DESCRIPTION The SonoTracker™ Ultrasonic Level System can monitor up to 16 vessels with transducers of various frequencies, and vessels of different heights and shapes and accurately measure the level of many different materials. It allows you to read levels from 1 foot to beyond 100 feet in solids, and additionally the same unit can be used for open channel flow and differential level measurements.

HOW TO ORDER

SON _ _ - _ - _ - _ - _ - _ - _ _ -

SLOT 3 CARD OPTIONS
A = None
C = 5 Output Relay Card
D = 8 Output Relay Card
E = 2 Output Relays with 1-Channel 4-20mA Card (AC Power Only)
ED= 2 Output Relays with 1-Channel 4-20mA Card (AC/DC)
G = 8-Channel 4-20mA Output Card (AC Power Only)
H = 4-Channel 4-20mA Output Card (AC Power Only)
I = 2-Channel 4-20mA Output Card (AC Power Only)
N = 4 Output Relays with 2-Channel 4-20mA Card (AC Power Only)
ND= 4 Output Relays with 2-Channel 4-20mA Card (AC/DC)
Q = ProfiBus DP Card
S = Point Level Input Card

SLOT 2 CARD OPTIONS
A = None
B = 8 Vessel Scanner Card
C = 5 Output Relay Card
D = 8 Output Relay Card
J = 4 Vessel Scanner Card
K = 2 Vessel Scanner Card
Q = Profibus DP Card
S = Point Level Input Card

SLOT 1 CARD OPTIONS
A = None
B = 8 Vessel Scanner Card
J = 4 Vessel Scanner Card
K = 2 Vessel Scanner Card

HEATER *
Y = Yes
N = No

ENCLOSURE TYPE
A = NEMA 4X Fiberglass
B = NEMA 4X Stainless Steel

OPERATING VOLTAGE
A = 110 VAC
B = 24 VDC
D = 220 VAC

SONOTRACKER™ LEVEL MONITOR
with Serial Output Isolator and Backlight Display

* For use below -5° F (-20° C)

FEATURES AND BENEFITS

Quick Configuration
• Menu driven quick set up in less than 5 minutes.

Digital Connection to ORB (RS-422)

Modular Design
• Configurable for number of sensors, relays, point level inputs, current loops, and PLC interfaces.

Multiple Functions In One Unit
• Solids and liquid level, open channel flow, and differential level measurement. Adjusts systems parameters and pre-calibrates unit without special software.

Continuous Non-Contact Level Measurement
• No contamination of material, no lost parts or cables, no material build-up on sensing cables/surfaces.

Sentry DSP™
• Provides stable and accurate reading under process conditions.

NEMA-4X Enclosure
• FRP or optional stainless steel offers the right protection for your environment.

Built-in Optically Isolated Serial Port
• Versatile interfacing for data collection, servicing and building large multi-vessel communications systems.

SonoTracker™

SPECIFICATIONS

FUNCTIONAL	SonoTracker™
Operating Power	110/230 VAC (+/- 10%) 50/60 Hz or 24 VDC
Power Requirement	20 VA
Operating Temperature	-5° to 122° F (-20° to 50° C)
Measuring Distance	1 to 100' depending on sensor
PERFORMANCE	
Transducer Compatibility	Frequencies from 10 KHz to 45 KHz
Memory	Non-volatile RAM, common isolation parameter storage
Relay Output	Form "C" SPDT, programmable, 10 A 110 VAC, 8 A 230 VAC non-inductive, 10 A 30 VDC; available as plug in modules of 2, 4, 5 and 8 relays each
	4-20 mA option: Isolated 600 ohms maximum or externally powered to 1000 ohms, 12 bit resolution; available as plug in modules of 2, 4, and 8 outputs with common isolation; must be installed in third option slot
	Combi-Card option: One combi-card per unit; combinations are 2 relays, 1 current; or 4 relays, 2 currents
PLC Interface Option	32 channel block transfer, 6 channel discreet transfers, Profibus-DP Slave
PHYSICAL	
Enclosures	NEMA 4X fiberglass reinforced polyester (FRP) or NEMA 4X Stainless Steel
Display	Large, back lit alphanumeric liquid crystal, two lines of 16 characters, user programmable IDs, selectable bar graph displf or engineering units formats
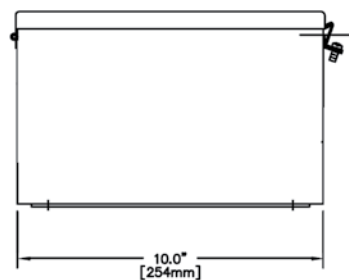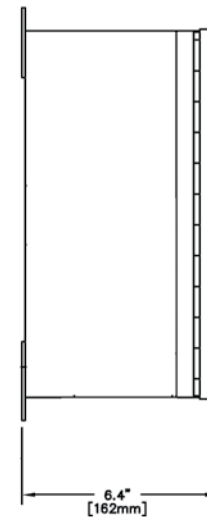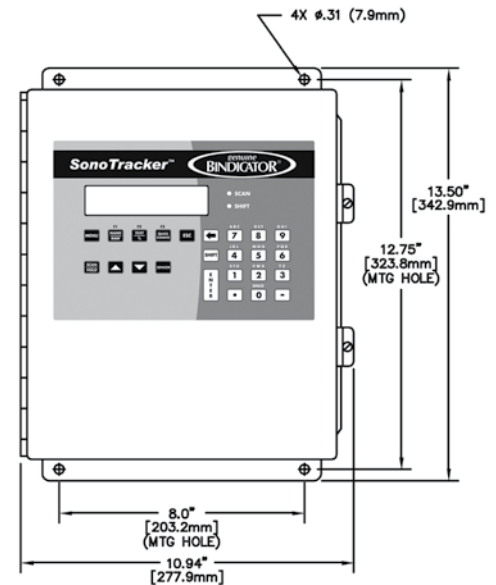
DESCRIPTION The range of sensors allows you to read levels from 1 foot to beyond 100 feet in solids. The BT-55 transducer has an extremely narrow beam angle, allowing it to be used in challenging applications. Additionally, the same unit also performs open channel flow and differential level measurements.

