SmartWireless® **X40**
Alarm & Control System

Description

Detcon SmartWireless X40 is a gas detection and control system compatible with Detcon's Model RXT transceivers. Flexible and expandable, the SmartWireless X40 network can include up to 32 devices and consist of any combination of wireless and/or wired sensors and alarm warning devices.

Command functions include alarm reset, alarm acknowledge, alarm test and radio silence. In normal operation the control panel displays real time gas concentrations or the status of other field devices; battery charge levels, network RF signal quality and any number of fault diagnostic conditions affecting either an individual field device or the entire network. These fault conditions are displayed on the control screen. Options include audio alarm, visual alarm, external alarm port, alarm reset switch, 10 meter separation antenna, and battery backup.

Wired devices can be interfaced with the SmartWireless X40 using Detcon's stackable din-rail mounted I/O modules. Detcon I/O modules include a 4-channel 4-20mA input module (DA-4), a 4-alarm relay output module (RL-4), a 4-channel 4-20mA output module (AO-4), and a 4-relay contact input module (DI-4). Detcon modules can be mounted within the main system enclosure or installed remotely to simplify field wiring. All I/O modules are individually addressable and operate on 11.5-30VDC. The SmartWireless X40 is available in two NEMA 4X enclosures. The SmartWireless X40-8 provides power for up to eight wired field devices and can house up to five 4-channel I/O modules. The SmartWireless X40-32 provides power for up to 32 wired field devices and can house up to twelve 4-channel I/O modules.

The SmartWireless X40 is completely field programmable using a small handheld magnet and offers advanced technology with intuitive, embedded intelligence. The control system displays real time readings and field device status on a backlit LCD screen. During normal operation the screen displays alarm status and current reading (i.e., channel number, gas type, and gas concentration) for up to 8 field devices simultaneously. The display is sequential and auto cycles through each of the active channel screens during normal operation.

Features

- Compatible with Model RXT-320 Transceivers
- 32 channel capacity panels
- Real time 4 line 40 character LCD
- Field device status and location tag
- Alarm condition LEDs
- Non-intrusive operator interface

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

System Specifications

Input/Output
2.4Ghz DSSS Radio Transmission
Wired device inputs: 4-20mA
RS-485 Modbus™ RTU
Contact closure

Capacity
Up to 31 Input Devices

Display
1 1/8" x 5. 3/4" Backlit LCD
Alarm status LEDs

Safety Approvals
CE Marking (Models X40-N4X & X40-SS)

Warranty
One Year

Environmental Specifications

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

Optional Visual Alarm

Light Output
1.75 Joules per flash

Lamp Type
Xenon strobe lamp

Flash Rate
60 to 80 flashes per minute

Optional Audio Alarm

Mode of Operation
Continuous Tone

Frequency
2900 Hz ± 500 Hz

Loudness
80 - 90 dB(A) min. @ 2 FT @ 6 - 28 Vdc

Mechanical Specifications

Dimensions
SmartWireless X40-8-N4X: 12"W x 23"H x 7.75"D
SmartWireless X40-32-N4X: 16"W x 27"H x 9.5"D

Weight
SmartWireless X40-8-N4X: 10 lbs
SmartWireless X40-32-N4X: 20 lbs

Electrical Specifications

Power Input
24VDC nominal (14 - 30VDC)
Optional battery backup

Power Consumption (does not include wired sensors)
Nominal: 150mW
Maximum: 1.2 Watt (Includes display w/backlight and 4 LEDs active)

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
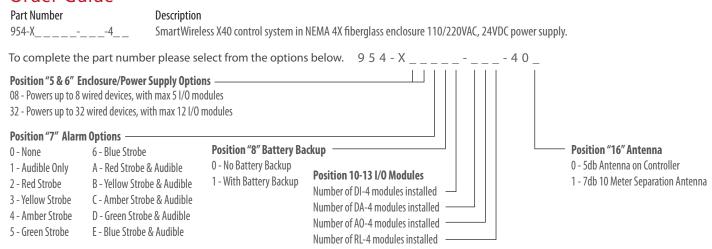
Antenna
5db Flex Whip; Screw on Radome Whip Antenna Guard Included
Optional 7db omnidirectional 10 meter separation antenna

I/O Protection
Over-voltage, Miswiring, EMI/RFI Immunity

Specifications subject to change without notice

Order Guide

Part Number	Description
954-X_ _ _ _ _-_ _ _-4_ _	SmartWireless X40 control system in NEMA 4X fiberglass enclosure 110/220VAC, 24VDC power supply.

To complete the part number please select from the options below.   9 5 4 - X _ _ _ _ _ - _ _ _ - 4 0 _

Position "5 & 6" Enclosure/Power Supply Options
08 - Powers up to 8 wired devices, with max 5 I/O modules
32 - Powers up to 32 wired devices, with max 12 I/O modules

Position "7" Alarm Options

0 - None	6 - Blue Strobe
1 - Audible Only	A - Red Strobe & Audible
2 - Red Strobe	B - Yellow Strobe & Audible
3 - Yellow Strobe	C - Amber Strobe & Audible
4 - Amber Strobe	D - Green Strobe & Audible
5 - Green Strobe	E - Blue Strobe & Audible

Position "8" Battery Backup
0 - No Battery Backup
1 - With Battery Backup

Position 10-13 I/O Modules
Number of DI-4 modules installed
Number of DA-4 modules installed
Number of AO-4 modules installed
Number of RL-4 modules installed

Position "16" Antenna
0 - 5db Antenna on Controller
1 - 7db 10 Meter Separation Antenna