

Document: UM-1021-T

7200+ Controller User's Manual

Revision Level B

7200 PLUS DUAL CHANNEL CONTROLLER







Document: UM-1006-T

7400 PLUS QUAD CHANNEL CONTROLLER







7800 Controller

Multichannel gas & flame monitoring system



Description

Whether you are building a new facility or updating an existing one, there are a myriad of safety decisions to make. One decision, however, is now crystal clear. To best protect your workplace and employees, choose the 7800 Controller.

Five simple function buttons make configuration and setup of the 7800 Controller easy and intuitive. Built-in programming flexibility allows you the ability to configure the controller to the needs of a wide variety of applications. Moreover, alarm LEDs indicate three levels of alarm status for every channel monitored.

- Inputs include 4-20 mA, direct catalytic bead sensor, direct IR (infrared sensor), and MODBUS RTU RS-485
- Selectable relay flexible outputs include common and individual
- relays and acknowledgeable Horn relay
- 4-20 mA re-transmission (optional)
- Built-in local horn and lights (optional)
 Bright alarm LEDs and full function display for at-a-glance system
- Bright alarm LEDs and full function display for at-a-glance system status
 Configurable with accoronical eight channel input and output
- Configurable with economical eight channel input and output boards providing a cost-effective solution which can be upgraded to meet future requirements
- Trending screen provides graphical view of alarm events





CPS

Car Park System, Fixed Gas Detection for parking facilities and tunnels.



Presentation

The CPS Car Park System provides accurate and reliable monitoring for the highest level of protection in parking facilities and tunnels.

Features

- Up to 256 points per system
- Up to 1,000 times faster than a pumped system

• Parking facility electricity savings of up to 40%

Available for all vehicles

- Diesel
- Gasoline
- LPG
- Biofuel
- Electrical





SmartWireless MCX-32

Alarm & Control System



Features

- Compatible with Model RXT-320 Transceivers
- 64 channel capacity
- Large LCD with touch-screen user interface
- Wireless, analog, or Modbus input capability
- Comprehensive integral data logging
- 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

Description

SmartWireless® MCX-32 is a flexible and expandable multi-channel control system compatible with a wide range of wired and wireless gas detectors, transceivers, alarms, and other field devices. The advanced control system can include up to 64 channels of any combination of wired and/or wireless field devices.

Real time status of each active field device is displayed on a large backlit LCD Touch Screen that also serves as a user interface. Command functions can also be displayed on the touch screen and include alarm reset, alarm acknowledge, alarm test, and radio silence. During normal operation the screen shows real time gas concentrations or the status of field devices to include battery charge level, network RF signal quality, and any number of fault conditions affecting either an individual device or the entire network. Display formats include field device function, tag name, current reading, and alarm status. Each input can be configured for up to 3 alarm levels with a fourth-alarm output dedicated to fault diagnostics of field devices and internal operating systems. Each system application can include either a common or a limited number of discrete alarm relays.

Among the SmartWireless MCX-32's specialized features is "auto-configuration" of addressable devices that are located in a device library within the unit. This provides a unique combination of "auto configuration" simplicity and ease, with customizable expansion capabilities. The control system is also fitted with a 10/100 BaseT Ethernet Port, allowing users to safely monitor a network remotely with the convenience of a desktop PC, or handheld device with internet connection. An addressable RS-485 Modbus RTU slave port is available for communication with higher level automation and control systems such as PLC's, PC's and Distributed Control Systems. The SmartWireless MCX-32 offers standard datalogging of alarms, calibrations, comm errors and faults, as well as 15-minute peak and average readings for each channel using Type I or Type II compact flash cards.

Wired devices with either a 4-20mA DC or serial RS-485 output can be interfaced with the control system individually or by 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). The I/O modules may be mounted within the main system enclosure or in separate enclosures suitable for the area classification where installation will occur. All I/O modules are individually addressable and operate on 11.5-30VDC. The SmartWireless MCX-32 is available in either fiberglass or stainless steel NEMA 4X enclosures and can be powered by 110-230 VAC or 24 VDC. The control system is intended for installation inside buildings or under cover avoiding direct sunlight.

Additional ordering options include audio alarm, visual alarm, external alarm port, alarm reset switch, 10-meter separation antenna, and battery backup.





