



## SUBMERSIBLE PUMP LIFT STATION / SLUDGE LEVEL TRANSMITTER

### MODEL BC001 BIRDCAGE®



Model BC001 Birdcage®



#### FEATURES:

- 3-inch diameter sensing diaphragm resists clogging
- Protective baffle plate reduces risk of sensor damage
- Corrosion-resistant, all stainless steel construction
- Stock quantities available to ship in 1 to 3 days
- Surge protection from lightning strikes and voltage spikes
- Ranges from 0-5 thru 0-500 PSI (0-10 thru 0 to 1153 meters FTWC)
- Lifetime Surge Warranty Replacement Program when partnered with the BCP3000 Surge Protector (sold separately)

#### APPLICATIONS:

- Submersible pump lift station level monitoring
- Wet wells
- Process sumps
- Water tanks and reservoirs
- Process sludge
- Water and wastewater level monitoring

#### PRODUCT OVERVIEW:

The BC001 Birdcage® Series from Blue Ribbon Corporation is a highly accurate level transmitter designed specifically for sludge level monitoring and pump lift stations. Its all stainless steel design incorporates a 3-inch diameter clog-resistant sensing diaphragm and corrosion resistant protective baffle plate. These features, combined with over 25 years of proven field service, make the Birdcage® the industry standard in water and wastewater level measurement.

#### FIELD OPTIONS:

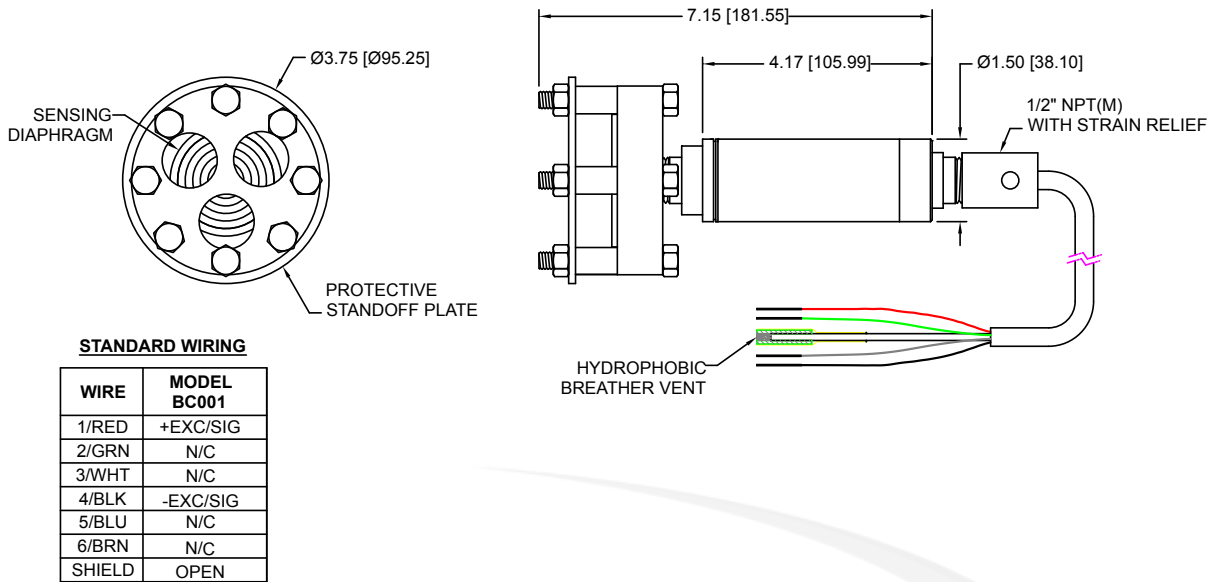
- 4-20 mA or 0-5 Vdc Output
- FM/CSA Hazardous approvals
- Temperature Output
- External Lightning Surge Protection Package

**BR5SL-TX-001**  
REV-A

# SUBMERSIBLE PUMP LIFT STATION / SLUDGE LEVEL TRANSMITTER

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)



### STANDARD WIRING

WIRE	MODEL BC001
1/RED	+EXC/SIG
2/GRN	N/C
3/WHT	N/C
4/BLK	-EXC/SIG
5/BLU	N/C
6/BRN	N/C
SHIELD	OPEN

## REFERENCE SPECIFICATIONS

### ELECTRICAL

- **Supply Voltage:** 9 to 36 Vdc
- **Output Signal:** 4-20 mA
- **Circuit Protection:** RFI and EMI surge protection
- **Load Impedance:** 1,350 Ω max. at 36 Vdc and 750 Ω at 24 Vdc
- **Input Current:** 8 mA, nominal
- **Insulation Resistance:** >10 MΩ at 50 Vdc and +70 °F
- **Connection:** 1/2" NPT (M) conduit with 40 feet of 3-conductor, 18 AWG Hytel jacketed cable (optional Tefzel jacketing)

### MATERIALS OF CONSTRUCTION

316 stainless steel

### THERMAL SPECIFICATIONS

- **Compensated:** 0 °F to +140 °F (-18 °C to +60 °C)
- **Operating Ambient:** -40 °F to +150 °F (-40 °C to +66 °C)
- **Effect on Zero Span** ±2% FSO/100 °F

### STATIC ACCURACY (RSS) (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)

- **Standard:** ±0.5%
- **Optional:** ±0.2%
- **Zero Balance and FSO:** ±1.0% FSO at +70 °F

### MECHANICAL

- **Process connection:** Oil filled diaphragm
- **Proof Pressure:** 2X FSO or 22,500 PSI (1,551 BAR), whichever is less
- **Burst Pressure:** 5X FSO or 22,500 PSI (1,551 BAR), whichever is less
- **External Pressure:** 500 PSI max. (35 BAR)
- **Weight:** 5.5 lb (2.5 kg)

