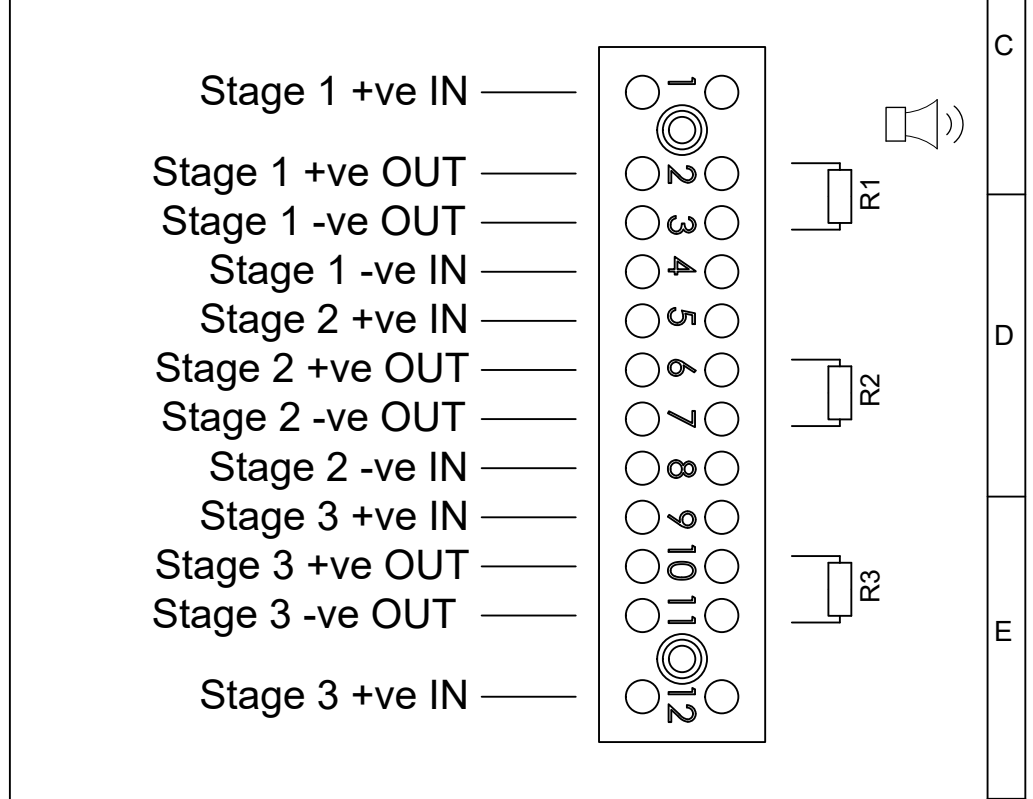
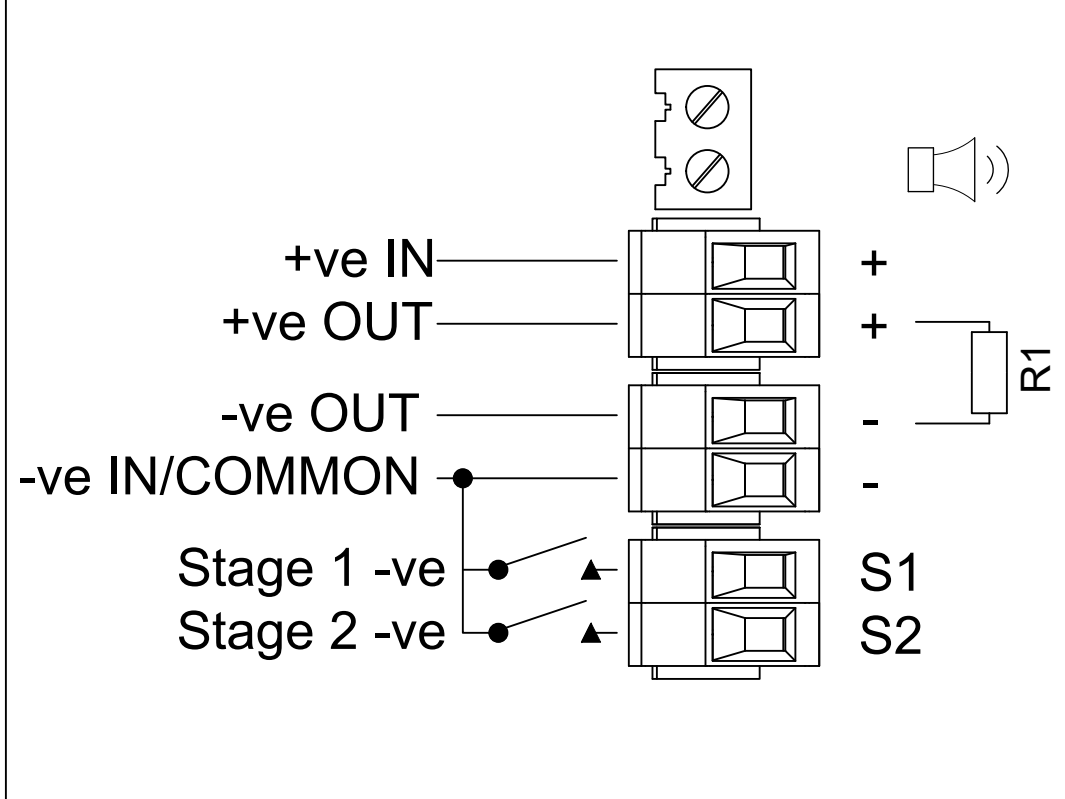
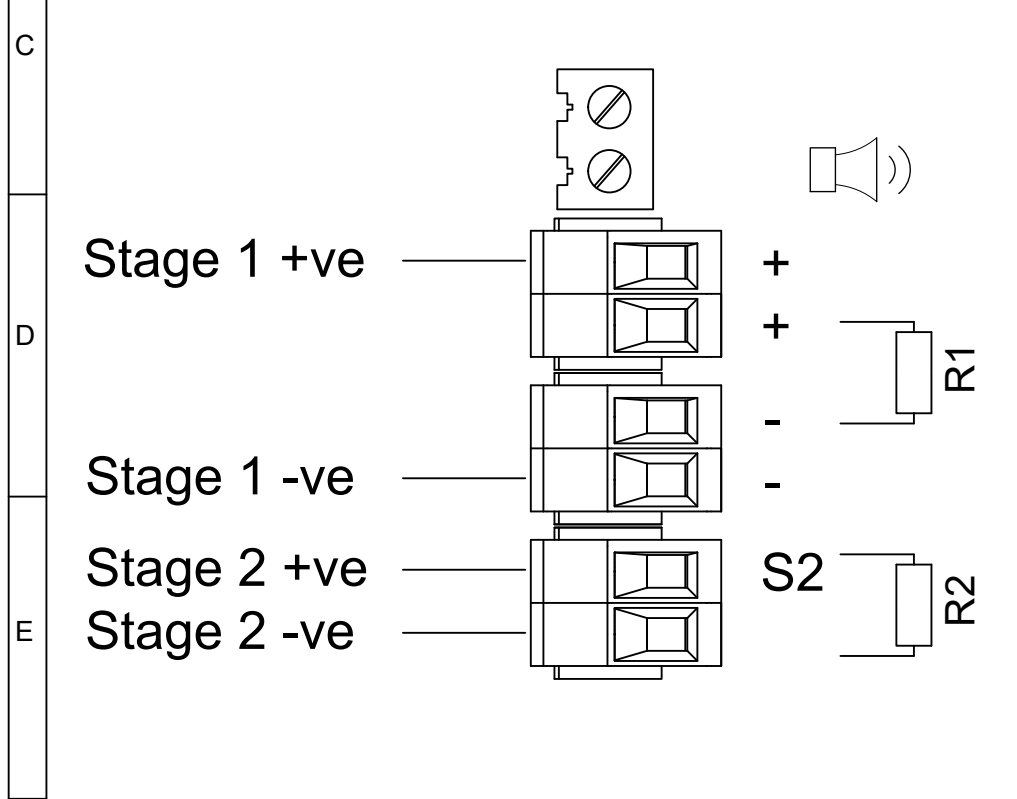
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS	DRAWN	DATE	SURFACE FINISH	WEIGHT (Kg)	THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.	EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM	ALL DIMENSIONS IN MM			A3
	R.S.RAIT	05/03/2021					IF IN DOUBT, ASK - DO NOT SCALE			
	CHECKED	DATE	MATERIAL				TITLE TIP112R - TIP112V2 - TIP121V2 - TIP129 DC SOUNDER WIRING DIAGRAMS			
	B.ISARD	05/03/2021	ALTERNATIVE MATERIAL				SCALE	SHEET	DRAWING NUMBER	
STANDARDS	APPROVED	DATE			NTS	2 OF 3	D207-06-001			
M RANGE	R.N.POTTS	05/03/2021								

