



# BLUE RIBBON CORP.

## 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:

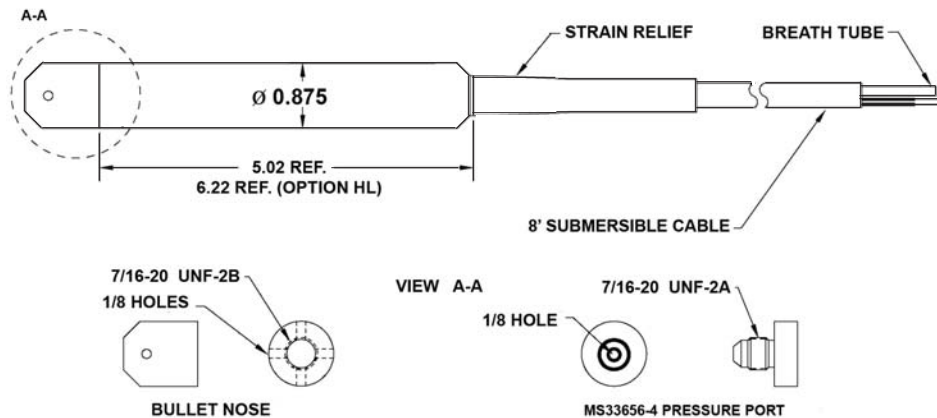
- 0-20 In.WC to 0-500 PSI  
(see ordering guide.)

#### 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.

A5BR-13L.00 Rev A



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Standard Specifications listed below.

Consult factory for further options, which may change the overall dimensions.

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

## ORDERING GUIDE:

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

Example: 313L-B-PZ-LJ

**MODEL:** 313L 4-20mA

### ACCURACY

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

### PRESSURE RANGE (PSI)

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

### 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)

### CONNECTOR

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

### ALTERNATE PRESSURE PORT

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

### 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 other wise 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

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