

# M PLATOON

## Rapidly Deployable Wireless Multi-Gas Detection

The mPlatoon is a rapidly deployable (minutes) set of POLI multi-gas monitors that communicate wirelessly in real time to a central command station (mLink-P and computer) with full mapping and alarm software.

The mLink can communicate up to 3 km (2 miles) line-of-sight distance directly to multiple MP400HS monitors. It can also connect over that distance to an MP400H, which can host a sub-network of up to 7 MP400S monitors within 0.8 km (0.5 miles).

The central mLink modem receives gas readings and any alarm conditions and transmits them by wireless BLE to a local Windows PC or other device within 10 m (33 ft.). The mPower Suite platform can handle up to 32 remote monitors.

Each 4- or 5-gas monitor has options for a full range of sensors for toxic gases, oxygen (O<sub>2</sub>), combustibles (LEL) and carbon dioxide (CO<sub>2</sub>).

The monitors can be worn on the body or mounted magnetically onto any steel surface for rapid placement in situations like hazmat spills, refinery turnarounds or temporary venue protection.

The rechargeable batteries run for up to 2 days. Specific sensors include electrochemical (EC) for carbon monoxide (CO), hydrogen sulfide (H<sub>2</sub>S), ammonia (NH<sub>3</sub>), hydrogen cyanide (HCN), hydrogen chloride (HCl), chlorine (Cl<sub>2</sub>), nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), methyl mercaptan, and others. Also available are pellistor for LEL level combustibles, and

non-dispersive infrared (NDIR) for Vol% level CO<sub>2</sub> or hydro-carbons. Use of combination CO/H<sub>2</sub>S or SO<sub>2</sub>/H<sub>2</sub>S sensors allows up to 5 gas measurements in a single instrument. The POLI has rugged construction and easy-to-learn 2-button operation.

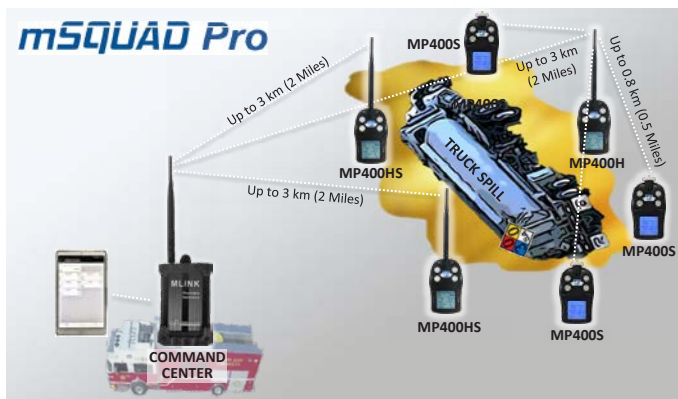
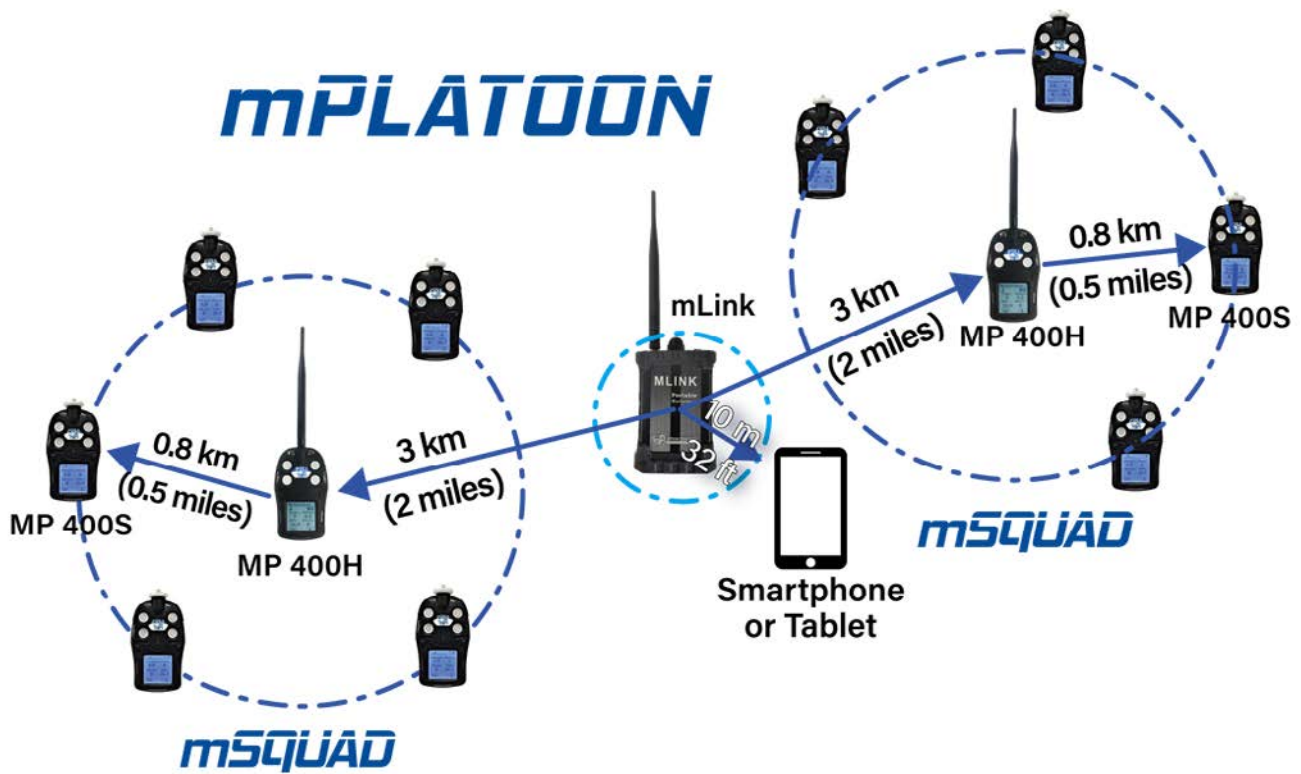
### APPLICATIONS

