MARK 7 SERIES FOR pH AND ORP APPLICATIONS

2/07

VAN LONDON pHoenix Co.
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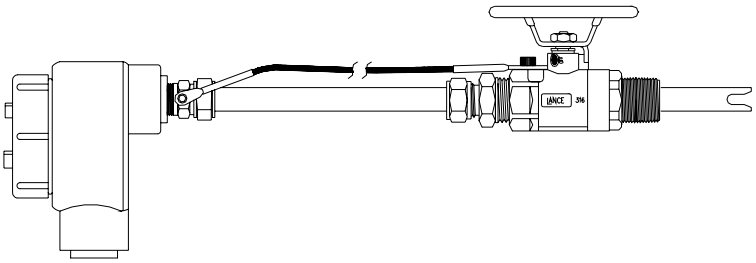
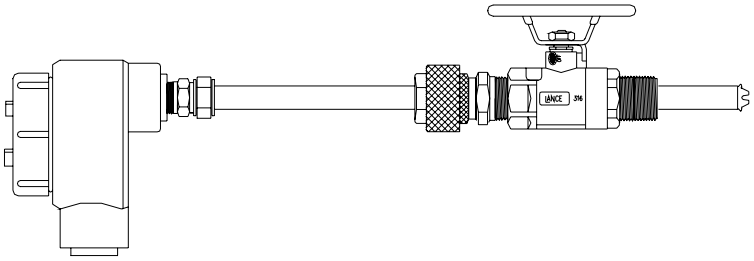
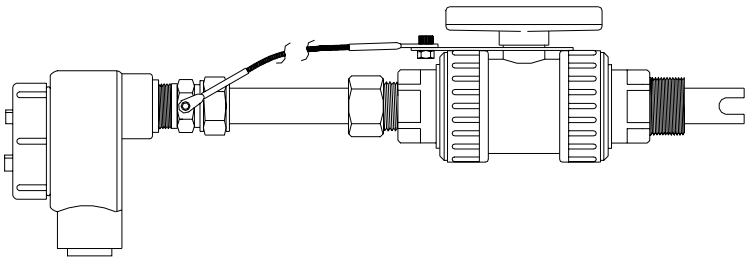
Mark 7-S



Mark 7-Z



Mark 7-K
(Kynar®)



- ***Safe Operation***
  Mark 7 assemblies can be safely removed and replaced under pressure without process shutdown. Electrode o-ring arrangement seals the electrode from leaking, even in the event of breakage.

- ***Top-Entry Electrode Installation***
  The electrode is removable through the junction box; no tools or disassembly required.

- ***Convenient Electrical Connections***
  The junction box houses all electrical connections (including an optional preamplifier) so that the analyzer may be located in a friendlier environment.

- ***Low Cost Electrode Replacement***
  The 3-in-1 Mark 7 electrode houses the measuring, reference, and automatic temperature compensator (ATC) to reduce inventory and maintenance downtime. A variety of styles are available to optimize electrode life.

- ***Quality "Built In"***
  All Van London-Phoenix Co. assemblies and electrodes meet strict, documented quality specifications, followed through each step of the manufacturing process.

- ***Custom Fabrication***
  Several other materials and sensor styles are available for customer-specified requirements.

APPLICATION

The Mark 7 insertion assemblies permit continuous pH or ORP monitoring in pressurized vessels or lines. Specifications are for mounting onto a weldalet, a pipe tee or flange. To reduce the maintenance downtime required, electrode connections terminate inside an explosion-proof junction box which houses the preamp as well.

MODIFIED TIP OPTION

Originally marketed for paper mill stock pulp applications, the **"Modified Tip" (illustrated on front page as Mark 7-Z)** is available in any style of Mark 7 sensor for processes where accumulation around the sensing tip is a concern. The Modified Tip creates a low profile guard so that it protects the electrode bulb and reference junction. With this design, the process flow actually aids in the cleaning action.

