

# LPR Probes

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[LP2100](#) - Fixed Length with 1" NPT Pipe Plug & 3-Electrode Endcap

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[LP7000](#) - Retrievable with 2-Electrode Endcap for High Pressure (HP & MH) Access Systems

[LP7100](#) - Retrievable with 3-Electrode Endcap for High Pressure (HP & MH) Access Systems

[LP7210](#) - Retrievable with Flush-Mount 3-Electrode Endcap for High Pressure (HP & MH) Access Systems

[TF0221](#) - Lazaran Ag/AgCl Half-Cell Reference Electrode

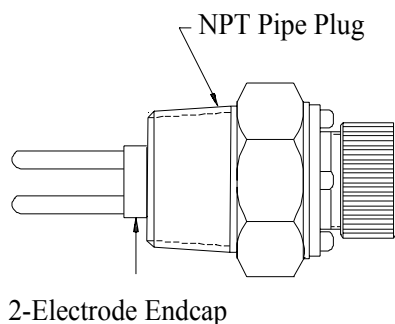
[TF0222/TF0220](#) - PAIR™ Laboratory Probes

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# Model LP1000

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## Linear Polarization Resistance Probe with NPT Pipe Plug & 2-Electrode Endcap



**Model LP1000** is a linear polarization resistance probe commonly used in laboratory, bypass-loop, and field applications. The assembly consists of an NPT pipe plug (1", 1½", or 2"), a two-electrode endcap, and a six-pin military connector mounted in place. Electrodes are ordered separately. Several standard electrodes are available to meet your specific needs.

### Specifications:

**Probe Body** - 316 Stainless Steel

**Endcap Seal** - Glass

**Fill Material** - Epoxy

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

**Pressure Rating** - 3000 PSI / 204 Bar

**Mounting** - 1", 1-1/2", or 2" NPT Pipe Plug

### Metal Samples Corrosion Monitoring Systems

*A Division of Alabama Specialty Products, Inc.*

152 Metal Samples Rd., Munford, AL 36268 Phone: (256) 358-4202 Fax: (256) 358-4515

E-mail: [msc@alspi.com](mailto:msc@alspi.com) Internet: [www.metalsamples.com](http://www.metalsamples.com)

**Houston Office:** 8811 Kensington Court, LaPorte, TX 77571 Phone: (281) 471-2777 Fax: (281) 471-3405

## LP1000 Ordering Information

Model				
LP13	Linear Polarization 1" NPT Pipe Plug Probe			
LP16	Linear Polarization 2" NPT Pipe Plug Probe			
LP17	Linear Polarization 1 1/2" NPT Pipe Plug Probe			
<b>Probe Body Material</b>				
02	316			
03	C.S.			
04	C276			
<b>LP Electrode Option</b>				
20100	Two-electrode integral type with glass seal			
<b>Options</b>				
000	None			
<b>LP13</b>	<b>02</b>	<b>20100</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

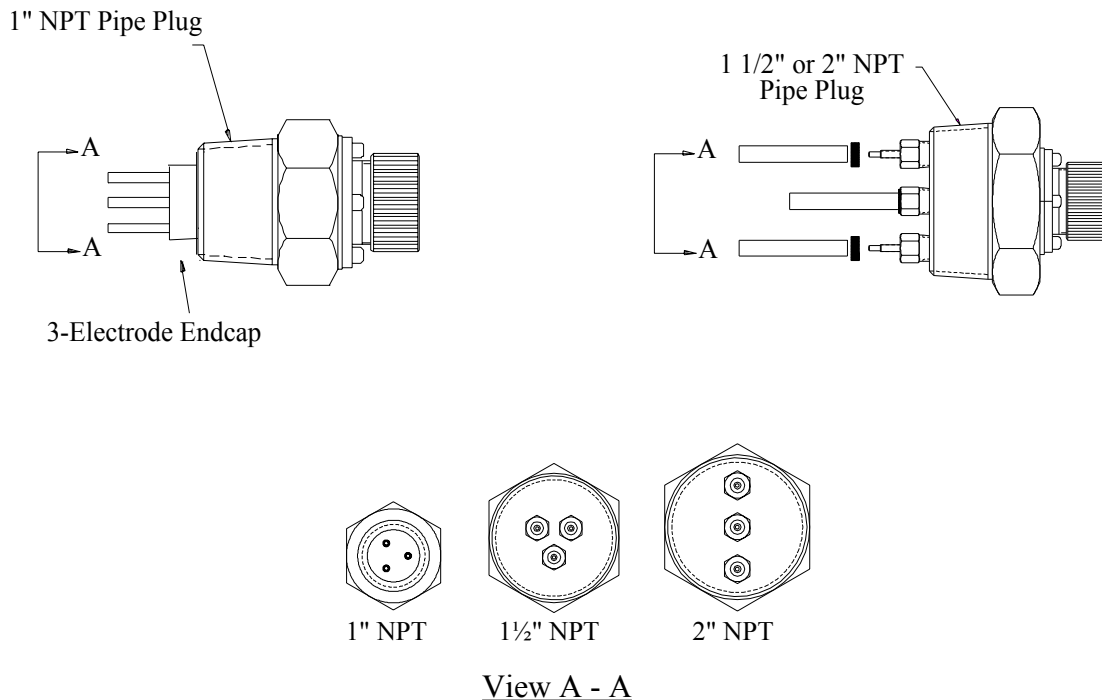
**Electrode Part Number - EL400XXX2800000** (XXX - use Code in Alloy Chart)  
 LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

Alloy Chart		
Code	Description	UNS #
375	C1010	G10100
419	CDA110	C11000
434	CDA443	C44300
159	316L S.S.	S31603

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.

