

**NRF-1W**  
**FLEXIBLE CABLE RADIO FREQUENCY**  
**WATER WELL LEVEL TRANSMITTER**



Flow  
Pressure  
Level  
Temperature  
measurement  
monitoring  
control



N2

- **Flexible Cable Lengths Up to 1000 Feet (300m)**
- **Accuracy  $\pm 1$  % of Span**
- **High Frequency Propagation**  
**Resists Errors Due to Coating**
- **3/4" NPT Stainless Fitting Standard**
- **PFA Teflon 3/32" Diameter Cable**
- **Flexible Segmented 1/2" Diameter Stainless Steel Cable Weight**
- **Simple Non-Interacting Zero and Span Adjustment**



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Model:  
**NRF-1W**



**Features**

- Flexible Cable Lengths Up to 1000 Feet (300m)
- Accuracy ±1 % of Span
- High Frequency Propagation Resists Errors Due to Coating
- 3/4" NPT Stainless Fitting Standard
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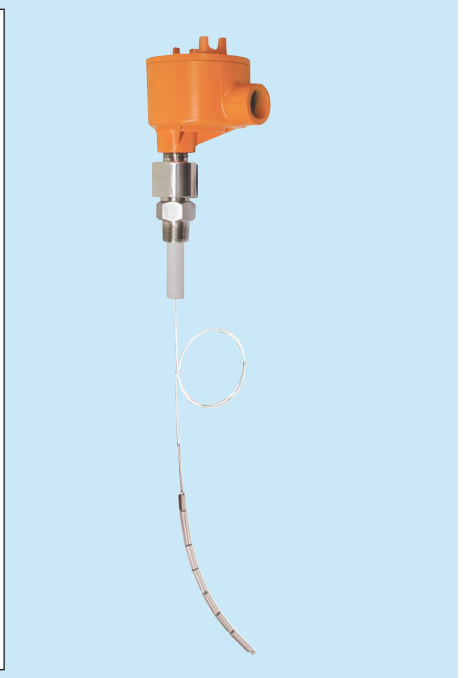
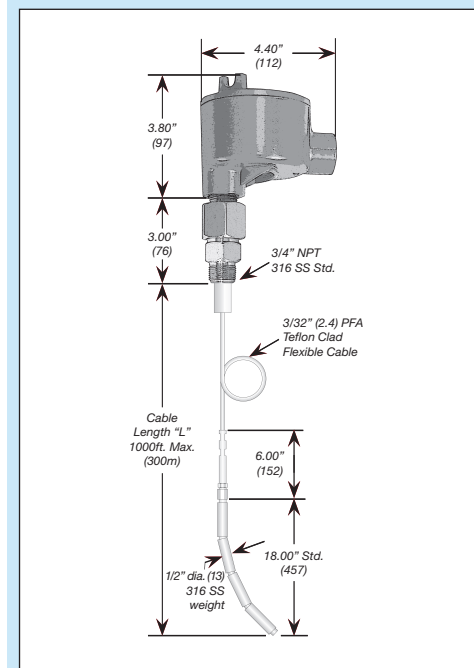
The KOBOLD series NRF-1W cable radio frequency level transmitter is designed to measure water levels in ground pipes of 3/4" and larger. All wetted surfaces are Teflon and 316 stainless steel. The flexible segmented weight facilitates the ease of installation around slight bends in pipes. The microprocessor-based transmitter converts capacitance change into linear, highly accurate 4-20 mA signal is mounted in the enclosure, but optional remote mounted electronics are available. The NRF operates at a higher frequency than similar devices, up to 2 MHz Max., thereby minimizing the effects of coating on the probe. The compact and advanced microprocessor-based design makes installation and setup a simple task.

The NRF-1W is a highly dependable water well level sensor.