SPECIFICATIONS

Measuring Types: *Platinum Band* - For ORP measurement (0-130°C)
GXV - Multi purpose pH glass formulation 0-14pH
Antimony - For pH measurements in HF applications, 2-7pH (0-80°C)

Reference Types: *SPR™* - Double junction, solid polymer reference (0-130°C)

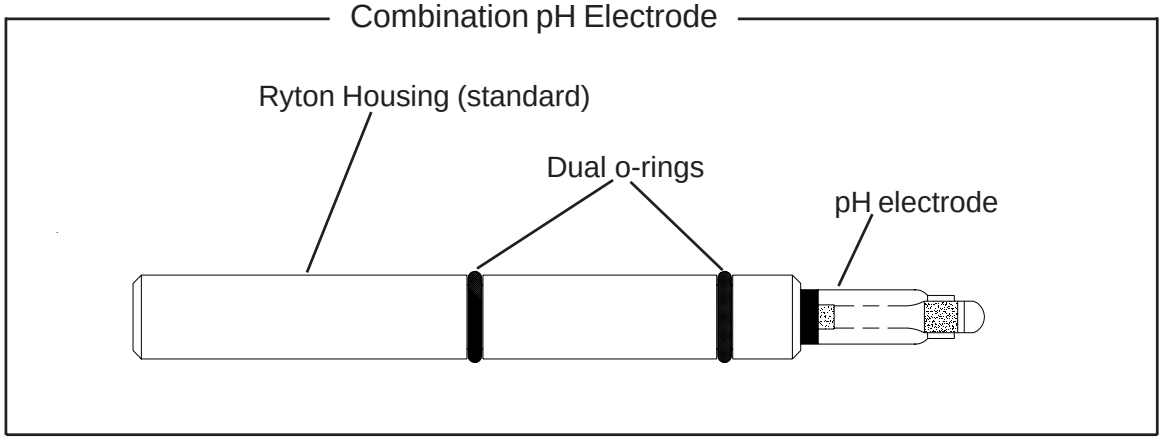
ELECTRODE SPECIFICATIONS

Electrode Materials:	Glass and ceramic (platinum for ORP)
Housing Materials:	Ryton® (standard)
*O-ring Materials:	Viton® (standard)

SENSOR SPECIFICATIONS

	Mark 7-S	Mark 7-K	Mark 7-Z
Tube Material:	316SS	Kynar® and Viton®	316SS
Gland Fitting Material:	316SS, Viton®, & Nylon	Kynar® and Viton®	316SS, Viton & Nylon
Ball Valve Material:	316SS and Teflon®	Kynar® and Teflon®	316SS and Teflon®
Restraint Cables:	Yes	Yes	Not required
Tube Diameter:	¾"	1"	¾"
Process Connection:	1" MNPT	1¼" MNPT	1" MNPT
Maximum Pressure:	150 psi	100 psi	150 psi
Standard Adjustable Insertion:	7" (standard)	6" (standard)	7" (standard)
Total Height (Retracted):	25"	25"	25"
Junction Box (All Models):	Class I, Division II, Group D classification; NEMA 4X and 7B ratings		

Other sensor materials include Hastelloy C, Titanium, and Alloy 20. Flange assemblies are optional. Consult the factory for availability.



ORDERING INFORMATION

- To build your own part number, first determine the cartridge required and replace the **x**'s with selections listed below.