# Model LP1100

## Linear Polarization Resistance Probe with NPT Pipe Plug and Three Electrodes



**Model LP1100** is a linear polarization resistance probe commonly used in laboratory, bypass-loop, and field applications. The assembly consists of a 1", 1 1/2", or 2" pipe plug, and a five-pin military connector mounted in place. Replaceable mounting studs can be ordered with 1 1/2" and 2" pipe plugs. Electrodes are ordered separately. Several standard electrodes are available to meet your specific needs.

### Specifications:

**Probe Body** - 316 Stainless Steel

**Endcap Seal** - Glass

**Fill Material** - Epoxy

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

**Pressure Rating** - 3000 PSI / 204 Bar

**Mounting** - 1", 1 1/2", or 2" NPT Pipe Plug

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## LP1100 Ordering Information

Model					
LP13	Linear Polarization 1" NPT Pipe Plug Probe				
LP16	Linear Polarization 2" NPT Pipe Plug Probe				
LP17	Linear Polarization 1 1/2" NPT Pipe Plug Probe				
Probe Body Material					
02	316				
03	C.S.				
04	C276				
LP Electrode Options					
10	Three-electrode plug type (replaceable mounting studs)				
30	Three-electrode integral type (non-replaceable mounting studs)				
Seal Type					
100	Glass				
Options					
000	None				
<b>LP13</b>	<b>02</b>	<b>30</b>	<b>100</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

**Electrode Part Number - EL412XXX2800000** (XXX - use Code in Alloy Chart)

LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

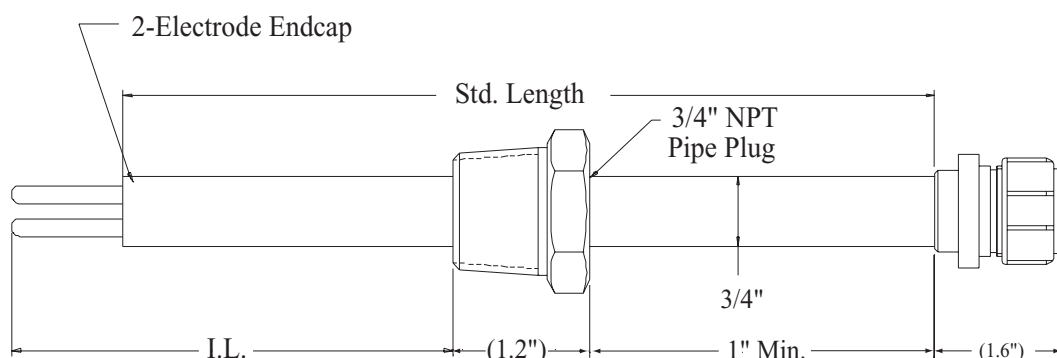
Alloy Chart		
Code	Description	UNS #
377	C1018	G10180
159	316L S.S.	S31603
419	CDA110	C11000
434	CDA443	C44300

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

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

# Model LP2000

## Linear Polarization Resistance Probe Fixed Length with NPT Pipe Plug & 2-Electrode Endcap



**Model LP2000** is a fixed-length, linear polarization resistance probe with an NPT pipe plug. The probe requires process isolation or process shutdown to install and a threaded pipe fitting to mount. The probe assembly consists of an insertion rod with a two-electrode endcap, a hermetically sealed connector, and an NPT pipe plug which are all welded in place. The insertion length (I.L.) is calculated to the end of the electrode and can be specified by the customer. For standard probes, the maximum insertion length is given in the chart below. Electrodes are ordered separately. Several standard electrodes are available to meet your specific needs.

### Specifications:

**Probe Body** - 316 Stainless Steel or C276

**Endcap Seal** - Glass

**Fill Material** - Epoxy

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

**Pressure Rating** - 3000 PSI / 204 Bar

**Mounting** - 3/4" or 1" NPT Pipe Plug

Std. Length	IL (max)
6"	5.05"
8"	7.05"
12"	11.05"
18"	17.05"

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## LP2000 Ordering Information

Model							
LP2	Linear Polarization Fixed Length Pipe Plug Probe						
	<b>Pipe Plug Size</b>						
	2	3/4" NPT					
	3	1" NPT					
	<b>Probe Body Material</b>						
	22	316					
	44	C276					
	<b>LP Electrode Options</b>						
	20	Two-electrode integral type					
	<b>Seal Type</b>						
	1	Glass					
	<b>Length</b>						
	06	5.05" max. insertion length					
	08	7.05" max. insertion length					
12	11.05" max. insertion length						
18	17.05" max. insertion length						
<b>Options</b>							
000	None						
<b>LP2</b>	<b>2</b>	<b>22</b>	<b>20</b>	<b>1</b>	<b>08</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

