

SuperBrite™ Marquee Display

Real time data means more time at the face.





Contents

Maximum Flexibility, Minimum User Effort	1
The Only Fail-Safe Sign in Mining	2
Worker Safety, 100% of the Time	3
Simple Display Configuration	4
Stay Current with New Software Features	5
Making the Complex Simple	6
Technical Specifications	8
The Maestro Ecosystem	9

Maximum flexibility, Minimum user effort

The newly improved **SuperBrite™ Marquee display** uses state-of-the-art tri-colour LED's (green, yellow, red) arranged in a total of eight fully addressable lines that can be viewed by two alternating pages with four lines on each page. Making the complex-simple, each line can be populated by four different types, such as, Parameter, Static Text, Dynamic Text, Device Name. Supports Modbus TCP/IP registers, EtherNet/IP™ registers, text entry via the built-in webpage or HTTP Request message using JavaScript Object Notation (JSON).

By using digital registers, the SuperBrite™ Marquee will display the tag parameters. The parameter colour and the state (solid or flashing) are triggered by registers. Through webpage configuration, text can be written and associated to every tag variable. As a use case example, increasing carbon monoxide gas levels will change in colour from green to yellow and then to flashing red by configuring alarm set point values for high and high/high states.

By simple configuration, you can write directly to the Marquee from any Vigilante AQS™ or Zephyr AQS™ air quality station or by a SCADA, DCS, PLC or HMI control system without the requirement of any additional hardware or software.



The Only Fail-Safe Sign in Mining

Miner safety is paramount and the SuperBrite™ Marquee provides full fail-safe benefits so that only current information is displayed, preventing unsafe old data from remaining on the display when the network is offline. The display will change from the last value to flashing red ******* to alert the miners of a network interruption. Once the network is re-established the current values will be automatically updated.

Wireless connection with the EZ Node™ Wireless Adapter

The EZ Node™ Wireless 802.11 adapter allows any Maestro product to connect directly to a wireless network.



EZ Node™ Wireless Adapter

Simple direct connectivity when the network infrastructure has not arrived

In addition to connecting to a network, the SuperBrite™ Marquee can connect directly to either a **Zephyr AQS™** or **Vigilante AQS™** without the requirement of being on a mine-wide communication network. By simply using the built-in web pages, the display can be quickly configured in minutes to display important environmental and worker safety conditions. Excellent for mine development safety.



Zephyr AQS™

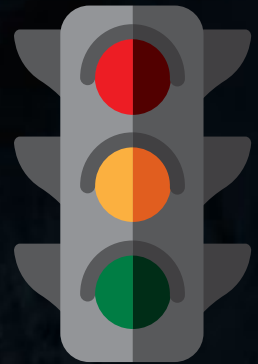


Vigilante AQS™

Worker Safety

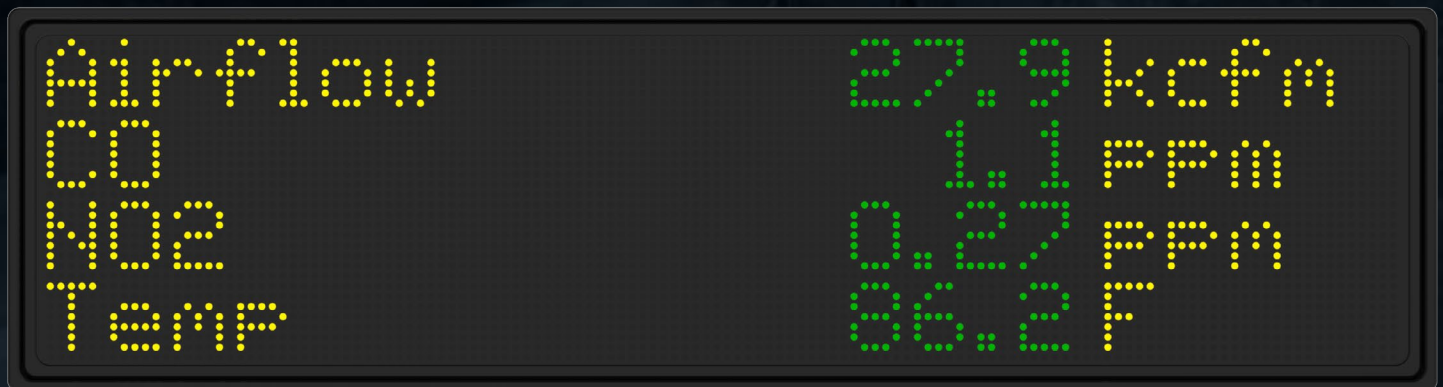
100% of the Time

Text messages can be written to the display on an ad hoc basis. As an example, a control operator may post an emergency text message on the level display, like "RETURN TO REFUGE STATION". The text can quickly be added to the display from any PC on the network using the webpage or through the mine control system.



