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VRF-1000 Integral Series



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VRF-1000 Cable Series

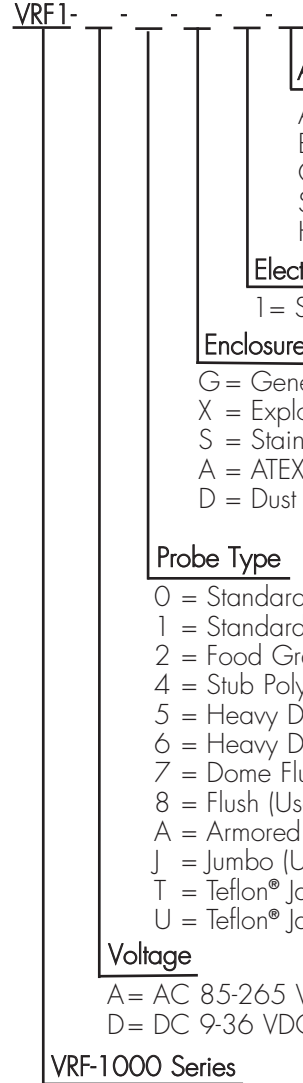
Features and Benefits

- Opti-Sense™**
Uses variable radio frequency (VRF™) technology to determine the optimal operating frequency for greatest sensitivity and stability
- Wide Variety of Probe Options**
Unequaled application versatility
- Pro-Guard™**
Probe design ignores material build-up on probe
- EZ-Cal® II**
No initial manual calibration required
- Explosion Proof & Stainless Steel Enclosures Available**
Provides more options for a wide range of applications
- Captive Screws**
No lost screws

Surpassing the sensitivity of RF technology, VRF™ provides superior level detection. The VRF™ series uses Variable Radio Frequency to detect the presence or absence of material in a vessel by compensating for the load of the probe, as well as the load induced by vessel environment, and automatically determining the optimal operating frequency for the greatest sensitivity and stability. At initial start-up the sensor detects the characteristics of air (no load) and calibrates to it. If installed in material, when the load is reduced (material leaves probe), the VRF™ senses this change and automatically recalibrates to its new condition without the need of an operator or technician.

Bindicator® manufactures an array of VRF™ probes, each tailored for specific applications. When combined with our large selection of probes, we have a VRF™ sensor for virtually every application. Please consult one of our representatives or call the factory for application assistance.

How to Order VRF-1000 Integral Series



Assembly Configuration

- A = 3/4" S.S. & 1 1/4" Aluminum & Flush Probes
- B = Pipe Extended, S.S. Coupling & Connection
- C = Pipe Extended, Plated Coupling & Aluminum Connection
- S = Sanitary Connection 1" or 1 1/2" Tri-clamp Size (See Note 1)
- H = 3/4" Hastelloy C (For Teflon® Probes Only)

Electronics Version

- 1 = Standard

Enclosure Type

- G = General Purpose NEMA 4X
- X = Explosion Proof NEMA 4X/7/9 FM and CSA
- S = Stainless Steel Type 304 NEMA 4X
- A = ATEX Approved Explosion Proof
- D = Dust Ignition Proof for Jumbo Probe Only

Probe Type

- 0 = Standard Ryton®
- 1 = Standard Kynar® Coated (Max. Length 60" or 1524mm)
- 2 = Food Grade Polysulfone
- 4 = Stub Polysulfone
- 5 = Heavy Duty Ryton®
- 6 = Heavy Duty Kynar® Coated
- 7 = Dome Flush (Use "A" Configuration Only) (Specify Thickness - See Note 2)
- 8 = Flush (Use "A" Configuration Only)
- A = Armored Food Grade (Use "A" Configuration Only)
- J = Jumbo (Use "A" Configuration Only) (Enclosure Type G or D Only)
- T = Teflon® Jacketed Standard
- U = Teflon® Jacketed Heavy Duty

Voltage

- A = AC 85-265 VAC
- D = DC 9-36 VDC

VRF-1000 Series

Note 1: For 3A Sanitary Certification add "3A" at end of the model code. Configuration "S" must be used and either "Type 2" Food Grade probe or "Type 4" Stub probe.

Note 2: Thickness of probe must be specified: 3/8", 1/2", 5/8" or 3/4" wall thickness.



How to Order VRF-1000 Cable Series

VRF1C

						<u>Cable Probe Material</u> S = Stainless Steel N = Nylon® T = Teflon®
						<u>Cable Probe Length</u> ___ = Specify Insertion Length of Cable Probe Assembly in Inches (See Note 1)
						<u>Assembly Configuration</u> A = 3/4" S.S. & 1 1/4" Aluminum & Flush Probes S = Sanitary Connection 1" or 1 1/2" Tri-clamp size
						<u>Electronics Version</u> 1 = Standard
						<u>Enclosure Type</u> G = General Purpose NEMA 4X X = Explosion Proof NEMA 4X/7/9 FM and CSA
						<u>Probe Type</u> 0 = Standard Ryton® 2 = Food Grade Polysulfone 4 = Stub Polysulfone 5 = Heavy Duty Ryton®
						<u>Voltage</u> A = AC 85-265 VAC D = DC 9-36 VDC
						<u>VRF-1000 Cable Probe Series</u>

Note 1: Maximum length 45 feet (13.71mm) or 540 inches (13716mm).