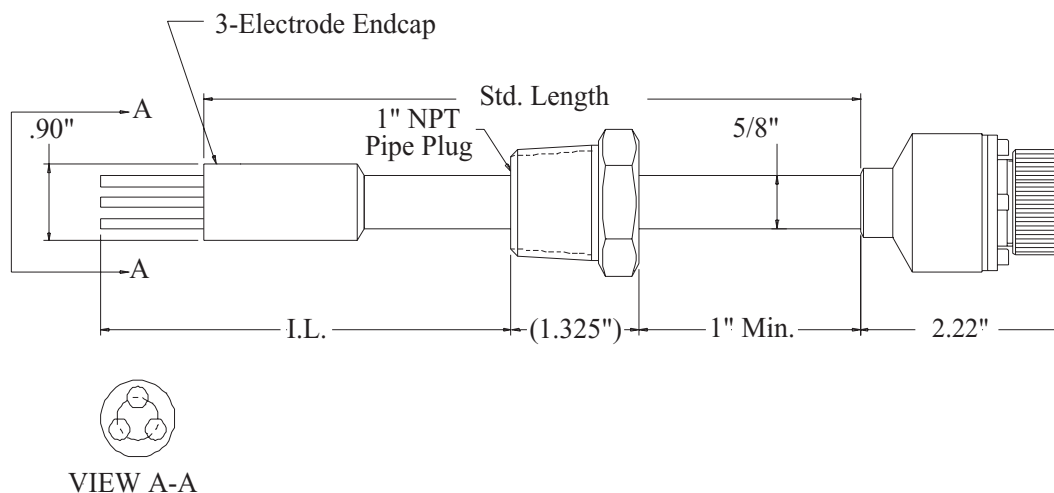
**Electrode Part Number - EL400XXX280000** (XXX - use Code in Alloy Chart)  
 LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

Alloy Chart		
Code	Description	UNS #
375	C1010	G10100
419	CDA110	C11000
434	CDA443	C44300
159	316L S.S.	S31603

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.

# Model LP2100

## Linear Polarization Resistance Probe Fixed Length with 1" NPT Pipe Plug & 3-Electrode Endcap



**Model LP2100** is a fixed-length, linear polarization resistance probe with a 1" NPT pipe plug. The probe requires process isolation or process shutdown to install and a threaded pipe fitting to mount. The probe assembly consists of an insertion rod with a three-electrode endcap, a 1" NPT pipe plug, and a five-pin military connector mounted in place. The insertion length (I.L.) is calculated to the end of the electrode and can be specified by the customer. For standard probes, the maximum insertion length is given in the chart below. This maximum I.L. is based on the length of a carbon steel electrode. **Electrode lengths may vary depending on the alloy.** Electrodes are ordered separately.

### Specifications:

**Probe Body** - 316 Stainless Steel

**Endcap Seal** - Glass

**Fill Material** - Epoxy

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

**Pressure Rating** - 3000 PSI / 204 Bar

**Mounting** - 1" NPT Pipe Plug

Std. Length	IL (max)
8"	6.92"
12"	10.92"
18"	16.92"

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## LP2100 Ordering Information

Model							
LP2	Linear Polarization Fixed Length Pipe Plug Probe						
	Pipe Plug Size						
	3	1" NPT					
	Probe Body Material						
	22	316					
	LP Electrode Options						
	10	Three-electrode plug type					
	30	Three-electrode integral type					
	Seal Type						
	1	Glass					
	Length						
	08	6.92" max. insertion length					
	12	10.92" max. insertion length					
	18	16.92" max. insertion length					
Options							
000	None						
<b>LP2</b>	<b>3</b>	<b>22</b>	<b>30</b>	<b>1</b>	<b>08</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

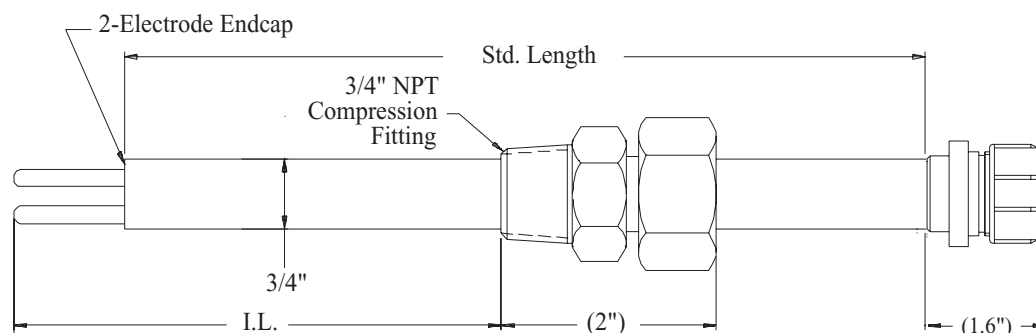
**Electrode Part Number - EL412XXX2800000** (XXX - use Code in Alloy Chart)  
 LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

Alloy Chart		
Code	Description	UNS #
377	C1018	G10180
159	316L S.S.	S31603
419	CDA110	C11000
434	CDA443	C44300

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.

# Model LP3000

## Linear Polarization Resistance Probe Adjustable Length with 3/4" NPT Fitting & 2-Electrode Endcap



**Model LP3000** is a linear polarization resistance probe commonly used in laboratory, bypass-loop, and field applications. The assembly consists of a 3/4" NPT compression fitting, an insertion rod with a hermetically sealed two-electrode endcap, and a six-pin connector welded in place. The insertion length (I.L.) is calculated to the end of the electrode and can be specified by the customer. For standard probes, the maximum insertion length is given in the chart below. Electrodes are ordered separately. Several standard electrodes are available to meet your specific needs.

