



# LPGX PSignature Series Ultrasonic Flowmeter

## **PSignature Series**

LPGX Low Pressure Gas  
Ultrasonic Flowmeter

### **Applications**

- Flare Gas
- Vent Gas
- Bio Gas
- Fuel Gas
- Process Gases

### **Features**

- Measures velocity and volumetric flow
- Suitable for varying gas composition
- High turndown ratio
- Low cost and custom design options

### **Why purchase flowmeters from Procon?**

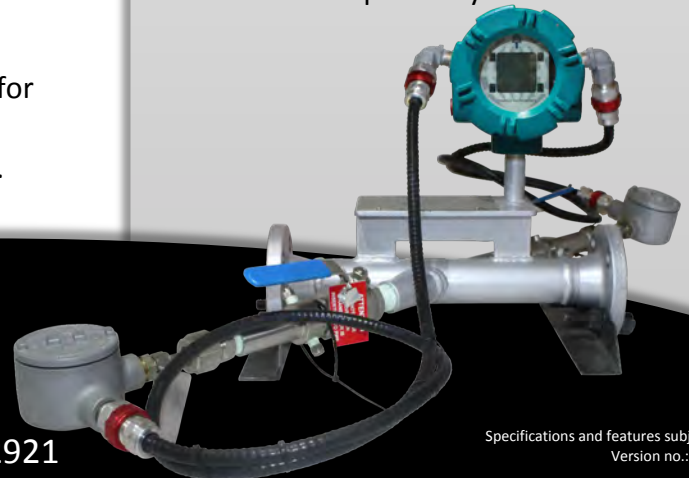
- Flowmeters completely assembled, tested, inspected and shipped ready for installation
- Optional "on-line" transducer insertion and removal
- All quotes include calculations with accuracy and specific drawings
- Meets all applicable North American codes and standards (Details specified on quotes and drawings)
- In-house low pressure flow calibration loop, used for verification, improved accuracy, reduced straight run and new design testing
- Combines tested, proven and new technologies with engineering and experience to provide the best solutions for our valued customers.
- More than 25 Years of flare meter application and service. Factory trained service technicians and stocked parts to minimize downtime.



**PROCON**  
SYSTEMS

Procon has designed, assembled and tested ultrasonic flowmeters for over 20 years with thousands of installations. All our flowmeters are engineered to meet specific application and customer requirements at very competitive prices

[www.proconsystems.com](http://www.proconsystems.com)



**CANADA**

Toll Free 1-866-255-2921

**USA**

Toll Free 1-866-455-2921

Specifications and features subject to change  
Version no.: 1.0 Nov. 2011

# LPGX PSignature Series Ultrasonic Flowmeter



## General Specifications:

For additional technical details see ordering information.

## Flowcell

<b>Flow/Accuracy:</b>	Typical $\pm 2.0\%$ of velocity reading 0.3m/s to 50 m/s Typical $\pm 5.0\%$ of velocity reading 0.3m/s to 120 m/s Flow calculations with Accuracy Statements provided for each application Typical Accuracies based on 6" or larger lines with adequate Straight Run, typically 20D Upstream / 10D Downstream for gas applications
<b>Repeatability:</b>	$\pm 0.5\%$ of Reading
<b>Size:</b>	1 – 96 inches
<b>Rating:</b>	ASME CLASS 150 – 600
<b>CSA:</b>	Class 1, Div.1, Groups C & D, (Group B Option Available)
<b>Design Temperature:</b>	-364°F to 482°F (-220°C to 250°C) 800°F Option Available, see options for details
<b>Ambient Temperature:</b>	-50°F to 140°F (-45°C to 60°C)

## Electronics

<b>Enclosure:</b>	CSA approved for Class 1, Div. 1, Group B, C & D areas – Enclosure epoxy coated aluminum, NEMA 7/4X
<b>Display:</b>	2 line x 16 character backlit LCD Display with non-intrusive magnetic wand keypad operation
<b>Ambient Temperature:</b>	-40°F to 140°F (-40°C to 60°C), LCD Display will blank out at -10°C
<b>Storage Temperature:</b>	-67°F to 167°F (-55°C to 75°C)
<b>Weight &amp; Dimensions:</b>	8.2 in x 6.6 in (208 mm x 168 mm) 10 lbs (4.5 kg)
<b>Power Supply:</b>	20W maximum, 100-240 VAC (Standard), 12-28 VDC (Optional)
<b>Inputs/Outputs:</b>	Standard Two 4-20mA Isolated Outputs, 600Ω maximum load Additional I/O available

## Documentation (Standard with all Flowmeters):

Drawings, Flow Calculations, Manuals, Certificate of Compliance, Welding Procedures and Qualifications, Hydrotest, NDE Reports, Material Test Reports, CSA, Programming Sheet, ITP, PWF, Optional flow calibration

