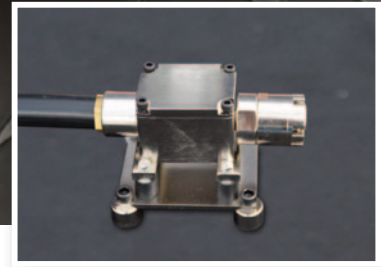
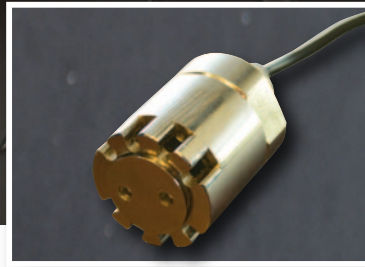
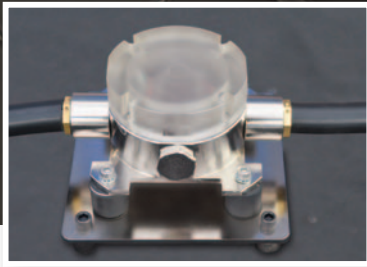




M5

Machine-Mounted Methane Monitor



- **MSHA approved**
- **Zero drift compensation**
- **Water resistant**
- **Tough, effective & simple**
- **Easy to calibrate**
- **One system can run two sensors**

The Matrix M5 is a significant improvement over existing machine-mounted methane monitors available in the US coal market. Because of its unique sensor design, system software and beacon, the M5 is more precise and maintains zero drift compensation even when environmental conditions vary.

M5 offers lower total cost of ownership, easy calibration, water resistance and simple maintenance.

Worldwide, more than 300 units are in operation.

www.matrixteam.com 



M5

Machine-Mounted Methane Monitor



ZERO DRIFT COMPENSATION

Faster, Easier Calibration

Users can calibrate M5 on the display *or* beacon. If the beacon is mounted close to the sensor, a miner can apply test gas to the sensor and apply the magnets to the beacon without going back to the display.

The sensor can be connected directly to the beacon or extended as shown on the next page. This option gives you more choices on where to position the sensor.

While miners still need to bump check each shift, the 4-20 milliamps connection allows for a more stable calibration so they generally don't need to calibrate as often.

M5 FEATURES

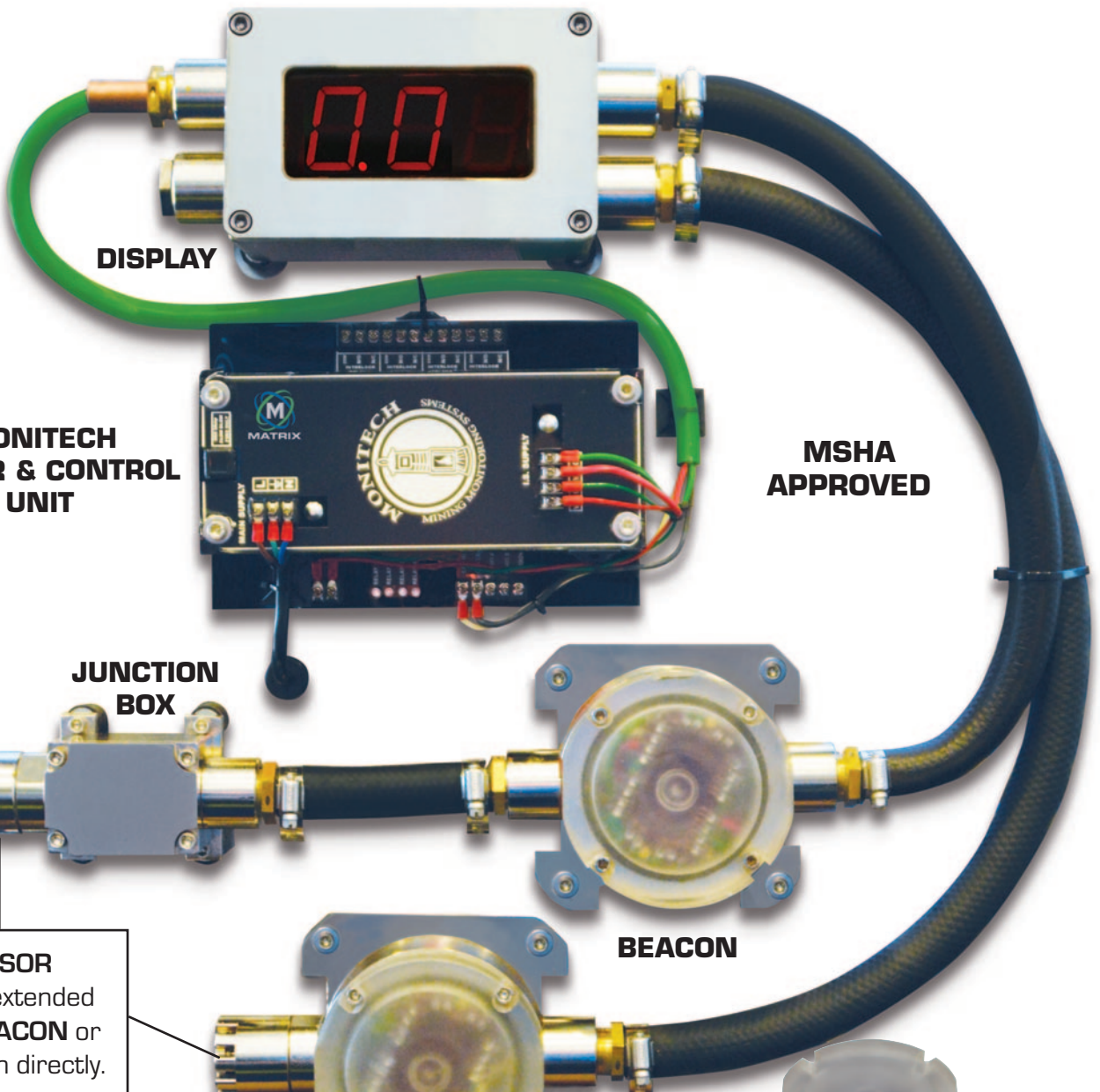
- **Highly Water-Resistant:** Improved sensor design and component materials makes it extremely water resistant. The M5 advantage is miners can wash off their CM with a hose without worry.
- **Easily to Maintain:** M5 is a new sensor technology but maintained the old, familiar way so it's easy for miners to adopt.