### Specifications:

**Probe Body** - 316 Stainless Steel

**Endcap Seal** - Glass

**Fill Material** - Epoxy

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

**Pressure Rating** - 1500 PSI / 102 Bar

**Mounting** - 3/4" NPT Fitting

Std. Length	IL (max)
6"	5.25"
8"	7.25"
12"	11.25"
18"	17.25"

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## LP3000 Ordering Information

Model						
LP3	Linear Polarization Adjustable Length Pipe Plug Probe					
	Pipe Plug Size					
	2	3/4" NPT				
	3	1" NPT				
	Probe Body Material					
	22	316				
	LP Electrode Options					
	20	Two-electrode integral type				
	Seal Type					
	1	Glass				
	Length					
	06	5.25" max. insertion length				
08	7.25" max. insertion length					
12	11.25" max. insertion length					
18	17.25" max. insertion length					
Options						
000	None					
<b>LP3</b>	<b>2</b>	<b>22</b>	<b>20</b>	<b>1</b>	<b>08</b>	<b>000</b> Example of Probe Ordering #

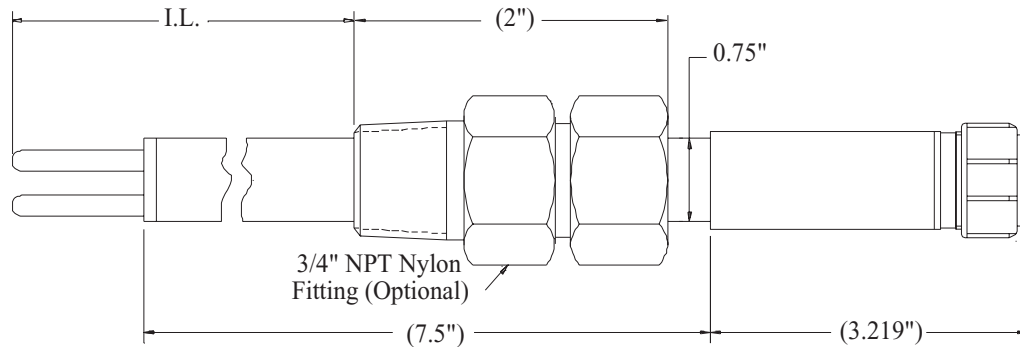
**Electrode Part Number - EL400XXX2800000** (XXX - use Code in Alloy Chart)  
 LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

Alloy Chart		
Code	Description	UNS #
375	C1010	G10100
419	CDA110	C11000
434	CDA443	C44300
159	316L S.S.	S31603

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.

# Model LP3010

## Epoxy Probe



**Model LP3010** is a linear polarization resistance probe commonly used in laboratory, bypass-loop, and field applications. The probe (with additional instrumentation) can be used to monitor corrosion rates, evaluate materials, and screen corrosion inhibitors. The assembly consists of a glass epoxy probe with an optional 3/4" NPT nylon compression fitting for insertion into the system. The studs for mounting the electrodes and the six-pin connector are held in place by the epoxy fill material. The maximum insertion length (I.L.) is 6.75" when the compression fitting is used and 8.75" when the fitting is not used. Electrodes are ordered separately.

### Specifications:

**Probe Body** - Glass Epoxy

**Endcap Seal** - Epoxy

**Fill Material** - Epoxy

**Temperature Rating (w/ Nylon compression fitting)** - 150°F / 65°C

**(w/out Nylon compression fitting)** - 300°F / 150°C

**Pressure Rating** - 100 PSI / 7 Bar

**Mounting** - 3/4" NPT Pipe Plug

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## LP3010 Ordering Information

Model								
LP3	Linear Polarization Adjustable Length Pipe Plug Probe							
LP0	Linear Polarization Insertion Rod							
<b>Pipe Plug Size</b>								
0	N/A (when ordering only Insertion Rod - LP0)							
2	3/4" NPT							
<b>Probe Body Material</b>								
7	Epoxy							
<b>Mount (Pipe Plug) Material</b>								
0	N/A (when ordering only Insertion Rod - LP0)							
E	Nylon							
<b>LP Electrode Options</b>								
20	Two-electrode integral type							
<b>Seal Type</b>								
3	Epoxy							
<b>Length</b>								
11	11"							
<b>Options</b>								
000	None							
<b>LP3</b>	<b>2</b>	<b>7</b>	<b>E</b>	<b>20</b>	<b>3</b>	<b>11</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

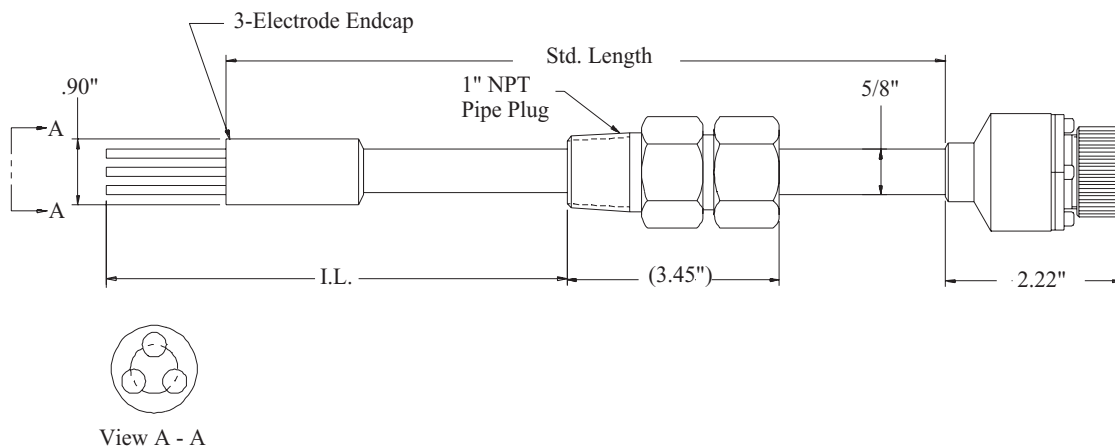
**Electrode Part Number - EL400XXX2800000** (XXX - use Code in Alloy Chart)  
 LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

