



# BLUE RIBBON CORP.

2770 Long Road, Grand Island, NY 14072 USA  
 Tel. (716) 773-9300 • Fax (716) 773-5019  
 brsales@blueribboncorp.com • www.blueribboncorp.com

## SUBMERSIBLE / LEVEL TRANSMITTER “LOW PRESSURE” MODEL BR313L

### APPLICATIONS:

- Weirs, Wells, Pond Level Reservoirs / Dams
- Ground Water Wells
- Shipboard Level Control
- Rig Ballast Control

### FEATURES:

- Rugged, Welded Stainless Steel Construction
- Voltage Surge Protection
- Lightning Protection-Available upon request
- Encapsulated electronics
- Polyurethane or Tefzel Reinforced Cable with Integral vent tube
- 4-20 mA standard

### PRESSURE RANGES:

- 0-20 In.WC to 0-300 PSI  
 (see ordering guide)

### ACCURACY:

- From ±0.5% (0.10% Optional)  
 (see specifications & ordering guide)



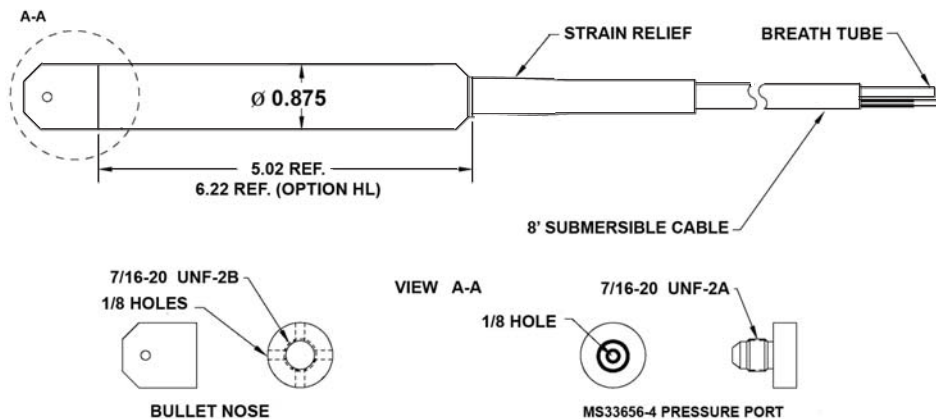
Standard

### WETTED PARTS:

- \* 316 SS Housing
- \* Neoprene Grommet
- \* Polyurethane Jacketed Cable
- \* PVC Bullet Nose

### WIRING CODE

	313L
RED	+ EXC./SIGNAL
BLACK	- EXC./SIGNAL
SHIELD	OPEN



Blue Ribbon reserves the right to make product improvements and amendments to the product specifications stated throughout this brochure without prior notification. Please contact the factory on all critical dimensions and specifications for verification.



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Standard Specifications listed below. Consult factory for further options, which may change the overall dimensions.

<b>Output (at 70°F)</b>	<b>Model 313L</b> 4-20mA ±2.0% FSO		
<b>Accuracy</b>	<b>Option B</b> ±0.5% FSO (RSS)	<b>Option C</b> ±0.2% FSO (RSS)	<b>Option D</b> ±0.1% FSO (RSS)
<b>Pressure Ranges</b>	0-20 In.WC to 0-500 PSI		
<b>Pressure Types</b>	2 Gauge 7 Gauge/non-hermetic	6 Sealed gauge 8 Elevated	
<b>Zero Balance</b>	4mA ±2.0% FSO at 70°F		
<b>Span</b>	16mA ±2.0% FSO at 70°F		
<b>Temperature Limits</b>	<b>Compensated</b> 0°F to +140°F	<b>Operating</b> -40°F to +150°F	<b>Storage</b> -40°F to +150°F
<b>Temperature Compensation</b>	<b>Zero / Span (Standard)</b> Less than ±2.0% FSO/100°F at FSPR and/or URL		
<b>Electricals</b>	<b>Excitation</b> 9 – 40 VDC	<b>Load Impedance</b> 1400 ohms maximum at 40 VDC excitation	<b>Circuit Protection</b> Short Circuit – Indefinite
Reversed Wire - Indefinite	<b>Resolution</b> Infinite		
	<b>Voltage Surge Protection (Standard)</b>		
<b>Insulation Resistance</b>	>10 megohms at 50 VDC and 70°F		
<b>Standard Connections</b>	<b>Process Connection</b> PVC Bullet Nose	<b>Electrical Connection</b> Polyurethane or Tefzel Reinforced Cable with integral vent tube (8 Ft. Standard – other lengths available upon request)	
<b>Mechanicals</b>	<b>Proof Pressure</b> 2X FSPR (or URL)	<b>Burst Pressure</b> 4X FSPR (or URL)	<b>External Pressure</b> 500 PSI maximum
<b>Pressure Response</b>	≤ 5 ms to 90%		
<b>Long Term Stability</b>	≤ +0.5% FSO/year		
<b>Position Effect</b>	± 0.01% FSO for a 90° change in orientation		
<b>Calibration Orientation</b>	Horizontal unless specified		
<b>Cycle Life</b>	1 million pressure cycles		
<b>Fluid Fill</b>	200 CS Dow Corning 200 (Silicon Oil)		
<b>Length</b>	6.2" (adding options will vary the length)		
<b>Diameter</b>	0.875		
<b>Weight</b>	2.5 oz. Nominal, adding options may increase weight		
<b>Wetted Material</b>	<b>Case</b> 316 Stainless Steel		

## ORDERING GUIDE:

Example: 313L-B-PZ-LJ

MODEL	ACCURACY	PRESSURE RANGE	PRESSURE TYPES	OPTIONS
•	•	•	•	•/•/•

### MODEL

313L 4-20mA

### CONNECTOR

AA 8' Vented submersible cable (direct gauge ref. units) <300 PSI  
 CT Tefzel jacketed cable  
 CZ Alternate cable length (specify)

### ACCURACY

B ±0.5% FSO (RSS)  
 C ±0.2% FSO (RSS)  
 D ±0.1% FSO (RSS)

### ALTERNATE PRESSURE PORT

FH 1/8" NPT (F)  
 FL 1/8" NPT (M)  
 LD Tapered inlet  
 LJ Tapered inlet with standoff plate

### PRESSURE RANGE (PSI)

(IN WC)2

PG 3	PX 75	XB 20
PJ 5	PZ 100	XD 30
PL 7.5	RB 150	XF 50
PN 10	RD 200	XH 75
PP 15	RE 250	XK 100
PR 20	RF 300	XM 150
PO 25	RH 500	XO 200
PT 30	SZ Other	XQ 300
PV 50		

### GENERAL

GA Standardized output to ±0.5% FSO.  
 GB Alternate output, pressure units, or full scale outputs that are non-standard.  
 GE Improved temperature compensation to ±0.5% FSO unless otherwise specified.  
 GG Alternate calibration signal.  
 GH Internal calibration resistor set to 100 ±0.5% FSO unless otherwise specified.  
 JH Remote cable mounted (in-line) zero & span controls. 3' cable on open side. Length of cable on closed side as required. (500' maximum)  
 GZ Customer special  
 G2 Lightning Protection

### PRESSURE TYPES

2 Gauge/direct/<300 psi (vented)  
 6 Sealed gauge (Hermetic seal/non-vented)  
 7 Gauge/non-hermetic seal/300 psi & Above (non-vented)