Simplex

UL, ULC, CSFM Listed FM Approved**

Datasheet

TrueAlert LED Addressable Notification Appliances

Weatherproof Notification Appliances, Wall Mount, Visible Only, Audible/Visible, Model Series 59WP

Features

Individually addressable multi-candela TrueAlert ES weatherproof notification appliances

- Multi candela LED strobe available in low (15, 30 and 75 cd) and high (110, 135 and 185 cd) range candela models
- Available in Visible Only (V/O) and Audible/Visible (A/V) models
- Small compact design and low current draw due to energy efficient strobe LEDs
- Strobe intensity can be programmed from the control panel or the device
- Advanced addressable notification controlled by IDNAC Signaling Line Circuits (SLCs) provides regulated 29 VDC which allows strobes to operate with lower current even under battery backup
- Wiring supervision to each appliance allows "T-tapped" connections for Class B circuits to simplify wiring (Class A circuits require in/out wiring)
- Self-Test Mode allows on-board sensors to detect the strobe and/or horn output and then report their status to the control panel
- TrueAlert Device Reports at the control panel detail appliance point ID, custom label, type, and candela setting (see sample on page 3)
- Magnet Test diagnostics assist checkout and testing of appliances and wiring
- Synchronized LED strobe and piezo operation on the same IDNAC channel

Agency listings reference

- Meets environmental requirements for UL1638 and light distribution requirements for UL1971
- UL 1638 listed for outdoor applications
- UL 1971 listed for indoor applications; indoor applications are compatible with ADA requirements (refer to Installation and Mounting Height Reference)
- Horn operation is listed to UL Standard 464
- Strobe operation listed to UL Standard 1971 and ULC Standard S526

LED Indicator and Magnet Test

- Indicator LED indicates magnet test acknowledgment, 3 digit IDNAC address, and candela rating
- Indicator LED can be configured to blink on every polling cycle to indicate appliance supervision
- When the controller is in diagnostic mode, the magnet test pulses the LED to indicate appliance address and can also briefly flash the strobe

A/V Models with horn

- Horns controlled separately from visible appliances on the same two-wire circuit
- Selectable March Time rates of 20, 60, or 120 BPM
- Output is "high" or "low" (~5 dBA difference) selectable at the appliance or from the controller

Mechanical design features

- Rugged, high impact, flame retardant thermoplastic housing in red with white letters or white with red letters
- Various covers options are available – red with white letters or white with red letters
- Available with English and Arabic FIRE lettering
- Surface mounts to a single gang weatherproof electrical box
- Covers can be easily removed without disturbing the connected housing and avoiding trouble conditions
- In/out wiring terminals for 18 AWG to 12 AWG

Figure 1: TrueAlert ES 59WP Series LED Addressable Strobes are Available in Red with White Lettering and White with Red Lettering



Description

TrueAlert ES 59 Series weatherproof addressable appliances

TrueAlert ES 59 Series weatherproof addressable appliances provide visible only and audible/visible notification for indoor and outdoor, extended temperature and extended humidity applications. They are individually addressed and receive power, supervision, and control signals from the Simplex fire alarm control panel IDNAC SLC. LED and xenon tube strobes require operation on separate IDNAC channels.

Strobe Application Reference

Proper selection of visible notification is dependent on occupancy, location, local codes, and proper applications of: the National Fire Alarm Code (NFPA 72), ANSI A117.1; the appropriate model building code: BOCA, ICBO, or SBCCI; and the application guidelines of the Americans with Disabilities Act (ADA).

Strobe Application Reference

Proper selection of visible notification is dependent on occupancy, location, local codes, and proper applications of: the ***National Fire Alarm Code*** (NFPA 72), ANSI A117.1; the appropriate model building code: BOCA, ICBO, or SBCCI; and the application guidelines of the Americans with Disabilities Act (ADA).

TrueAlert ES Diagnostics

Magnet Test allows individual appliances to be tested when IDNAC SLCs are in diagnostic mode.

