

HPGP-101-C[®]

High Pressure Gas Probe

The Particle Measuring Systems High Pressure Gas Probe System, HPGP-101-C, monitors contaminants in process gases at line pressure. This system includes the sensor probe along with a PDS-PA data system, which collects and reports data.



BENEFITS

Reduced Costs

- Speed qualification of process gas distribution systems
- Detect particles in gases before they impact yield
- Compatible with oxygen, hydrogen, and most non-toxic gases

Improved Process Control

- Verify specifications
- Detect process upsets
- Quantify impact of system changes
- Accurate particle sizing
- Facility Net data management for comprehensive data storage, management, reports, and alarms

Reliable

- Passive cavity design requires infrequent maintenance
- Unlike other systems, the HPGP requires no fluids for monitoring
- Inert gas purge ensures safety
- Leakage of sample gas to vessel discontinues power to electronics

FEATURES

- 0.1 micronsensitivity at 0.1 SCFM
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- Eight particle channels
- Line pressures from 40 to 150 psig
- Passive laser cavity
- Parallel processing array detector system
- Safety containment vessel
- Simultaneous dual probe operations
- Oxygen and hydrogen compatibility Eight particle channels

APPLICATIONS

- Qualification of gas distribution systems
- Process gas monitoring
- Reactive gas monitoring

Without measurement, there is no control.

Specifications

HPGP-101-C

Size range:	0.1 - 5.0 microns
Flow rate:	0.1 SCFM (2.8 LPM)
Sample volume:	0.1 SCFM (2.8 LPM)
Counting efficiency*:	>50% at 0.14 microns
Zero count level:	<2/ft ³ or <0.2/minute
Maximum concentration**:	3000/ft ³
Optical design:	Passive cavity with parallel processing array detector
Optical system:	Wide angle 90° scattering collecting optics with greater than 2π steradians solid angle
Laser type:	HeNe
Data system:	PDS-PA
Sizing thresholds:	8 channels with thresholds at: 0.1, 0.2, 0.3, 0.5, 1.0, 2.0, 3.0, 5.0 microns
Calibration:	Calibration materials used are traceable to the USA National Institute for Standards and Technology (NIST).
Power:	100, 115, 220 or 240 volts; 50 - 60 Hz, 3 amps
Environment:	Temperature: 32° - 104°F (0 - 40°C). Humidity: noncondensing. Altitude: 0 to 20,000 ft. (6,098 m)
Dimensions (l, w, h):	26 x 8 x 9 in (65 x 20 x 22 cm)
Weight:	45 lbs. (20.4 kg)

PDS - PA Data System

Number of sensors:	2
Sampling interval:	1 second to 99:59:59 (hh:mm:ss); programmable or manual
Sampling mode:	Single, continuous, or manual
Delay time:	5 seconds to 99:59:59 (hh:mm:ss); programmable
Data management and analysis:	Facility Net
Computer interface:	RS-232C, bi-directional
Power:	100 VAC, 50/60 Hz 2A; 115 VAC, 50/60 Hz 2A; 208-240 VAC, 50/60 Hz 1A
Environment:	Temperature: 32°F- 104°F (0°C - 40°C). Humidity: noncondensing. Altitude: 0 to 20,000 ft. (6,098 m)
Dimensions (l, w, h):	21 x 15 x 7 in (53 x 38 x 18 cm)
Weight:	27 lbs. (12 kg)

* Allow ±5% for variations in sample flow.

** Greater than 90% accuracy (less than 10% coincidence loss) at maximum recommendation ambient concentration.

Patents apply: U. S. - 4,798,465, 4,893,928, and 4,594,715. Japan- 2,786,187, and 2,554,614.

Germany- 3,712,665C2, 3,930,642, and 3,485,749.4. Canada- 1,228,148. UK- EP142815.

Particle Measuring Systems, Inc. reserves the right to change specifications without notice.

AUTHORIZED REPRESENTATIVE



Registration applies to the Boulder, Colorado facility



Particle Measuring Systems Headquarters
5475 Airport Blvd., Boulder, CO 80301
(303) 443-7100 1-800-238-1801 FAX: (303) 546-7331
Instrument Service & Support: 1-800-557-6363
Customer Response Center: 1-877-475-3317

Particle Measuring Systems Europe
Tel: +44 (0)1684-581000

Particle Measuring Systems Japan
Tel: 813-5298-8175

Particle Measuring Systems Singapore
Tel: (65) 68460-500

Particle Measuring Systems China
Tel: 86-21-53855332-18