Alloy Chart		
Code	Description	UNS #
375	C1010	G10100
419	CDA110	C11000
434	CDA443	C44300
159	316L S.S.	S31603

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.

# Model LP3100

## Linear Polarization Resistance Probe Adjustable Length with 1" NPT Fitting & 3-Electrode Endcap



**Model LP3100** is a linear polarization resistance probe commonly used in laboratory, bypass-loop, and field applications. The assembly consists of a 1" NPT compression fitting, an insertion rod with a hermetically sealed three-electrode endcap, and a five-pin military connector mounted in place. The insertion length (I.L.) is calculated to the end of the electrode and can be specified by the customer. For standard probes, the maximum insertion length is given in the chart below. This maximum I.L. is based on the length of a carbon steel electrode. **Electrode lengths may vary depending on the alloy.** Electrodes are ordered separately.

### Specifications:

**Probe Body** - 316 Stainless Steel  
**Endcap Seal** - Glass  
**Fill Material** - Epoxy  
**Temperature Rating** - 500°F / 260°C  
**Pressure Rating** - 1500 PSI / 102 Bar  
**Mounting** - 1" NPT Fitting

Std. Length	IL (max)
8"	5.8"
12"	9.8"
18"	15.8"

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## LP3100 Ordering Information

Model							
LP3	Linear Polarization Adjustable Length Pipe Plug Probe						
	Pipe Plug Size						
	3	1" NPT					
	Probe Body Material						
	22	316					
	LP Electrode Options						
	10	Three-electrode plug type					
	30	Three-electrode integral type					
	Seal Type						
	1	Glass					
	Length						
	08	5.8" max. insertion length					
	12	9.8" max. insertion length					
	18	15.8" max. insertion length					
Options							
000	None						
<b>LP3</b>	<b>3</b>	<b>22</b>	<b>30</b>	<b>1</b>	<b>08</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

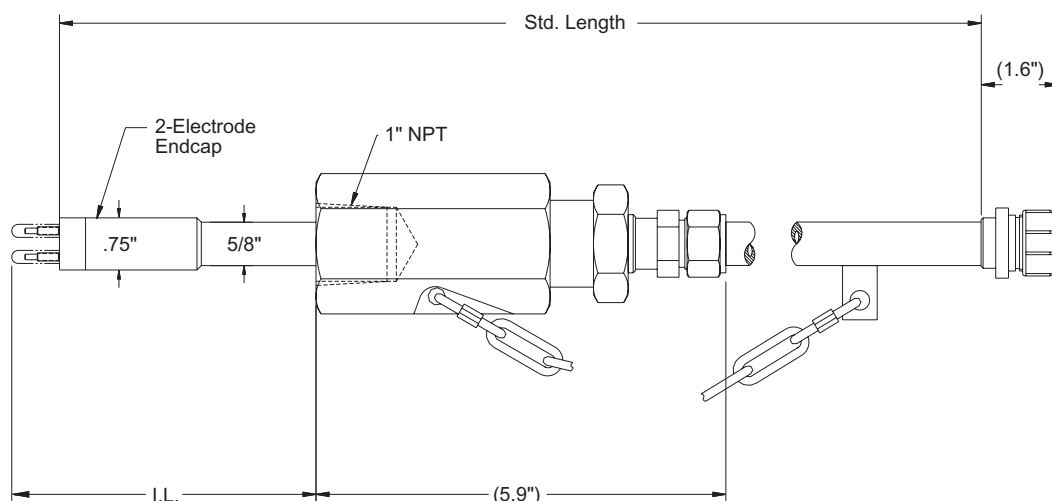
**Electrode Part Number - EL412XXX2800000** (XXX - use Code in Alloy Chart)  
 LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

Alloy Chart		
Code	Description	UNS #
377	C1018	G10180
159	316L S.S.	S31603
419	CDA110	C11000
434	CDA443	C44300

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.

# Model LP4000

## Linear Polarization Resistance Probe Retractable with Packing Gland and 2-Electrode Endcap



**Model LP4000** is a retractable, linear polarization resistance probe commonly used in field and plant applications. A specially designed packing gland is used with the probe for insertion into or retraction from a pressurized system without a process shutdown. The packing gland is designed to mount easily on a 1" piping system, but it can be modified for your specific mounting requirements. The probe assembly consists of a packing gland, an insertion rod with a hermetically sealed two-electrode endcap, and a six-pin connector welded in place. A safety chain is also provided to prevent blowout. Standard packing material in the packing gland is Teflon<sup>®</sup>, however, grafoil packing can be provided for high temperature applications. The insertion length (I.L.) is calculated to the end of the electrode and can be specified by the customer. For standard probes, the maximum insertion length is given in the chart below. Electrodes for the probe can be ordered separately. Several standard electrodes and probe lengths are available to meet your specific needs.

