

Data Sheet

ZL92 Fluoropolymer Pressure Transducer For Corrosive Liquids and Gases

FEATURES

- PTFE/PFA wetted parts
- Corrosion resistant to chemicals such as hydrofluoric acid
- Compatible with pipe diameters from 0.25 to 0.5 in. O.D.
- Capacitance sensor for excellent thermal stability
- Multiple mounting options include tube connections, press fit nuts, flared nuts, and threaded nuts
- Class 100,000 cleanroom packaged and bagged

TYPICAL USES

- Cleaning equipment for semiconductor
- Cleaning equipment for Flat Panel Displays (FPD)
- Wet stations
- Chemical supply systems



ZL92
Pressure Transducer



PERFORMANCE SPECIFICATIONS

Static Accuracy:	±1.0% of span @ 73 °F (23 °C) Accuracy includes the effects of linearity, hysteresis and repeatability
Temperature Effect:	±0.05% of span/°C (Zero & Span) in operating temperature range

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:	50 °F to 140 °F (10 °C to 60 °C)
Storage Temperature:	14 °F to 149 °F (-10 °C to 65 °C)
Humidity:	25% to 80% RH

FUNCTIONAL SPECIFICATIONS

Pressure Ranges:	0-45 psi to 0-75 psi
Response Time:	≤ 100 mSec (10% to 90%)
Proof Pressure:	100 psi max.

ELECTRICAL SPECIFICATIONS

Output Signal:	4 to 20 mA (2 wire) or 1 to 5 Vdc (3 wire)
Supply Voltage:	21.6 to 26.4 Vdc for 2 wire, 12-24 Vdc for 3 wire
Load Resistance:	Rmax = 500Ω for 4 to 20 mA output Rmin = 10kΩ for 1 to 5 Vdc output
Insulation Resistance:	> 100MΩ at 50 Vdc
EMC/EMI:	EN61326-1: 2013, EN61326-2-3: 2013

KEY BENEFITS

- Isolated sensing elements for corrosive liquids and gases incorporating special vent design
- Low metal ion elution
- PTFE/PFA wetted parts for protection against corrosion

PHYSICAL SPECIFICATIONS

Ingress Rating:	IP54
Case Material:	Polypropylene and PTFE/PFA
Pressure Connection Sizes:	Tube connection sizes include: ¼", ⅜", and ½"
Unit Weight:	Approx. 140g

WETTED MATERIALS

Fitting:	PTFE/PFA
Diaphragm:	PFA

APPROVALS

CE, UKCA, RoHS

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ORDERING CODE	Example:	ZL92	7	1	5	1	42	C06	75#	-X1N
Model										
ZL92		ZL92								
Accuracy										
7 - 1.0% of span			7							
Pressure Connection Type										
1 - In-Line type				1						
2 - Single port type										
Pressure Connection Bore Diameter										
5 - Bore diameter O.D. ¼" I.D. 5/32"					5					
6 - Bore diameter O.D. 3/8", I.D. ¼"										
7 - Bore diameter O.D. ½", I.D. 3/8"										
Pressure connecting Port										
1 - Tube connection						1				
2 - S300 nut (press fit)										
4 - 20 series nut (press fit)										
6 - Flare nut (Insert)										
A - S300 male screw (in-line type only)										
Analog Output										
42 - 4 to 20 mA							42			
15 - 1-5 Vdc										
Cable Length										
C06 - 6 feet								C06		
Pressure Range										
45#										
75#									75#	
P3MP										
P5MP										
Options (If indicating an option must include an "X" (-X...))										X
1N - Material Test Report/ Traceability Certificate										1N

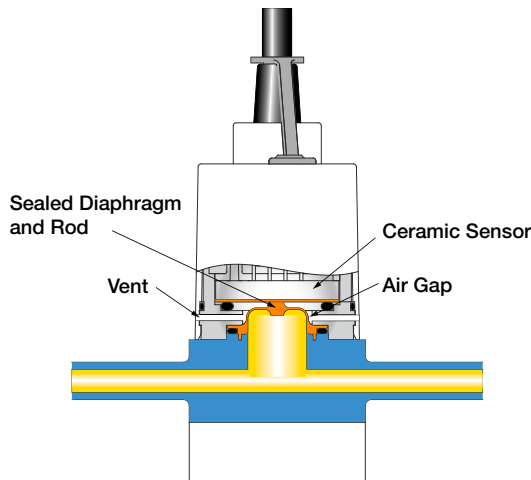
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STANDARD RANGES	
psi	mPa
45#	P3MP
75#	P5MP

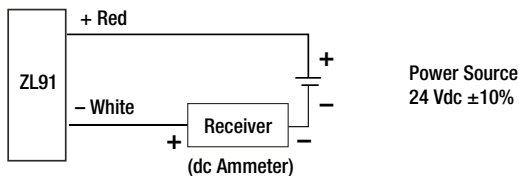
INTRODUCTION

The ZL92 is a fluoropolymer pressure transducer designed for use in semiconductor processes that require PTFE/PFA wetted parts for improved chemical compatibility for use in corrosive gases and fluids. A secondary isolation diaphragm and vent design isolates the ceramic sensing element from corrosive gases and liquids.

