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## Description

The System Sensor Spectralert® selectable output strobes and horn/strobes offer enhanced features that include the widest range of candela options available, and the capability to recognize and self-adjust for either 12 or 24 volt operation.

Spectralert selectable candela wall-mounted strobes and horn/strobes offer key performance features long associated with the Spectralert name. The selectable candela strobes and horn/strobes offer average current draws that are not only lower than conventional fixed-candela Spectralert products, but also lower than similar products by others. By consuming less current, the ability to connect even more devices per circuit is possible, resulting in lower installed cost.

Spectralert selectable candela strobes and horn/strobes offer the same installation-friendly features synonymous with the Spectralert name, such as the option of 2- and 4-wire operation; the ability to use standard size backboxes with no encroachment into the box; and universal mounting incorporating the labor-saving QuickClick™ feature. Such labor-saving features make wire connections simple and fast, further reducing installed cost.

These strobes and horn/strobes offer the broadest range of candela options. In addition, they can operate on either 12V or 24V with no settings required. The device recognizes and self-adjusts to the correct current automatically. Temporal 3 or continuous tone options continue to be available, in either an electro-mechanical or 3 kHz pattern

These strobes and horn/strobes incorporate the same stylish, low profile design of the conventional Spectralert products, for a consistent and aesthetically pleasing appearance across the entire product line. The selectable strobe and horn/strobe is available in either red or white.

The devices mount on a standard 4" x 4" x 1 1/2" backbox or a single gang 2" x 4" x

1 7/8" backbox using the universal mounting plate included with each Spectralert unit.

An optional strobe synchronization module is available for compliance the Americans with Disabilities Act (ADA). The MDL (red) MDLW (white) synchronizes the strobes at 1 Hz and the horns to a temporal 3 coded pattern. The synchronization modules mounts on a 4 11/16" x 4 11/16" x 2 1/8" backbox and supports two (2) Style Y (Class B) or one (1) Style Z (Class A) notification appliance circuit. A separate horn control input is available to allow silenceable audible devices and non-silenceable visual devices on the same pair or wires.

## Features

- Operates on either 12 VDC or 24 VDC
- Widest Range of Candela Options:
- 12V: 15 and 15/75 candela
- 24V: 15, 15.75, 30, 75 110 candela
- Easy Candela Selection
- Easy DIP Switch Selection for Horn Options
- Easy Mounting with QuickClick™
- Synchronization available with optional MDL Sync•Circuit™ module
- Meets UL1971, NFPA72, and ADA Signaling Requirements

## SELECTABLE OUTPUT STROBES AND HORNS MODELS P1224MC, S1224MC



MEA



## An ISO 9001 Company

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### Strobe only

### Spectralert Current Tables

Candela	AVERAGE MEAN CURRENT (mA)												PEAK CURRENT (mA)									IN RUSH CURRENT (mA)														
	At 12V						At 24V						At 12V			At 24V			At 12V			At 24V														
	9.5V	12V	17.5V	16V	24V	33V	9.5V	12V	17.5V	16V	24V	33V	9.5V	12V	17.5V	9.5V	12V	17.5V	9.5V	12V	17.5V	9.5V	12V	17.5V												
15	99	84	65	59	49	44	52	47	42	38	40	38	221	227	174	159	155	135	151	137	129	165	133	301	62	49	79	87	91	129	91	117	133	177	189	265
15/75	119	111	79	69	58	52	62	55	48	43	44	41	NA	NA	NA	NA	NA	NA	193	194	159	206	155	322	NA	NA	NA	NA	NA	NA	89	119	131	175	177	253
30	NA	NA	NA	NA	NA	NA	80	87	57	68	53	58	243	578	175	254	147	194	157	206	129	170	127	330	47	51	61	79	93	121	83	107	123	171	185	253
75	NA	NA	NA	NA	NA	NA	144	130	100	90	81	72	NA	NA	NA	NA	NA	NA	305	534	251	430	217	518	NA	NA	NA	NA	NA	NA	77	115	119	175	183	255
110	NA	NA	NA	NA	NA	NA	194	171	130	118	103	93	NA	NA	NA	NA	NA	NA	366	506	314	370	270	434	NA	NA	NA	NA	NA	NA	95	113	131	181	181	247

#### Horn/ Strobe 15 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)											
Tone	High/Low Volume	Temp/Non	At 12V						At 24V					
			9.5V	12V	17.5V	16V	24V	33V	9.5V	12V	17.5V	16V	24V	33V
Electro-mech.	High	Temp	104	87	72	65	59	52	62	55	58	50	58	53
		Non	109	92	80	71	69	61	71	63	69	61	74	67
	Low	Temp	102	87	70	62	56	50	58	53	53	46	53	49
		Non	104	89	73	66	61	54	63	57	58	52	63	58
3000 Hz. Interrupt.	High	Temp	105	89	73	66	60	54	63	56	60	52	59	55
		Non	111	94	82	73	73	64	74	65	73	65	77	71
	Low	Temp	103	87	70	63	57	51	59	53	54	47	54	51
		Non	105	89	74	67	63	56	64	58	61	54	66	60

