

## Media Isolated O.E.M. Pressure Transmitters **Series 7LY...10LY™**

### Nominal diameter as small as Ø0.590 (15mm)

- ▶ Promotes versatility in product design

### Factory calibrated

- ▶ Guaranteed "out-of-the-box" performance

### 316L SS flush-diaphragm sensor

- ▶ Optional Hastelloy C-276 for severe applications

### Outstanding EMI resistance

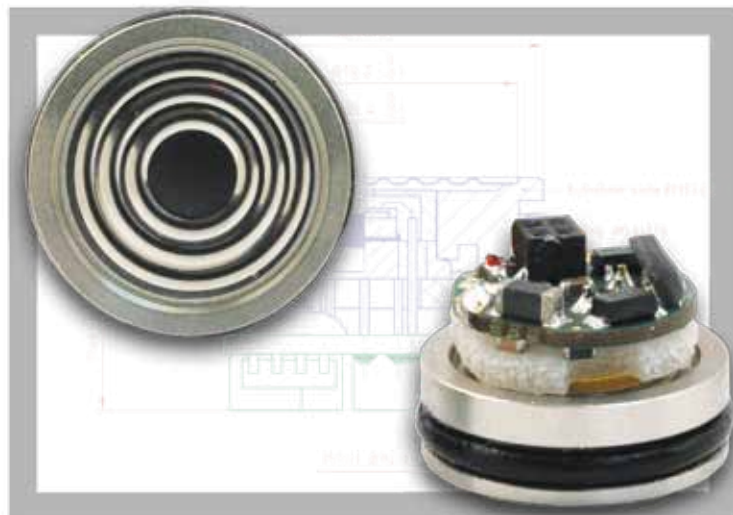
- ▶ Suitable for electrically "noisy" environments

### Ranges from 3 to 15000 psi Full Scale

- ▶ Custom ranges easily accommodated

### Temperature dependency is automatically corrected

- ▶ Class-leading Total Error Band performance of a wide temperature span



Series	Sensor Dimensions inches (mm)	Available Outputs	Ranges (bar)	Type
7LY	Ø 0.59 X 0.196 (Ø 15 X 5)	0.5...4.5VDC (Non-Ratiometric)	10...200	absolute
7LY HP	Ø 0.59 X 0.314 (Ø 15 X 8)	0.5...4.5VDC (Non-Ratiometric)	200...1000	absolute
9LY	Ø 0.748 X 0.196 (Ø 19 X 5)	4...20 mA, 0...5 VDC, or 0...10 VDC	0.2...200	absolute/ gauge (<50 bar)
9FLY	Ø 0.827/0.669 X 0.217/0.196 (Ø 21/17 X 5.5/5)	4...20 mA, 0...5 VDC, or 0...10 VDC	0.2...200	absolute/ gauge (<50 bar)
10LY	Ø 0.748 X 0.59 (Ø 19 X 15)	4...20 mA, 0...5 VDC, or 0...10 VDC	0.2...100	abs./gauge

The "...LY" transmitter line benefits from smaller sensor dimensions, crevice-free diaphragms and low Total Error Band performance.

The innovative signal conditioning circuit 'learns' thermally-induced zero and span errors during calibration. Then during operation, bias corrections are applied directly to the analog output signal, with a resolution of 1.5°K, effectively making each correction temperature a calibration temperature. The residual error is therefore determined primarily by the sensor nonlinearity.

The "...LY" line also boasts excellent resistance to electromagnetic interference. The limits of the CE standard, for both conducted and radiated fields, are bettered by a factor of 10, enabling implementation in hostile EMI environments.

Applicability to a variety of applications is enhanced by a wide selection of pressure ranges, sensor types, and input/output configurations. Material compatibility is ensured by the optional Hastelloy C-276 construction in place of the standard 316L stainless steel, as well as several different o-ring materials.