Self-Test allows selected devices to detect their own strobe and/or horn output and then report their status to the control panel. Operation is by selected VNAC appliance groups and is automatic or individually activated by applying a magnet.

Silent Appliance Magnet Test pulses the appliance indicator LED sequentially in response to an applied magnet to conveniently indicate the appliance's address.

Operational Appliance Magnet Test indicates device location by pulsing the indicator LED briefly and then flashes the strobe LEDs and sounds the horn to indicate proper operation.

TrueStart Instrument Two (TSIT) can be used to test IDNAC SLC wiring and TrueAlert ES appliance IDC, NAC, and IDNet communications before connection to the control panel. Please contact your local Simplex representative for additional information

TrueAlert Addressable Wiring Isolator

Isolator Model 4905-9929 is available for remote mounting on TrueAlert addressable circuits to isolate short circuited wiring from functioning wiring. See data sheet S4905-0001 for more information.

Product Selection

TrueAlert ES 59 Series Weatherproof Appliances

(Requires surface mount box and gasket. Dimensions with cover = 5 ¼" H x 3 ½ " W x 1 ⅝" D / 132 mm x 86 mm x 39 mm)

Table 1: Audible/Visible

Model	Color	Wording	Candela rating	Model	Color	Wording	Candela rating
59AV-WRFO 59AV-WRFO-BA	Red	FIRE	Low (15, 30 and 75 cd)	59AV-WRFABO-BA	Red	FIRE /حريق	Low
59AV-WWFO-BA	White						

Table 2: Visible Only

Model	Color	Wording	Candela rating
59VO-WRFO 59VO-WRFO-BA	Red	FIRE	Low
59VO-WWFO-BA	White	FIRE	Low
59VO-WRFABO-BA	Red	FIRE / حريق	Low

Table 3: Appliance Only

Model	Color	Candela rating	Model	Color	Candela rating
59AV-APPLWR-O	Red	Low	59VO-APPLWR-O	Red	Low
59AV-APPLWW-O	White		59VO-APPLWW-O	White	
59AV-APPLWRH-O	Red	High (110, 135 and 185 cd)	59VO-APPLWRH-O	Red	High
59AV-APPLWWH-O	White		59VO-APPLWWH-O	White	

Table 4: Separate weatherproof covers (Required when ordering appliance only models)

Model	Color	Wording	Description	Model	Color	Wording	Description
59AVC-WRFO	Red	FIRE	Audible/Visual	59VOC-WRFO	Red	FIRE	Visual Only
59AVC-WWFO	White			59VOC-WWFO	White		
59AVC-WWAO	White	ALERT		59VOC-WRAO	Red	ALERT	
59AVC-WRSO	Red	Logos only		59VOC-WWAO	White		

Table 5: Surface Mount Weatherproof Boxes (Required, ordered separately)

Model	Color	Description		Dimensions
59WPBB-WR	Red	Surface mount weatherproof single-gang mounting box, includes weatherproof gasket and painted versions of Model 72219K23 (below). Order from your Simplex product representative. See install instructions 579-1224 for more information.		4 ½" H x 2 ¾" W x 2" D (114 mm x 70 mm x 51 mm)
59WPBB-WW	White			
7219K23	Gray	Surface mount weatherproof single-gang mounting box; order blank cover (below) to get matching weatherproof gasket	Manufactured by McMaster-Carr; order from electrical product supplier	
7219K5	Gray	Blank cover with weatherproof gasket		N/A, cover is not used

Note: * -BA indicates model is available either with or without the -BA suffix. Model numbers ending in –BA are assembled in the USA

TrueAlert Device Reports Reference

Service Port			Page 1	
REPORT 5 : TrueAlert Device Report		12:34:56am Fri 8-May-15		
POINT ID	CUSTOM LABEL	DEVICE TYPE	CANDELA	
T14-1-1	Location Label . . . up to 40 characters	AV-LH	15	
T14-1-2	Break Room 5	AV-L	110	
T14-1-3	Boiler Room	VO-LH	75	
T14-1-4	Elec. Room 7	VO-LH	135	

