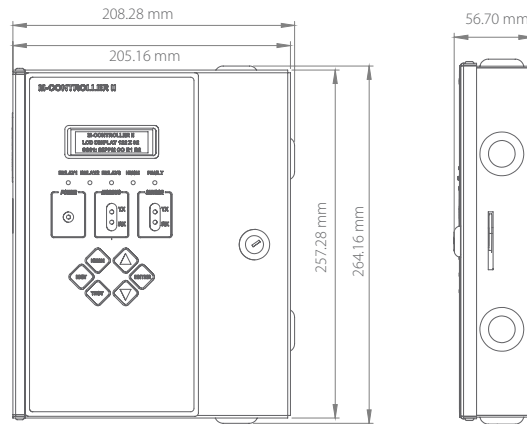


GAS CONTROLLER SERIES



M-CONTROLLER 2

PRODUCT DESCRIPTION

The M-Controller2 is a versatile multi-channel controller and alarm unit designed for interfacing with up to **32 digital and 8 analog transmitter/sensors**. It analyzes and displays gas detector signals for toxic and combustible gases.

Key features include:

- **RS-485 communication** for cost-effective installation.
- **Configurable range and alarm setpoints** via software or front keypad.
- **Three standard onboard relays** and up to 12 remote relay panels.
- **Audible alarm** with three buzzer settings.
- **24 VDC transistor outputs** for horn and strobe.
- **Optional 8-channel analog outputs** for BAS or VFDs.
- **USB port** for configuration with M-View software.
- **Additional RS-485 ports** for Modbus RTU or BACnet/IP communication.
- **Two programmable switch inputs** for triggering various outputs.
- **4 x 20 character back-lit display** with adjustable scroll rate.
- Available in **Nema 4X enclosure**

This controller is ideal for comprehensive gas detection and alarm management.

SPECIFICATIONS

INPUT POWER	24 V +/- 4 VAC or DC
FUSE	1 Amp, 2 x 750mA polyswitch
CABLE SPECIFICATION	Power - Twisted shielded pair Communication (RS-485) Belden 9841 or equivalent twisted shielded pair, 120 ohm
POWER SUPPLY OUTPUT	24V supplied externally through controller
INPUT TYPES	4 parallel RS-485 digital ports for up to 32 transmitter/sensors, and up to 99 Relays 8 Analog 4-20mA inputs from any transmitter/sensors. 2 channel switch inputs or binary inputs (BI-1 and BI-2)
OUTPUT TYPES	RS-485 port, default setting is for Modbus protocol Responds as a Modbus Slave using RTU protocol. M-Controller2 supplies read status information only Connect to BACnet/IP module BAC-BOX The BACnet must be enabled in the BACnet menu Optional 8 Analog 4-20mA signals scalable