1	2	3	4	5	6	7	8	9	10
							ISSUE	MOD No.	REASON - INITIAL - DATE
							A		INTRODUCTION RSR - 05/03/2021
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OPTIONAL LINE MONITORING RESISTOR, CUSTOMER SUPPLIED,
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14V MAX SYSTEM = 120Ω MIN, 2W MIN OR 1KΩ MIN, 0.5W MIN
28V MAX SYSTEM = 470Ω MIN, 2W MIN OR 2.4KΩ MIN, 0.5W MIN

SWITCHES FOR STAGE OPERATION
CUSTOMER SUPPLIED

Two Stage Configuration	Config.: 4	Two/Three Stage Voltage Free Activation Configuration	Config.: 5	Three/Four Stage Configuration	Config.: 6
Line Stage Monitoring (Use suitable monitoring relays/modules) Not to be used for reverse polarity monitoring		Customer Set H1 & H2 to Negative Switching (See Below)		Independent Stage Input Line Stage Monitoring (Use suitable monitoring relays/modules) Set to positive switching (Default)	
Stage 1: Apply Power to Stage 1 +ve & Stage 1 -ve Stage 2: Apply Power to Stage 2 +ve & Stage 2 -ve		Power: +ve & -ve Stage 1: Connect Stage 1 -ve to Common -ve Stage 2: Cconnect Stage 2 -ve to Common -ve Stage 3: Connect both Stage 1 -ve & Stage 2 -ve to Common -ve		Stage 1: Apply Power to Stage 1 +ve & Stage 1 -ve Stage 2: Apply Power to Stage 2 +ve & Stage 2 -ve Stage 3: Apply Power to Stage 3 +ve & Stage 3 -ve Stage 4: Apply Power to Stage 2 +ve & Stage 2 -ve & apply Power to Stage 3 +ve & Stage 3 -ve	