IDNAC SLC Controller Compatibility Reference

Table 6: Compatibility Reference

Compatible Controllers	Data Sheet Reference	Controller Output	IDNAC SLC Output Voltage	Appliance Voltage Design Reference
4100ES with EPS+ or EPS Power Supply	*S4100-0100*	IDNAC SLC	29 VDC (regulated)	23 VDC (with 6 VDC drop)
4009 IDNAC Repeater	*S4009-0004*			
4007ES with IDNAC Notification	*S4007-0002*			
4010ES with ESS Enhanced System Supply	*S4010-0011*			

Specifications

Table 7: Electrical Ratings

Specification	Details
Typical Operating Voltage Range	23 VDC to 31 VDC, Special Application
Supervisory Requirements	1 unit load (= 0.8 mA control panel current)
IDNAC SLC Loading	Maximum of 127 addresses per SLC, 139 unit loads
Temperature Range	-40° to 150° F (-40° to 66° C)
Humidity Range	10% to 93%, non-condensing at 104° F (40° C)
IDNAC SLC Wiring Specifications (refer to control panel installation instructions for more information)	UTP, unshielded twisted pair recommended
	Maximum wire length allowed with "T-Taps" for Class B wiring per SLC = 10,000 ft (3048 m)
	Maximum wire length to any appliance = 4000 ft (1219 m)
Connections	Terminal blocks for 18 AWG to 12 AWG (0.82 mm^2 to 3.31 mm^2); two wires per terminal for in/out wiring
Installation Instructions	579-1182

Table 8: A/V Horn Output Ratings @ 10 ft (3 m) @ 23 VDC

Sound Type (see Note)	Steady/High	Steady/Low	Coded/High	Coded/Low
Reverberant Chamber, UL 464 Test	85.2 dB	80.4 dB	81.5 dB	77.3 dB
Anechoic Chamber, ULC 525 Test	91.5 dB	86.2 dB	91.2 dB	85.9 dB

Note: UL 464 test coded values are typical of the output measured with a Temporal or a March Time pattern and with a sound level meter reading on a "fast" setting. Under the same test conditions, coded horn output "peak" sound level readings are typically 4 dBA higher. Anechoic horn output ratings are typically more representative of actual installed sound output.

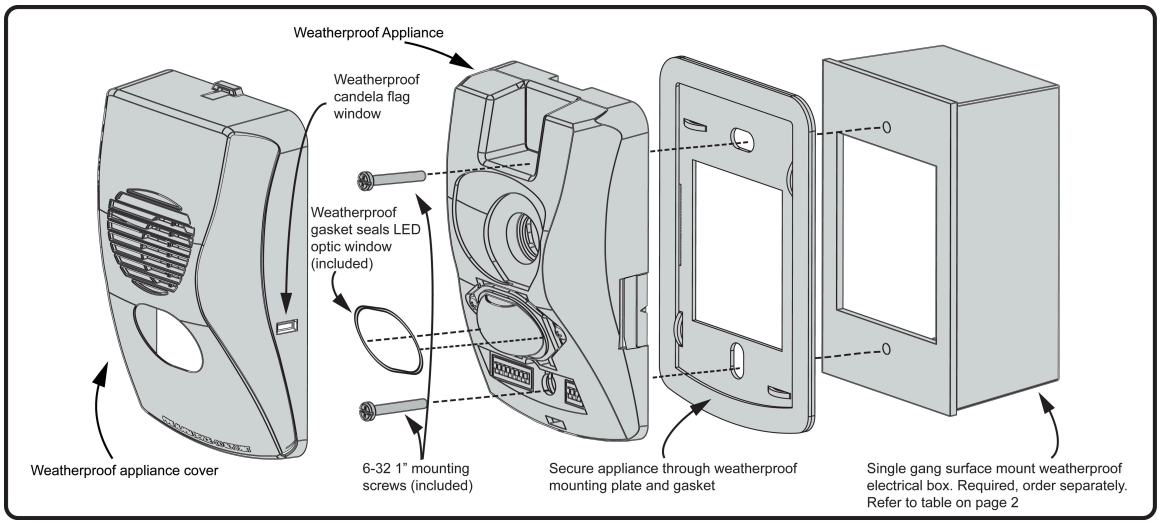
Table 9: 23 VDC RMS Current ratings (UL1971/ULCS526)

