

HB "Mini" Level Transmitter

Introduction

The HB Mini level transmitter is specifically intended for use in shallow level control applications such as balance tanks, stationary fillers bowls and CIP make up vessels. Uniquely designed to thrive in sanitary process environments the HB has the durability to withstand pressurized wash-downs, cascading water, and condensing humidity. Dual diaphragm architecture, fully potted electronics and a welded sealed stainless enclosure assure years of trouble free service.

Utilizing a highly accurate pressure cell to measure hydrostatic head, the HB ignores false level readings from foam, accommodates low or nonconductive fluids and conveniently mounts on the bottom or lower side of vessels. Compact in size with a 2" Tri-Clamp connection, the HB is easily mounted in the tightest of piping layouts. The HB is available in three ranges 20" to 60" (HB1 low-range), 60.1" to 100" (HB2 mid-range) and 101" to 160" (HB3 high range). Internal temperature compensation allows the transmitter to perform accurately at temperatures to 200°F (93°C) and withstand CIP and SIP to 250°F (121°C). Standard m12 quick disconnect receptacle when paired with the Anderson shielded molded cord-set provides a secure and convenient waterproof connection; alternatively available with sealed, shielded cable with ½" female NPT to accommodate conduit connection.

Detailed specifications, ordering matrix and application information are listed on the reverse.



Authorizations



Features

- Specifically designed for balance tank, CIP vessel, and other sanitary level control applications
- Rugged reliability in the harshest applications and environments
- Compact, ultra-sanitary package meets or exceeds requirements for Food, Beverage, Dairy and Life Sciences applications
- Fast shipment - (4 day standard)

Applications

- Pasteurization balance tanks
- CIP make up vessels
- Process shallow vessel level measurement
- Vessel level monitoring in wet hostile environments

Specifications

Environmental Specifications

Ambient Operating
 Temperature Range: 40°F to 120°F (4°C to 49°C)
 Storage Temperature
 Range: -40°F to 250°F (-40°C to 121°C)
 Humidity: 0 to 95% RH, condensing

Material / Construction

Housing: 304 Stainless Steel, Ra40 maximum finish
 Wetted Parts: 316L Stainless Steel, Ra25 maximum finish
 Process Connection: 2" Tri-Clamp

Approvals & Documentation

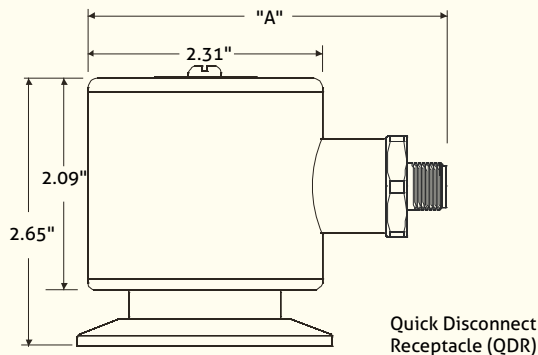
Ratings: NEMA 4X/IP-66, IP-67 3A Authorized
 Models equipped with optional conduit
 connector must be installed with conduit to
 maintain environmental rating
 Standards: Designed and manufactured to sound
 engineering practices in accordance with
 Article 3.3 of the PED 97/23/EC
 CSA B51-03

Operating Specifications

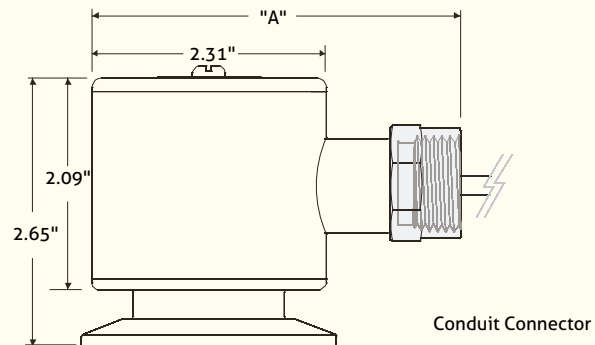
Range: HB1 0-20" to 0-60" Water Column
 HB2 0-60.1" to 0-100" Water Column
 HB3 0-101" to 0-160" Water Column
 Over-Range Capacity: 2.5 times Upper Range Limit
 Response Time: 200 uSec
 Accuracy: Factory calibrated to $\pm 0.2\%$ of Upper
 Range Limit (URL) Stabilized at 75°F (24°C)
 Process Temperature Limits: 32°F to 250°F (0°C to 121°C)
 Compensated 32°F to 200°F (0°C to 93°C)
 Temperature Stability: Within $\pm 2.0"/100^\circ\text{F}$ over the compensated
 process and ambient operational
 temperature range

Power / Signal / Electrical

Voltage: 12-40 VDC
 Load Impedance: 1400 ohms (max) @ 40 VDC
 Output: 4-20 mA DC, 2-wire
 Electrical Connection: Standard - 5 pin M12
 Pins 1 & 2 active

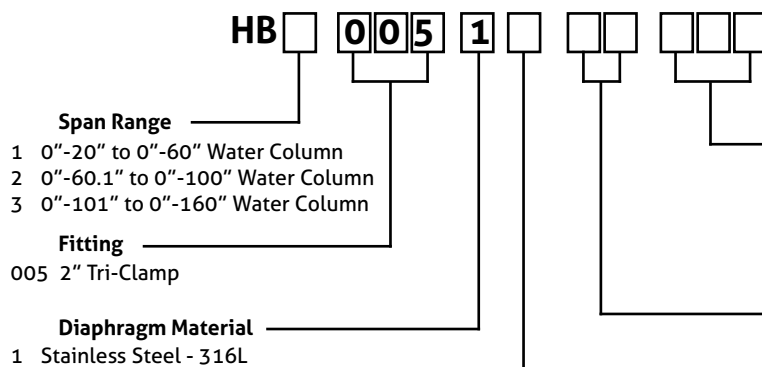


Recommended Cable: Shielded 5 pin M12 molded cordset
 Pins 1 & 2 Active, Shield must connect to cordset nut



Optional: Sealed Cable with 1/2" NPT Conduit Connection

Order Information



Note: Calibration information must be provided
 at time of order. Inches of Water Column
 or Inches Height and Specific Gravity.

Calibration

Height in inches w.c. (to nearest tenth up to 99.9 then
 whole numbers from 100" to 160")

000 Field Calibrated Examples:
 100 100 inches
 305 30.5 inches

Cable Length

A0 QDR w/No Cable, no FWC
 C1 Sealed Cable w/Conduit Connection and 25' Cable
 C2 Sealed Cable w/Conduit Connection and 50' Cable
 C3 Sealed Cable w/Conduit Connection and 100' Cable

Mounting

0 Horizontal
 1 Vertical (Diaphragm facing up)
 2 Other (Specify angle)