

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 (O₂), combustibles (LEL), carbon monoxide (CO) and hydrogen sulfide (H₂S). Alternative sensors are lead free oxygen (O₂), low power infrared methane (CH₄), sulfur dioxide (SO₂), 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 up to one week when 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 or 1 week 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

Size	4.33 x 2.36 x 1.10 in (110 x 60 x 28 mm)
Weight	8.0 oz (230 g)
Sensors	<ul style="list-style-type: none"> • Standard LEL (Pellistor), O₂, CO and H₂S • Alternatives CH₄ (NDIR*), O₂ LF (Pb-free†), SO₂ and HCN
Battery	Rechargeable Li-ion pack: ≥ 24 hours (Pellistor) or 1 week (NDIR) (2 months pending)
Direct Readout	<ul style="list-style-type: none"> • Real-time reading of gas concentration • Visual compliance indicator • Battery status • STEL, TWA, peak and minimum values
Display	Segment LCD, 1.75 x 1.25 in (44 x 32 mm) with LED backlight for enhanced readability
Keypad	2 Operation keys
Calibration	Manual calibration. MuniDock option allows automatic bump test and calibration
Alarms	<ul style="list-style-type: none"> • Audible (95 dB @ 30 cm) • Visual (tri-color LEDs) • Vibration
Datalogging	1000 Events (alarms, function tests and calibrations)
Charging and Communication	<ul style="list-style-type: none"> • Charging with AC adapter or cable to PC • PC comm for data download, monitor setup & firmware upgrades via cable, optional BLE (Bluetooth Low Energy), or MuniDock
Temperature	-4° to 122°F (-20° to 50°C)
Humidity	0% to 95% Relative humidity (non-condensing)
IP Rating	IP-68
Safety Certifications	 Ex da ia IIC T4 Ga  Class I, Div 1, Group ABCD (pending) T4, -20°C ≤ T _{amb} ≤ +50°C  II 1G Ex da ia IIC T4 Ga (pending)  European Conformity (pending)
EMC/RFI	EMC directive: 2014/30/EU
Warranty	2 Years including sensors

Sensor Information

Sensor	Resolution & Range	Response Time (t ₉₀)
Combustibles (Pellistor) (NDIR)*	1 - 100% LEL 1 - 100% LEL CH ₄	15 sec 30 sec
Oxygen (O₂) (Galvanic) (Lead-free)†	0.1 - 30.0% Vol 0.1 - 30.0% Vol	15 sec 15 sec
Hydrogen Sulfide (H₂S)	0.1 - 100 ppm	15 sec
Carbon Monoxide (CO)	1 - 1000 ppm	15 sec
Sulfur Dioxide (SO₂)	0.1 - 20.0 ppm	30 sec
Hydrogen Cyanide (HCN)	0.1 - 50.0 ppm	45 sec

* NDIR CH₄ 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.
 † Pb-free (Lead-free) O₂ sensor has a longer life span than the galvanic version, but requires more battery power.

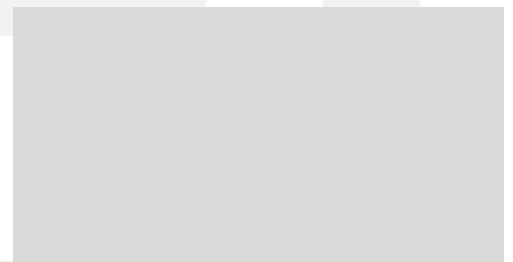
Standard

- 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 *