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

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**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

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**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

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**Order Guide**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>954-X____-4</td>
<td>SmartWireless X40 control system in NEMA 4X fiberglass enclosure 110/220VAC, 24VDC power supply.</td>
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To complete the part number please select from the options below.

**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
- 1 - Audible Only
- 2 - Red Strobe
- 3 - Yellow Strobe
- 4 - Amber Strobe
- 5 - Green Strobe
- 6 - Blue Strobe & Audible
- A - Red Strobe & Audible
- B - Yellow Strobe & Audible
- C - Amber Strobe & Audible
- D - Green Strobe & Audible
- 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

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ISO 9001: 2008 Certified

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