



Bindicator's patented Phase Tracker™ is designed to solve the most challenging continuous level applications. It has no moving parts and uses a sophisticated electronic signal to accurately measure even the most difficult materials in the most demanding environments.

Phase Tracker™ is ideal for the level measurement of bulk solids. It can accurately and reliably measure the level of bulk solids and powders during the fill cycle, regardless of dust or material variations in density or moisture. It is effective in non-air vapor, fumes, abrasives and corrosives, as well as corrugated bins and tall, narrow silos.

Phase Tracker™ sensing technology is independent of two of the most common problems that affect continuous level instrumentation: variation in the environment and changes in the product being measured. Phase Tracker™ can be applied throughout the processing, manufacturing, and material handling industries to solve tough measurement applications.

## Features and Benefits

### Unique, Patented Principle of Level Measurement

Much lower frequency than radar, therefore less affected by noise

### Designed for Difficult Applications

Approved for hazardous areas and signal not affected by changes in temperature, particle size, density or moisture content

Works well in:

- Low dielectrics
- Dust/vapor environments
- Tall/narrow silos
- Grain elevators/multi-tank installations

### Measures a 6" Radius Around Sensor Cable

Not affected by corrugated side walls or cross members and inherently immune to product coating

### Setup Without Emptying Tank

No start-up downtime

### Does Not Use Timing to Determine Length

Higher accuracy at longer lengths

### Expandable Controller

Up to 24 tanks per control unit

### Multiple Ways to Program

All functions programmed through keypad, PC or via modem (with iLEVEL™ software)

## How to Order

Bindicator's Phase Tracker™ system consists of a control unit and up to 24 sensors. The control unit is usually mounted in a central location and can be connected to external systems through a number of process connections including a telephone modem. The sensors are powered by the control unit and can be mounted up to 400' (121.9m) from the control unit. The exact options installed on each control unit are selected to match the needs of the installation. The model of each sensor is selected based on the range of products that will be stored in the vessel.

Your Bindicator® representative will work with you and our trained factory application engineers to select the proper Phase Tracker™ components to satisfy your application and business requirements. To assist us, please fill out an application data sheet. Application data sheets can be downloaded from the Bindicator® web site, [www.bindicator.com](http://www.bindicator.com), or can be obtained from your local representative. If you have any questions about the Phase Tracker™, please call Bindicator® directly and ask to speak with an application engineer.

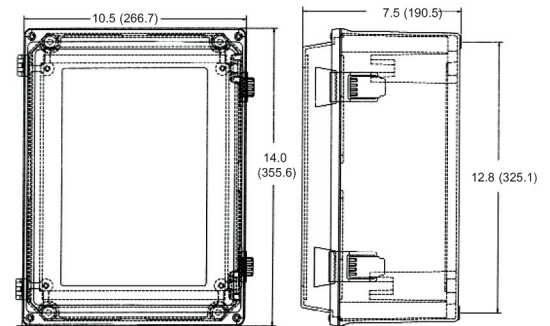
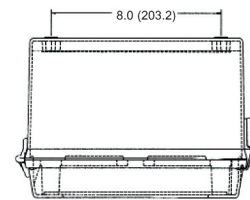
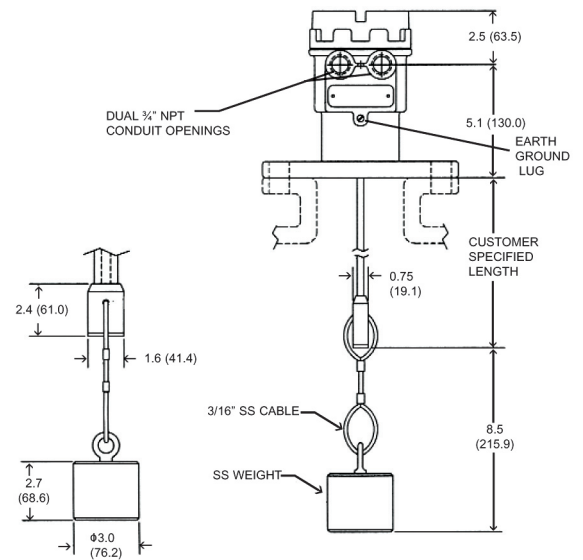
## General

Application:	Dry bulk solids, liquids, and slurries
Dielectric Constant:	1.3
Accuracy:	±1% – 2% of full scale
Cabling Sensor to control unit:	Use RG58A/U 50 ohm coax (Belden® #8219) & 22 gauge twisted 3 pair shielded (Belden® #8303)
Maximum distance:	400' (121.9m)
Modem:	Use Belden® #9562 or equal
Approvals:	CSA listed for intrinsically safe Class I, Groups C & D and Class II, Group G; ATEX listed for intrinsically safe; 3A; CE

## Electronics/Control Unit

Enclosure:	NEMA 4X molded FRP
Temperature:	-4° to 158° F (-20° to 70° C)
Power Supply:	115/230 VAC (±15%) 50/60 Hz, 50 watts
Programming:	All functions programmed through keypad, PC or via modem
Menu Functions:	Setup, calibration, diagnostics, inventory (via modem or PC)
Display/Keypad:	16 character alphanumeric LCD
Output:	Isolated 4-20mA DC into 300 ohms (optional) SPST relays, 5A @ 250 VAC for high and low alarm (optional)
Communications:	RS-232 Modem interface for remote calibration/monitoring
Tefzel® jacketed steel:	10' to 130' (3 to 39.6m) (standard) PFA; Teflon® jacketed steel: 10' to 130' (3 to 39.6m) (liquids) 316 S.S. rigid rod: 5' to 15' (1.5 to 4.5m)
Temperature:	-40° to 300° F (-40° to 148.88° C) (standard) For higher temperatures, consult factory
Process Mounting:	Polyester coated aluminum, 3", 150# FF flange, polyester coated aluminum, 4", 150# FF flange 1 1/4" MNPT (liquid sensor) DN 100, PN 16 DIN
Electrical Connections:	Dual 3/4" FNPT
Sensor Options:	316 S.S. weight, 316 S.S. tether, 316 S.S. pigtail

## Dimensions



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