# LowPowerTransducer

# MODEL LP247



DESIGNED FOR HARSH CONDITIONS

Viatran's Model LP247 uses bonded foil sensing technology to offer a rugged but inexpensive solution in hard-to-access areas where power is a premium.

# INSPIRED BY DIVERSE NEEDS

Hydraulic systems in test and control applications generate severe "spikes" that overpressure many sensors. To combat spikes, Viatran employs a bonded foil strain gage on a hardened stainless steel diaphragm. This higher mass diaphragm withstands short-term overpressure conditions inherent in hydraulic applications. For measuring low pressures (5 to 200 PSI), Viatran uses a corrosion resistant ceramic diaphragm sensor.

## **EASILY ADAPTABLE**

The "47" series utilizes several features to fit the widest possible applications. The standard DIN 43650 connector is an industrial standard with excellent weather resistance.\*

The "47" can be fitted with a 6-pin bayonet or a direct coupled cable. The "47" has no oil fill or isolation diaphragms and has a 1/4" NPT or SAE female pressure port. A standard zero adjustment control makes easier setup.

If your application requires a large quantity of rugged, low power pressure transmitters, Viatran's LP247 is the answer.

The Model LP247 has been designed specifically for applications where only solar power or battery power are available. In remote or hard to access applications, this unit gives a low-cost, rugged solution. This is just one part of the family of Low Power solutions from Viatran.

# **FEATURES**

- ▶ Low price
- ► Adjustable zero
- ▶ Resistant to pressure spikes
- ► Cost effective DIN connector
- ▶ Welded stainless steel construction

## **TYPICAL APPLICATIONS**

- ▶ Hydraulic systems
- ▶ Injection molding
- ▶ Die casting
- ▶ Off road vehicles
- ► Compressors and pumps
- ▶ High volume usage

Approval Options Available



# **SPECIFICATIONS**

### **PERFORMANCE**

Full Scale Pressure Range ...... (FSPR) 0-5, 0-10, 0-15, 30, 50, 75, 100, 200,

PSIG, PSIA. 0-300, 400, 500, 750, 1K,1500, 2K, 3K, 4K, 5K, 7500, 10K, 15K, 20K, PSIG

Non-Linearity (Best Fit Straight Line) . . . ≤ ± 0.5% FSO

Hysteresis & Repeatability ........... < 0.25% FSO

Full Scale Output (FSO)

Model 247 . . . . . . . . . . . . 4 VDC ± 2% at 70° F

Resolution ..... Infinite

Long Term Stability . . . . . . . . . ≤ ± 0.5% FSO per 6 months

Compensated Temperature Range .... 70° F to 170° F Maximum Operating Temperature .... 200° F

Minimum Operating Temperature . . . . -20° F Non-Operating Temperature Range . . . . -60° F to +250° F

Thermal Effect on Zero  $\le \pm 3\%$  FSO per 100° F Typical Thermal Effect on Span  $\le \pm 2\%$  FSO per 100° F Typical

#### **ELECTRICAL**

Supply Voltage ..... 5 to 20 VDC

Power Supply Regulation

Model LP247 . . . . . . . . . . . ≤ ± 0.05% FSO per Volt

Current conversion . . . . . . . . . . ≤1.75mA

**Output Signal** 

Model LP247 . . . . . . . . . . 0 to 4 VDC

across input leads for surges above 40 VDC and currents to 8 A peak with a pulse width of 10 x

1000 µSec

Insulation Resistance ............................... 1000 MegOhms at 50 VDC

Response Time ..... ≤ 5 mSec for 90% change in output

Electrical Connections . . . . . . DIN plug 43650

+ Power + Signal

Common

Ground Spade ...... Case ground

### Mechanical

Pressure Connections . . . 1/4" NPT Female

Proof Pressure ....... 1.5 times FSPR or 25K PSI, whichever is less Burst Pressure ...... 5 times FSPR or 30K PSI, whichever is less

Pressure Cavity Volume . 0.07 cubic inches

Mounting ..... May be supported by process piping

Materials of Construction

Wetted Parts

0-15 thru 200 PSI ..... 316 stainless steel, Buna-N O-Ring,

Alumina ceramic

0-300 PSI and above ... 15-5PH stainless steel Housing ...... 304 stainless steel

Weight ..... 10 oz

Identification ..... Laser etched onto body

### **Options**

Codes

DH ..... Special range
DX .... Modified Output

Accessories

Digital indicator

Mating electrical assembly Mating electrical connector

Protective cover

Notes: Vented gage units should only be installed in environments that allow the breather to remain dry and free from contamination.

Application of some available options may affect standard performance.

Consult your Viatran representative for details.