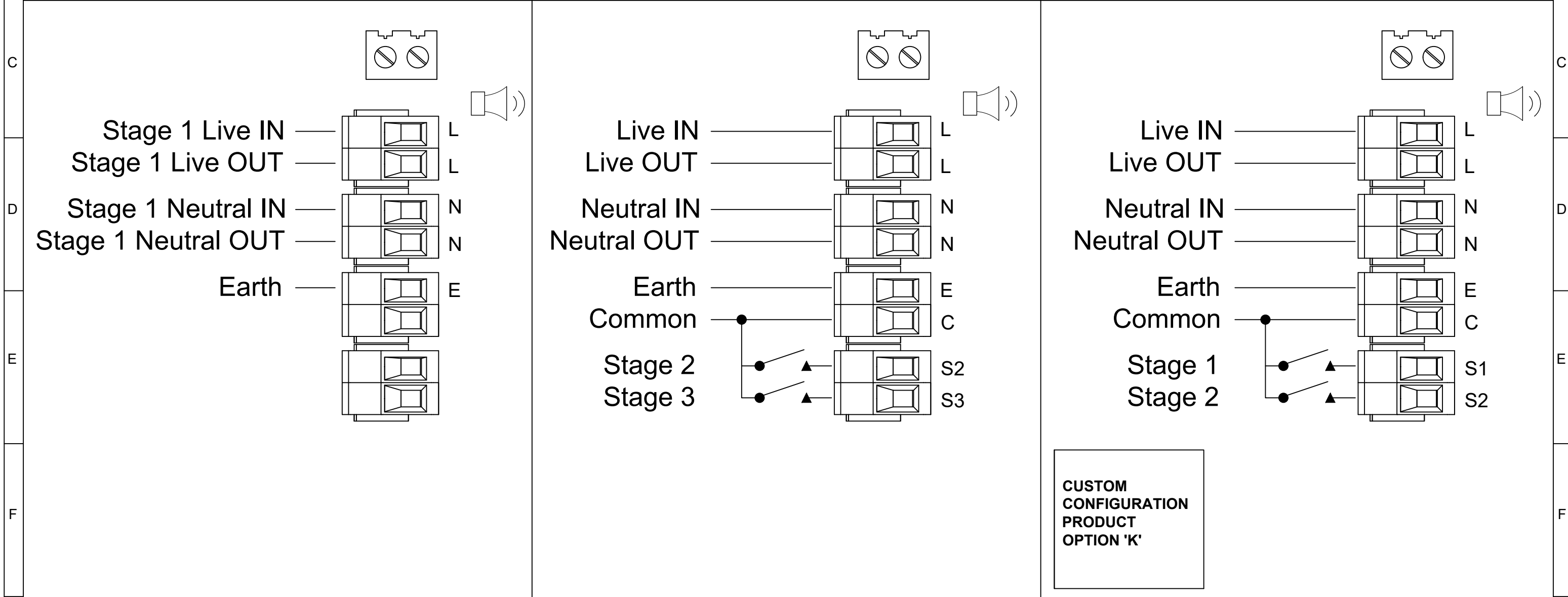
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS	DRAWN	DATE	SURFACE FINISH	WEIGHT (Kg)	THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.	EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM	ALL DIMENSIONS IN MM	IF IN DOUBT, ASK - DO NOT SCALE	A3
	R.S.RAIT	05/03/2021	MATERIAL	TITLE			TIP112R - TIP112V2 - TIP121V2 - TIP129 DC SOUNDER WIRING DIAGRAMS		
	CHECKED	DATE	ALTERNATIVE MATERIAL	SCALE			SHEET	DRAWING NUMBER	
	B.ISARD	05/03/2021		NTS			3 OF 3	D207-06-001	
STANDARDS	APPROVED	DATE							
M RANGE	R.N.POTTS	05/03/2021							

ISSUE	MOD No.	REASON - INITIAL - DATE
A		INTRODUCTION RSR - 05/03/2021
B	ACN0129	PRODUCT OPTION K CLARIFIED RSR - 29/03/2023



Single Stage Configuration Config.: 1a Three/Four Stage Configuration Config.: 1b Two Stage Voltage Free Activation Configuration Config.: 2

Stage 1: Apply Power to Stage 1 Live & Stage 1 Neutral
 Stage 1: Apply Power to Live & Neutral
 Stage 2: Apply Power to Live & Neutral & connect Stage 2 to Common
 Stage 3: Apply Power to Live & Neutral & connect Stage 3 to Common
 Stage 4: Apply Power to Live & Neutral & connect both Stage 2 & Stage 3 to Common
 Power: Live & Neutral
 Stage 1: Connect Stage 1 to Common
 Stage 2: Connect Stage 2 to Common
 Stage 3: Connect both Stage 1 & Stage 2 to Common



CUSTOM CONFIGURATION PRODUCT OPTION 'K'

DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS	DRAWN R.S.RAIT	DATE 05/03/2021	SURFACE FINISH	WEIGHT (Kg)	THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. © EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE	EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM	ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE			A3
	STANDARDS M RANGE	CHECKED B.ISARD	DATE 05/03/2021	MATERIAL			TITLE TIP112R - TIP112V2 - TIP121V2 - TIP129 AC SOUNDER WIRING DIAGRAMS			
		APPROVED R.N.POTTS	DATE 05/03/2021	ALTERNATIVE MATERIAL			SCALE NTS	SHEET 1 OF 1	DRAWING NUMBER D207-06-005	