



Model SW-AV1-DV1

SmartWireless® Alarm Station

GAS DETECTION SENSORS ■ INTEGRATED CONTROL SYSTEMS ■ SMARTWIRELESS® ■ PIPELINE ANALYZERS ■ ALARMS

Description

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

Model SW-AV1-DV1 ■ SmartWireless® Alarm Station

R112012

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

Order Guide

Part Number	Description
977-1T__0W-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)

See legend below to complete the part number.

X X X - X X __ X X - X X X - __ X

Position "6" select color of strobe 1: _____

Position "7" select color of strobe 2: _____

2 - Red

3 - Yellow

4 - Amber

5 - Green

6 - Blue

8 - Opal

9 - Clear

Position "13" select SmartWireless® Transceiver _____

2 - RXT-300 Fault Tolerant

4 - RXT-320 Mesh

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

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

Houston

Odessa

Shanghai

Dammam

Del Carmen

Europe



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an **ST** company