MCX-32-N1P

MCX-32-N1R
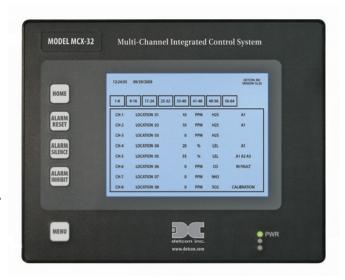
MCX-32-N4X

MCX-32-SS

Model MCX-32
Multi Channel Integrated Control System

Description

Detcon Model MCX-32 is a multi-channel integrated control system with a capacity of 64 active channels. It can receive and supervise inputs from a wide range of field devices with either a 4-20mA DC or serial output. The standard serial protocol is RS-485 Modbus RTU. This unique system design features "auto-configuration" of addressable devices that are located in a device library. The Model MCX-32 controller provides a unique combination of "auto configuration" simplicity and ease of use with customizable expansion capabilities.

The Model MCX-32 controller features a flexible design that allows the user to customize a system by choosing from a selection of individually addressable field devices or use addressable input and output modules. Detcon's full range of gas sensors (purchased separately) can be used to create a gas detection system consisting of toxic gas, combustible gas, and/or oxygen deficiency. A wide range of field devices such as liquid level, temperature, pressure, flow, etc., can also be configured for input to the control system. Four standard I/O modules are available: 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). I/O modules are din-rail mounted and stackable allowing for seamless system expansion. 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. In many cases using distributed I/O nodes can significantly reduce wiring and installation costs.

The real time status of each active sensor is displayed on a backlit LCD Touch Screen that also serves as a user interface. Display formats include field device function, tag name, current reading and alarm status. Each input can be configured for up to 3 alarm levels. A fourth alarm output is dedicated to fault diagnostics of field devices and internal operating systems. Each system application can include either common and or a limited number of discrete alarm relays. Model MCX-32 accepts Type I or Type II compact flash cards for data logging. Alarms, calibrations, comm errors and faults are logged. Hourly peak and average readings for each channel is also logged. Other features include one-touch Alarm Inhibit, Alarm Reset, and Alarm Silence (Acknowledge) functions. The MCX-32 includes a 10/100 BaseT Ethernet Port. This allows users to remotely monitor the MCX-32 from desktop PC or handheld device with an 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 Model MCX-32 is available in 4 enclosure options – Model MCX-32-N1P NEMA 1 panel mount, Model MCX-32-N1R NEMA 1 rack mount, Model MCX-32-N4X NEMA 4X epoxy fiberglass, and MCX-32-SS NEMA 4X 316 Stainless Steel. The control system can be powered by 110-230 VAC or 24 VDC. Model MCX-32 Integrated Control Systems are intended for installation inside buildings or under cover avoiding direct sunlight.

Model MCX-32

Features

▷ 64 channel capacity

▷ Large LCD with touch-screen user interface

▷ Analog, digital or Modbus RTU serial input capability

▷ Readily field expandable with auto configuration capability

▷ Versatile distributed I/O installation options

▷ Lightning & over-voltage protection standard

▷ Data logging of alarms, calibration, comm errors, faults, peak and average readings

Specifications

Capacity
User configurable:
up to 64 analog or serial inputs

Inputs
Analog 4-20 mA (using DA-4 Modules)
RS-485 Modbus™ RTU

Outputs
User Configurable:
4-20 mA outputs (using AO-4 Modules)
Form "C" Relay Contacts (using RL-4 Modules)
RS-485 Modbus™ RTU slave ports
Form "C" relay outputs for Fault and No Comm

Accuracy/Repeatability
Display: < 1% F.S.
DA-4: < 1% F.S.
AO-4: < 1% F.S.

Power Input
110-230 VAC; 20-30 VDC

Power Consumption
Base MCX-32 Controller: 14 Watts @ 24 VDC
Total power dependent on:
Number of I/O Modules
Number of Gas Sensors not to exceed 80 watts

Display
5.7" inch monochrome LCD
Resistive analog touch-screen
Sunlight readable
Brightness 165 cd/m2
Backlight MTBF: 20,000 hour typ.

Electrical Classification
Model MCX-32-N1P, NEMA 1 panel mount
Model MCX-32-N1R, NEMA 1 rack mount
Model MCX-32-N4X, NEMA 4X
Model MCX-32-SS, NEMA 4X

Dimensions
Model MCX-32-N1P, 10.5"W x 8"H x 9"D
Model MCX-32-N1R, 19"W x 8.75"H x 9"D
Model MCX-32-N4X, 16"W x 17.9"H x 9.5"D
Model MCX-32-SS, 14"W x 16"H x 8.2"D

Operating Temperature Range
0°C to +50°C

Storage Temperature Range
-20°C to +70°C

Warranty
One year

Order Guide

PN 95P-323210-000 **Model MCX-32-N1P**, 64 channel integrated control system in panel mount hardware assembly 110/220 VAC 24 VDC power supply.*

PN 95R-323210-000 **Model MCX-32-N1R**, 64 channel integrated control system in 19" rack mount hardware assembly with 110/220 VAC 24 VDC power supply.*

PN 954-323210-000 **Model MCX-32-N4X**, 64 channel integrated control system in wall mount ABS weatherproof enclosure w/110/220 VAC 24 VDC pwr supply.*

PN 954-323213-000 **Model MCX-32-N4X**, 64 channel integrated control system in 316 stainless steel wall mount weatherproof enclosure w/110/220 VAC 24 VDC pwr supply.*

*Addressable I/O Modules are not included and are sold separately.