Detcon SmartWireless® audio-visual alarm stations are easily and economically deployable in both permanent and temporary installations. These devices feature a battery powered audio visual alarm station designed as a wireless cordless system component. They are rated for Class 1; Division 1, Groups C, D hazardous areas.

Power is provided by a Detcon designed smart battery pack eliminating the requirement for power or signal cables (line power option available). The standard rechargeable battery packs are capable of delivering enough energy for 5-7 hours of continuous operation in a full alarm condition or 5 months (no alarm condition). The standard rechargeable battery pack continuously reports its charge level and estimated operating time before recharge or replacement is required. An optional solar charging panel can be used to extend operating time and maintain full battery charge levels for virtually any application. An optional disposable “D” cell battery pack is capable of delivering 11-13 hours of continuous operation in a full alarm condition or 9 months (no alarm condition).

Alarm level 1 is used to turn on an alarm strobe and alarm level 2 is used to turn on an audible warning device. Alarm relay options include adjustable set points and latching/non-latching relays. Alarm level 2 can be configured for acknowledge/silence via operator interface at the SmartWireless CXT Controller.

The SmartWireless® alarm stations use Detcon’s proprietary “Self Healing Mesh” technology which operates at 2.4 GHZ and conforms to non licensed radio frequency appliance usage around the world. Wireless network integrity and security is accomplished using direct sequence spread spectrum DSSS programming topology. Wireless applications can be as simple as a single field device communicating with a host display or any number of field devices forming a network of subscribers. Each device in the network is assigned its unique device identification or a UID. Every device in the network can act as a router and repeater for all other devices in the network. This means that subscribers can “hop” through neighboring devices to communicate with each other thereby widening network access points. This unique and innovative technology is designed to create a robust network that automatically routes around congestion and line-of-sight obstacles while improving throughput as subscriber device density increases.

**Features**
- Wireless-Cordless®
- Line Power Option Available
- Configurable with Audible & Visual, Two Strobes, or Two Audibles
- 4-6 Hours Continuous Operation in Full Alarm
- Class I, Div I, Groups C,D

**Applications**
- Oil and Gas Drilling Rigs
- Oil and Gas Production Sites
- Wastewater Treatment Plants
- Food and Beverage Processing
- Pulp and Paper Mills
- Refining and Petrochemical

www.detcon.com
Model SW-AV1-DV1 • SmartWireless® Alarm Station

Alarm Station Specifications

Input/Output
2.4GHz DSSS radio transmission

Electrical Classification
Class I; Div I; Groups C, D

Dimensions
30"H x 16"W x 8"D; 762mmH x 406mmW x 203mmD

Weight
26 lbs.; 11.79 kilograms

Warranty
1 year

Visual Alarm Specifications

Output
5 Joules

Flash rate
60 flashes per minute

Lens colors
Clear, opal, yellow, red, amber, blue, green

Audible Alarm Specifications

Output
110dB @ 1 meter

Tones
32 Selectable Tones

Battery Specifications

Smart Rechargeable Battery: 5 months (no alarm condition): 5-7 hours (full alarm)
(-20°C to +60°C; -4°F to +140°F discharge temperature; -30°C intermittent).

Disposable “D” Cell Battery Pack: 9 months (no alarm condition) 11-13 hours (full alarm)
(-55°C to +85°C; -67°F to +185°F discharge temperature).

Specifications subject to change without notice

Electrical Specifications

Power Input
6-30 vdc and/or
Rechargeable battery pack or
Internal “D” size disposable battery pack

Power Consumption
20mW (Low Power Mode)
100mW (Typical)
5.88W with visual alarm
14.28W with audible and visual alarm

Performance
Transmit Power Output: 18dBm
RF
Outdoor RF Line of Sight (with standard antenna): 1.5 Miles
Interface Data Rate: 9,600bps
Throughput Data Rate: 19,200bps
RF Data Rate: 250,000bps
Transceiver Sensitivity: -102dBm
Frequency: 2.40-2.48GHz
RF Channels: 16, each 5Mz Wide
Output Power: 100mW (20.5dBm) EIRP
Spread Spectrum: DSSS (Direct Sequence Spread Spectrum)
Modulation: 0-QPSK
Supported Network Topologies: Mesh, Point-to-Point

Antenna
Odb 1” Whip with Screw on Radome Antenna Guard
I/O Protection
Over-voltage, Miswiring, EMI/RFI Immunity

Environmental Specifications

Operating Temperature
-20°C to +60°C; -4°F to +140°F

Accessory Options
Tripod for Mounting
Mini Tripod for Mounting
7db Gain Antenna
Solar Charging Panel

Order Guide

Part Number Description
977-1T_00W-1P2-__0 Model SW-AV1-DV1 Alarm Station (1 horn, 1 strobe)
977-2T__0W-002-__0 Model SW-V2-DV1 Alarm Station (2 strobes)
977-00000W-1P2-__0 Model SW-A2-DV1 Alarm Station (2 horns)

Position “6” select color of strobe 1: X X X _ X X _ X X X _ X
Position “7” select color of strobe 2: _ _ _ _ _ _ _ _ _ _ _ _ X

Position “13” select SmartWireless® Transceiver
2 - RXT-300 Fault Tolerant
4 - RXT-320 Mesh
6 - Blue
8 - Opal
9 - Clear

Position “14” power selection:
1 - External 24 VDC supplied by customer
5 - Smart battery pack
7 - 117/220 VAC line power to DC power supply
9 - 117/220 VAC line power to DC power supply with stand-by battery
D - Disposable “D” cell battery pack

See legend below to complete the part number.

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