



RADAR HUNTER

Process Instrumentation

Radar Level Meter

- **2-wire Noncontact Radar Level measurement for liquids and solids**
- **Accuracy is +/- 0.12" (3mm)**
- **Optional Explosion Proof and Intrinsically Safe versions**
- **Measures level up to 260 ft (80 m)**
- **FMCW radar - better accuracy and performance than Pulse radar**
- **8° ... 20° beam angle (based on horn size)**

The ECHO Radar Hunter is an advanced radar level transmitter that utilizes the latest state-of-the-art technology to provide reliable measurement and control. High in functionality, the Radar Hunter offers non-contact measurement of liquids, slurries and solids. The instrument comes pre-programmed to the customer's level application, so installation and calibration takes minutes to accomplish. It will display level, distance, volume and a linear bargraph. .

The four buttons allow for easy programming using a quick setup method. No manual needed. ECHO Process Instrumentation has eliminated the need for complex parameter programming by using a simple question and answer sequence which allows the Radar Hunter to be programmed in minutes. It is the ideal instrument for non-contact level measurement and alarm control.

Big in functionality and small on price, the Radar Hunter is perfect for the toughest applications, including LPG and LNG tanks. It can withstand high vortexes in agitated conditions, high temperatures and high pressures. We offer a standard 60 day Performance Guarantee and 1 year warranty. We will prove our technology and high quality product is the best in the market and completely risk free to the customer. A totally flexible solution!



RADAR HUNTER
Radar Level Meter

Beam Angle : Horn Diameter

- **20° : 1 1/2" (DN40) Horn**
- **15° : 2" (DN50) Horn**
- **10° : 3" (DN80) Horn**
- **8° : 4" (DN100) Horn**
- **8° : BALL Shaped Horn**



HORN with
NPT connection

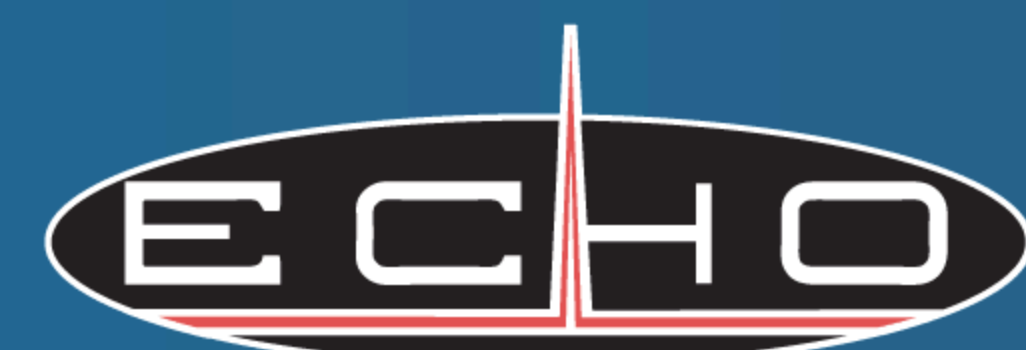


Horn with
FLANGE



BALL HORN with
NPT connection

Technical Specifications: RADAR HUNTER



Process Instrumentation

General

Measuring principle : Radar Level Measurement
 Frequency : 2 GHz (FCC certified)
 Requirement : ≥ 1.5 Dielectric Constant
 Minimum Range : 8 in (0.2 m)
 Maximum Range : 260 ft (80 m)
 Accuracy (70°F) : Range <33ft, ± 0.12 in (3mm)
 : >33ft, ± 0.12 in (3mm) $\pm 0.03\%$ PV
 Resolution : 0.04 in (1 mm)
 Display : 9 lines with 4 button keypad

Transmitter

Housing : Aluminum
 Wetted materials : Stainless Steel 316L, Optional Hast. C
 Gaskets : Kalrez (-20° ... 200°C)
 Protection rating : NEMA 4X (IP 66), Optional NEMA 6X
 Ambient Temp. : -40 ... 175 °F (-40 ... 80 °C)
 Process Temp. : -40 ... 390 °F (-40 ... 200 °C)
 Operating Pressure : -14.5 ... 580 psig (-1 ... 40 bar)
 (subject to connection used)
 Channels : 1
 Power supply : 24 VDC Loop Powered (2-wire)
 Display : 2 Line, 40 Characters LCD

Cable Entry : 1/2" NPT
 Flange Options : 1.5, 2, 3, 4, 6, 8" 150 or 300 lb ASME
 Weight : 13 lbs NPT Version, higher with flanges
 Antenna : Optional HORN extensions up to 41 in
 Temp Comp. : Fully Temperature Compensated
 Languages : English (others on request)