# LPGX PSignature Series Ultrasonic Flowmeter

## Ordering Information

LPGX - A - B - C - D - E - F - G - H - I - J - K - L - M - N - O

Example: LPGX-06-150-RF-LC-1-I-2-100-N-1-1-IR-4-CRN-NAC-F001000

Option Code	Description
<b>A</b>	<b>Nominal Size</b>
01..96	Nominal Size in Inches
<b>B</b>	<b>Rating</b>
---	No Rating (Typical for Weld Prep Flowmeters)
150	
300	
600	
<b>C</b>	<b>End Connections</b>
RF	Raised Face Flange
FF	Flat Face Flange
WP	Weld Prep
<b>D</b>	<b>Material of Construction</b>
CS	Carbon Steel
LC	Low Temp Carbon Steel
34	304 Stainless Steel
36	316 Stainless Steel
<b>E</b>	<b># Of Paths</b>
1	Single Path
2	Dual Path
<b>F</b>	<b>Transducer Ports</b>
T	Threaded
W	Socket Weld
F	Flanged
C	Threaded Insertion Mechanism
I	Flanged Insertion Mechanism
<b>G</b>	<b>Extra Ports on Flowcell body</b>
0..9	Number of additional ports (Port Details to be shown on Drawing)
<b>H</b>	<b>Max Flow</b>
XXX	XX m/s Custom Max Flow Velocity in m/s (Gas Composition required to confirm Max. Range)
010	Max Flow Velocity in m/s (Gas Composition required to confirm Max. Range)
050	Max Flow Velocity in m/s (Gas Composition required to confirm Max. Range)
100	Max Flow Velocity in m/s (Gas Composition required to confirm Max. Range)
120	Max Flow Velocity in m/s (Gas Composition required to confirm Max. Range)
<b>I</b>	<b>Operating Temperature Range</b>
N	-67°F to 302°F (-55°C to +150°C)
L	-364°F to +212°F (-220°C to +100°C)
H	-58°F to +482°F (-50°C to +250°C)
E	-58°F to +850°F (-50°C to +426.7°C) Transducers will be damaged over +250°C but there is no risk of leakage

<b>J</b>	<b>Mounting /Configuration</b>
1	Direct Mount Transmitter to Flowcell
2	Remote Mount Transmitter (Coaxial Cable Required)
<b>K</b>	<b>Power</b>
1	100-240 VAC
2	12-28 VDC
<b>L</b>	<b>Additional Input / Output</b>
00	No additional input/output
FA	2 Frequency Outputs & 2 Standard Alarms
FT	2 Frequency Outputs & 2 Totalizer Outputs
TA	2 Totalizer Outputs & 2 Standard Alarms
IR	2 Current Inputs & 2 RTD Inputs
II	4 Current Inputs
TI	2 Current Inputs & 2 Totalizer Outputs
FI	2 Current Inputs & 2 Frequency Outputs
<b>M</b>	<b>Logging - Digital Communication</b>
0	None
1	128 Kbyte Memory capable of logging 10000 data points (approx) with time and date stamp
2	Extended 2MByte Memory capable of logging 70000 data points (approx) with time and date stamp
3	HART communication
4	ModBus digital output
5	ModBus TCP digital output. For communicating MODBUS via Ethernet
6	Ethernet card. Allows PanaView or OPC Server to communicate with meter over the Ethernet.
7	Foundation Fieldbus
<b>N</b>	<b>Optional Extras and Specials (Can be more than one)</b>
CRN	Canadian Registration Number (Specify Province or Provinces)
NAC	NACE Certificate of Compliance
CSB	CSA Group B (H2) Approval for Flowcell Transducers
PMI	Positive Material Identification
HAR	Hardness Testing of Production Welds
PWH	Post Weld Heat Treatment
YEL	Yellow Flow Arrows Painted on each side of the Flowcell
JET	Jet Lube Petro Tape only
ICO	Internal Coating (Specify Details)
SSS	Special (Specify)
<b>O</b>	<b>Drawing #</b>
F00XXXX	Flowmeter Drawing #



**Procon Systems (2013) Inc.**

**Calgary, AB CANADA**  
9504 Horton Road SW  
Calgary, AB T2V 2X4  
Toll Free: 1-866-255-2921  
Phone: 403-255-2921  
Fax: 403-255-3928

**Procon Systems (2013) Inc.**

**Edmonton, AB CANADA**  
6025 – 99th Street NW  
Edmonton, AB T6E 3P1  
Toll free: 1-877-844-6665  
Phone: 780-437-0244  
Fax: 780-438-2893

**Procon Systems (2013) Inc.**

**Delta, BC V4K-4B7  
CANADA**  
Toll free: 1-866-455-2921  
Phone: 604-940-8757  
Fax: 604-940-9126

**Procon Systems (2013) Inc.**

**Regina, SK S4P-0J3  
CANADA**  
Toll-free: 1-866-455-2921  
Phone: 306-206-2727

**Procon Technologies Inc.**

**Naperville, IL USA**  
530 Industrial Drive  
Naperville, IL 60563  
Toll-free: 1-866-455-2921  
Phone: 630-357-8540  
Fax: 630-357-4918

**Procon Technologies Inc.**

**Hightstown, NJ 08520  
USA**  
Toll-free: 1-866-455-2921  
Phone: 609-819-7070  
Fax: 630-357-4918

**Procon Measurements  
and Controls Inc.**

**Cambridge, ON N1R-4T5  
CANADA**  
Toll-free: 1-866-455-2921  
Phone: 519-267-3121  
Fax: 519-267-3127