### PRESSURE RANGES

0-5 thru 0-500 PSI (0-10 FTWC thru 0-1153 FTWC)  
0-3 thru 0-335 meters WC

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## SUBMERSIBLE LEVEL TRANSMITTER WITH SLUDGE SCREEN

### MODEL BR1103-Y481



Model BR1103-Y481  
Submersible Level Transmitter  
with Sludge Screen

#### FEATURES:

- Removable PVC sludge screen
- Enhanced internal surge and lightning protection
- Low cost, high reliability
- Submersible to 700 FT WC (213.4 meters WC)
- 1" diameter
- Up to  $\pm 0.2$  % FSO accuracy
- Optional Tefzel® jacketed cable
- All 316L stainless steel construction

#### APPLICATIONS:

- Wet wells, ponds, rivers and tank level
- Water treatment
- Ground water monitoring
- Irrigation

#### PRODUCT OVERVIEW:

The GP:50 Model 1103-Y481 for Blue Ribbon Corp. is a submersible level transmitter, providing high-accuracy level measurements at a competitive price point. Its durable design features a corrosion-resistant all 316L stainless steel housing and pressure cavity. The removable PVC sludge screen allows for easy periodic maintenance and cleaning.

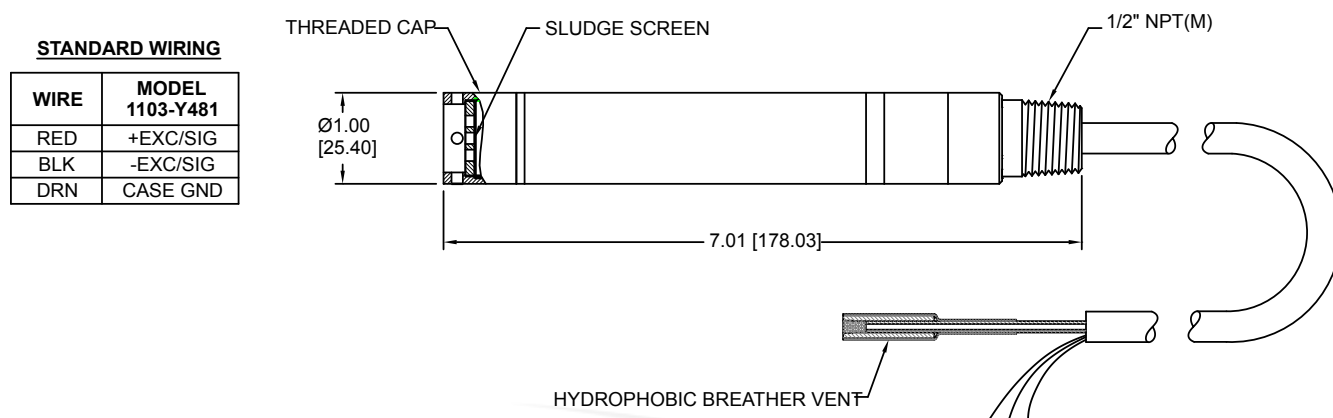
#### FIELD OPTIONS:

- Cable lengths to more than 3,000 ft with optional Tefzel® jacketed cable
- Lifetime surge protection warranty

# SUBMERSIBLE LEVEL TRANSMITTER

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)



## REFERENCE SPECIFICATIONS

ELECTRICAL	MECHANICAL
<ul style="list-style-type: none"> <li>• <b>Supply Voltage:</b> 9 to 36 Vdc</li> <li>• <b>Output Signal:</b> 4-20 mA</li> <li>• <b>Circuit Protection:</b> Lightning and surge protection optional</li> <li>• <b>Response Time:</b> &lt;5 ms</li> <li>• <b>Connection:</b> 1/2" NPT (M) conduit with 8.5' of 18 AWG, 4 conductor, shielded, Hytel jacketed cable with integral vent tube and hydrophobic filter</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Process Connection:</b> Removal PVC sludge screen</li> <li>• <b>Proof Pressure:</b> 1.5X FSO</li> <li>• <b>Burst Pressure:</b> 3X FSO</li> <li>• <b>Weight:</b> &lt;12 oz (340 g)</li> <li>• <b>Diameter:</b> 1" (25.4 mm)</li> </ul>
<b>STATIC ACCURACY (RSS) (HYSTERESIS, NON-LINEARITY &amp; REPEATABILITY @ +70 °F)</b> Standard: ±0.5% FSO Improved: ±0.2% FSO Zero & Span Balance: ±2.0% FSO	<b>PRESSURE RANGES</b> <ul style="list-style-type: none"> <li>• 0 to 5 PSI thru 0 to 300 PSI (344 mBAR thru 21 BAR)</li> <li>• 0 to 12 FTWC thru 0 to 700 FTWC (762 mm thru 213 m WC)</li> </ul>
<b>MATERIALS OF CONSTRUCTION</b> <ul style="list-style-type: none"> <li>• <b>Housing and Pressure Cavity:</b> 316 stainless steel (Optional Titanium)</li> <li>• <b>Cable:</b> Hytel (Optional Tefzel®)</li> </ul>	<b>THERMAL SPECIFICATIONS</b> <ul style="list-style-type: none"> <li>• <b>Compensated:</b> 0° F to +140 °F (-7 °C to +60 °C)</li> <li>• <b>Operating Temperature:</b> -40 °F to +185 °F (-40 °C to +85 °C)</li> <li>• <b>Storage:</b> -40 °F to +195 °F (-40 °C to +90.6 °C)</li> <li>• <b>Effect on Zero/Span:</b> &lt; ±2.0% FSO/100 °F</li> </ul>

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