

## Compact & Lightweight 4-Gas Monitors



The MUNI MP420 is a compact and lightweight 4-gas detector for worker safety at hazardous locations, with four standard sensors for oxygen (lead-free, O<sub>2</sub>), combustibles (LEL), carbon monoxide (CO) and hydrogen sulfide (H<sub>2</sub>S). Alternative sensors are low power infrared methane (CH<sub>4</sub>), sulfur dioxide (SO<sub>2</sub>), and hydrogen cyanide (HCN). The detector is packaged in a robust housing with no moving parts. Its battery power offers 2 work shifts of run time for a standard 4-gas detector, and extended run time using a low-power infrared sensor. The simple, 2-button operation results in ultimate ease of use and significantly reduced time spent training the user.

### Features, Functions and Benefits

- Compact, robust, lightweight & wearable
- Auto backlit LCD with large numeric digits
- Easy-to-navigate menu with two buttons
- Up to 4 replaceable sensors out of 7 choices; non-interchangeability reduces monitor cost
- Battery operation 24 hours with pellistor LEL sensor; extended time with low-power infrared LEL sensor
- Tri-color status indicators on regular self-diagnosis of sensor, battery & circuit
- Wide angle LED alarms
- 1000 Events log
- Combination charge adapter / micro-USB PC interface cable
- IP-68 weather ingress rating
- Optional BLE wireless connectivity
- Optional MuniDock or CaliCase for convenient bump & calibration







**MuniDock**



**CaliCase Docking Station**

## Detector Specifications

<b>Size</b>	4.33 x 2.36 x 1.18 in (110 x 60 x 30 mm)
<b>Weight</b>	8.0 oz (230 g)
<b>Sensors</b>	<ul style="list-style-type: none"> <li>• Standard: LEL (Pellistor), O<sub>2</sub> LF<sup>‡</sup>, CO &amp; H<sub>2</sub>S</li> <li>• Alternatives: CH<sub>4</sub> (NDIR<sup>†</sup>), SO<sub>2</sub> and HCN</li> <li>• Replaceable but not interchangeable</li> </ul>
<b>Battery</b>	Rechargeable Li-ion pack: up to 18 hours with Pellistor; extended run time with NDIR
<b>Direct Readout</b>	<ul style="list-style-type: none"> <li>• Real-time reading of gas concentration</li> <li>• Visual compliance indicator</li> <li>• Battery status</li> <li>• STEL, TWA, peak and minimum values</li> </ul>
<b>Display</b>	Segment LCD, 1.75 x 1.25 in (44 x 32 mm) with LED backlight for enhanced readability
<b>Keypad</b>	2 Operation keys
<b>Calibration &amp; Bump Test</b>	Manual with calibration cup. MuniDock single-bay (MP420T) or CaliCase 4-bay (MP342) options allow automated bump test and calibration and printing certificates
<b>Alarms</b>	<ul style="list-style-type: none"> <li>• Audible (95 dB @ 30 cm)</li> <li>• Visual (tri-color LEDs)</li> <li>• Vibration</li> </ul>
<b>Datalogging</b>	1000 Events (alarms, function tests and calibrations)
<b>Charging and Communication</b>	<ul style="list-style-type: none"> <li>• Charging with AC adapter or cable to PC</li> <li>• PC comm for data download, monitor setup &amp; firmware upgrades via cable, optional BLE (Bluetooth Low Energy), or MuniDock</li> </ul>
<b>Temperature</b>	-4° to 122°F (-20° to 50°C)
<b>Humidity</b>	0% to 95% Relative humidity (non-condensing)
<b>IP Rating</b>	IP-68
<b>Safety Certifications</b>	 Ex da ia IIC T4 Ga  Class I, Div 1, Group ABCD T4, -20°C ≤ T <sub>amb</sub> ≤ +50°C  II 1G Ex da ia IIC T4 Ga  European Conformity
<b>EMC/RFI</b>	EMC directive: 2014/30/EU
<b>Warranty</b>	2 Years including sensors 3 Years with CH <sub>4</sub> (NDIR)/O <sub>2</sub> (Lead-free)/H <sub>2</sub> S/CO

## Sensor Information

Sensor*	Resolution & Range	Response Time (t <sub>90</sub> )
<b>1. Combustibles (Pellistor) or (NDIR)<sup>†</sup></b>	1 - 100% LEL 1 - 100% LEL CH <sub>4</sub>	15 sec 30 sec
<b>2. Oxygen (O<sub>2</sub>) (Lead-free)<sup>‡</sup></b>	0.1 - 30.0% Vol	15 sec
<b>3. Hydrogen Sulfide (H<sub>2</sub>S) or Hydrogen Cyanide (HCN)</b>	0.1 - 100 ppm 0.1 - 50.0 ppm	15 sec 45 sec
<b>4. Carbon Monoxide (CO) or Sulfur Dioxide (SO<sub>2</sub>)</b>	1 - 1000 ppm 0.1 - 20.0 ppm	15 sec 30 sec

\* Sensors are replaceable but NOT interchangeable. Sensor configuration must be decided at time of purchase because each configuration has a unique circuit board.

<sup>†</sup> NDIR CH<sub>4</sub> sensor detects methane and most hydrocarbons, but not some combustible gases such as hydrogen, acetylene and carbon disulfide. Contact mPower for assessment or approval for use in practical applications.

<sup>‡</sup> Pb-free (LF, Lead-free) O<sub>2</sub> sensor has a longer life span than the galvanic version (currently not offered on MUNI), but requires more battery power.

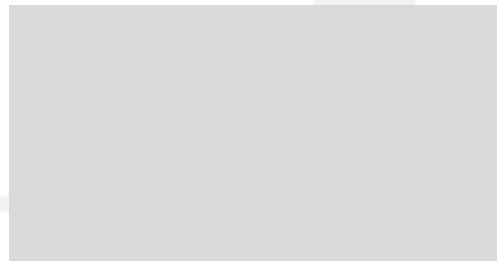
### Standard

- MP420 detector including rechargeable Li+ battery, selected sensors and alligator clip
- AC Charging adapter
- Calibration cap
- USB Communication cable
- Quick start guide
- Calibration certificate

### Optional

- External filters
- BLE Wireless
- MuniDock MP420T bump & calibration station

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\* Due to ongoing research and product improvement, specifications are subject to change without notice \*