**Specifications**

**Accuracy:** ±1% of span (at calibration conditions)  
**Repeatability:** ±0.1% of span (for water at calibration conditions)

**Electrical Specifications:**  
**Input Power:** 12-36 VDC  
**Output:** 4-20 mA, 2-wire  
**Max. Loop Res.:** (Vs-10)/0.02 Ohm  
**Calibration:** Via 4 push-button switches  
**Max. Length:** 1000 feet (300m)  
**Wetted Materials**  
**Standard Fitting:** 3/4" NPT 316 SS  
**Cable:** PFA Teflon clad  
**Weight:** 316 SS



Note: Dimensions in brackets are in millimeters

**KOBOLD NRF-1W Radio Frequency Level Probe**

**Temperature Range**

**Process:** -100 to 350°F max.  
**Ambient:** -40 to 160°F

**Enclosures**

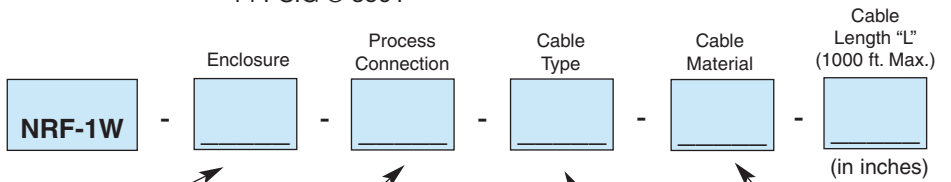
**Standard:** NEMA 4X (Nylon®), Aluminum or Stainless

**Max. Pressure:**

**316 SS Fitting:** 100 PSIG @ 70°F  
 50 PSIG @ 300°F  
 14 PSIG @ 350°F

**Applications**

- Deep well level measurement
- Water storage tanks
- Waste water treatment plants
- Chemical holding tanks
- Monitoring reservoir level



CODE	Enclosure
1	Nylon® (NEMA 4)
2	Stainless Steel
3	Aluminum

CODE	Process Connection
1	3/4" NPT 316 SS
5	1-1/2" NPT 316 SS

CODE	Cable Type
1*	Single Cable
4**	Dual Cable

CODE	Cable Material
1	Teflon Cable
3	One 316 SS One Teflon

Example: NRF-1W1111

\* Single cable must be Teflon clad, ex.: Code 1

\*\* Dual cable must be one Teflon & one 316 SS, ex.: Code 3

For each request for quotation or order, please complete the application data sheet at the end of this section.



<p><b>NRF-1W - Flexible Cable Radio Frequency Water Well Level Transmitter</b></p> <p><b>Application Guide</b>                  Form #NRF-1W-001                  Rev. 03/13/07</p> <p style="text-align: right;"><b>FAX to:</b>                  KOBOLD Instruments Inc.                  412-788-4890 (USA)                  514-428-8899 (Canada)</p>	<p><b>Customer Name:</b> _____</p> <p><b>Company Name:</b> _____</p> <p><b>Phone:</b> _____</p> <p><b>Fax:</b> _____</p>
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Quote #: \_\_\_\_\_ Date: \_\_\_\_\_ Price: \_\_\_\_\_ Each Part Number: \_\_\_\_\_

1. Pressure: Normal \_\_\_\_\_ PSIG Maximum \_\_\_\_\_ PSIG
2. Temperature: Normal \_\_\_\_\_ °F Maximum \_\_\_\_\_ °F
3. Is the liquid temperature constant under normal conditions:  
 Yes  No (If No, state normal operating range) \_\_\_\_\_ °F
4. Liquid Type:  Water  Other (Specify) \_\_\_\_\_

\* To ensure fast order processing, please retain the completed application data sheet and send it along with your purchase order.



**Process Conditions**

Accurate process information is essential to ensure the proper operation of your level indicator. Please fill out accurately and completely.

**Well Information (if applicable)**

Liner Material: \_\_\_\_\_

**Tank Information (if applicable)**

Tank Material of Construction: \_\_\_\_\_

Tank Height: \_\_\_\_\_

Tank width: \_\_\_\_\_

**Fitting Type:**

- 3/4" NPT (single cable versions only)
- 1-1/2" NPT

**Measuring Probe Length(L):** \_\_\_\_\_ inches

**Any additional comments or special requirements:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Quoted By:** \_\_\_\_\_

