Battery Storage  
Hydrogen Gas  
Leak Detection

Hydrogen Gas Detection System

PART 1 – GENERAL

1. RELATED DOCUMENTS
   1. Drawings and general provisions of the Contract, including General and Supplementary General Conditions and other Division 01 Specification Sections, apply to this Section

PART 2 – PRODUCTS

* 1. Gas Detection System (S&S Middle East HGD100)
     1. A wall-mountable hydrogen gas detector capable of monitoring hydrogen gas concentrations in battery storage facilities.
     2. System shall have outputs for integration with building management systems (BAS) using Bacnet MS/TP or Modbus RTU communication protocols.
     3. System shall have internal volt free relays, 0-10V and 4-20mA to activate ventilation equipment and warning alarms upon reaching alarm thresholds.
     4. Wall-mounted at a height recommended by the manufacturer.
     5. Alarm thresholds shall be 1% Warning (Pre-Alarm) 2% Alarm.
     6. System shall include a 10 years life span with end of life indication.
     7. System shall include a replaceable sensor module for extended product life.
     8. System shall include a 4-second alarm delay to prevent false alarms caused by transient hydrogen levels.
     9. System shall have the option for 230V, 24VAC or 18-60VDC powered.
     10. System shall have an operating temperature range: -10°C to 40°C (14°F to 104°F).
     11. Acceptable products: S&S Middle East HGD100

PART 3 – EXECUTION

* 1. INSTALLATION
     1. Sensors must be installed in compliance with the manufacturer's guidelines.
     2. Install wiring and conduit to prevent interference with other systems.
     3. Ensure accessibility for future sensor maintenance and calibration.