- HazMat & Emergency Response
- Tank Cleaning & Confined Space Entry
- Plant Turn-arounds
- Marine and Offshore Wells
- Public Venue Protection
- Fire Overhaul



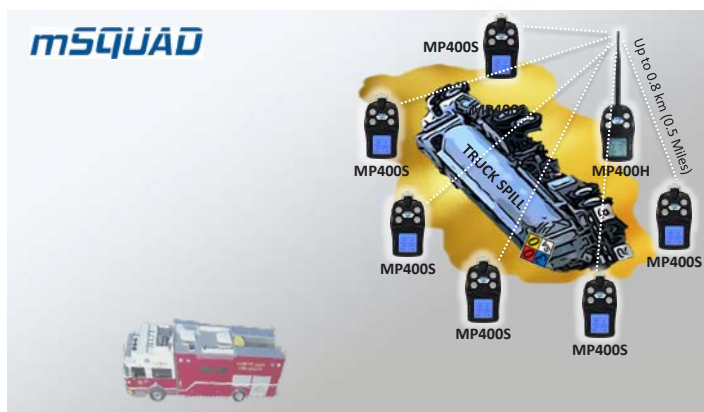
### KEY FEATURES

- Remote, mobile, wireless real-time readings and alarms including Man-down and Panic.
- Up to 32 remote 4- or 5-gas monitors for a one-time license fee, shown on map overview.
- Up to 3 km (2 miles) line-of-sight distance. Router allows communication around obstructions
- All POLI MP400H/S/HS units alarm if any one unit has an alarm condition.
- Up to 2-day operation on single Li-ion battery charge using new low-power sensors.



#### mSQUAD PRO

- All the functions of an mPlatoon except computer and map software
- Remote interface uses mobile device (Tablet or Smartphone)
- Mobile App included at no extra fee



#### mSQUAD

- Mobile, Local-area monitoring; local Alarm and Man-Down warnings
- MP400H communicates with up to 7 MP400S Monitors
- Firmware included at no extra fee

## MONITOR

Each mPower MP400H or MP400HS Multi-Gas Monitor communicates to the command station via 915 MHz radio. MP400S communicates via its host MP400H.

