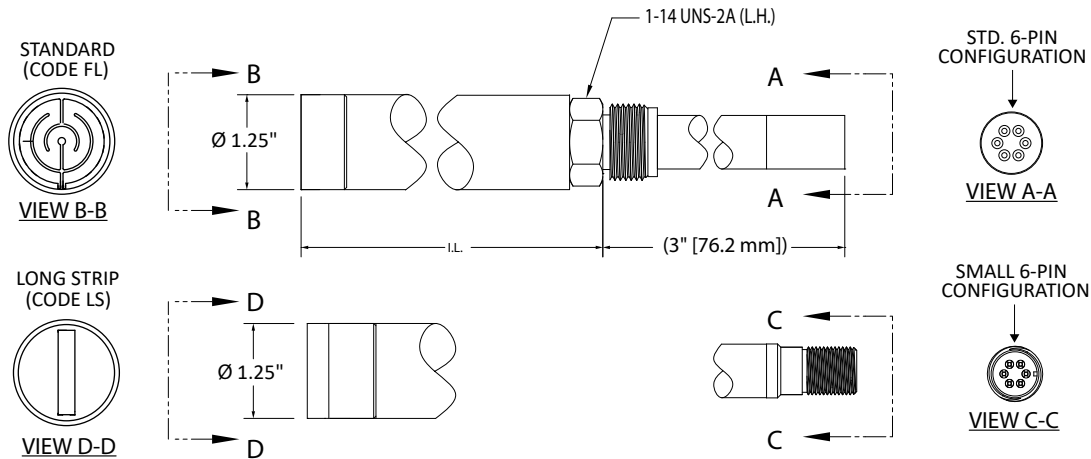


# Model ER7220

## Electrical Resistance Probe - Retrievable with Large Adjustable Flush Element for High Pressure (HP™ and MH™) Access Systems



**Model ER7220** is an adjustable-length, flush-mount, retrievable, electrical resistance probe for use with HP™ and MH™ high pressure access systems. These probes are ideally suited for applications where the probe element needs to be flush with the wall of the pipe to prevent any obstructions. The probe assembly consists of an insertion rod with an element, a hermetically sealed connector, and a hollow plug nut, which are all welded in place. The hollow plug nut on the probe screws into the hollow plug of the access system. This allows the probe to be installed in the process, using a retrieval tool and service valve, without process shutdown. The insertion length (I.L.) can range from a minimum of 1.75" up to any length in 1" increments (specify lengths over 1.75" as 2", 3", 4", etc.) specified by the customer, using the formula below. The adjustable flush element allows for a total adjustment of 1".

$$I.L. = PD + WT + 1.75''$$

(where PD = penetration depth, WT = wall thickness)

For top-of-the-line, flush-mount monitoring, PD = 0.

**Note:** Formula valid for access fitting heights of 5.25" (HP) and 5.5" (MH).

Two element options are available - The standard flush element which has a geometry that is specially designed to optimize element resistance, and the large strip type which is designed for use in systems where conductive deposits could bridge the standard element. Probe adaptors are available and must be ordered separately.

### Specifications:

**Probe Body** - 316 Stainless Steel

**Element Seal** - Epoxy

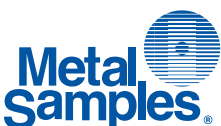
**Fill Material** - Epoxy

**O-Ring Material** - Viton (other materials available)

**Temperature Rating** - 500°F / 260°C

**Pressure Rating** - 3600 PSI / 245 Bar

**Mounting** - High Pressure (HP™ or MH™) Access System with Hollow Plug



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## ER7220 Ordering Information

Model							
HR	Electrical Resistance Probe for High Pressure (HP™ and MH™) Access Systems						
<b>Mounting Material</b>							
2	316						
3	C276						
<b>Connector Type</b>							
1	Small connector						
2	Standard connector						
<b>ER Element Options</b>							
D3	FL10 Flush Mount - 10 mil thickness (5 mil useful probe life)						
E3	FL20 Flush Mount - 20 mil thickness (10 mil useful probe life)						
F3	FL40 Flush Mount - 40 mil thickness (20 mil useful probe life)						
R3	LS10 Flush Mount Long Strip (Large Header) - 10 mil thickness (5 mil useful probe life)						
S3	LS20 Flush Mount Long Strip (Large Header) - 20 mil thickness (10 mil useful probe life)						
<b>Length</b>							
XXXX	Length in inches, stated in 2 decimal place format (Ex: 6" = 0600)						
<b>Element Alloy</b>							
XXX	Use Code in Alloy Chart						
<b>ER Probe Options</b>							
AD	No shield, adjustable						
<b>HR</b>	<b>2</b>	<b>2</b>	<b>D3</b>	<b>0600</b>	<b>375</b>	<b>AD</b>	<b>Example of Probe Ordering #</b>

For alloys, sizes, or other special requirements not listed, contact our sales department.

Alloy Chart					
Code	Description	UNS #	Code	Description	UNS #
375	Carbon Steel *	G10100	159	316L SS	S31603
538	5Cr 1/2Mo	K42544	A12	C276	N10276
541	9Cr 1Mo	K90941	602	Alloy 625	N06625
186	410 SS	S41000	419	CDA110	C11000
141	304 SS	S30400	434	CDA443	C44300

Note: Not all alloys are available with all element types and seals.

\* Chemically equivalent to standard pipe-grade carbon steels.