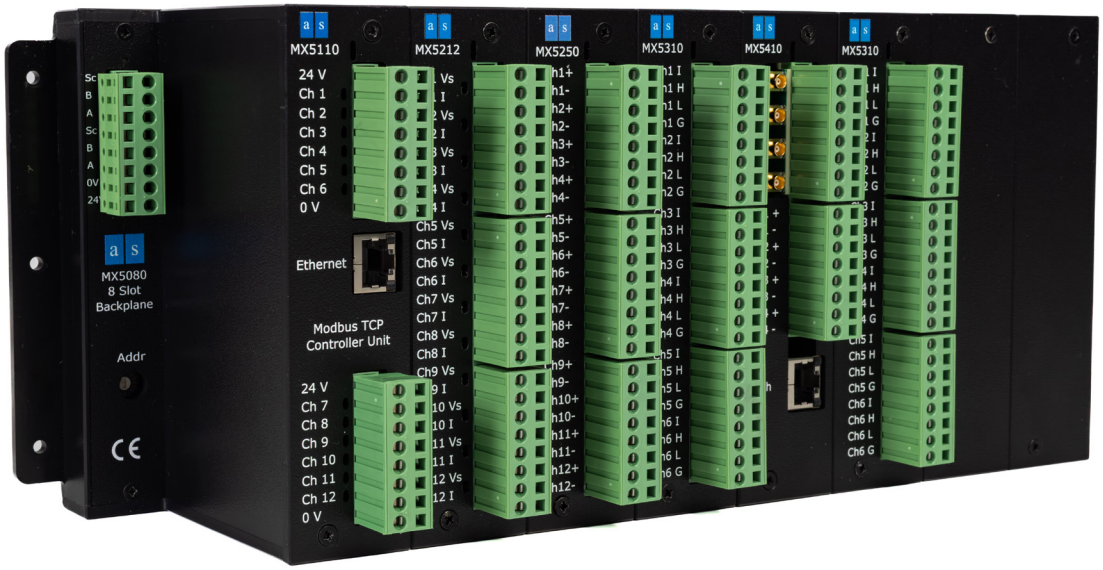
PRECISION RACK I/O SYSTEM

MX5000 SERIES

ASL
ACQUISITION SYSTEMS LTD



OVERVIEW

Product Description

The MX5000 Precision Input/Output System has been designed from the ground up to provide robust, accurate measurement of a wide range of parameters where exacting tolerances are demanded.

An MX5000 system consists of a Controller Unit housed in a 6 or 8 slot enclosure that accomodates a variety of I/O modules. The Controller Unit uses an industry standard Modbus TCP interface offering ready access to virtually any SCADA, DAS or DCS system.

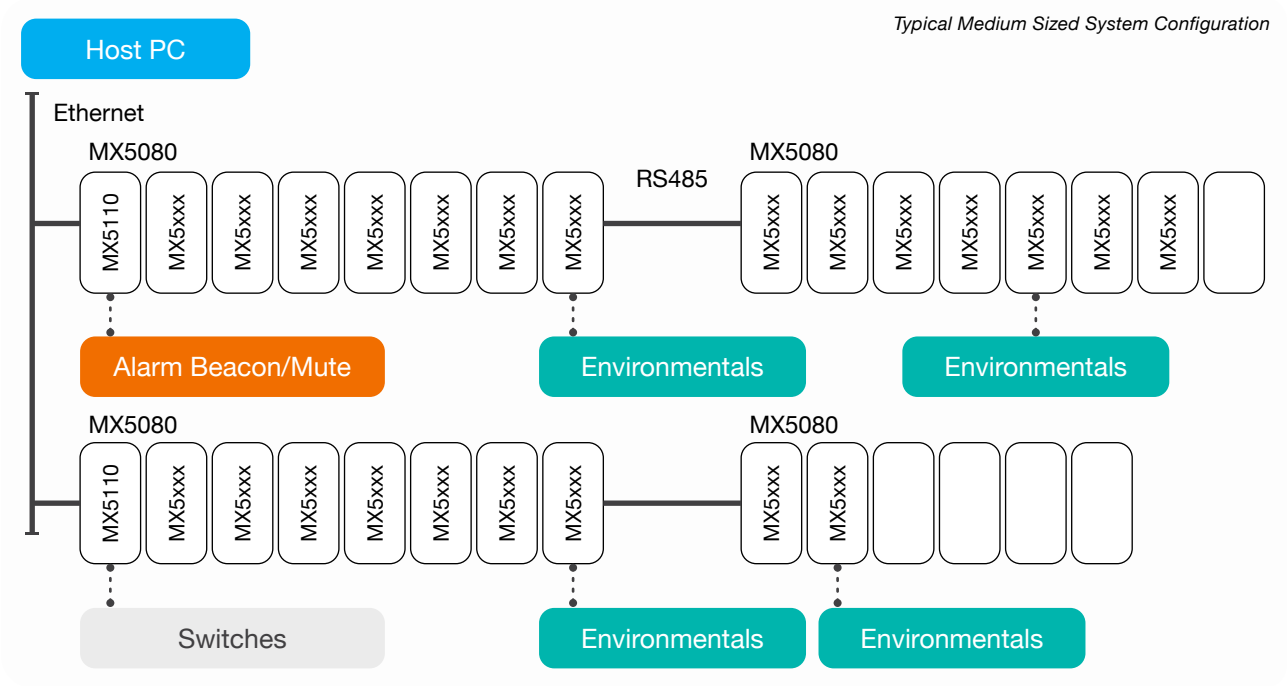
A range of measurement modules offer high accuracy measurement of, voltage, current, temperature using both thermocouple and Platinum Resistance Temperature devices. Additional modules offer digital inputs, digital outputs and relay outputs. Special function modules such as vibration and frequency measurement are also available.