- Intrinsically safe (Class I, Division 1)
- Up to 5 gas measurements in each monitor
- Selection of 20+ gas sensors
- Programmable custom location identifiers
- Displays gas alarm notification, Man-Down alarm and Panic Alarm on monitors and mPower RT software.
- Magnetic mount option for quick deployment.
- Light-weight (1 lb) for easy portability or hand-held operation
- IP-67 rated weather resistance (IP-65 for MP400S)



## MPOWER MLINK-P PORTABLE GATEWAY

The mPower mLink-P is a radio transmitter with 915 MHz that enables the POLI MP400H to communicate wirelessly for a Real-Time gas detection communication with mPower RT Software.

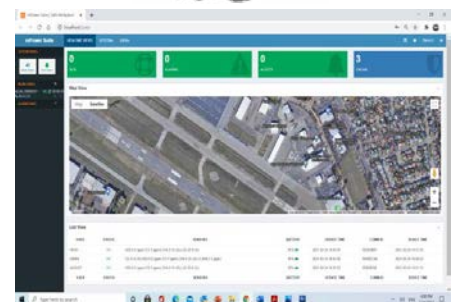
- mLink-P allows communications to the mPower Suite RT Software up to 3 km (2 Miles) line-of-sight
- Bluetooth communications up to 10 m (33 feet) to Windows computer w/mPower Suite RT software
- Rechargeable battery for operations of up to 18 hours. Main power by 100-240V micro USB Adapter for continuous operation.
- Size 5 x 3.6 x 1.9 in. (13 x 9 x 6 cm) w/2.5 dBi Antenna
- Optional: 10 feet extender Antenna cable w/5 dBi Antenna for longer range
- IP-54 rated weather resistance.



## MPOWER SUITE RT (REAL-TIME) SOFTWARE

The mPower Suite RT Software with mLink-P transmitter receives real time sensor and alarm readings from the POLI MP400H or MP400HS multi-gas detectors. As a result, Emergency responders, commanders or safety managers can quickly respond to any real-time threat of gas alarms or incapacitated workers.

- mPower Suite RT Software operates on Windows 7 & 10.
- Can be used with a Ruggedized Military-spec laptop
- Map display gives overview of monitor locations
- Displays Real-Time gas concentrations and alarm notifications for up to 32 detectors
- Displays battery status, and alarms for Man-down, Panic, and Calibration status
- One-time software license fee saves cost for large systems or when expanding





## SENSOR OPTIONS

Sensor		Range	Resolution
PID		0-2000 ppm	0.1 ppm
Oxygen (O <sub>2</sub> )	Lead Wool	0-30%Vol	0.1%Vol
	Lead-Free	0-30%Vol	0.1%Vol
Combustibles (LEL%) High Resolution version		0-100%LEL	1%LEL
		0-100%LEL	0.1%LEL
NDIR Methane (Vol%) Dual-Range version		0-100%Vol	1%Vol
		0-100%Vol	1%LEL
CO <sub>2</sub> (Carbon Dioxide)		0-50000 ppm	100 ppm
CO (Carbon Monoxide)		0-1000 ppm	1 ppm
H <sub>2</sub> S (Hydrogen Sulfide)		0-100 ppm	0.1 ppm
		0-1000 ppm	1 ppm
CO + H <sub>2</sub> S	CO	0-500 ppm	1 ppm
	H <sub>2</sub> S	0-200 ppm	0.1 ppm
SO <sub>2</sub> + H <sub>2</sub> S	SO <sub>2</sub>	0-20 ppm	0.1 ppm
	H <sub>2</sub> S	0-100 ppm	0.1 ppm
NH <sub>3</sub> (Ammonia)		0-100 ppm	1 ppm
		0-500 ppm	1 ppm