### Specifications:

**Probe Body** - 316 Stainless Steel or C276

**Endcap Seal** - Glass

**Fill Material** - Epoxy

**Temperature Rating** - 500°F / 260°C - Teflon<sup>®</sup>

Grafoil available upon request

**Pressure Rating** - 1500 PSI / 102 Bar

**Mounting** - 1" Full Port Valve (Min.)

Std. Length	IL (max)
24"	17.53"
30"	23.53"
36"	29.53"
42"	35.53"

*The Easy Tool is required for probe insertion or retraction in systems with pressure over 150 pounds.*

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## LP4000 Ordering Information

Model						
LP45	Linear Polarization 1" Female NPT Probe, Packing Gland with Teflon®					
LP75	Linear Polarization 1" Female NPT Probe, Packing Gland with Grafoil					
<b>Probe Body Material</b>						
22	316					
44	C276					
<b>LP Electrode Options</b>						
20	Two-electrode integral type					
<b>Seal Type</b>						
1	Glass					
<b>Length</b>						
24	17.53" max. insertion length					
30	23.53" max. insertion length					
36	29.53" max. insertion length					
42	35.53" max. insertion length					
<b>Options</b>						
000	None					
<b>LP45</b>	<b>22</b>	<b>20</b>	<b>1</b>	<b>24</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

**Electrode Part Number - EL400XXX2800000** (XXX - use Code in Alloy Chart)

LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

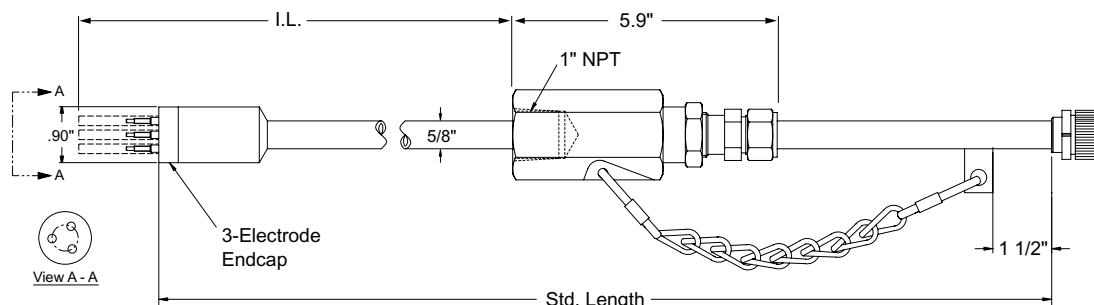
Alloy Chart		
Code	Description	UNS #
375	C1010	G10100
419	CDA110	C11000
434	CDA443	C44300
159	316L S.S.	S31603

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

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

# Model LP4100

## Linear Polarization Resistance Probe Retractable with Packing Gland and 3-Electrode Endcap



**Model LP4100** is a retractable, linear polarization resistance probe commonly used in field and plant applications. A specially designed packing gland is used with the probe for insertion into or retraction from a pressurized system without a process shutdown. The packing gland is designed to mount easily on a 1" piping system, but it can be modified for your specific mounting requirements. The probe assembly consists of a packing gland, an insertion rod with a hermetically sealed three-electrode endcap, and a five-pin military connector mounted in place. A safety chain is also provided to prevent blowout. Standard packing material in the packing gland is Teflon®, however, grafoil packing can be provided for high temperature applications. The insertion length (I.L.) is calculated to the end of the electrode and can be specified by the customer. For standard probes, the maximum insertion length is given in the chart below. This maximum I.L. is based on the length of a carbon steel electrode. **Electrode lengths may vary depending on the alloy.** Electrodes are ordered separately.

### Specifications:

**Probe Body** - 316 Stainless Steel or C276

**Endcap Seal** - Glass

**Fill Material** - Epoxy

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

Grafoil available upon request

**Pressure Rating** - 1500 PSI / 102 Bar

**Mounting** - 1" Full Port Valve (Min.)

Std. Length	IL (max)
24"	17.53"
30"	23.53"
36"	29.53"
42"	35.53"

*The Easy Tool is required for probe insertion or retraction in systems with pressure over 150 pounds.*

### Metal Samples Corrosion Monitoring Systems

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152 Metal Samples Rd., Munford, AL 36268 Phone: (256) 358-4202 Fax: (256) 358-4515

E-mail: msc@alspi.com Internet: www.metalsamples.com

**Houston Office:** 8811 Kensington Court, LaPorte, TX 77571 Phone: (281) 471-2777 Fax: (281) 471-3405

## LP4100 Ordering Information

Model						
LP45	Linear Polarization 1" Female NPT Probe, Packing Gland w/ Teflon® (for integral type)					
LP75	Linear Polarization 1" Female NPT Probe, Packing Gland w/ Grafoil (for integral type)					
LPB7	Linear Polarization 1" Female NPT Probe, Packing Gland w/ Teflon® (for plug type)					
LPC7	Linear Polarization 1" Female NPT Probe, Packing Gland w/ Grafoil (for plug type)					
Probe Body Material						
22	316					
44	C276					
LP Electrode Options						
10	Three-electrode plug type with 1 1/2" swage nipple					
30	Three-electrode integral type					
Seal Type						
1	Glass					
Length						
24	17.53" max. insertion length					
30	23.53" max. insertion length					
36	29.53" max. insertion length					
42	35.53" max. insertion length					
Options						
000	None					
<b>LP45</b>	<b>22</b>	<b>30</b>	<b>1</b>	<b>24</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