# Series 7LY - 10LY



## Standard Pressure Ranges

Series 7LY...10 LY	Standard Pressure Ranges (FS) in bar										
PR	0,2	0,5	1	2	5	10	20				
PAA	0,2	0,5	1	2	5	10	20				
PA			1	2	5	10	20	50	100	200	400 600 1000
Overpressure	2,5	2,5	3	4	10	20	40	100	200	300	600 900 1100

PAA: Absolute. Zero at vacuum    PA: Sealed Gauge. Zero at atmospheric pressure (at calibration day)    PR: Vented Gauge. Zero at atmospheric pressure

## Specifications

Pressure Range	Accuracy <sup>1</sup>	Error Band <sup>2</sup> @ 0 - 50°C		Error Band <sup>2</sup> @ -10 - 80°C	
		Typ.	Max.	Typ.	Max.
2 - 1000 bar	±0.25%FS	±0.3%FS	±0.5% FS	±0.4% FS	±0.7% FS
0.5 - < 2 bar	±0.25%FS	±0.6% FS	±1.0% FS	±0.8% FS	±1.5% FS
0.2 - 0.5 bar	±0.50%FS	±2 mbar	±5 mbar	±3 mbar	±7.5 mbar

1. Including Hysteresis + Repeatability

2. Linearity + Hysteresis + Repeatability + Temp. Coefficient + Zero Tolerance+ Span Tolerance

### Stability

Range > 2 bar	0.1% FS typ.	0.2% FS max.
Range ≤ 2 bar	2 mbar typ.	4 mbar max.

### Storage / Operating Temp. Range

-40 - 100°C

### Type

Signal Output  
Limitation Signal Output  
Supply  
Load Resistance  
Limiting Frequency  
Power Consumption

Series 9LY, 9FLY, and 10 LY			Series 7LY only
2-Wire	3-Wire	3-Wire	3-Wire
4...20mA	0 - 10 V	0 - 5 V	0.5 - 4.5 V
3.2 - 22.3 mA	-1.2 - 11.2 V	-0.6 - 5.6 V	0.1 - 4.9 V
8 - 32 VDC	13 - 32 VDC	8 - 32 VDC	8 - 32 VDC
< (U-8) / 0.025 A	> 5 kΩ	> 5 kΩ	> 5 kΩ
2 kHz	2 kHz	2 kHz	2 kHz
----	max. 5 mA	max. 5 mA	max. 4 mA

### Response Time

(0 - 99%) < 5 ms

### EMI

EN 61000-6-2: 2005 / EN 61000-6-3: 2007 / EN 61326-2-3: 2006

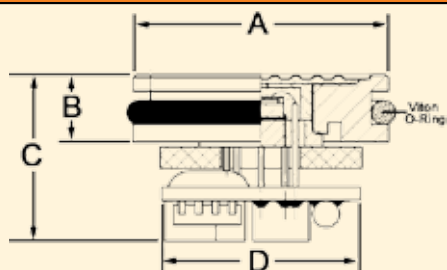
### Material in Media Contact

Stainless Steel AISI 316L + Fluorocarbon O-ring (other material combinations available)

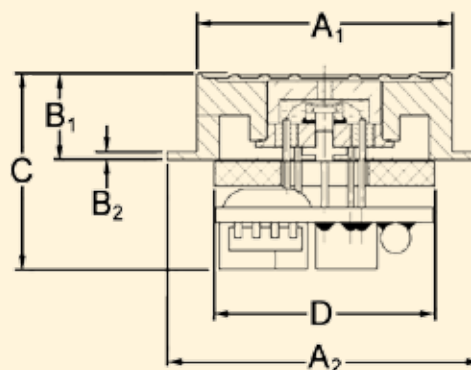
### Oil Filling

Silicone standard, others available

## Drawings & Dimensions



	A <sub>1</sub>	A <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>	C (max)	D
9FLY	0.669"(17mm)	0.827"(21mm)	0.217"(5.5mm)	0.020"(0.5mm)	0.453"(11.5mm)	0.583"(14.8mm)



	A	B	C (max)	D
7LY	0.59"(15mm)	0.196"(5mm)	0.433"(11mm)	0.466"(11.8mm)
7LY HP	0.59"(15mm)	0.314"(8mm)	0.551"(14mm)	0.466"(11.8mm)
9LY	0.749"(19mm)	0.196"(5mm)	0.433"(11mm)	0.583"(14.8mm)
10LY	0.749"(19mm)	0.59"(15mm)	0.709"(18mm)	0.583"(14.8mm)

Subject to alterations

### Options & Accessories

► Hastelloy C-276 (Diaphragm/ Housing)

► Oil filling (Fluorinated Oil, Olive Oil, and others)