



FM Approvals  
1151 Boston Providence Turnpike  
P.O. Box 9102 Norwood, MA 02062 USA  
T: 781 762 4300 F: 781-762-9375 www.fmapprovals.com

# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

### COMBUSTIBLE GAS DETECTORS, Fixed

Stationary Single Channel 4-20mA Combustible Gas Detector. Stand Alone Sensor/Transmitter model SGOES. SGOES are Explosionproof for installation in Class I, Division 1, Groups B, C and D, T4 Ta = -40°C to +75°C Hazardous (Classified) Locations with an IP66 rating. SGOES monitors 0-100% LEL of either methane or propane. The SGOES provides an a 4-20mA output, RS-485 ModBus RTU digital output, 2 relays ("dry contacts") triggered upon exceeding software programmed levels, and a relay contact ("dry contact") which is triggered during a fault condition. The operating voltage range is 18-32 Vdc, with a maximum power consumption of 4.5W. This Approval covers use of the instruments when connected to FM Approvals stand alone combustible gas control unit and when calibration is performed using the gas to be monitored and when the higher of the alarm points is preset within 10% LEL of the calibration gas concentration.

Stationary one to sixteen Channel Control Unit for Combustible Gas Detector. Stand alone controller model UPES monitors FM Approved Combustible Gas Detectors which monitor 0-100% LEL gas-in-air atmospheres. Suitable for installation in ordinary (unclassified) locations. The unit contains a 2 line, 16 character display and 4 control pushbuttons. Each channel provides 2 channel status LEDs and 3 alarm status LEDs. UPES controllers' operating temperature range is -10°C to 45°C and operating voltage of 95-125VAC at 300W. Relay contacts ratings are 2A total at 110Vac. The apparatus complies with ANSI/ISA-12.13.01-2000 Performance Requirements for Combustible Gas Detectors. This Approval covers use of the instruments when connected to FM Approvals stand alone combustible gas Sensor/Transmitters and when calibration is performed using the gas to be monitored and when the higher of the alarm points is preset within 10% LEL of the calibration gas concentration.

Stationary Combustible gas detection System. The SGAES-TG Combustible gas detection System consists of an UPES Control Unit with up to 16 SGOES Gas Detectors. The Control Unit communicates to the Gas Detectors via a 4-20mA loop. The control unit provides a 4-20mA signal proportional to the gas detectors measuring range of gas of interest, High and Low Alarm indications and Trouble signals. The Detectors may be remotely connected up to 3600 ft away from the Control Unit. This Approval covers use of the system when calibration is performed using the gas to be monitored and when the higher of the alarm points is preset within 10% LEL of the calibration gas concentration. The operating voltage range is 18-32 Vdc, with a maximum power consumption of 4.5W for each SGOES Combustible Gas Detector. The UPES has an operating voltage of 95-125VAC at 300W.

FM Approved for:

Electronstandart-pribor  
35/2, Slavy Ave  
St. Petersburg, 192286, Russian Federation

This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

FM3600	1998
FM3810	2005
ANSI/ISA-12.13.01	2000
FM6310/FM6320	2001
FM3615	2006

Original Project ID: 3029728

Approval Granted: 30 January 2008

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
---------------	------	---------------	------

FM Approvals LLC

  
James E. Marquedant  
Electrical Group Manager

30 January 2008  
Date