



**Flexible, comprehensive
monitoring backed up by
high performance functionality**



Flexible solution that adapts to meet needs

- 5 sensor slots offering up to 6 channels of detection
- 18 sensor choices
- Detection of flammable, toxic and Oxygen gas hazards and also VOCs
- Device can be configured for almost any application use
- Optional external pump

Suited to many application uses

- 18 sensor choices including catalytic bead, ECC, IR and PID
- 14 toxic gas sensors
- IR CO₂ sensor option is ideal for breweries and wineries
- PID sensor option for the detection of hundreds of VOCs
- IR CH₄ sensor option provides poison-proof technology for use in situations where a catalytic bead sensor cannot be used

Tough Durable Housing

- Small, lightweight design
- Robust, shock-resistant housing
- Ultra Clear Backlit Display
- Fully illuminated backlit LCD
- Easy to read with clear data display
- Continuous, real-time gas readings
- Peak, STEL and TWA readings

Easy to use

- Easy read icons show device status clearly
- Heartbeat icon pulses when in use, providing confidence to the user that the device is online and working correctly
- Intuitive menu system with easy configuration set up

Effective Gas Alarm Indication

- Highly visible bright LED visual alarms (red and yellow)
- Distinctive loud two-tone audible alarm
- Vibration alarm that demands attention in high noise environments

Designed for tough environments

- IP65 rating
- Alarms that demand attention in all hazard locations

Cost-effective Solution

- One unit can be used in many different applications
- Long life, interchangeable Li-Ion and Alkaline battery packs deliver up to 22 hour run times meaning that fewer devices are potentially required on site
- Built-in IrDA Port for easy data download to a PC
- When used with the optional IQ6™ Dock, the ongoing cost of portable maintenance can be reduced by up to 60%

Added value extras supplied with each PHD6™ device

- Belt clip
- Calibration adapter
- Hand aspirated sample draw kit with 10 inch tubing
- Sample probe
- Replacement filters
- Reference manual
- Laminated quick reference card
- Training CD ROM

When it comes to flexible, comprehensive monitoring backed up by high performance functionality, the PHD6™ multigas portable is the ideal solution for environments where workers are exposed to a range of gas hazards, or where different detection principles need to be employed.

With PHD6™, no hazard goes undetected. Complete with five sensor slots that offer up to six channels of detection in total, PHD6™ adapts easily to meet changing application needs. The device provides comprehensive sensor types, allowing sites to implement the most suitable principle of detection required with catalytic bead, electrochemical cell, PID and IR sensors available.

With 18 sensor options, PHD6™ can monitor a wide range of flammable, toxic and Oxygen gas hazards as well as PID for the detection of Volatile Organic Compounds (VOCs). The device also offers extended performance, with up to 22 hours battery life.



General Specification



Housing	
Material	Polycarbonate with tough rubber overmold
Weight (Alkaline)	1.1 lbs/17.6 oz/499 g (5 sensors)
Weight (Alkaline) + pump	1.4 lbs/22.4 oz/635 g (5 sensors)
Weight (Lithium-Ion)	1.0 lbs/16 oz/454 g (5 sensors)
Weight (Lithium-Ion) + pump	1.3 lbs/20.8 oz/590 g (5 sensors)
Dimensions w/o std belt clip	6.63 x 3.13 x 2 in./16.83 x 7.94 x 5.08 cm
Dimensions with std belt clip	6.63 x 3.13 x 2.5 in./16.83 x 7.94 x 6.35 cm
Dimensions w/o std belt clip, with pump	8.5 x 3.13 x 2.38 in./21.59 x 7.94 x 6.03 cm
Dimensions with std belt clip and pump	8.5 x 3.13 x 2.63 in./21.59 x 7.94 x 6.66 cm
Power	
Type	Rechargeable Lithium Ion or Alkaline (3 x AA size) battery pack options
Environmental ratings	
Dust and water resistance rating	IP65
Drop testing	Dropped 100+ times from 1 meter to concrete floor
RF immunity	Conforms to EN 50270
RF emissions	Conforms to IEC 61000-6-4
ESD immunity	Conforms to IEC 61000-4-2
Certifications (All certifications include pump, charger and IQ docks (with approved chgr bds))	
	SGS/USTC Class I, Division 1, Groups A,B,C,D Temp Code T3C SGS/USTC Class II, Division 1, Groups E,F,G, Class III CSA Class I, Division 1, Groups A,B,C,D Temp Code T3C (CSA approval does not include IR sensor) ATEX (EPS) Ex ia d IIC 170C (T3) IECEx Ex ia d IIC 170C (T3) CE Mark
Capabilities	
Controls	3 buttons
Sensor Channels	Maximum of 6
Gas types	
Available sensors	O ₂ , LEL, PID, Duo-Tox, CO, H ₂ S, CO-H, SO ₂ , Cl ₂ , NO, NO ₂ , NH ₃ , PH ₃ , HCN, IR-CO ₂ , IR-CH ₄
User adjustable alarms	Oxygen: Danger Low/Danger High; Combustible: Warning/Danger; PID and Toxic: TWA/STEL/Warning/Danger
Calibration	Fresh air and gas calibration with one button
Calibration dates	Most recent for full instrument calibration and for each sensor
Motorised pump	Optional external pump, standard length 10 ft. (3 m), maximum length 100 ft. (30 m)
Security beep	User adjustable interval from 5 seconds to 60 minutes
Latching peak alarms	User enabled
Datalogging	Blackbox datalogger that can be upgraded to a full datalogger at any time. Activation code and BioTrak PC software required. Full datalogger has user adjustable interval from 1 second to 60 minutes.
Datalogging capacity	See table
Computer interface	IrDA
Event logger	20 events including max, min, and average for all sensors, time and duration
Alarms	
Visual	Bright red LED alarm visible from top and sides
Audible	Dual Piezoelectric audible alarm, 92 dbA @ 1 foot (30.5 cm) PhD6 Alarm Loudness Test
Vibrating	Optional