MX5000 offers unrivalled flexibility, supporting systems in size from 12 to 600 channels from a single controller. Additional channels can be easily accomodated by adding further Controller Units in expansion enclosures using a standard Ethernet connection.

Features

- Six or Eight slot enclosure houses Controller Unit and I/O modules
- Controller Unit with Modbus TCP interface
- Range of intelligent analog and digital I/O modules
- RS485 expansion bus to slave enclosures
- 24Vdc operation

Typical Medium Sized System Configuration



SPECIFICATION

The following offers an overview of the MX5000 Series specifications. For detailed specifications please refer to the individual module IOM documents.

MX5110 Controller Unit Specification

- Occupies a single slot in first enclosure
- Power supply: 24V nominal @ 0.1A (plus any outputs)
- Operating temperature: -20 to +60°C
- Interface: Ethernet 10/100Mbps
- Protocol: Modbus TCP including multiple floating point formats, up to three concurrent TCP sessions
- Expansion bus: RS485, internal protocol
- On-board Real Time Clock, battery backup and micro-SD card for local storage

MX5000 Series General Specification

- MX5080 8 slot enclosure, black ABS plastic
  Width 355mm
  Height 150mm
  Depth 108mm
  Weight 870g (with blanking plates only)
- MX5060 6 slot enclosure, black ABS plastic
  Width 280mm including mounting flanges
  Height 150mm
  Depth 108mm
  Weight 730g (with blanking plates only)
- Power supply requirements
  24Vdc +/-10%
  2.5A maximum
- Environmental
  Operating temperature -20 to +50°C
  Storage temperature -20 to +60°C
- MX5110 Controller
  Host: RJ45 Ethernet 10/100Mbps
  (Modbus TCP protocol)
  Expansion bus: RS485 Modbus RTU protocol

MX5000 Digital Input/Output Specification

- Inputs: Optoisolated, 24V operation, suitable for contact closure
- Outputs: 24V, current limited to 0.5A per channel (subject to maximum of 1A per module)
- Relays: Normally open contacts rated at 5A at 250Vac

MX5000 Analog Input/Output Specification

- Inputs: 20mV to 10V voltage ranges, accuracy ±0.02% reading ±0.01% range
- Inputs: 4-20mA, accuracy ± 0.05% range
- Thermocouples: Types J, K, T, N, R, S, E supported
- Outputs: +/-5V,+/-10V, 0-10V, 0-20mA or 4-20mA output, accuracy ± 0.05% range

Ordering Information

- **MX5080:** 8 slot enclosure
- **MX5060:** 6 slot enclosure
- **MX5110:** Controller Unit with 12 channel digital I/O
- **MX5212:** 12 channel, 2-wire 4-20mA analog input
- **MX5213:** 8 channel, 3-wire 4-20mA analog input
- **MX5250:** 12 channel voltage or thermocouple
- **MX5260:** 4 channel output plus 8 channel voltage input
- **MX5310:** 6 channel PT100 and resistance input
- **MX5410:** 4 channel vibration plus 4 channel frequency input
- **MX5510:** 8 channel relay output plus 6 channel digital input

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