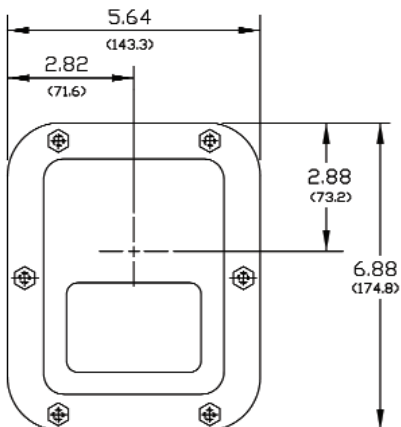
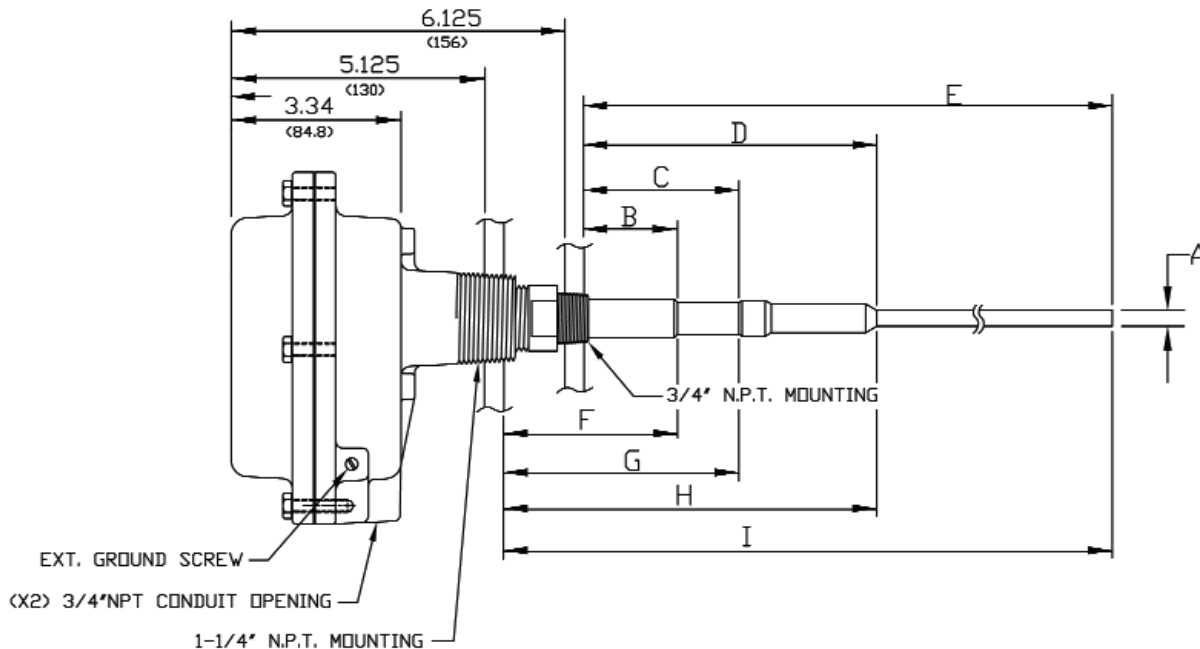
The VRF™ Cable Series should be used when tank mid or low-level monitoring is desired and the unit must be mounted from the top of the tank. The Cable Series provides the same features and reliability of the standard probe series, however, with a bendable cable, the unit can be conveniently mounted in enclosed environments.

Electrical Specifications for Integral and Cable Series

Universal Input Power:	85 VAC - 265 VAC DC input power: 9 VDC - 36 VDC
Power:	3 watts
Output Relay:	DPDT 6 amps @ 240 VAC, 6 amps @ 30 VDC, Minimum load 12V/100mA
Temperature Range:	-40° F to 158° F (-40° C to 70° C)
Sensitivity:	Dip-switch selectable for 1pF, 2pF, 5pF or 10pF
Time Delay:	Dip-switch selectable for 1, 4, 8 or 15 seconds
Fail Safe:	High-Low level failsafe dip-switch
Calibration:	Push-button, intelligent recalibration
Approvals:	FM and CSA listed for non-hazardous and hazardous locations Class I, Groups C,D; Class II, Groups E,F, G (pending) - enclosure types NEMA 4X/7/9