WHAT MAKES THE M5 SENSOR BETTER?



- **Baffle Design** – the baffle on the end of the sensor helps stop water from getting back to the sensor.
- **Internal Design** – the sensor is manufactured to be more robust and vibration-resistant.

- **Beacon:** Monitors operating environment and communicates with the control unit. M5 converts volts to milliamps, which is a more stable way to transmit information and less susceptible to outside interference.
- **Highly Vibration-Resistant:** Rubber grommet mountings and robust filaments deliver longer service life in high-vibration environments.
- **High-Level Service and Support:** Matrix has highly experienced field service people that are available to advise, install and service the M5.



DISPLAY

**MONITECH
POWER & CONTROL
UNIT**

**MSHA
APPROVED**

**JUNCTION
BOX**

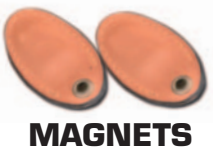
SENSOR

BEACON

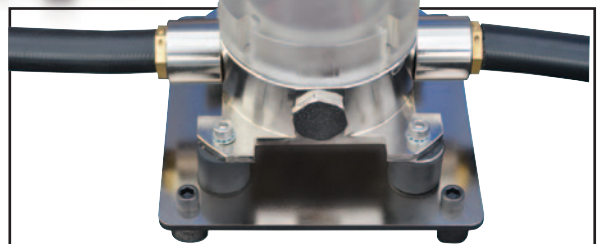
SENSOR
can be extended
from **BEACON** or
plugged-in directly.

SENSOR

BEACON



MAGNETS



**TWO SENSORS –
ONE POWER SUPPLY**

If your operation is required to run two CH4 sensors, you only need one M5 system. When M5 runs a dual system, it has two beacons, two sensors and cabling into the controller. Only one power supply and display are needed. The sensor detecting gas is the one that will actively display its reading. An LED will indicate which sensor you're looking at, then you can use your magnet to switch between the two.

WHAT DOES THE BEACON DO?

The M5 beacon is a new feature for methane monitors in the US.

- Monitors operating conditions and communicates with the system software to maintain a steady zero.
- Provides longer lasting and better calibration. In fact, you can calibrate the system at the BEACON or the DISPLAY.

VENTILATION MANAGEMENT

Matrix AS-3100 sensors provide the most advanced atmospheric monitoring technology for ventilation management. Working independently or together as an array, AS-3100 sensors can detect everything from quick-changing, hazardous conditions requiring immediate action to subtle, slower-changing conditions. This accurate, real-time information allows mine personnel to manage potentially unsafe conditions while avoiding costly downtime when possible.

AS-3100 SENSORS

Wi-Fi or Wired • Dynamic on-screen instructions for step-through calibration



Airflow Sensor
(AS-3100-AF)



CO Sensor
(AS-3100-CO)



Methane Sensor
(AS-3100-CH4)

Deploy sensors individually or as a sensor array to minimize advancement labor costs.

ABOUT MATRIX

Matrix Design Group LLC is the safety and productivity technology leader for underground mining and industrial applications. Its innovative product line includes systems for proximity detection, communications and tracking, atmospheric monitoring, lighting and cameras. Since 2006, Matrix's core business has been mining safety. The company designs, manufactures, sells and supports a range of



cost-effective, built-for-purpose new-tech products. While best known for its IntelliZone® proximity detection system, Matrix has expanded beyond the underground coal mining industry and now sells into all types of mining and industrial markets globally. Today, the company has introduced – and continues to launch – suites of leading-edge products that help their customers operate more safely and productively. M5 is the latest example.

www.matrixteam.com 

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