#### Horn/ Strobe 15/75 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)											
Tone	High/Low Volume	Temp/Non	At 12V						At 24V					
			9.5V	12V	17.5V	16V	24V	33V	9.5V	12V	17.5V	16V	24V	33V
Electro-mech.	High	Temp	124	114	86	75	68	60	72	63	64	55	62	56
		Non	129	119	94	81	78	69	81	71	75	66	78	70
	Low	Temp	122	114	84	72	65	58	68	61	59	51	57	52
		Non	124	116	87	76	70	62	73	65	64	57	67	61
3000 Hz. Interrupt.	High	Temp	125	116	87	76	69	62	73	64	66	57	63	58
		Non	131	121	96	83	82	72	84	73	79	70	81	74
	Low	Temp	123	114	84	73	66	59	69	61	60	52	58	54
		Non	125	116	88	77	72	64	74	66	67	59	70	63

#### Horn/ Strobe 30 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)					
Tone	High/Low Volume	Temp/Non	At 24V			At 33V		
			16V	24V	33V	16V	24V	33V
Electro-mech.	High	Temp	90	93	73	80	71	73
		Non	99	101	84	91	87	87
	Low	Temp	86	91	68	76	66	69
		Non	91	95	73	82	76	78
3000 Hz. Interrupt.	High	Temp	91	94	75	82	72	75
		Non	102	103	88	95	90	91
	Low	Temp	87	91	69	77	67	71
		Non	92	96	76	84	79	80

#### Horn/ Strobe 75 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)					
Tone	High/Low Volume	Temp/Non	At 24V			At 33V		
			16V	24V	33V	16V	24V	33V
Electro-mech.	High	Temp	154	138	116	102	99	87
		Non	163	146	127	113	115	101
	Low	Temp	150	136	111	98	94	83
		Non	155	140	116	104	104	92
3000 Hz. Interrupt.	High	Temp	155	139	118	104	100	89
		Non	166	148	131	117	118	105
	Low	Temp	151	136	112	99	95	85
		Non	156	141	119	106	107	94

#### Horn/ Strobe 110 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)					
Tone	High/Low Volume	Temp/Non	At 24V			At 33V		
			16V	24V	33V	16V	24V	33V
Electro-mech.	High	Temp	204	179	146	130	121	108
		Non	213	187	157	141	137	122
	Low	Temp	200	177	141	126	116	104
		Non	205	181	146	132	126	113
3000 Hz. Interrupt.	High	Temp	205	180	148	132	122	110
		Non	216	189	161	145	140	126
	Low	Temp	201	177	142	127	117	106
		Non	206	182	149	134	129	115

### Sound output guide

Default Selects		UL Reverberant Room dBA @ volts DC						
Temporal	Volume	Mechanical	9.5	12	17.5	16	24	33
			Temporal	Low	Electromechanical	70*	74*	76
3000 Hz Interrupted	71*	75			78	77	80	82
High	Electromechanical	76		79	81	81	82	84
	3000 Hz Interrupted	77		81	83	82	84	85
Non-Temporal	Low	Electromechanical	75	78	81	81	84	86
		3000 Hz Interrupted	76	79	83	82	85	87
	High	Electromechanical	80	83	86	85	87	88
		3000 Hz Interrupted	81	85	87	86	88	88

\* This tone only suitable for private mode use at rated voltage tested by UL.

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#### Strobe only:

Candela	AVERAGE MEAN CURRENT (mA)											
	At 12V						At 24V					
	9.5V		12V		17.5V		16V		24V		33V	
	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR
15	105	110	74	77	56	63	60	65	47	58	44	59
15/75	124	149	89	89	67	72	72	75	55	64	49	64
30	NA	NA	NA	NA	NA	NA	92	111	67	96	59	89
75	NA	NA	NA	NA	NA	NA	161	161	117	121	94	106
110	NA	NA	NA	NA	NA	NA	210	209	150	151	120	131

#### Current measurements (Average RMS method)

**NOTE:** The 12V 15/75 cd strobe was tested at the 9.5-17.5 volt-FWR/DC limits. All other 12 V strobes were tested at the 8-17.5 volt-FWR/DC limits. All 24V strobes were tested at the 16-33 volt-FWR/DC limits. This does not include the 80% low end or 110% high end voltage limits.

