ENMET Model TARGET, T-5 (CO, H_2S, O_2, BRH, CH_4)

The instrument is a portable personal gas detector that enhances worker safety by providing alarms when dangerous atmospheric conditions are encountered within confined spaces. It has the following features and characteristics:

The intrinsically safe personal gas detector provided shall utilize five individual sensors that simultaneously and continuously monitor for combustible gas, oxygen, hydrogen sulfide, carbon monoxide and broad range hydrocarbons. The instrument shall have both audio and visual alarms as well as a LCD display of sensor readings. The instrument shall provide exposure information, downloading capability, be totally rechargeable, and have a low battery condition alarm as described by the following specification:

1. The instrument shall have independent sensors to monitor for each toxic gas, combustible gases, and oxygen deficiency and enrichment.
2. The instrument shall have a backlit-on-demand 4 line, 20 character LCD that displays all sensor readings, simultaneously.
3. The display shall also be capable of showing the user name or location in conjunction with sensor readings.
4. There shall be at least two instantaneous alarm levels for each sensor installed. Audio alarms (rated at least at 85 dB at 2 feet) and visual alarms shall activate under any of the following conditions:

Gas	Instantaneous Alarms	TWA	STEL
Oxygen (deficiency)	19.5%, 16 % by volume	n/a	n/a
Oxygen (enrichment)	23.5%, 26% by volume	n/a	n/a
Combustible	10 %LEL, 50 %LEL	n/a	n/a
Carbon Monoxide	35 ppm, 200 ppm	35 ppm	150 ppm
Hydrogen Sulfide	10 ppm, 20 ppm	10 ppm	15 ppm
BRH	100 ppm, 150 ppm	n/a	n/a

   A. The battery has discharged to the Low Battery condition.
   B. If any sensor is removed or fails in a predictable manner.
5. The combustible sensor shall be a catalytic element that is capable of being replaced in the field.
6. The instrument shall have the capability to change the combustible display to any one of its 10 preprogrammed combustible gases or vapor responses without recalibrating the device.
7. The carbon monoxide sensor shall be filtered to reduce sensitivity to hydrogen sulfide.
8. The instrument shall have an auto-zero feature to set the gas displays to zero and the oxygen display to 20.9% for fresh air set-up.
9. The instrument shall be capable of being field calibrated without the use of potentiometers or adjustment screws.
10. The instrument shall be capable of calibrating the O2, LEL, CO and H2S sensors simultaneously or individually.
11. The sensors shall be capable of operating in 20-99% RH, non-condensing and -15 to +50 °C (+5 to +122 °F).
12. The instrument shall be provided with a totally rechargeable nickel metal hydride battery pack.
13. The instrument shall be able to be powered from an "AA" alkaline battery pack.
14. The instrument shall have a confidence "chirp" at a two minute interval during use in a safe atmosphere, and can be user-programmed to other intervals.
15. The instrument shall be portable, with dimensions no larger than 115x150x45 mm (4.5x6x1.7"), and weigh no more than 900 grams (32 ounces).
16. The instrument shall be housed in a durable painted aluminum enclosure.
17. The instrument shall incorporate special RFI suppression circuitry and design techniques to minimize or eliminate interference from handheld two-way radios.
18. Maintenance functions shall be password protected.
19. The instrument shall have at least two operational and two maintenance menu options available to accommodate varying levels of user expertise.
20. The instrument shall perform datalogging and data intervals shall be adjustable.
21. The instrument shall have the capability to program location and/or user stamps for datalogged information.
22. The instrument shall be supplied with a battery charger, calibration/sample cover and instruction manual.
23. The instrument shall provide a “calibration due” reminder at least once every 90 days.
24. The instrument shall be intrinsically safe for Class 1, Division 1, Group A, B, C, D atmospheres.
25. The instrument shall be capable of connecting to a remote display device.
26. The instrument shall have the following accessories or options available:

    Calibration Kit
    Computer Cable
    Hand Aspirator with hose or wand
    Internal Motorized Sample Pump with 20' hose
    Housing for alkaline battery pack
    12 VDC charging adapter