

## 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 (O<sub>2</sub>), combustibles (LEL), carbon monoxide (CO) and hydrogen sulfide (H<sub>2</sub>S). Alternative sensors are lead free oxygen (O<sub>2</sub>), 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
- 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 and circuit
- Wide angle LED alarms
- 1000 Events log
- Combination charge adapter / micro-USB PC interface cable
- IP-68 weather ingress rating
- Replaceable sensors & batteries
- Optional BLE wireless connectivity
- Optional MuniDock for convenient bump & calibration

## Detector Specifications

|                                   |   |
|-----------------------------------|---|
| <b>Size</b>                       | 4.33 x 2.36 x 1.18 in<br>(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>, CO and H<sub>2</sub>S</li> <li>• Alternatives: CH<sub>4</sub> (NDIR*), O<sub>2</sub> LF (Pb-free<sup>†</sup>), SO<sub>2</sub> and HCN</li> </ul>   |
| <b>Battery</b>                    | Rechargeable Li-ion pack: ≥ 24 hours (with Pellistor) or 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</b>                | Manual calibration. MuniDock option allows automatic bump test and calibration  |
| <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<br> Class I, Div 1, Group ABCD<br>T4, -20°C ≤ T <sub>amb</sub> ≤ +50°C<br> II 1G Ex da ia IIC T4 Ga (pending)<br> European Conformity (pending) |
| <b>EMC/RFI</b>                    | EMC directive: 2014/30/EU   |
| <b>Warranty</b>                   | 2 Years including sensors   |

## Sensor Information

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

\* 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 (Lead-free) O<sub>2</sub> sensor has a longer life span than the galvanic version, but requires more battery power.

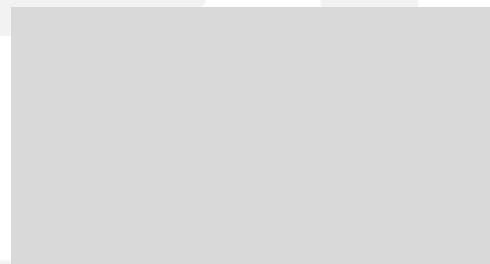
### Standard

- 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 \*