SPECTRAlert®

Selectable Output Strobe and Horn/Strobes

Gamewell™ A 150-Year Tradition

Models Available

Strobes

Red	White
S1224MC	S1224MCW

Horn/Strobes

Red	White
P1224MC	P1224MCW

S1224MC Strobe

P1224MC Horn/Strobe

Product Overview

Operates on either 12V or 24V

Widest range of candela options:
12V: 15 and 15/75 candela
24V: 15, 15/75, 30, 75, 110 candela

Easy candela selection

Lower current draw

Easy DIP switch selection for horn options

Easy mounting with QuickClick™

Synchronizable with MDL Sync•Circuit™ module

Meets UL1971, NFPA72, and ADA signaling requirements

The models P1224MC, P1224MCW, S1224MC, and S1224MCW incorporate a new patent-pending voltage booster design that has a more consistent flash bulb voltage over the range of candela selections. The benefit to the customer is a high quality strobe device.

LISTED S5512 S4011

CS549V602NK17954
CS549V702NK13751

7125-1209:222
7135-1209:223

FM APPROVED 3014150

MEA approved 122-02-E 126-02-E

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. With an overall feature set that combines performance, installation ease, flexibility, and a consistent, aesthetically pleasing appearance, the SpectrAlert Selectable Output devices provide both the innovation and efficiency synonymous with the SpectrAlert name.

Performance. SpectrAlert selectable candela wall-mount 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 selectable candela products. By consuming less current, the ability to connect even more devices per loop is possible, resulting in a lower installed cost.

Installation. 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-savings features make wire connections simple and fast, further reducing installed cost.

Flexibility. SpectrAlert multi-candela strobes and horn/strobes offer the broadest range of candela options. In addition, the selectable candela strobes and horn/strobes can operate on either 12V or 24V, with no setting 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 3kHz pattern.

Aesthetics. SpectrAlert selectable candela 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.

Engineering Specifications

General

SpectrAlert horns, strobes and horn/strobes shall be capable of mounting to a standard 4″ × 4″ × 1 1/2″ back box or a single gang 2″ × 4″ × 1 7/8″ back box using the universal mounting plate included with each SpectrAlert product. Also, SpectrAlert products, when used in conjunction with the accessory Sync•Circuit Module, shall be powered from a non-coded power supply and shall operate on 12 or 24 volts. 12 volt rated devices shall have an operating voltage range of 10.5–17.5 volts. 24-volt rated devices shall have an operating voltage range or 17–33 volts. SpectrAlert products shall have an operating temperature of 32° to 120°F and operate from a regulated DC or full wave rectified, unfiltered power supply.

Strobe

Strobe shall be a Gamewell SpectrAlert Model _____ listed to UL 1971 and be approved for fire protective service. The strobe shall be wired as a primary signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

Horn/Strobe Combination

Horn/Strobe shall be a Gamewell SpectrAlert Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. Horn/strobe shall be wired as a primary signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two tone options, two audibility options (at 24 volts) and the option to switch between a temporal 3 pattern and a non-temporal continuous pattern. Strobes shall be powered independently of the sounder with the removal of factory installed jumper wires. The horn on horn/strobe models shall operate on a coded or non-coded power supply (the strobe must be powered continuously).

Synchronization Module

Module shall be a Gamewell Sync•Circuit _____ listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1Hz and horns at temporal 3. Also, the module shall silence the horns on horn/strobe models, while operating the strobes, over a single pair of wires. The module shall be capable of mounting to a 4 11/16″ × 4 11/16″ × 2 1/8″ back box and shall control two Style Y (class B) or one Style Z (class A) circuit. Module shall be capable of multiple zone synchronization by daisy chaining multiple modules together and re-synchronizing each other along the chain. The module shall not operate on a coded power supply.

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″ × 5 5/8″ × 2 15/16″
Strobe and horn/strobe with small footprint plate
3 3/8″ × 5 5/8″ × 2 5/16″
Horn with universal mounting plate
5″ × 5 5/8″ × 1 5/16″
Horn without mounting plate
2 15/16″ × 5 5/16″ × 1 5/16″

Weight, horn only
7.2 oz.

Weight, strobe and horn/strobe
8.8 oz.

Mounting
4″ × 4″ × 1 1/2″ or 2″ × 4″ × 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/strobes)
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)
ULC Canadian Models
–40°C to 66°C

Voltages
12 or 24VDC and FWR unfiltered
Operating voltage range*
12V: 9.5–17.5V; 24V: 16–33V
Operating voltage range*
(with Sync•Circuit module, MDL)
12V: 10.5–17.5V; 24V: 17–33V
*Note for Strobes: Do not exceed; 1) 16-33 or 9.5-17.5 voltage range limit; 2) maximum number of 70 strobe lights when connecting the MDL Sync module with a maximum line impedance of 4 ohms per loop and; 3) maximum line impedance as required by the fire alarm control manufacturer

U.S. Patent Numbers
5,593,569
5,914,665
6,049,446

SpectrAlert Current Draw Tables

Strobe Only

	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		16V		24V		33V	
Candela	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR
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 15cd:

	Default Selects			AVERAGE MEAN CURRENT (mA)												
				At 12V						At 24V						
	High/Low	Temp		9.5V		12V		17.5V		16V		24V		33V	
Tone	Volume	/Non		DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR
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 15/75cd:

	Default Selects			AVERAGE MEAN CURRENT (mA)												
				At 12V						At 24V						
	High/Low	Temp		9.5V		12V		17.5V		16V		24V		33V	
Tone	Volume	/Non		DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR
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 30cd:

	Default Selects			AVERAGE MEAN CURRENT (mA)					
				At 24V					
	High/Low	Temp		16V		24V		33V	
Tone	Volume	/Non		DC	FWR	DC	FWR	DC	FWR
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 75cd:

	Default Selects			AVERAGE MEAN CURRENT (mA)					
				At 24V					
	High/Low	Temp		16V		24V		33V	
Tone	Volume	/Non		DC	FWR	DC	FWR	DC	FWR
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 110cd:

	Default Selects			AVERAGE MEAN CURRENT (mA)					
				At 24V					
	High/Low	Temp		16V		24V		33V	
Tone	Volume	/Non		DC	FWR	DC	FWR	DC	FWR
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					
			9.5	12	17.5	16	24	33
Temporal	Low Volume	Electromechanical	70*	74*	76	76	80	81
		3000 Hz Interrupted	71*	75	78	77	80	82
	High Volume	Electromechanical	76	79	81	81	82	84
		3000 Hz Interrupted	77	81	83	82	84	85
Non-Temporal	Low Volume	Electromechanical	75	78	81	81	84	86
		3000 Hz Interrupted	76	79	83	82	85	87
	High Volume	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 as tested by UL.

Current Draw Measurements (Average RMS Method)

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

Strobe Only:

	AVERAGE RMS CURRENT (mA)											
	At 12V						At 24V					
	9.5V		12V		17.5V		16V		24V		33V	
Candela	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

Horn/Strobe 15cd:

	Default Selects			AVERAGE RMS CURRENT (mA)												
				At 12V						At 24V						
	High/Low	Temp		9.5V		12V		17.5V		16V		24V		33V	
Tone	Volume	/Non		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	86	89	73	80	76	81	70	82	77	91

Horn/Strobe 15/75cd:

	Default Selects			AVERAGE RMS CURRENT (mA)												
				At 12V						At 24V						
	High/Low	Temp		9.5V		12V		17.5V		16V		24V		33V	
Tone	Volume	/Non		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 30cd:

	Default Selects			AVERAGE RMS CURRENT (mA)					
				At 24V					
	High/Low	Temp		16V		24V		33V	
Tone	Volume	/Non		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 75cd:

	Default Selects			AVERAGE RMS CURRENT (mA)					
				At 24V					
	High/Low	Temp		16V		24V		33V	
Tone	Volume	/Non		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 110cd:

	Default Selects			AVERAGE RMS CURRENT (mA)					
				At 24V					
	High/Low	Temp		16V		24V		33V	
Tone	Volume	/Non		DC	FWR	DC	FWR	DC	FWR
Electro-mech.	High	Temp		224	222	169	170	145	155
		Non		238	235	184	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

SpectrAlert Ordering Information

	Red	White	Voltage	Candela	Avg. mA* @Nom. VDC	Avg. mA* @Nom. FWR**
Horn/Strobes	P1224MC	P1224MCW	12/24	Selectable: 15, 15/75, 30, 75, 110 cd	—	—
Strobes	S1224MC	S1224MCW	12/24	Selectable: 15, 15/75, 30, 75, 110 cd	—	—
Accessories						
Sync•Circuit Module	MDL	MDLW	12/24	NA	10/11	12/15
Sync•Circuit Module (for Canada)	MDLA	MDLWA	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

Notes: Agency Listings- Indoor models: UL, ULC, FM, CSFM, MEA. Weatherproof models: UL, CSFM (strobe only), MEA, ULC.
All of these SpectrAlert products are designed for wall mount only. All weatherproof models must use weatherproof back box model WBB. Installation of less than 75 candela strobes may be permissible under the equivalent facilitation clause of the ADAAG (Sec. 2.2). However, it is the responsibility of the person or entity designing the fire alarm system to determine the acceptability of less than 75 candela strobes. All 15/75 candela strobes or horn/strobes are recommended for 20′ × 20′ rooms or less.
*Horn and horn/strobe current draws assume horn is set at temp 3, electromechanical tone and high audibility.
** FWR = Full Wave Rectified

Gamewell
A 150-Year Tradition

The Gamewell Company
12 Clintonville Road
Northford, CT 06472-1610
Phone: 203-484-7161
Fax: 203-484-7118
www.gamewell.com
A **Honeywell** Company

Specifications and wiring information are provided for information only and are believed to be accurate. Gamewell assumes no responsibility for their use. Data and design are subject to change without notice. Installation and wiring instructions shipped with the product shall always be used for actual installation. For more information, contact Gamewell.

A05-0325-002•03/04•#1267