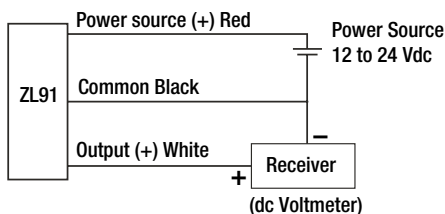


WIRING DIAGRAMS

Two Wire System (Current output)



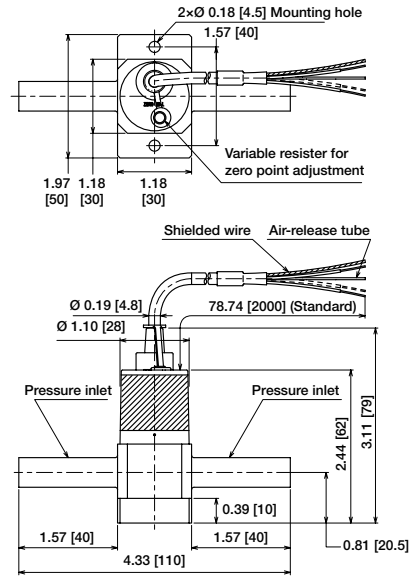
Three Wire System (Voltage output)



Inline Pressure Connection Dimensions are inches [mm]

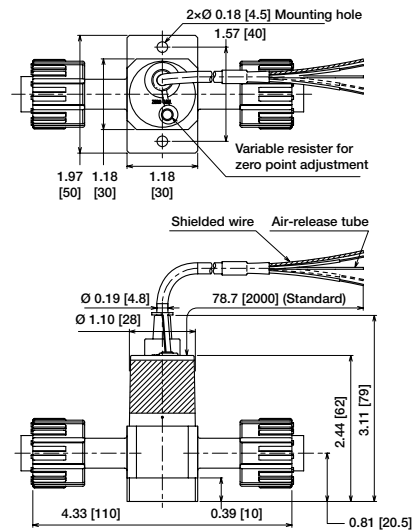
For Reference only, consult Ashcroft for specific dimension drawings

Tube Connection



MODEL NUMBER	CONNECTING PORT
ZL92-151	Ø ¼"
ZL92-161	Ø ⅜"
ZL92-171	Ø ½"

S300 Nut (Press Fit) From Pillar Packing Co., Ltd



MODEL NUMBER	CONNECTING PORT
ZL92-152	Ø ¼"
ZL92-162	Ø ⅜"
ZL92-172	Ø ½"

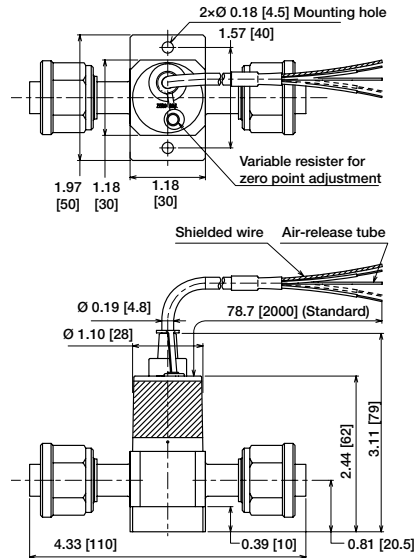
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ZL92 Fluoropolymer Pressure Transducer For Corrosive Liquids and Gases

Inline Pressure Connection Dimensions are inches [mm]

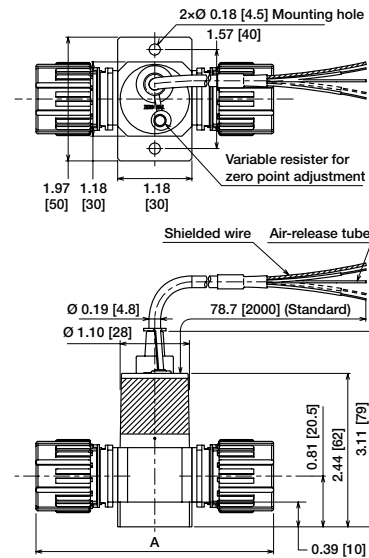
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20 Series Nut (Press Fit) Flowell Corporation



