

Application Data Sheet

COMPLETE ONE FORM PER TANK

KING-GAGE®

Tank Liquid Level
Inventory Monitoring
Process Integration

Supplement 1000-2R, Effective: October 2012

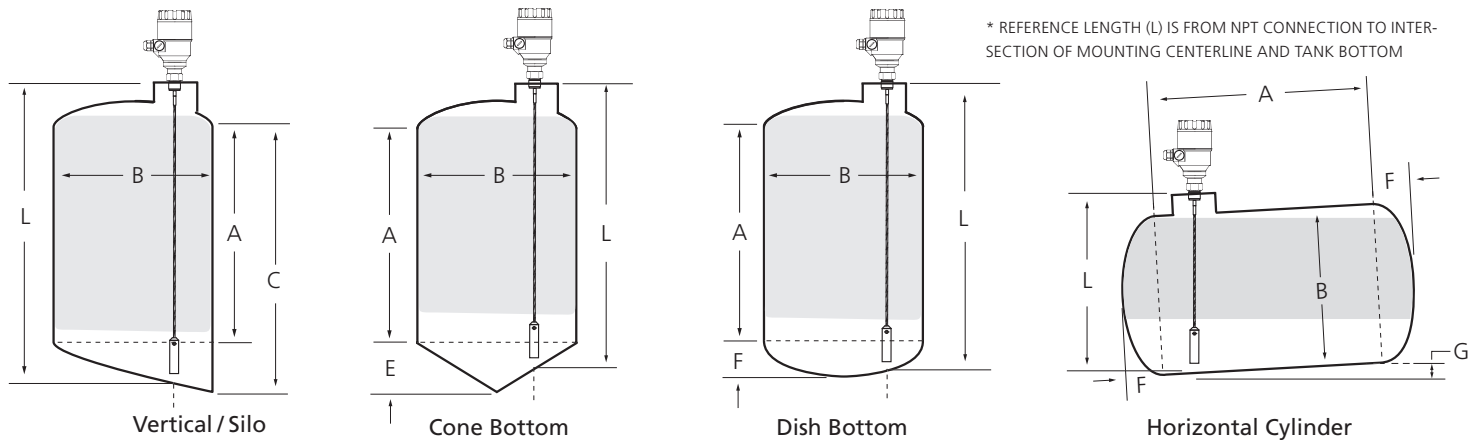
Company Information

COMPANY		DATE	NAME	
ADDRESS			TITLE	
CITY	STATE	EMAIL		
PLANT NAME / LOCATION		PHONE	FAX	

Tank Information

TANK NAME		MANUFACTURER	YEAR MANUFACTURED
CAPACITY	DENSITY / SP. GRAVITY	SERIAL NO.	
FLUID	DIELECTRIC CONSTANT	READOUT UNITS #1	Volume (Gallons, Liters, etc) Weight (Pounds, Kilograms, etc) Depth (Feet, Meters, etc)
		READOUT UNITS #2	
	PROCESS / STORAGE TEMP.	READOUT UNITS #3	

Tank Shapes—LevelWAV (Guided Radar) Systems:



TANK SHAPE <input type="checkbox"/> Vertical / Silo <input type="checkbox"/> Cone Bottom <input type="checkbox"/> Dish Bottom <input type="checkbox"/> Horizontal Cylinder		REFERENCE LENGTH (FROM TOP CONNECTION TO END POINT REFERENCE*) L = <input type="checkbox"/> in. <input type="checkbox"/> cm
STRAIGHT SIDE A = <input type="checkbox"/> in. <input type="checkbox"/> cm	DEPTH OF CONE (CONE BOTTOM) E = <input type="checkbox"/> in. <input type="checkbox"/> cm	
INSIDE DIAMETER B = <input type="checkbox"/> in. <input type="checkbox"/> cm	DEPTH OF DISH (DISH BOTTOM & HORIZONTAL CYLINDER) F = <input type="checkbox"/> in. <input type="checkbox"/> cm	
SLOPED BOTTOM C = <input type="checkbox"/> in. <input type="checkbox"/> cm	PITCH OF TANK (HORIZONTAL CYLINDER) G = <input type="checkbox"/> in. <input type="checkbox"/> cm	
SPECIAL CONDITIONS <input type="checkbox"/> Multiple Compartments <input type="checkbox"/> Internal Heating Coil <input type="checkbox"/> Internal Agitator/Mixer <input type="checkbox"/> Sediment Accumulation		

Please complete tank connection data on next page



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Tank Application Data

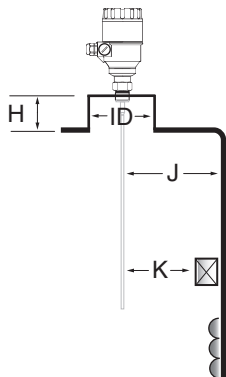
Transmitter Mounting (Process Connection)

Typical process connection will be 1" or 1-1/2" NPT coupling on the tank. However, it is also common for a tank nozzle to be present on the tank top. Due to the nature of the propagated waveform the tank nozzle may not be longer than its diameter - nor should it extend any distance into the tank interior.

Make certain that the nozzle has a diameter (ID) equal to or greater than its height.

IMPORTANT! $ID \geq H$

Provide the dimension of the vertical center line of the mounting to the side wall of the tank.



Tank Cleaning Method

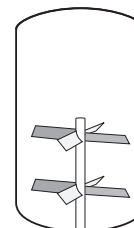
Some process environments require periodic internal cleaning of the tank. If applicable, please indicate cleaning method employed.

- Clean-in-place (CIP) High Temperature Sterilization / SIP
 Passivation Manual Cleaning

Special Conditions

Some of the following tank features may limit the selection of sensor or must be compensated for in programming tank capacity. If applicable, please indicate whether any of the following conditions exist.

- Internal Heating Coil Sediment Accumulation
 Internal Agitator/Mixer
 Multiple Compartments



- Surface Turbulence Bubbling/boiling
 Product Buildup (coating)
 Other (describe): _____

Tank Connection Data

TANK NOZZLE

- Tank Top Nozzle NPT Coupling (no nozzle)

NOZZLE DIAMETER

ID = in. cm

NOZZLE HEIGHT

H = in. cm

VERTICAL CENTERLINE FROM SIDE WALL

J = in. cm

MINIMUM CLEARANCE FROM INTERNAL OBSTRUCTION

K = in. cm

NOTE: "K" dimension must be at least 12"/300mm from the closest obstruction for proper operation of the LevelWAV radar unit.

Sensor Configuration - Application Limits

Probe Type	Max. Length		Min. Dielectric
4mm cable	945 in	2400 cm	2.1
8mm cable	945 in	2400 cm	2.1
Twin cable	945 in	2400 cm	1.8
Rod	236 in	600 cm	2.1
Twin Rod	118 in	300 cm	1.8

Material	Dielectric Constant
baking soda	5.7
calcium carbonate	9.1
fly ash	1.9-2.6
lime (quicklime)	4.8
potash	5.6

Fluid	Reference Temperature	Dielectric Constant
acetic acid	68° F	6.2
acetone	77° F	20.7
alcohol	68° F	21.8-33.1
ammonia	68° F	16.5
carbon tetrachloride	68° F	2.2
castor oil	60° F	4.7
chlorine	32° F	2.0
diesel fuel	70° F	1.8
gasoline	70° F	2.0
heptane	68° F	1.9
kerosene	70° F	1.8
olive oil	68° F	3.1
palmitic acid	160° F	2.3
propane	32° F	1.6
stearic acid	160° F	2.3
styrene	77° F	2.4
water	68° F	80.4