SPECIFICATIONS

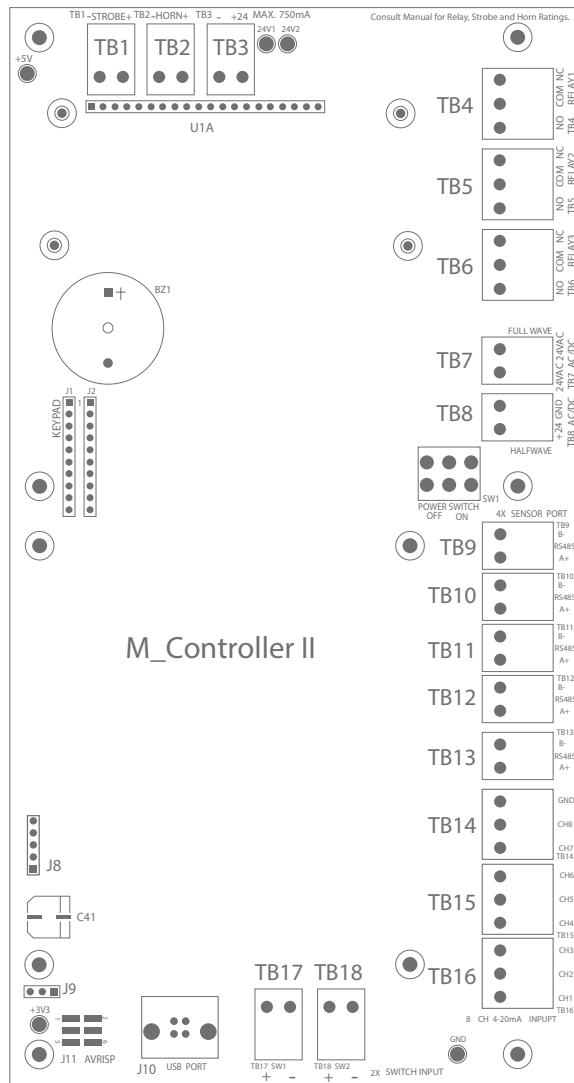
RELAYS	3 SPDT rated 5 Amps resistive 3.7 Amps inductive at 240VAC/30VDC Optional 96 DPDT 5 Amps relays 8 per card
DISPLAY	2 x 16 back-lit LCD displaying transmitter address, gas type, concentration and alarm status
DISPLAY SCROLL RATE	Adjustable 1 - 9 seconds
PANEL CONTROL	6 tactile and audible Keypad
PANEL INDICATOR	10 Status LEDs Power Status RS-485 port TX/RX Status for Sensor Network RS-485 port TX/RX Status for Modbus LED1-LED5: RELAY1, RELAY2, RELAY3, HUSH, FAULT
BUZZER	90 DB at 30 cm, 2700 Hz Buzzer 1: Continuous Buzzer 2: Double tap intermittent Buzzer 3: Intermittent 50% Duty Cycle
HORN AND STROBE	Two relay dry contact
DATABUS COMMUNICATION	Modbus RTU and BACnet Optional
TEMPERATURE SPECIFICATION	Storage: 32°F to 68°F (0°C to 20°C) Operating: -4°F to 122°F (-20°C to 50°C)
HUMIDITY SPECIFICATION	Continuous 5 to 95% RH, non-condensing Intermittent 0 to 95% RH, non-condensing
ENCLOSURE	NEMA 1 Type General Purpose
ENCLOSURE MATERIAL	Steel, epoxy painted black
DIMENSIONS	8" x 10" x 2" (203 x 254 x 51 mm)
APPROVALS	Standard UL2017

Ensure a complete understanding of all applicable Federal, State, Provincial and Local Health and Safety laws and regulations before using these products.

ACCESSORIES

M-ANNUNCIATOR	M-Annunciator Series Annunciator Panel for M-Controller-II
M-RELAY-5A-2000000	M-Relay for M-Controller-II Series Relay Module w/ 2 SPDT Relays
M-RELAY-5A-4000000	M-Relay for M-Controller-II Series Relay Module w/ 4 SPDT Relays
M-RELAY-5A-6000000	M-Relay for M-Controller-II Series Relay Module w/ 6 SPDT Relays
M-RELAY-5A-8000000	M-Relay for M-Controller-II Series Relay Module w/ 8 SPDT Relays
BAC-BOX-0	BAC-BOX BACnet Output Module for Q-Controller, Q4C-II & M-Controller-II
QRP-II	QRP-II Series Remote Display Panel w/ 4 SPDT Relays for M-Controller-II
Q-SWITCHA-0	Q-Switch Series Remote Switch for Q-Controller & M-Controller-II
R-SWITCHA-0	R-Switch Series Remote Switch for M-Controller-II & Q4C-II
M-SWITCHA-0	M-Switch Series Remote Switch for M-Controller-II & Q4C-II
RDF52-A	Remote Display Panel w/ Red Yellow Green LED Stack & 4 SPDT Relays for M-Controller-II
M-STROBE-R	Strobe-Red
M-STROBE-A	Strobe-Amber
M-STROBE-C	Strobe-Clear
M-STROBE-B	Strobe-Blue
6500-0024	120-24Vac Transformer 250VA 1Ph Enclosed

WIRING INFORMATION



TERMINAL	FUNCTION
TB4 TB5 TB6	NC: Normally Close COM: Common NO: Normally Open 3x Relays Output
TB7	24VAC 24VDC Power IN Full Wave
TB8	24VDC GND Power IN Half Wave
SW1	On OFF Power Switch
TB9 TB10 TB11 TB12	A+ B- 4 x RS-485 Ports for Remote Devices
TB13	A+ B- 1x RS-485 for BACnet/IP Module
TB14 TB15 TB16	GND Ground AI-CH8 AI-CH7 AI-CH6 AI-CH5 AI-CH3 AI-CH2 AI-CH1 8x Channels Analog Input 4-20mA
TB17 TB18	SW1 SW2 2 x Switch Input
J10	USB USB Port
TB3	24VDC OUT Power OUT
TB2	Horn
TB1	Strobe
BZ1	Buzzer

ORDERING CODE

M - C O N T R O L L E R 2 - - X - G

Analog Output Card **T**
 (8 channels)
 Nema 4X Enclosure **N**
Revision (Factory Provided) **X**
 Greystone Product **G**