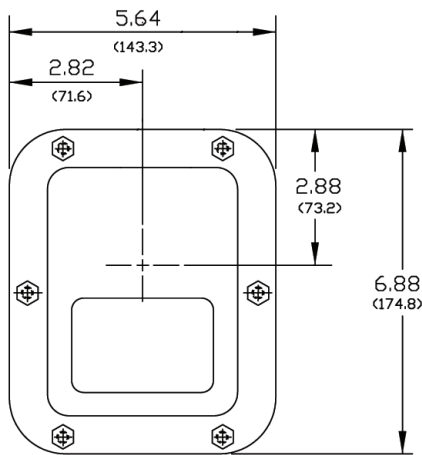
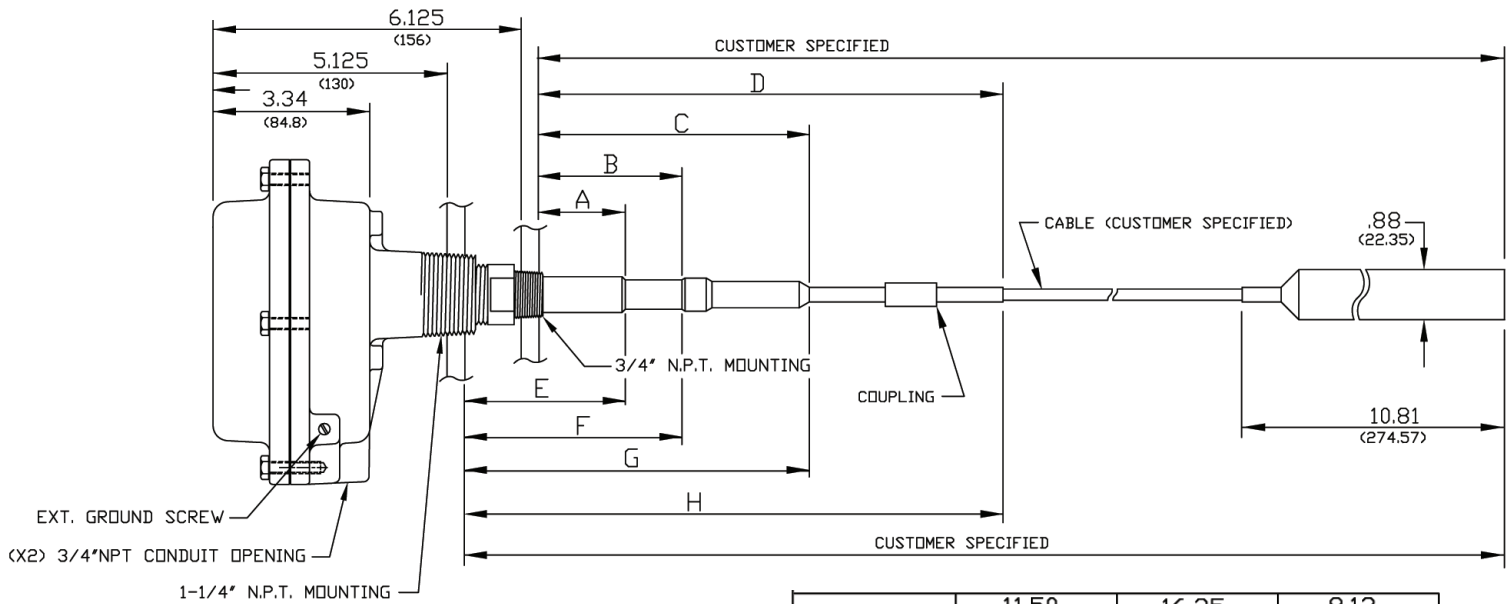
Dimensions

VRF-1000 Integral Series



I	15.25 (387.5)	19.25 (489)	15.62 (396.7)	19.62 (498.35)	15.25 (387.35)
H	7.00 (178)	11.75 (298.5)	7.00 (178)	11.75 (298.5)	3.63 (92.2)
G	4.50 (115)	10.00 (254)	4.50 (115)	10.00 (254)	3.25 (82.55)
F	3.38 (86)	8.5 (216)	3.38 (86)	8.5 (216)	2.75 (69.85)
E	14.25 (362)	18.25 (463.5)	14.62 (371.4)	18.62 (472.95)	14.25 (362)
D	6.00 (152.5)	10.75 (273)	6.00 (152.5)	10.75 (273)	2.63 (66.8)
C	3.50 (89)	9.00 (228.5)	3.50 (89)	9.00 (228.5)	2.25 (57.2)
B	2.38 (60.5)	7.50 (190.5)	2.38 (60.5)	7.50 (190.5)	1.75 (44.5)
A	.31 DIA. (8)	.38 DIA. (9.5)	.31 DIA. (8)	.38 DIA. (9.5)	.31 DIA. (8)
APPROX DIM'S	STD. & FOODGRADE	H.D.	STD. KYNAR COATED	H.D. KYNAR COATED	STUB

Dimensions VRF-1000 Cable Series



H	11.50 (292.1)	16.25 (412.8)	8.12 (206.2)
G	7.00 (178)	11.75 (298.5)	3.63 (92.2)
F	4.50 (115)	10.00 (254)	3.25 (82.6)
E	3.38 (86)	8.50 (216)	2.75 (69.9)
D	10.50 (266.7)	15.25 (387.4)	7.12 (180.8)
C	6.00 (152.5)	10.75 (273)	2.63 (66.8)
B	3.50 (89)	9.00 (228.5)	2.25 (57.2)
A	2.38 (60.5)	7.50 (190.5)	1.75 (44.5)
APPROX DIM'S	STD. & FOODGRADE	H.D.	STUB



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