

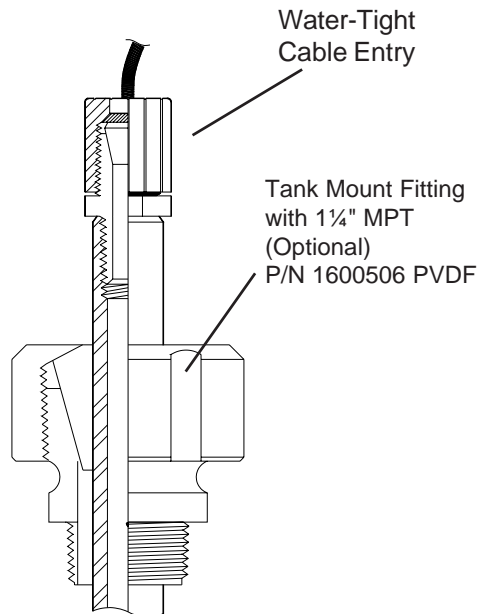
**SUBMERSIBLE  
SENSORS FOR pH, ORP, &  
CONDUCTIVITY APPLICATIONS**

2/07

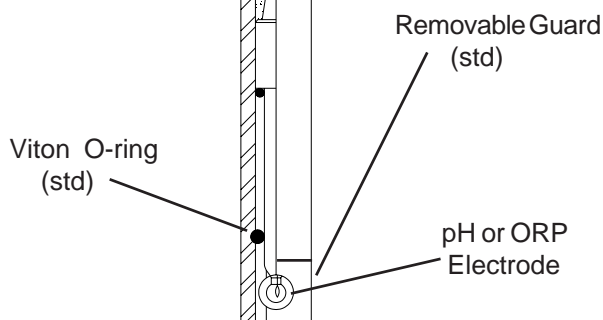
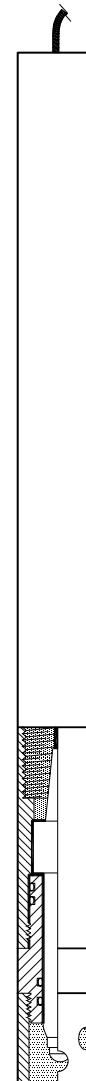


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**MARK 1-A  
(cut away view)  
(Disposable)**



**MARK VI-B  
with extension  
(Rebuildable)**



**APPLICATION**

The Mark I-A and Mark VI-B sensors will continuously monitor pH, ORP, and Conductivity in tanks, vessels, or canals where liquid levels tend to vary. Typical applications include chlorine cells, latex coagulation tanks, and effluent sumps. It can be installed in atmospherically sealed vessels with use of a tank mount fitting (sold separately).

## DESIGN ADVANTAGES

The Mark 1-A sensor was designed to be ordered as a complete assembly which does not require additional labor or materials (extension pipes, water sealants, wiring adapters or connectors). This sensor is supplied with a removable guard. The removable guard will simplify cleaning and reduce down-time as well as maintenance expense. Van London-Phoenix Co. has the capability of supplying the numerous electrode designs for maximum electrode life. Furthermore, the Mark 1-A can be customized to mate up with any pH/ORP transmitter commercially available.

The Mark VI-B incorporates a removable drilled guard for optimum protection against electrode breakage. "Front Load" electrode replacement requires minimal disassembly. An all-in-one electrode (measuring, reference and ATC) reduces replacement costs and inventory requirements.