#### Horn/ Strobe 15 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)											
Tone	High/Low Volume	Temp/Non	At 12V						At 24V					
			9.5V		12V		17.5V		16V		24V		33V	
			DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR
Electro-mech.	High	Temp	112	117	85	87	71	77	74	78	66	77	69	83
		Non	120	124	96	97	86	91	88	91	84	95	91	104
	Low	Temp	109	114	80	83	65	72	68	73	58	70	66	76
		Non	112	117	85	88	72	79	75	79	67	80	74	88
3000 Hz. Interrupt.	High	Temp	114	118	86	88	72	78	75	79	67	79	72	85
		Non	122	125	98	99	89	94	91	93	88	98	94	107
	Low	Temp	109	114	81	84	66	72	69	74	59	71	62	76
		Non	113	118	89	89	73	80	76	81	70	82	77	91

#### Horn/ Strobe 15/75 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)											
Tone	High/Low Volume	Temp/Non	At 12V						At 24V					
			9.5V		12V		17.5V		16V		24V		33V	
			DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR
Electro-mech.	High	Temp	131	156	100	99	82	86	86	88	74	83	74	88
		Non	139	163	111	109	97	100	100	101	92	101	96	109
	Low	Temp	128	153	95	95	76	81	80	83	66	76	71	81
		Non	131	156	100	100	83	88	87	89	75	86	79	93
3000 Hz. Interrupt.	High	Temp	133	157	101	100	83	87	87	89	75	85	77	90
		Non	141	164	113	111	100	103	103	103	96	104	99	112
	Low	Temp	128	153	96	96	77	81	81	84	67	77	67	81
		Non	132	157	101	101	84	89	88	91	78	88	82	96

#### Horn/ Strobe 30 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)					
Tone	High/Low Volume	Temp/Non	At 24V			33V		
			DC	FWR	DC	FWR	DC	FWR
Electro-mech.	High	Temp	106	124	86	105	84	110
		Non	120	137	104	123	106	131
	Low	Temp	100	119	78	98	81	103
		Non	107	125	87	108	89	115
3000 Hz. Interrupt.	High	Temp	107	125	87	107	87	112
		Non	123	139	108	126	109	134
	Low	Temp	101	120	79	99	77	103
		Non	108	127	90	110	92	118

#### Horn/ Strobe 75 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)					
Tone	High/Low Volume	Temp/Non	At 24V			33V		
			DC	FWR	DC	FWR	DC	FWR
Electro-mech.	High	Temp	175	174	136	140	119	130
		Non	189	187	154	158	141	151
	Low	Temp	169	169	128	133	116	123
		Non	176	175	137	143	124	135
3000 Hz. Interrupt.	High	Temp	176	175	137	142	122	132
		Non	192	189	158	161	144	154
	Low	Temp	170	170	129	134	112	123
		Non	177	177	140	145	127	138

#### Horn/ Strobe 110 cd:

DEFAULT SELECTS			AVERAGE MEAN CURRENT (mA)					
Tone	High/Low Volume	Temp/Non	At 24V			33V		
			DC	FWR	DC	FWR	DC	FWR
Electro-mech.	High	Temp	224	22	169	170	145	155
		Non	238	235	187	188	167	176
	Low	Temp	218	217	161	163	142	148
		Non	225	223	170	173	150	160
3000 Hz. Interrupt.	High	Temp	225	223	170	172	148	157
		Non	241	237	191	191	170	179
	Low	Temp	219	218	162	164	138	148
		Non	226	225	173	175	153	163

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## Specifications

### Walk Test

SpectrAlert horn/strobe and horn only work on "walk tests" with time durations of 4 seconds or greater

### Input terminals

12 to 18 AWG

### Dimensions

Strobe and horn/strobe with universal plate

5" x 5 5/8" x 2 15/16"

Strobe and horn/strobe with small footprint plate

3 3/8" x 5 5/8" x 2 5/16"

Horn with universal mounting plate

5" x 5 5/8" x 1 5/16"

Horn without mounting plate

2 15/16" x 5 5/16" x 1 5/16"

### Weight, horn only

7.2 Oz.

### Weight, strobe and horn/strobe

8.8 oz.

### Mounting

4" x 4" x 1 1/2" or 2" x 4" x 1 7/8" standard boxes

### Indoor operating temperature

32°F to 120°F (0°C to 49°C)

### Maximum humidity

95% as tested per UL464

### Weatherproof (horn and horn/strobe)

#### Operating temperature

32°F to 150°F (0°C to 66°C)

#### (outdoor strobe only)

-40°F to 158°F (-40°C to 70°C)

### Voltages

12 or 24VDC and FWR unfiltered

Operating Voltage Range\*

12V: 10.5-17V; 24V: 20-30V

Operating Voltage Range

(with Sync•Circuit module MDL)

12V: 11-17V; 24V: 20-30V

\* These products should be operated within their rated voltage range; UL does test functional integrity to -20% and +10% of manufacturer's stated ranges.

## Ordering Information

	Red	White	Voltage	Candela	Avg. mA *	Avg. mA *
					@ Nom. VDC	@ Nom. VDC **
Horn/Strobes	P1224MC	P1224MCW	12/24	Selectable: 15,15/75,30,75,110cd	—	—
Strobes	S1224MC	S1224MCW	12/24	Selectable: 15,15/75,30,75,110cd	—	—

### Accessories

Sync•Circuit Module	MDL	MDIW	12/24	NA	10/11	12/15
Small Footprint Mounting Plate for Single Gang only	S-MP	S-MPW	NA	NA	NA	NA
Surface Mount Back Box Skirt	BBS	BBSW	NA	NA	NA	NA
Universal Mounting Plate (replacement)	D-MP	D-MPW	NA	NA	NA	NA

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## FIRE CONTROL INSTRUMENTS

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