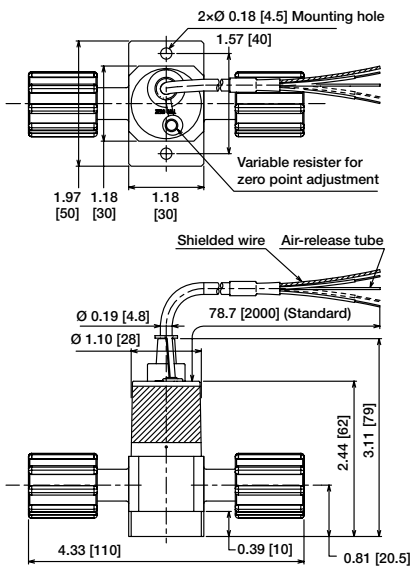
MODEL NUMBER	CONNECTING PORT
ZL92-154	Ø ¼"
ZL92-164	Ø ⅜"
ZL92-174	Ø ½"

S300 Male Screw From Pillar Packing Co., Ltd



MODEL NUMBER	CONNECTING PORT	A SIZE
ZL92-15A	Ø ¼"	2.68 [68]
ZL92-16A	Ø ⅜"	3.15 [80]
ZL92-17A	Ø ½"	3.78 [96]

Flare Nut (Insert) From Entgris, Inc



MODEL NUMBER	CONNECTING PORT
ZL92-156	Ø ¼"
ZL92-166	Ø ⅜"
ZL92-176	Ø ½"

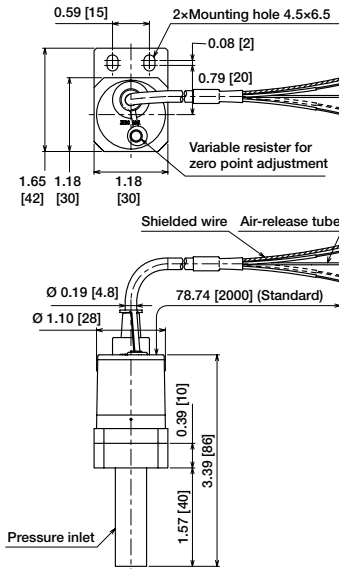
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ZL92 Fluoropolymer Pressure Transducer For Corrosive Liquids and Gases

Single Port Pressure Connection Dimensions are inches [mm]

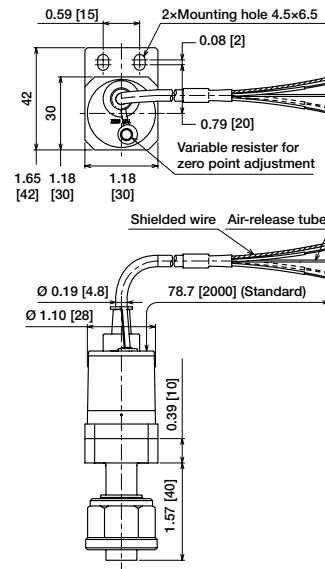
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Tube Connection



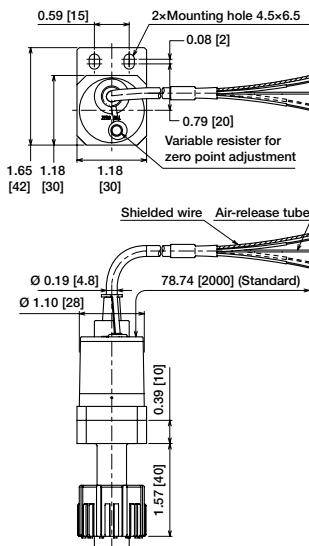
MODEL NUMBER	CONNECTING PORT
ZL92-251	Ø ¼"
ZL92-261	Ø ⅜"
ZL92-271	Ø ½"

20 Series Nut (Press Fit) Flowell Corporation



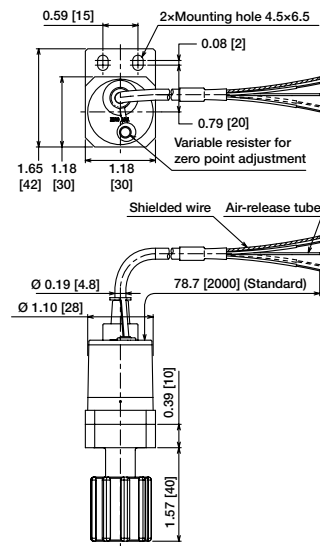
MODEL NUMBER	CONNECTING PORT
ZL92-254	Ø ¼"
ZL92-264	Ø ⅜"
ZL92-274	Ø ½"

S300 Nut (Press Fit) From Nippon Pillar Packing Co., Ltd.



MODEL NUMBER	CONNECTING PORT
ZL92-252	Ø ¼"
ZL92-262	Ø ⅜"
ZL92-272	Ø ½"

Flare Nut (Insert) From Entgri, Inc.



MODEL NUMBER	CONNECTING PORT
ZL92-256	Ø ¼"
ZL92-266	Ø ⅜"
ZL92-276	Ø ½"