COSASCO®
LINEAR POLARIZATION RESISTANCE (LPR) PROBE

Request A Quote

Model 6080

This Linear Polarization Resistance (LPR) probe employs two identical electrodes which are mounted at the end of the probe by threaded, insulated, glass-sealed studs. The glass seals provide high pressure integrity. The probe is sealed into the hollow plug of the access fitting with a ceramic filled Teflon seal. Two electrode probes are suitable for the majority of problems where LPR techniques are applicable.

When monitored by "Solution Resistance Compensating" instruments such as the AquaMate™, Model 9030 Plus, or E-9020 LPR Probes may be used in low conductivity solutions (see Fig. 1 of the LPR Probe Selection Guide). LPR Probes are used by major companies world-wide to measure corrosion in water floods, cooling water loops and other aqueous systems and to provide direct control of inhibitor addition for optimum economy and corrosion protection.

6080 LPR probe connected to an E-9020 Digital Transmitter

Features

- High Pressure Two-Electrode
- Mounting - 2" Access Fitting Assembly
- Electrode Seal Material – Glass / Viton O-ring
- Fill Material - Epoxy
- Body Material – 316 L S.S.

Temperature and Pressure Ratings

- Temperature Rating - +300°F / +150° C
- Pressure Rating - 6000 PSI / 41.3 MPa

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Element Availability

UNS Number	Alloy	UNS Number	Alloy
K03005	Pipe Grade Carbon Steel	C11000	Copper 110 ETP
S30400	304 S.S	C70610	Cu/Ni 90/10
S30403	304L S.S.	C44300	ARS.AD.Brass CDA #443
S31600	316 S.S.	A91100	Aluminum 1100
S31603	316L S.S.	A92024	Aluminum 2024
N08020	Carpenter 20 Cb3	R50400	Titanium GR2
N04400	Monel 400	060942	D.G.M. (Galvanic)
C71500	Cu/Ni 70/30		

Table 1

All elements are furnished "as machined" unless otherwise specified. Exceptions are Mild Steel which is vacuum annealed.

Probe Sizing

Depending on the monitoring position of the probe (Fig. 1) select the correct probe length using the following formula:

Ordering Length = P + T + 1.25"

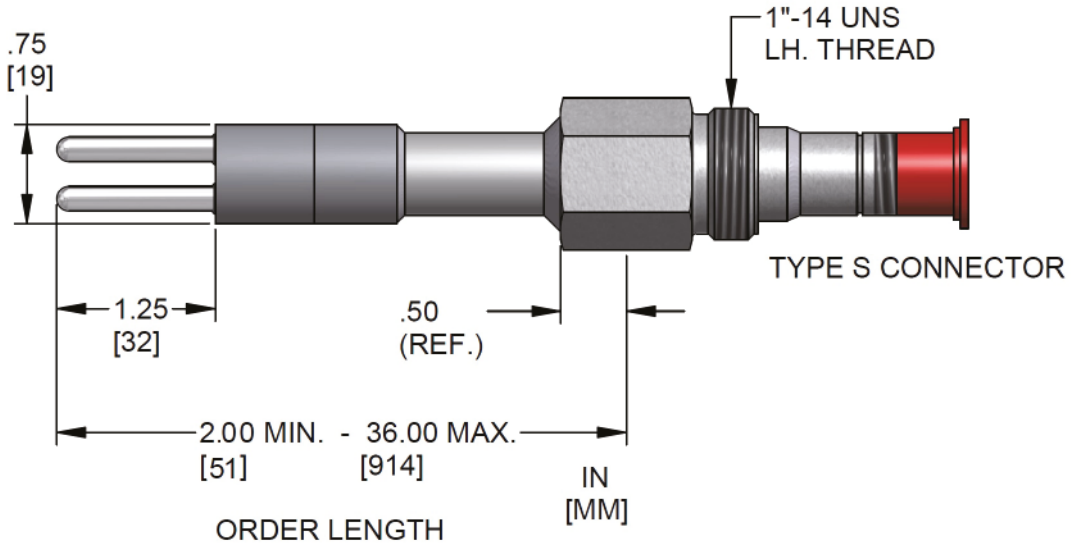
Where P = Penetration required into pipe or vessel
T = Wall thickness of pipe or vessel

Round down to the nearest quarter inch. In order to function properly the LPR electrodes must be fully wetted. To achieve this, minimum penetration is 1.375 inches. The formula is based upon an access fitting height of 5.25" and 1/16" weld gap per ANSI B31.1.

LPR electrodes have been made of a great variety of materials and often, in the case of special alloys from samples provided by the customer. To give correct results electrodes must be made from defect-free stock which has been properly machined. Please contact your Cosasco representative if the alloy of interest to you is not shown in the Alloy Table.

Electrodes are also available as individual sets with part number 060814 - XXXXXX, where XXXXXX is the UNS alloy number.

Dimensions



Ordering Information

Note: For high velocity process conditions it is recommended that Wake Frequency Calculations be performed - please contact a Cosasco representative for further details.

Model	Retrievable High Pressure Access System LPR Probe Assembly
6080	Complete Probe Assembly

Code	Order Length
XX.XX	Probes are Available in Lengths From 2.00” Minimum to 36” Maximum in ¼” Increments

Code	Electrode Element Alloy: See Table 1
XXXXXX	Enter UNS Number: Enter 0 if not required

Code	Shield
0	Not Required (Liquids 20 ft./sec Max)
1	High Velocity (Liquids 50 ft./sec Max)

Code	Insulators
0	“S” Type with Shrouded Pins (New Type) (1)

6080 — 6.25 — K03005 — 0 — 0 ← Example

Note 1: Adapter #028068 for permanent instrumentation and #028043 for portable instrumentation (new style connector only). #745123 for ER Hydraulic High Pressure Probe (10,000 PSI).

Note 2: Electrodes are packaged separately to avoid damage to the surface.

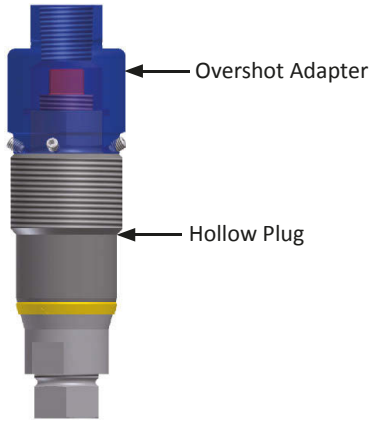
Unit Weight: Probe Assembly – 2.75” – 12.00” 3 lbs. / 1.36 kg.
12.25” – 20.00” 4.5 lbs. / 2.04 kg.
20.25” – 36.00” 6 lbs. / 2.72 kg.

Probe Adaptors are required to make the cable connection on the probe which is recessed in the access fitting.

RECOMMENDED:

Overshot Adapter: P/N 126292

An overshot adapter is not required, but is recommended for use with the 6080 probe. It permits removal and installation of hollow plug with probe and a steel pipe plug in place (keeps probe pins clean and dry).



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