A safe solution for colour blindness

The SuperBrite™ Marquee provides three output relays that can be utilized for vertical traffic light stack applications for miners that may suffer from colour blindness. The vertical position of the light will signal if the area is safe to enter based upon gas limits.



Simple Display Configuration

Each display parameter is configured for user defined text, units and colour.

The screenshot displays the 'SuperBrite™ Marquee Display' configuration page. The left sidebar contains navigation options: Dashboard, Settings (selected), System, Display, Network, Relays, Account, and About. The main content area is titled 'Line Configuration' and features a table with the following data:

Line	Enable	Type	Name	Unit	Format
Line 1	<input checked="" type="checkbox"/>	Parameter	A1-Vel	ft/m	5.1
Line 2	<input checked="" type="checkbox"/>	Parameter	A1-Vol	kcfm	5.1
Line 3	<input checked="" type="checkbox"/>	Parameter	CO	ppm	5.1
Line 4	<input checked="" type="checkbox"/>	Parameter	CO2	%	5.1
Line 5	<input checked="" type="checkbox"/>	Parameter	A1-Mass	lb/m	5.1
Line 6	<input checked="" type="checkbox"/>	Parameter	Temp	C	5.1
Line 7	<input checked="" type="checkbox"/>	Parameter	Humidity		
Line 8	<input checked="" type="checkbox"/>	Parameter	BP		

A circular callout highlights the 'Enable' toggle switch for Line 6, which is currently turned on. The 'Name' field for Line 6 is 'Temp', the 'Unit' is 'C', and the 'Format' is '5.1'.

The **Enable** toggle switch allows the user to choose between displaying 1 or 2 screens by selecting the lines you want to use and disabling the ones that are not needed.

Stay Current with New Software Features

Through the **About** tab, easily update to the latest version of firmware anywhere on the network without having to visit each display in the field.

The **About** web page provides specific device information and also holds the PDF manual available for download.

Maestro Digital Mine

@Maestro

Dashboard

Settings

- System
- Display
- Network
- Relays

Account

About

About

Feb 5, 2025 10:45 AM

SuperBrite™ Marquee Display

Device Information

Manufacturer	Maestro Digital Mine
Contact Details	87 Magill Street, Sudbury, ON, Canada P3Y 1K6
Device Version	2.1
Software Version	3.6.1

SuperBrite™ Marquee Display Manual

User Manual API Manual

Ethernet/IP Manual Modbus Manual

Software Released on: 2025-01-14

Release Information

New Features

- Ethernet/IP Global Configurations

Restart Device Update Software Factory Default

Maestro Digital Mine

@Maestro

Dashboard

Settings

- System
- Display
- Network
- Relays

Account

About

Settings

Network

Feb 5, 2025 10:56 AM

SuperBrite™ Marquee Display

Network Settings

Network Type: DHCP Static

Communication Timeout: 5000 ms

MAC Address: 00:01:00:2F:FB:08

IP Address: 192.168.10.5

Netmask: 255.255.255.0

Gateway: 192.168.10.1

Primary DNS: 192.168.10.5

Secondary DNS: 192.168.10.6

Connection Type: Modbus/TCP Ethernet I/P

Save

The SuperBrite™ Marquee Display is fully enabled for **Ethernet** Networking.

All configuration is carried out through a standard web browser, allowing the unit to be configured from anywhere on the network.

Making the Complex Simple

Mine hardened
Stainless Steel, NEMA
4X enclosure and
LEXAN® lens for
maximum protection.