General Specification



Sensors

	O ₂	LEL	IR CH ₄ (%)	IR CO ₂ (%)	PID (PPM)	CO	H ₂ S	Duo-Tox CO	Duo-Tox H ₂ S
Ranges	0-30 % by vol.	0-99 %	0-5.00%	0-5.00%	0-2000 ppm	0-999 ppm	0-200 ppm	0-999 ppm	0-200 ppm
Resolution	0.1%	1% LEL	0.05% CH ₄	0.01%	0.1 ppm	1 ppm	1 ppm	1 ppm	1 ppm
Warning low alarm	19.5%*	10%	0.5	0.5	50	35	10	35	10
Danger high alarm	23.5%	20%	1.0	3.0	100	100	20	100	20
STEL alarm	N/A	N/A	N/A	N/A	25	100	15	100	15
TWA alarm	N/A	N/A	N/A	N/A	10	35	10	35	10
T₉₀	<15 sec	<20 sec (methane)	<30 sec	<30 sec	<10 sec (isobut)	<20 sec	<20 sec	<20 sec	<20 sec

	CO-H	SO ₂	Cl ₂	NO ₂	NO	NH ₃	PH ₃	HCN
Ranges	0-999	0-25	0-50	0-100	0-250	0-100	0-20	0-100
Resolution	1 ppm	0.1 ppm	0.1 ppm	0.1 ppm	1 ppm	1 ppm	0.1 ppm	0.2 ppm
Warning low alarm	35	2	0.3	0.5	12.5	12.5	0.3	2.4
Danger high alarm	100	5	0.5	1	25	25	1	4.7
STEL alarm	100	5	1	1	25	35	1	4.7
TWA alarm	35	2	0.5	1	25	25	0.3	4.7
T₉₀	<20 sec							

*Danger Low Alarm for O₂

Battery life

Alkaline @ 70°F/22°C	17 hrs.
Li-ion @ 70°F/22°C	22 hrs.
Alkaline (with PID & LEL) @ 70°F/22°C	13 hrs.
Li-ion (with PID & LEL) @ 70°F/22°C	15½ hrs.
Pump added to above	subtract 4 to 6 hrs.
Charger (all models) @ 68°F (20°C)	5 hrs max.

Shelf life

Alkaline	60 days
Li-ion	60 days

Datalogger capacity

Maximum Sessions = 60
 1 sensor = 15,296 datapoints = 254 hr 56 min @ 1 Minute intervals
 2 sensors = 7,648 datapoints = 127 hr 28 min @ 1 Minute intervals
 3 sensors = 7,648 datapoints = 127 hr 28 min @ 1 Minute intervals
 4 to 6 sensors = 3,824 datapoints = 63 hr 44min @ 1 Minute intervals

Instrument

Pump tubing length	100 feet (30.5 meters) PhD6 Extended-length Tubing Test
Display	Front mounted graphic LCD, 1.4 in. x 1.4 in., simultaneously displays readings for all gases being monitored
Display backlight	Bright white LED backlight. User adjustable to be always on, on in dark environment, or activated by Mode button for an interval adjustable from 5 seconds to 60 minutes.
Temperature range	Operating: 0 to 110°F/-18 to 43°C, Intermittent: -20 to 120°F/-29 to 49°C
Temperature range (certification)	-20 to +50°C
Humidity range	15 - 95% RH, non-condensing (0-95% <= 4 hours)
Pump flow rate	1 LPM nominal

PHD6



Total hazard protection

Highly visible bright red and yellow LEDs effectively warn users of dangerous conditions, whilst the PHD6's optional vibration alarm ensures workers are alerted to dangers even in high noise environments. The device is also optimised for use in the toughest locations with durable, robust housing and an IP65 rating.

Providing real-time Peak, STEL and TWA readings on a clear backlit LCD display, PHD6™ includes a blackbox recorder feature that allows the device to automatically datalog atmospheric conditions, whilst in operation.

When used with the IQ6™ docking station, the ongoing calibration and bump testing of PHD6™ can be reduced by up to 60%. The IQ6™ docking station is able to deliver fully automated bump test, calibration, meter diagnostics and data download, providing considerable savings over product life and reducing the time spent carrying out ongoing maintenance activities.



Accessories

IQ6 docking station

Managing your portable fleet has never been easier with the IQ6 docking station. IQ6 is designed for use with PHD6, offers a range of automated tasks, helping to reduce ongoing device maintenance costs and dramatically improve compliance record-keeping and reporting activities

- Automatically identifies the device, upon being docked
- Performs a full battery test of the device
- Performs an audible alarm test
- Performs a visual alarm test
- Performs a vibration alarm test
- Performs a full device bump test (using up to four cylinders of gas)
- Performs a fresh air calibration (when the device fails a bump test, this aspect is automatically initiated)
- Automatically downloads all device data to a PC

Reducing maintenance time and costs with IQ6

IQ6 can help to save notable time and money regarding ongoing portable device use and maintenance:

- Automatic test and calibration in under two minutes (compared with 5 minutes manually)
- Efficient use of test gas, helping to reduce test gas used for testing and calibration
- Automatic downloading of data helps to reduce fleet management activities, assisting with legal compliance
- When used with IQ Management software, automatic reports and trending can be produced, helping to reduce fleet management activities

Optional Accessories

- Rechargeable battery upgrades



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.