Cl <sub>2</sub> (Chlorine)	0-50 ppm	0.1 ppm
COCl <sub>2</sub> (Phosgene)	0-1 ppm	0.01 ppm
H <sub>2</sub> (Hydrogen)	0-1000 ppm	1 ppm
HCl (Hydrogen Chloride)	0-15 ppm	0.1 ppm
HCN (Hydrogen Cyanide)	0-100 ppm	0.1 ppm
NO (Nitric Oxide)	0-250 ppm	1 ppm
NO <sub>2</sub> (Nitrogen Dioxide)	0-20 ppm	0.1 ppm
PH <sub>3</sub> (Phosphine)	0-20 ppm	0.01 ppm
	0-1000 ppm	1 ppm
SO <sub>2</sub> (Sulfur Dioxide)	0-20 ppm	0.1 ppm
	0-100 ppm	0.1 ppm
ETO (Ethylene Oxide)	0-100 ppm	0.1 ppm
CH <sub>3</sub> SH (Methyl Mercaptan)	0-10 ppm	0.1 ppm
THT (Tetrahydrothiophene)	0-40 ppm	0.1 ppm





## M PLATOON

**SPECIFICATIONS** Specifications subject to change without notice**MLINK-P & PLATFORM**

<b>Size</b>	5.0 x 3.6 x 1.9 in. (13 x 9.1 x 5.7 cm) w/o/Antenna 12 x 3.6 x 1.9 in. (30 x 9.1 x 5.7 cm) w/Antenna
<b>Weight</b>	16 oz (450 g)
<b>IP &amp; Temp.</b>	IP54; -4° to 131°F (-20° to 55°C)
<b>Power Supply</b>	Rechargeable Li-ion battery; ≥24 hrs run time
<b>Frequency</b>	ISM band (902-928 MHz) FCC Part 15 approved
<b>Range</b>	Up to 3 km (2 miles) line-of-sight
<b>RF</b>	2.5 dBi Antenna
<b>No. of Devices</b>	Up to 32 Wireless POLI units
<b>Certifications</b>	Wireless: FCC Part 15; Safety: Non-haz. loc. only

**MP400H/S/HS**

<b>Size</b>	5.7 x 3.3 x 1.7 in (140 x 84 x 42 mm) w/o Antenna
<b>Weight</b>	15.5 oz (435 g)
<b>Sampling</b>	Diffusion (MP400H & MP400HS); Pump (MP400S)
<b>Battery</b>	Rechargeable Li-ion pack, typical run time: 1 Day – Using NDIR LEL sensor 2 Days – Using EC sensors only
<b>Direct Readout</b>	Real-time gas concentrations; Battery status STEL, TWA, peak and minimum values
<b>Display</b>	128 x 128 graphical LCD, 1.77 x 1.73 in (45 x 44 mm), with LED backlight for enhanced readability.
<b>Calibration</b>	Manual calibration. MonoDock option allows auto-mated calibration on individual POLI units
<b>Frequency</b>	ISM License-free band (902-928 MHz)
<b>RF</b>	2.5 dBi Antenna; 20 dBm Peak power
<b>Wireless Comm</b>	Poll gas concentration readings from Software on Android phone or tablet via mLink-P
<b>Alarms</b>	Push Notification via mLink-P, plus local audible (95 dB @ 30 cm) and visual (flashing LEDs) alarms

<b>Direct Comm and Charging</b>	USB cable for charging, download, configuration and upgrades on PC or 100-240V AC charger.
<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-67 (IP-65 for MP400S)
<b>Safety Certifications</b>	 Class I, Div 1, Group ABCD T4, -20°C ≤ Tamb ≤ +50°C  Ex ia IIC T4 Ga  II 1G Ex ia IIC T4 Ga  European Conformity
<b>EMC/RFI</b>	EMC directive: 2014/30/EU
<b>Warranty</b>	2 Years on instruments; 1 year on exotic sensors 2 Years on sensors for pellistor LEL, and O2, CO, H2S, SO2, HCN, NO, NO2, and PH3 EC sensors



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