

# COMPACT DIFFUSION MULTI-GAS DETECTOR



## MUNI



### COMPACT & LIGHTWEIGHT 4-GAS MONITORS

The MUNI MP42X 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).

#### Features, Functions and Benefits

Compact, robust, lightweight & wearable

Auto backlit LCD with large numeric digits

Easy-to-navigate menu with two buttons

4 Fixed sensor configurations with 7 sensor options; non-interchangeability reduces monitor cost

Battery operation 18 hours with pellistor LEL sensor; up to 30 days with low-power infrared LEL methane 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

## MUNI MP42X Compact Diffusion Multi-Gas Detector

Alternative sensors are sulfur dioxide (SO<sub>2</sub>), low-power infrared methane (CH<sub>4</sub>) for LEL, and lead-free oxygen (O<sub>2</sub>-LF). 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 30 days 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.



CaliCase Docking Station

MuniDock

#### CONTACT US

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## Model Options

Model	Sensor Configuration	Part No.
MP424	LEL / O2 / CO / H2S	M020-0024-000
MP425	LEL / O2-LF / CO / H2S	M020-0025-000
MP427	NDIR-LEL / O2-LF / CO / H2S	M020-0027-000
MP428	NDIR-LEL / O2-LF / SO2 / H2S	M020-0028-000



## Sensor Specifications

Gas	Resolution & Range	Response Time (T90)
Combustibles (Pellistor) or (NDIR) †	1 - 100% LEL	15 sec
	1 - 100% LEL CH4	30 sec
Oxygen (O2) (Galvanic) or (Lead-Free)	0.1 - 30.0% VOL	15 sec
	0.1 - 30.0% VOL	15 sec
Hydrogen Sulfide (H2S) or Hydrogen Cyanide (HCN)	0.1 - 100 ppm	15 sec
	0.1 - 50.0 ppm	120 sec
Carbon Monoxide (CO) or Sulfur Dioxide (SO2)	1 - 1000 ppm	15 sec
	0.1 - 20.0 ppm	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. † 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 (LF, Lead-free) O2 sensor has a longer life span than the galvanic version, but requires more battery power.



### Standard

- MP42X 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

## Detector Specifications

Size	4.33 x 2.36 x 1.18 in (110 x 60 x 30 mm)	• Audible (95 dB @ 30 cm) • Visual (tri-color LEDs) • Vibration
Weight	8.0 oz (230 g)	
Sensors	• LEL (Pellistor), LEL CH4 (NDIR†), O2-LF‡, O2 (galvanic), CO, H2S and SO2 • Replaceable but not interchangeable	
Battery	Rechargeable Li-ion pack. Run time up to 18 hours with Pellistor LEL 30 days with NDIR LEL and O2 LF	1000 Events (alarms, function tests and calibrations)
Direct Readout	• Real-time reading of gas concentration • Visual compliance indicator • Battery status • STEL, TWA, peak and minimum values	• 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
Display	Segment LCD, 1.75 x 1.25 in (44 x 32 mm) with LED backlight for enhanced readability	Charge Time 4.5 hours to full charge with AC adapter
Keypad	2 Operation keys	Temperature -4° to 122°F (-20° to 50°C)
Calibration & Bump Test	Manual with calibration cup. MuniDock singlebay (MP420T) or CaliCase 4-bay (MP342) options allow automated bump test and calibration and printing certificates	EMI/RFI EMC directive: 2014/30/EU
		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 T4, -20°C ≤ Tamb ≤ +50°C II 1G Ex da ia IIC T4 Ga  IECEx ATEX II 1G European Conformity
		EMC/RFI EMC directive: 2014/30/EU
		Warranty 2 Years including sensors 3 Years with CH4(NDIR)/O2(Lead-free)/H2S/CO

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