Output

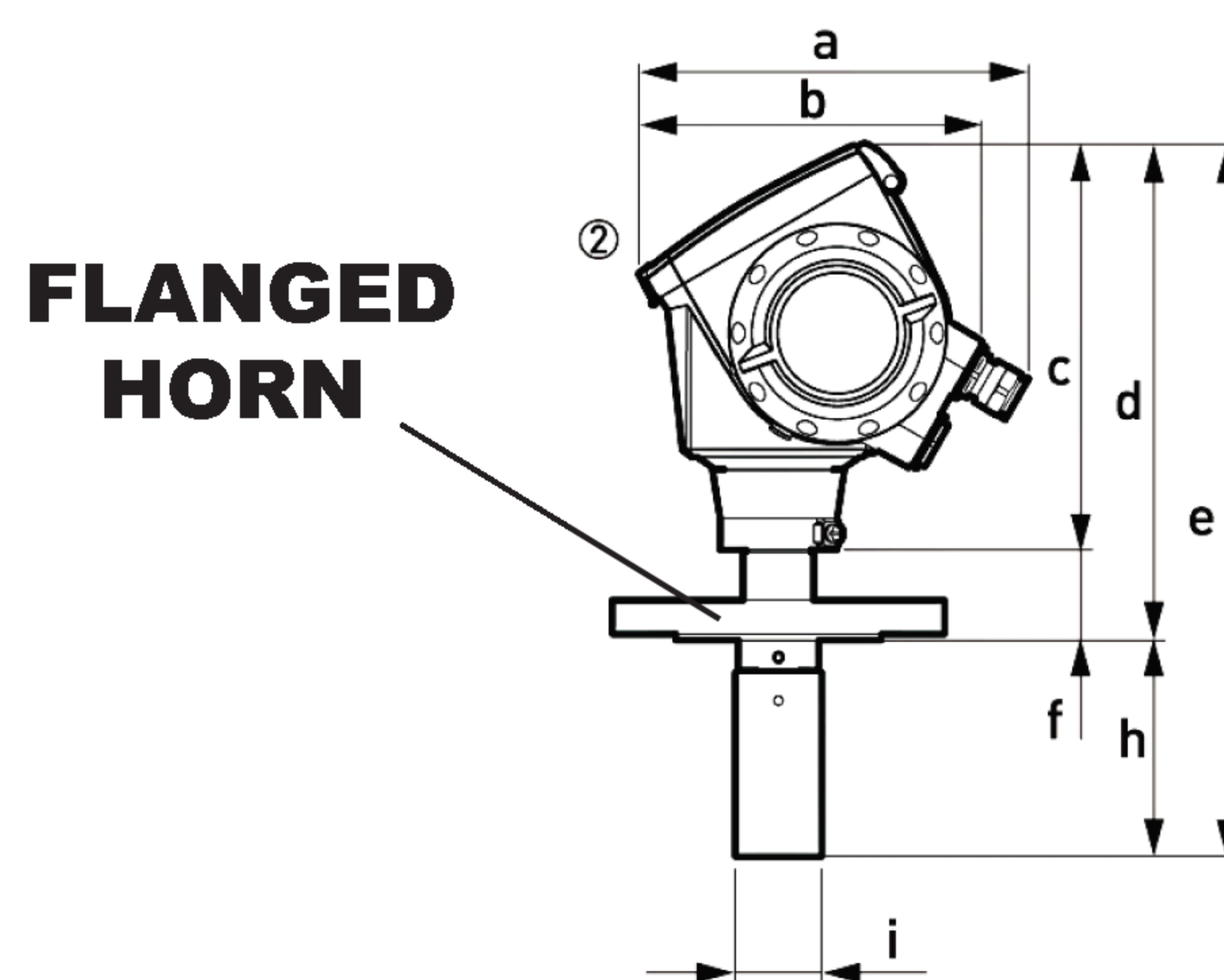
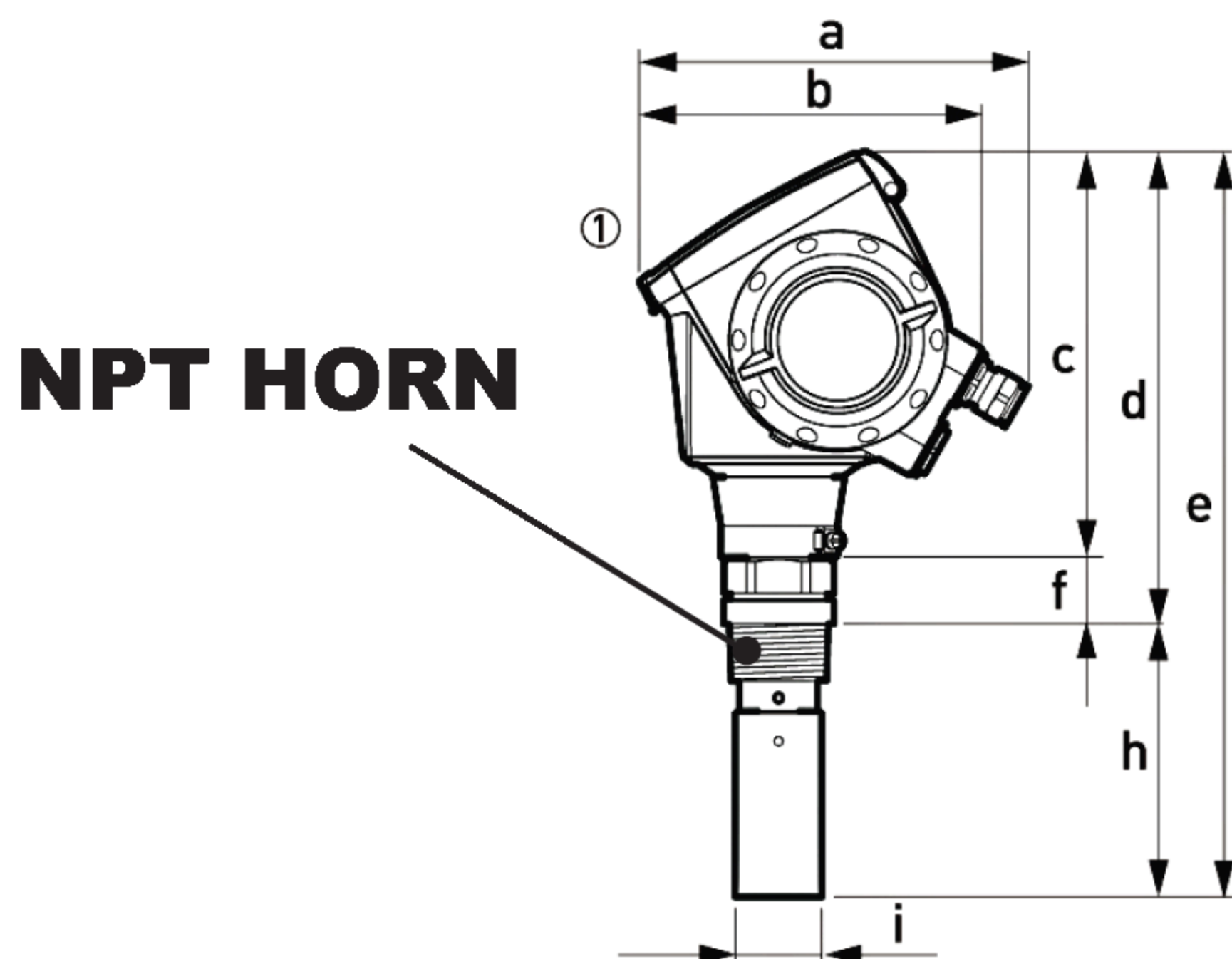
Analog Output : 4-20 mA
 Maximum Load : 350 Ohm
 Analog Accuracy : 0.05%
 Resolution : $\pm 2 \mu\text{A}$
 Error Signal : Low is 3.6mA, High is 22mA