**Electrode Part Number - EL412XXX2800000** (XXX - use Code in Alloy Chart)

LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

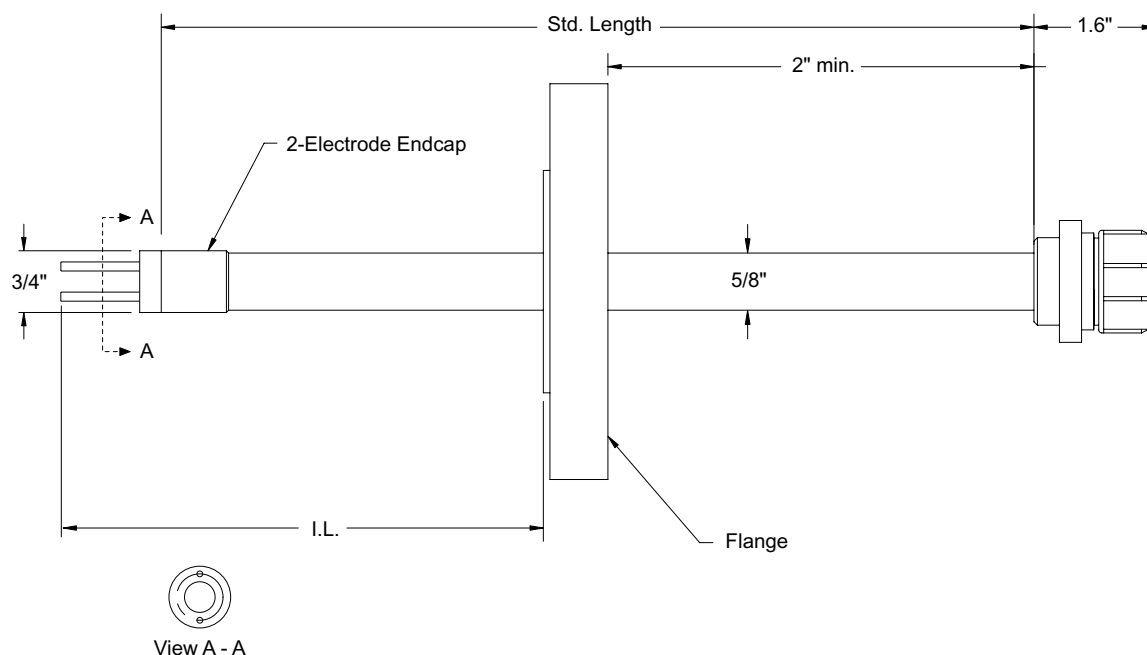
Alloy Chart		
Code	Description	UNS #
377	C1018	G10180
159	316L S.S.	S31603
419	CDA110	C11000
434	CDA443	C44300

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

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

# Model LP6000

## Linear Polarization Resistance Probe Fixed Length with Flange & 2-Electrode Endcap



**Model LP6000** is a fixed-length, flange-mounted, linear polarization resistance probe. The probe is ideally suited for use in high pressure and/or hazardous applications where threaded fittings are not available or not recommended. Process shutdown or process isolation is required for installation and inspection. The probe assembly consists of an insertion rod with a two-electrode endcap, a hermetically sealed connector, and a flange (as specified by customer), which are all welded in place. Insertion length (I.L.) is calculated to the end of the electrodes and, in this case, is based on a 1" total flange thickness. Customers can specify any length required. For standard probes, the maximum insertion length is given in the chart below. Electrodes are ordered separately. Several standard electrodes are available to meet your specific needs.

### Specifications:

**Probe Body** - 316 Stainless Steel or C276

**Endcap Seal** - Glass

**Fill Material** - Epoxy

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

**Pressure Rating** - According to Flange Rating

**Mounting** - Mating Flange

Std. Length	IL (max)
12"	10.12"
18"	16.12"
24"	22.12"

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**Houston Office:** 8811 Kensington Court, LaPorte, TX 77571 Phone: (281) 471-2777 Fax: (281) 471-3405

## LP6000 Ordering Information

Model								
LP6	Linear Polarization Fixed Length Probe with Flange							
	<b>Flange Size</b>							
	1	1" Flange						
	2	1 1/2" Flange						
	3	2" Flange						
	4	3" Flange						
	5	4" Flange						
	6	1/2" Flange						
	7	6" Flange						
	8	2 1/2" Flange						
	9	3/4" Flange						
	<b>Probe Body Material</b>							
	22	316						
	44	C276						
	<b>LP Electrode Options</b>							
	20	Two-electrode integral type						
	<b>Flange Pressure Rating</b>							
	1	150 lb.						
	2	300 lb.						
	3	600 lb.						
	4	1200 lb.						
	5	1500 lb.						
	6	900 lb.						
	<b>Seal Type</b>							
	1	Glass						
	<b>Length</b>							
	12	10.12 inches max. insertion length						
	18	16.12 inches max. insertion length						
	24	22.12 inches max. insertion length						
	<b>Options</b>							
	000							
<b>LP6</b>	<b>2</b>	<b>22</b>	<b>20</b>	<b>1</b>	<b>1</b>	<b>12</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