FEATURES AND BENEFITS

Versatility
- The transducers are designed for your specific application and environment.
- Available in frequencies of 14kHz, 22kHz, 24 kHz and 43kHz to fit a variety of materials and distances.

Accuracy
- 1% of rated span in approved bulk solids applications
- 0.25% of rated span in approved liquid applications

HOW TO ORDER

SON200057	BT-101 PVC Sensor
SON200058**	BT-26 Stainless Steel Sensor
SON200059	BT-26 PVC Sensor
SON200064	BT-26 PVC Sensor with TC
SON200069**	BT-26 Stainless Steel Sensor with TC
SON200074	BT-61 PVC Sensor with TC
SON200077	BT-61 PVC Sensor
SON200084	BT-101 PVC Sensor with TC
SON200085 *	BT-55 PVC Sensor
SON210027	Junction Box, NEMA 4x with 5 terminal connections
61-6018-02-010	External temperature probe
39-2049-01	Aiming Kit (excluding BT-55)
39-2049-03	Aiming Kit (BT-55 Only)

Notes:
- Non-pressurized flanges with standard ANSI 150 lb bolt hole configurations are available in 3", 4", 6", 8" and 12".
- Use part number 33-2074-01 for sensor cable and LUC036177 for temperature compensation cable.

* This sensor not FM Approved

APPROVALS

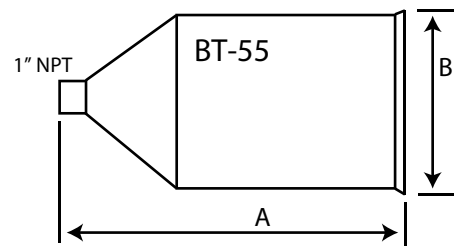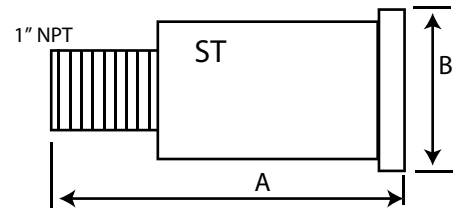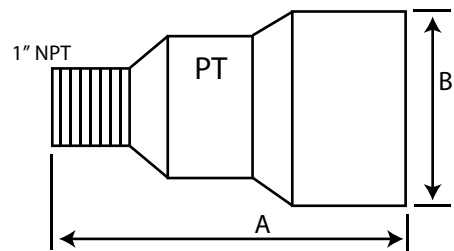|	Transducers are FM approved: S Class I, II, III; Division I, Groups C, D, E, F and G; T5 **3A (Transducer Specific)

BT-101 PVC Sensor

BT-26 Stainless Steel Sensor

BT-55 PVC Sensor

TRANSDUCER SPECIFICATIONS

	Nominal Range Liquids	Nominal Range Solids	Minimum Range	Temperature Range	Weight	Frequency	Beam Angle
BT-26PT	25' (7.6m)	15' (4.6m)	12" (305mm)	-40° to 160°F (-40° to 71°C)	1.2 lbs (0.5 kg)	43KHz	12° included
BT-26ST	25' (7.6m)	15' (4.6m)	12" (305mm)	-40° to 230°F (-40° to 110°C)	1.2 lbs (0.5 kg)	43KHz	12° included
BT-61PT	50' (15.2m)	30' (9.2m)	24" (610mm)	-40° to 160°F (-40° to 71°C)	3.1 lbs (1.4 kg)	22KHz	12° included
BT-55	100' (30.5m)	50' grains 100' plastics	24" (610mm)	-40° to 160°F (-40° to 71°C)	13.0 lbs (5.9kg)	24 KHz	5° included
BT-101PT	125' (38.1m)	100' (30.5m)	36" (914mm)	-40° to 160°F (-40° to 71°C)	5.75 lbs (2.6 kg)	14KHz	12° included

TRANSDUCER MOUNTING DIMENSIONS

	A	B
BT-26PT	5.2" (132.1mm)	2.3" (58.41mm)
BT-26ST	5.5" (139.7mm)	2.5" (63.5mm)
BT-61PT	6.9" (175mm)	4.2" (107mm)
BT-55	18.3" (463.6mm)	7.12" (180.8mm)
BT-101PT	9.2" (233.7mm)	5.5" (139.7mm)

TRANSDUCER SELECTION BY PRODUCT

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MEASUREMENT
SON280002 Rev. J
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