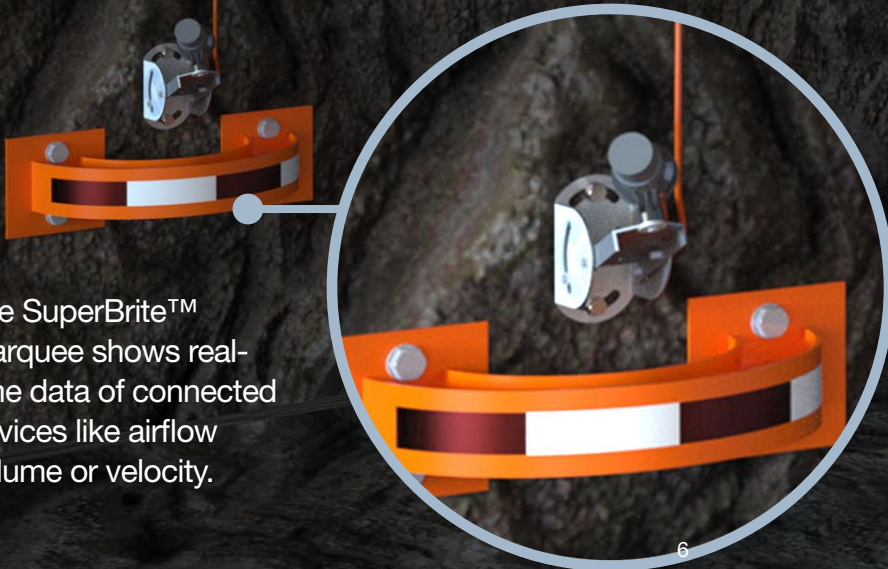
SuperBrite™
Marquee Display.



Simple, direct
connectivity to any
Vigilante AQS™ or
Zephyr AQS™ air
quality station.

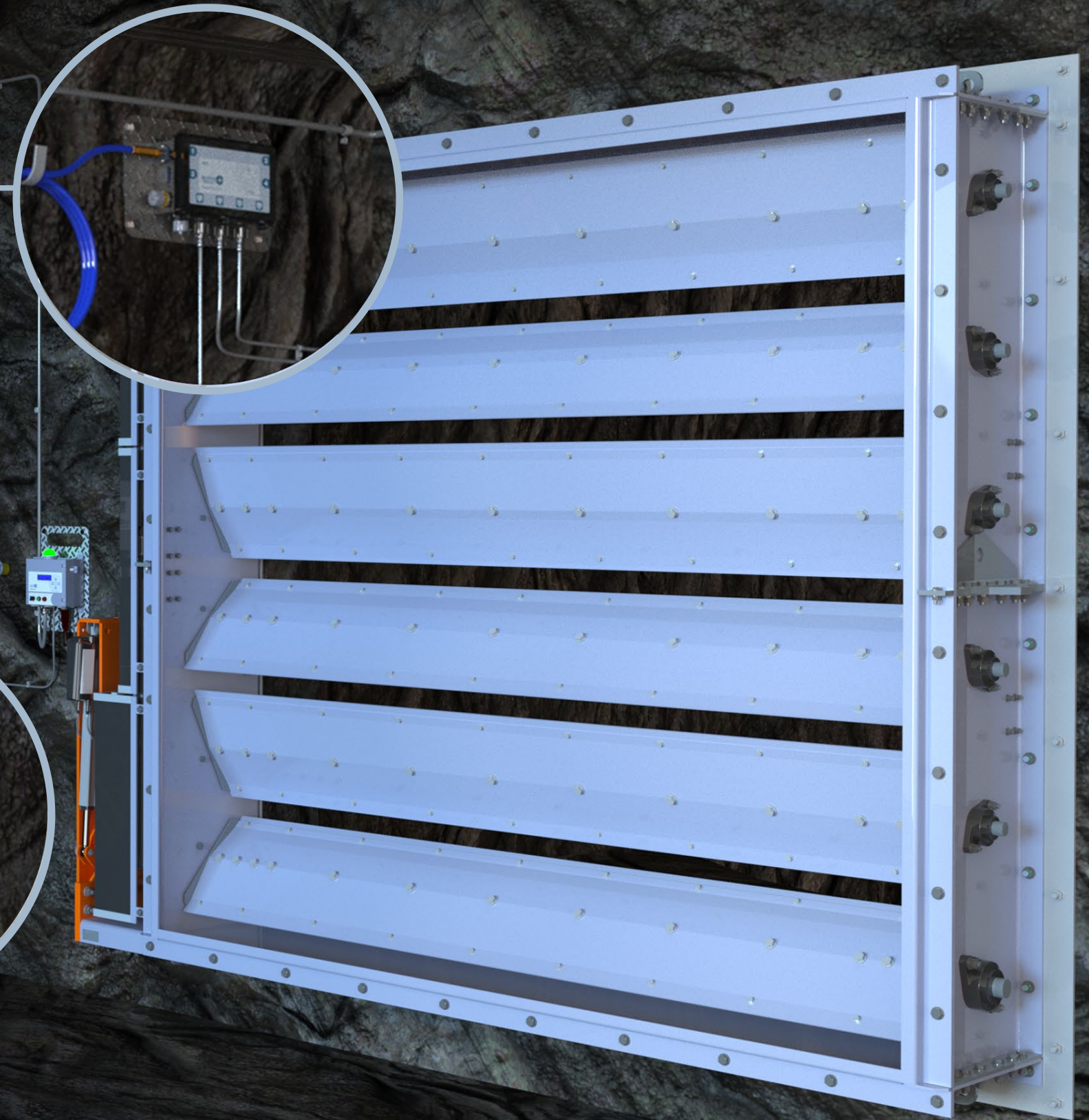


The SuperBrite™
Marquee shows real-
time data of connected
devices like airflow
volume or velocity.