Model	Temperature	Candela	15 cd	30 cd	75 cd	110 cd	135 cd	185 cd
V/O	-40° to below 32° F (-40° to below 0° C)		36 mA	50 mA	70 mA	143 mA		
A/V			58 mA	71 mA	91 mA	167 mA		
V/O	32° F to 150° F (0° C to 66° C)		31 mA	44 mA	60 mA	125 mA		
A/V			51 mA	63 mA	81 mA	143 mA		

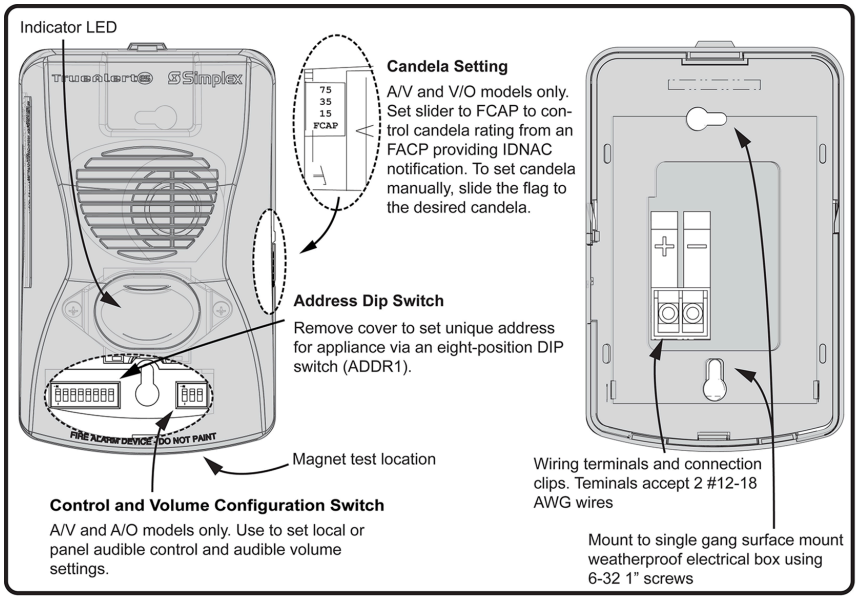
Table 10: Percentage of rated light output at room temperature

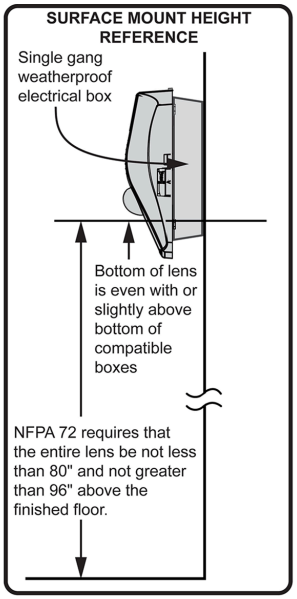
Angle	On-Axis	Vertical, Below Axis		Horizontal, Left/Right of Axis	
	0°	45°	90°	45°	90°
UL required output	100%	34%	12%	75%	25%
Typical output	145%	84%	21%	102%	47%
A/V Sound Dispersion per ULC-S525 Anechoic testing performed at 3 m (10 ft); referenced to on-axis = 0°	**Level Decrease**	**Vertical Angle**		**Horizontal Angle**	
	-3 dB	+20° (above axis)		+50° (to right)	
		-48° (below axis)		-50° (to left)	
	-6 dB	+65° (above axis)		+63° (to right)	
		-60° (below axis)		-63° (to left)	

Weatherproof Appliance Installation Reference



Installation and Mounting Height Reference





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