## SPECIFICATIONS

	<u>MARK 1-A</u>	<u>MARK VI-B</u>
<b>Sensor Length:</b>	48" is the standard	6"
<b>Sensor Diameter:</b>	¾"	1¼"
<b>Electrode Material:</b>	<u>pH</u> - glass and ceramic <u>ORP</u> - Platinum, glass and ceramic <u>Conductivity</u> - stainless steel and PEEK	<u>pH</u> - glass and ceramic <u>ORP</u> - Platinum, glass and ceramic
<b>O-ring Material:</b>	Viton®(standard)	Viton®(standard)
<b>Pressure Rating:</b>	Atmospheric	Atmospheric
<b>Temperature Rating:</b>	CPVC - 60°C Kynar® - 100°C	Kynar® - 100°C 316SS - 130°C Hastelloy - 130°C

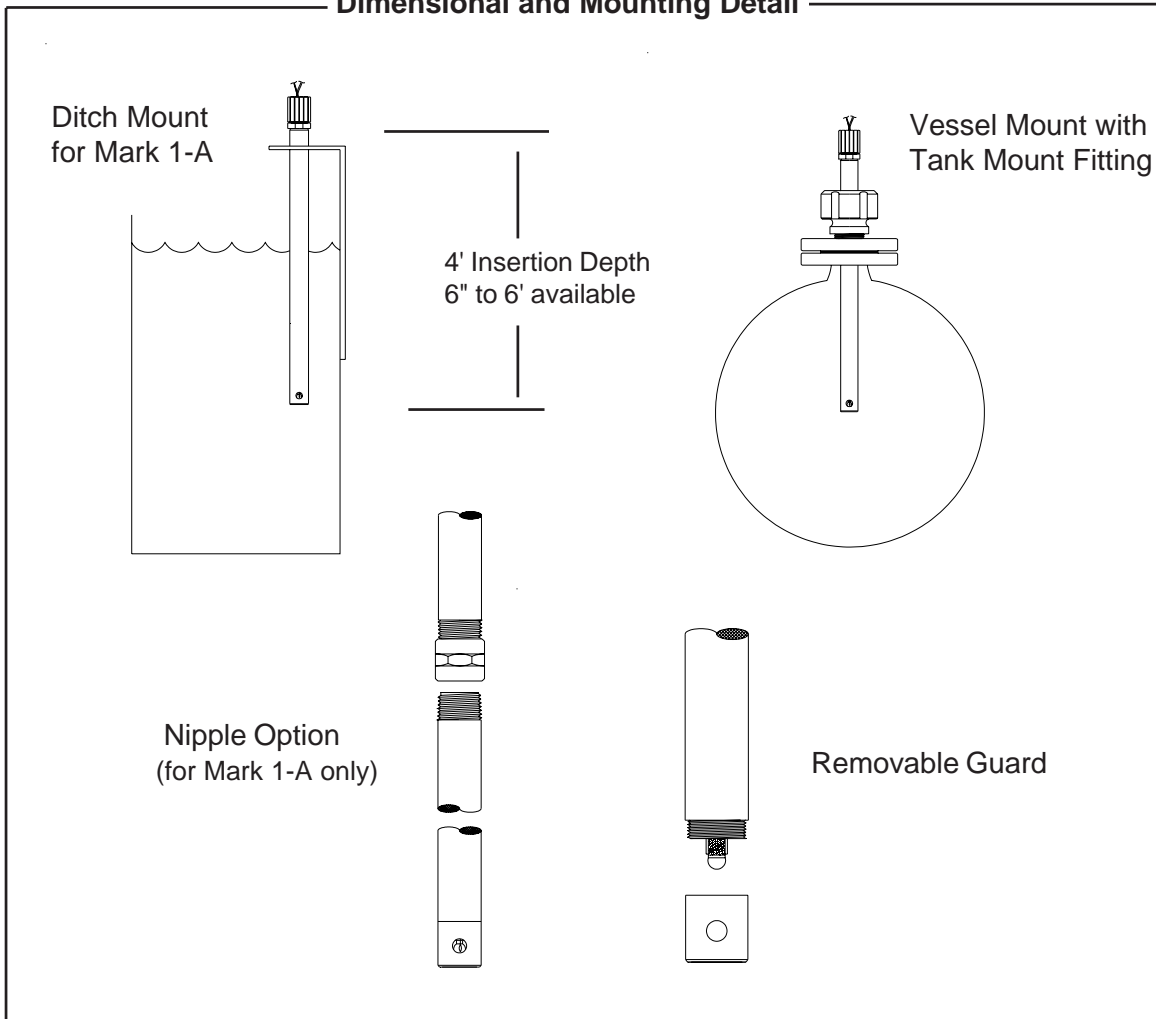
## ELECTRODE STYLES

Create an electrode that is best suited for your application requirements using the selections below:

**Measuring Types:** Platinum Band - For ORP measurement  
Conductivity - Cell constants 0.1 and 1.0  
GXV - Multi-purpose pH glass formulation (0-14.00 pH)

**Reference Types:** DJ - Double ceramic reference junction  
SPR™ - Double junction, **SOLID POLYMER REFERENCE** (0-120 °C)

**Dimensional and Mounting Detail**



**Mark VI-B Assemblies & Accessories**

1506600	:	Mark VI-B Sensor Housing (316SS)
1606600	:	Mark VI-B Sensor Housing (Kynar®)
1600506	:	Tank Mount Fitting for 3/4" Pipe (Kynar®)
1600650	:	3/4" Extension Pipe, 48" length (Kynar®)

**Replacement Electrodes for Mark VI-B**

V - 001 Z	-	XX	QQ	:	Combination pH Electrode
79 Z 6420	-	XX	QQ	:	Combination ORP Electrode

**Connector Type**  
**H** Hanked (tinned)  
**BH** Male BNC & Hanked (tinned)

**Lead Length**  
 Specify lead length in even feet

**Automatic Temperature Compensator (ATC)**

- 0** None
- B** 100 ohms @ 0°C (PT100)
- 1** 3000 ohms @ 25°C

*Additional styles are available. Consult the factory for options.  
 713/772-6641 or 800/522-7920*

## ORDERING INFORMATION

- To build your own part number, first determine the sensor style required and then replace X's, Z's & Q's with selections listed in the drop-down menus below. Call the factory if application

Mark 1-A Sensor Assemblies (pH & ORP)			
V - 310	Z	-	XX XX : Kynar®
V - 300	Z	-	XX XX : CPVC
		<b>Connector Style</b>	
		H Hanked (tinned)	
		SL Spade Lug	
<b>Temperature Compensator</b>		BS Male BNC & Spade Lug	
1	3000 ohm	BH Male BNC & Hanked	
B	100 ohm	BT Male BNC & Molex	
<b>Lead Length</b> (in even feet)			
Mark 1-A Sensor Assemblies (Conductivity)			
C1	X X X 1	- 20	SL : Mark 1-A Conductivity Sensor
		<b>Cell Constant</b>	
		2 0.1	
		4 1.0	
		<b>Temperature Compensator</b>	
		B PT100 ohm	
		L 10K ohm	
		E PT1000 ohm	
		<b>Material of Construction</b>	
		2 CPVC	
		6 Kynar®	
<i>Additional styles are available. Consult the factory for options. 713/772-6641 or 800/522-7920</i>			

## Electrode Solutions

9210038	4.00pH, 7.00pH and Deionized Water rinse (1 pint each)
9210037	4.00pH, 7.00pH and 10.00pH (1 pint each)
9210039	7.00pH, 10.00pH and Deionized Water rinse (1 pint each)

## TRANSMITTER REFERENCE GUIDE

<u>Tranmitter</u>	<u>Temp. Comp.</u>	<u>Cable Connector</u>
ABB/TBI 515	1	BS
ABB/TBI TB82 & TB84	B	H
Rosemount:		
1181 w/ preamp in transmitter	*	SL
1181 w/ remote preamp	*	BH
2081,3081,4081,5081,1055 & XMT	B	H
Honeywell w/ preamp	9	H
Ingold/Mettler Toledo B	H	
Endress & Hauser, Foxboro, Yokogawa	B	H
Great Lakes Inst.	B (conventional)	
Great Lakes Inst.	7 (differential)	

\* Preamp dependant - Consult Van London-Phoenix Co. sales staff.