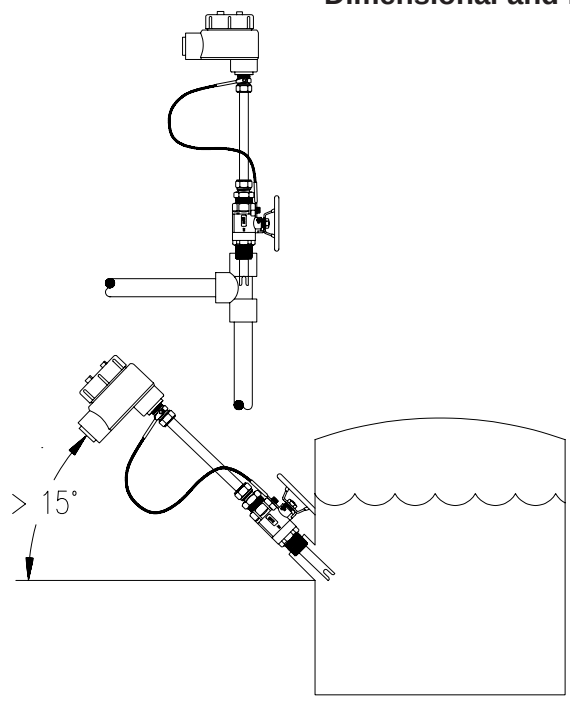
V - 2 0 0 Z - xx QQ : Mark 7 pH Electrode (Ryton® Body)
V - 2 T 0 Z - xx QQ : Mark 7 pH Electrode (Teflon® Body)
V - 2 0 1 Z - xx QQ : Mark 7 pH Electrode with Capillary TC

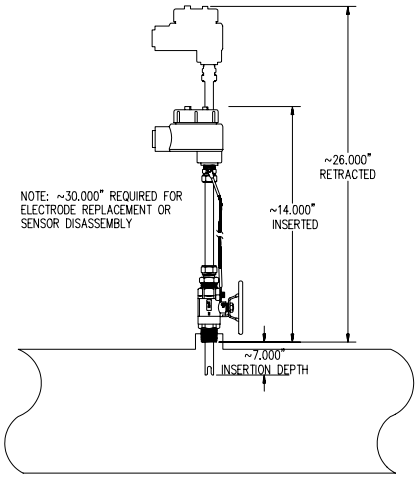
Connector Type
BS BNC and Spade Lugs (pH electrode with ATC)
SL Spade Lugs
BT BNC and female Molex

Lead Length
Specify electrode cable length in feet
(2 feet is the standard cable length for junction box termination)

Automatic Temperature Compensator (ATC)
B 100 ohms @ 0°C (PT100)
1 3,000 ohms @ 25°C
7 300 ohm
9 8,525 ohm
E 1,000 ohm

Dimensional and Mounting Detail





ORDERING INFORMATION

- Mark VII sensor assemblies and electrode cartridges are sold separately. To build your own electrode part number, first determine the electrode style required and then replace ×'s with selections listed in the drop-down menu below.

- Call the factory if application assistance is required. Conversion information is readily available for quick replacement of existing installations.

MK7x - x xx x x x x : Mark VII Assembly

Special Options
0 No Options (standard)
1 High Temperature - Peek

Ferrule Material
1 Split Stainless Steel/Nylon (standard)
4 Kynar® (for Kynar® sensors only)

O-Ring Material
1 Viton® (standard)
3 Kalrez®

Ball Valve
3 1" 1-piece (standard)
4 1" 3-piece (Hastelloy C)
5 1¼" 3-piece (standard Kynar® only)

Maximum Tube Insertion Depth
06 6 inches (standard for Kynar®)
07 7 inches (standard for 316SS)

Material of Construction
1 316SS (standard)
2 Kynar®
4 Hastelloy C

Assembly Style
S Standard
Z Quick Disconnect Modified Tip

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)
9210079	Anti-fouling solution to reduce electrode-coating problems
9210008-125	Electrode storage solution KCl/4.00 pH buffer (125 ml)

WIRING ADAPTERS

2010655 - XX	FBNC/SL to Hanked (tinned)
2010730 - XX	FBNC/Male Molex to Hanked (tinned)
2010681 - XX	FBNC/Male Molex to MBNC/Hanked (tinned)

XX - denotes lead length in even feet

FOR ADDITIONAL PRODUCT INFORMATION,
CALL 713/772-6641 OR 800/522-7920
E-mail: sales@VL-PC.com
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