Model X40

Integrated Alarm & Control System



Model X40-8-N4X



Model X40-N7



Model X40-N1P

Features

- 8 to 32 channel capacity
- Backlit LCD screen display
- Analog or RS-485 input options
- Easy intuitive field configuration
- Wire or distributed I/O
- Extensive event data logging
- SmartWireless[®] capable

Description

Model X40 is a low power alarm and control system designed to monitor multiple gas detection sensors and/or a wide range of other field devices. The versatile control system is designed to receive and supervise inputs

using either 4-20mA DC or Serial RS-485 ModbusTM and is available in two packages: Model X40-8 and Model X40-32. Both packages function as a ModbusTM Master and can be customized and expanded based on individual application needs using the stackable din-rail mounted I/O modules. All I/O modules are individually addressable and operate on 11.5-30VDC. The X40-8 provides power for up to eight field devices and can house up to six 4-channel I/O modules. The Model X40-32 provides power for up to 32 field devices and can house up to 12 4-channel I/O modules. The I/O modules available for use with the Model X40 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). The modules can be mounted within the main system enclosure or installed remotely to simplify field wiring.

The Model 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 the alarm status and current reading (i.e., channel number, gas type, and gas concentration) for up to eight field devices simultaneously. The display is sequential and during normal operation it auto cycles through each of the active channel screens. Among the system's unique features is a wireless option that can be used with RXT-320 SmartWireless® transceivers. Enclosure options include: NEMA 4X, NEMA 1 panel mount, and NEMA 7.

Applications

- Oil and gas drilling rigs
- Oil and gas production sites
- Offshore production platforms
- Wastewater treatment plants
- Food and beverage processing
- Pulp and paper mills
- Refining and petrochemical





MX 62

Controller



Presentation

Monitoring system for gas and flame detection.





Example with 128 channels



Features

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- Back up processor to ensure continual measurement (SIL 3 from EN 50402)
- 64 secure channels
- Modularity and flexibility
- Reduced installation costs
- Direct connections either on network or in loops





MX 16

Controller



Presentation

The MX 16 is a compact digital or analog controller, one input, low-profile controller that continuously monitors gas detection, like:

- O₂
- CO₂
- CH₄
- H₂
- GPL

Available in Easy Duo version, a new **controller + detector + cable *** offer.

This offer applies to versions:

MX 16 + OLCT 10N O₂

MX 16 + OLCT 10N CO₂

Simplified configuration (no software)

Available in 4-20mA version.

Easy and also ready to use.

*Central detector to connecting cable

- Analog and digital controller
- Low cost and Easy to install
- 1 measurement line / up to 1 detector
- Integrated relays
- RS-485 Signal Output (optional)





MX 32 Controller



Presentation

The MX 32 is a compact, low-profile controller that continuously monitors gas detection, including 4-20 mA, dry logic input, MODBUS RS485 signal from compatible detectors.

- Analog and digital controller
- Up to eight detectors
- Fully scalable
- SIL1 reliability









Description

Fully scalable, and designed to functional safety performance level 1 standards, the MX 43 is an analog and digital controller that continuously measures and controls gases in the atmosphere.

The MX 43 gas detector manages both digital lines and analog channels, and covers all needs for a wide variety of gas monitoring applications.

The MX 43 digital technology allows up to 32 detectors to be distributed on 8 lines for increased cost savings.



- Analog and digital controller
- 4 or 8 lines / 16 to 32 detectors max
- Highly versatile controller
- SIL 1 reliability







Controller



- 2 to 16 channels
- 1 fault and 3 alarm indications per channel
- 19″ 3U cardframe
- SIL 2 approved according to EN 6511





Quadscan II

Series 7400 four channel receiver



Description

The QuadScan II receiver offers an abundance of built-in, flexible features that make it the ideal receiver to economically centralize display and alarming for up to four gas transmitters, fire detectors, or other 4-20mA instruments.

The Quadscan II provides four channels of control for your field instruments.

- Accepts input from any 4-20mA transmitter
- Individual or simultaneous display of each channel's output
- Individual Inhibit/Fail, Warn, and Alarm LEDs





Model X40

Integrated Alarm & Control System



Model X40-8-N4X



Model X40-N7



Model X40-N1P

Features

- 8 to 32 channel capacity
- Backlit LCD screen display
- Analog or RS-485 input optionsEasy intuitive field configuration
- Easy infuitive field configure
 Wire or distributed I/O
- Extensive event data logging
- SmartWireless[®] capable

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