Plexus PowerNet™ provides network connectivity and DC power to air quality stations.

The Maestro Ecosystem



Technical Specifications

General

Tri-colour LED's arranged in addressable lines
Total of eight lines (4 lines with two alternating pages)
2" character height. Approximately 20 characters per line
CE Compliant

Physical Parameters

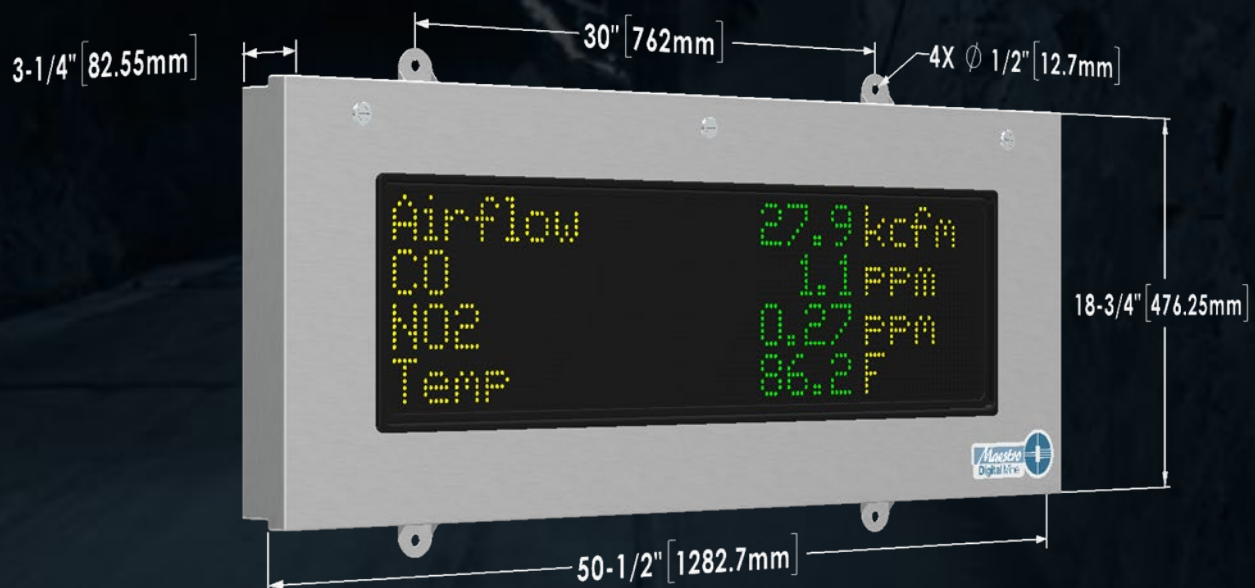
Outside dimensions 50½" x 18¾" x 3¼"
NEMA 4X enclosure
Stainless Steel Enclosure
Four Stainless Steel reinforced mounting tabs
Impact resistant LEXAN® lens
-20 to +40°C operating temperature range
Shipment weight and dimensions 65 LBS - 56" x 28" x 14" (29.5 KG - 1422.4 mm x 711.2 mm x 355.6 mm)

Power Requirements

Universal power supply (100-240 VAC, 50/60 Hz, 1 amp maximum peak draw, 50W)

Communications

Native on-board Modbus Ethernet TCP/IP and Ethernet/IP™ digital communications
RJ45 connection
Registers provided for tag name, tag value and tag units, LED colour and solid/flashing LED state
Three output SPDT (Form C) relays, 8 amp rated @ 250 VAC
Web page access from anywhere on the network
Data can be sent from any third party software platform via HTTP Request using JavaScript Object Notation (JSON).



The Maestro Ecosystem



Vigilante AQS™
Air Quality Stations



DustMon **PM™**



Plexus PowerNet™



ModuDrive™
IIoT Ethernet Actuators

For more information on the Maestro ecosystem visit maestrodigitalmine.com



We make the
complex simple

www.maestrodigitalmine.com
sales@maestrodigitalmine.com
Sudbury, Ontario, Canada
+1 705 805 6918

MDM1000-0225EN