



**Gas & Flame
Detection**

3M™ Protégé ZM
Single gas monitor



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Keeping Your Workforce Safe Just Got Easier.



The Protege ZM Single Gas Monitor is an easy-to-use, zero-maintenance gas detection solution that delivers high performance in a small, ergonomically designed package. It is available in oxygen, carbon monoxide and hydrogen sulfide single gas models. This single gas monitor is incredibly reliable, giving industrial workers and first responders the confidence to focus on the task at hand, not on their equipment.

Two years of service, hassle free.

With one-button activation, adjustable alarm settings and an easy-to-read display the Protégé ZM is simple to use. Just turn it on for the first time, and the monitor does the rest. Using the default settings from the factory there is no need to set up or program the monitor. Once activated, the Protégé ZM monitor does not require charging or calibration so these monitors can be deployed in the field 24 hours a day, every day for two years, maintenance and hassle free. The H₂S and CO models include a hibernate feature which allows you to extend your battery life up to one additional year.

Big Performance in a Small Package.

Because of its small size and strong, stainless steel alligator clip, the Protégé ZM can be conveniently placed where you want it. The monitor is small, lightweight (less than 3 oz.), ergonomically designed and meets IP67 requirements for ingress protection. The unique Protégé ZM profile fits your hand nicely, making the monitor comfortable to hold. It's so lightweight and small you will forget you're wearing it while it protects you.

Easy to use, efficient, portable accessories.

the Protégé ZM monitor is supported by a portfolio of accessories including a four-bay test station and IR Connect programmer. The test station stores data, programs the monitors and supports bumping, calibrating, hibernating and programming of up to four monitors simultaneously, and is available in both portable and table-top versions. The test station's simple two-button operation and intuitive design means you'll be up and running in no time. The Protégé ZM test station is also available in a compact table-top version. A convenient gas inlet on the side panel allows any size calibration bottle to be used.

The IR Connect allows programming and hibernating of individual monitors. You can also use the IR Connect to calibrate your monitor and download event logs.

3MTM Protégé ZM

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Customizable settings

- Use hibernate mode on the CO and H₂S models for up to one year additional operating life
- Custom or factory-programmed alarm set points
- User configurable bump and calibration reminders
- Multiple LCD display options including real-time gas readings, monitor life remaining or both
- Three point alarms (audible, visual and tactile)
- Data-logging capabilities
- Name or assign monitors using a six-character user ID

Accessories



PROTÉGÉ ZM
TEST STATION

Required computer and operating system

- PCs running the Microsoft Windows operating system and Microsoft .NET framework, using Microsoft Windows® XP, Microsoft Windows® Vista and Microsoft Windows® 7 programs



STATIONARY
TEST STATION



PROTÉGÉ ZM CONFIGURATION
SOFTWARE



IR CONNECT
MODULE

3M™ Protégé ZM

Single gas monitor

Specifications and ordering information

Part number	Product
Protégé zm gas monitors	
096-3459-01	Protégé ZM Single Gas CO Monitor (High Vis Red)
096-3459-02	Protégé ZM Single Gas H ₂ S Monitor (High Vis Red)
096-3459-03	Protégé ZM Single Gas O ₂ Monitor (High Vis Red)
Protégé zm gas test stations	
096-3467-01	Portable test station
096-3467-02	Protégé ZM stationary test station
Protégé zm accessories	
093-0588	Protégé IR Connect with usb cable
093-0589	Protégé IR Connect spare usb cable
073-0355	Protégé ZM alligator clip
074-0564	Protégé ZM calibration cup
077-0272	H ₂ S single gas cylinder
077-0246	CO single gas cylinder
077-0039	O ₂ single gas cylinder
077-0018	Regulator 2al/al/6d 0.5Lpm
096-3167	10-Ft. Clear tubing
096-3499	10-Ft. Polyethylene tubing
Monitor specifications	
Physical characteristics	
Size	3.7" H x 2.2" W x 1.3" D
Weight	2.7 Oz
Operation	One-hand operation
Carrying attachments	Stainless steel alligator clip
Case material	Impact-absorbant rubber overmold
Environmental protection	IP 66/67 (third-party certified)
User interface	
Display info	Time remaining (default) or gas reading (optional) or both (optional), gas type, functional test validation, bump test due indicator, battery level
Monitoring	
Sensor types	CO, H ₂ S, O ₂
Hibernation mode supported	CO, H ₂ S
Sensor ranges	CO: 1-300 ppm, H ₂ S: 1-100 ppm, O ₂ : 1.0-30.0% Volume
Power	
Power source	Lithium ion battery
Battery life indication	Yes
Battery life	2 Years, hibernate mode extends life up to one additional year on CO and H ₂ S models
Alarms	
Visual alarm	Yes - red led
Audible alarm	Yes - 95db
Vibrating alarm	Yes
Alarm set points	Pre-programmed default settings; customized factory settings available; configure use settings via software and the IR Connect or test station accessories
Data storage	
Data logging	Logs last 25 events
Data retention	Yes - backup to PC
Data transmission	Infrared
Certifications	
EMC compliance	CE marked; EMC\EMI\RFI compliant
Explosive atmospheres	ETL/CETL certification to UL 913 7th, CSA c22.2 No. 157 For use in Class I Division 1 & 2, Groups A, B, C and D Hazardous areas; IECEx Ex ia IIC T4 GA; Atex Directive (94/9/EC) Atex II 1 G Ex ia IIC T4 GA
Approvals	CE mark includes both Atex & EMC testing
Approved temperature ranges	-30°C to 50°C (CO) -40°C to 50°C (H ₂ S) -50°C to 50°C (O ₂)
Environment	
Humidity	5 - 95% RH non-condensing

Approvals:

UL: Class 1, Div 1 Groups A, B, C, D T4, CSA: Class 1, Div 1 Groups A, B, C, D T4,
ATEX: Ex d ia IIC T4, IECEx: (pending), INMETRO: BR-Ex d ia IIC T4, -20°C ≤ Tamb ≤ +50°C
IP 67 Rated: 3rd-party tested for compliance, EMC: EMC Directive (2004/108/EC) CE Mark



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