Approvals

FM, CSA : XP: Class I, Div. 1, Grp A, B, C, D
 XP: Class II, Div. 1, Grp E, F, G; Class III
 IS : Class I, Div. 1, Grp A, B, C, D
 IS : Class II, Div. 1, Grp E, F, G; Class III
 ATEX : ATEX II G/D 1, 1/2, 2 EEx ia IIC T6...T3
 ATEX II G/D 1/2, 2 EEx d ia IIC T6...T3

Subject to change without notice.

RADAR HUNTER DIMENSIONS (inches)



HORN Size	Process Connection MNPT / 150 lb Flange	a	b	c	d	e	f	h	Øi	Weight lbs (NPT/FLG)
1 1/2"	1 1/2" NPT/ 1 1/2" Flange	7.2/ 7.2	6.5/ 6.5	7.9/ 7.9	9.2/ 9.7	14.1/ 13.5	1.3/ 1.8	4.9/ 3.8	1.5/ 1.5	13.2/ 17.6
2"	1 1/2" NPT/ 2" Flange	7.2/ 7.2	6.5/ 6.5	7.9/ 7.9	9.2/ 9.7	14.5/ 13.9	1.3/ 1.8	5.3/ 4.2	1.7/ 1.7	13.2/ 17.6
3"	1 1/2" NPT/ 3" Flange	7.2/ 7.2	6.5/ 6.5	7.9/ 7.9	9.2/ 9.7	18.9/ 18.2	1.3/ 1.8	9.7/ 8.5	3/ 3	13.2/ 17.6
4"	1 1/2" NPT/ 4" Flange	7.2/ 7.2	6.5/ 6.5	7.9/ 7.9	9.2/ 9.7	21.6/ 20.9	1.3/ 1.8	12.4/ 1.8	3.7/ 3.7	14.3/ 17.4
BALL	1 1/2" NPT/ 3" Flange	7.2/ 7.2	6.5/ 6.5	7.9/ 7.9	9.2/ 9.7	15.7/ 15.1	1.3/ 1.8	6.5/ 5.4	2.9/ 2.9	13.4/ 17

IMPORTANT: All NPT Process Connections are 1 1/2" MNPT (1 1/2" G for Europe and Asia) and antenna extensions are available.