**Electrode Part Number - EL400XXX2800000** (XXX - use Code in Alloy Chart)

LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

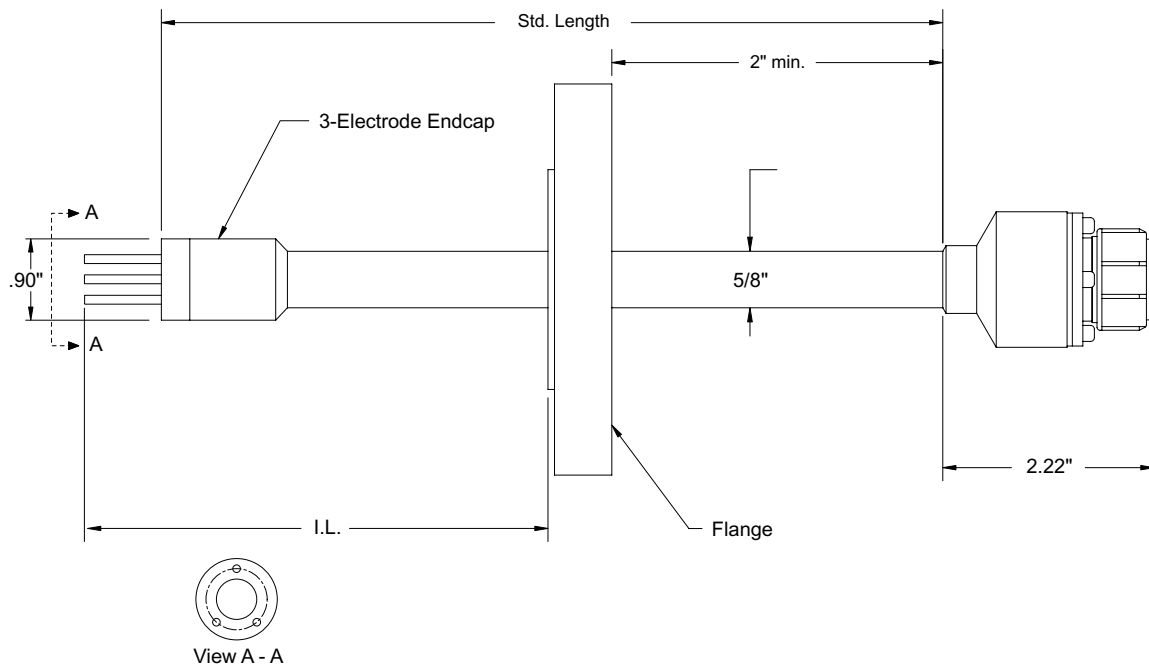
Alloy Chart		
Code	Description	UNS #
375	C1010	G10100
419	CDA110	C11000
434	CDA443	C44300
159	316L S.S.	S31603

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

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

# Model LP6100

## Linear Polarization Resistance Probe Fixed Length with Flange & 3-Electrode Endcap



**Model LP6100** is a fixed-length, flange-mounted, linear polarization resistance probe. The probe is ideally suited for use in high pressure and/or hazardous applications where threaded fittings are not available or not recommended. Process shutdown or process isolation is required for installation and inspection. The probe assembly consists of an insertion rod with a three-electrode endcap, a hermetically sealed connector, and a flange (as specified by customer), which are all welded in place. Insertion length (I.L.) is calculated to the end of the electrodes and, in this case, is based on a 1" total flange thickness. Customers can specify any length required. For standard probes, the maximum insertion length is given in the chart below. Several standard electrodes are available to meet your specific needs. Electrodes are ordered separately.

### Specifications:

**Probe Body** - 316 Stainless Steel

**Endcap Seal** - Glass

**Fill Material** - Epoxy

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

**Pressure Rating** - According to Flange Rating

**Mounting** - Mating Flange

Std. Length	IL (max)
12"	10.25"
18"	16.25"
24"	22.25"

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**Houston Office:** 8811 Kensington Court, LaPorte, TX 77571 Phone: (281) 471-2777 Fax: (281) 471-3405

## LP6100 Ordering Information

Model								
LP6	Linear Polarization Fixed Length Probe with Flange							
	<b>Flange Size</b>							
	1	1" Flange						
	2	1 1/2" Flange						
	3	2" Flange						
	4	3" Flange						
	5	4" Flange						
	6	1/2" Flange						
	7	6" Flange						
	8	2 1/2" Flange						
	9	3/4" Flange						
	<b>Probe Body Material</b>							
	22	316						
	<b>LP Electrode Options</b>							
	10	Three-electrode plug type						
30	Three-electrode integral type							
<b>Flange Pressure Rating</b>								
1	150 lb.							
2	300 lb.							
3	600 lb.							
4	1200 lb.							
5	1500 lb.							
6	900 lb.							
<b>Seal Type</b>								
1	Glass							
<b>Length</b>								
12	10.25 inches max. insertion length							
18	16.25 inches max. insertion length							
24	22.25 inches max. insertion length							
<b>Options</b>								
000								
<b>LP6</b>	<b>2</b>	<b>22</b>	<b>30</b>	<b>1</b>	<b>1</b>	<b>18</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

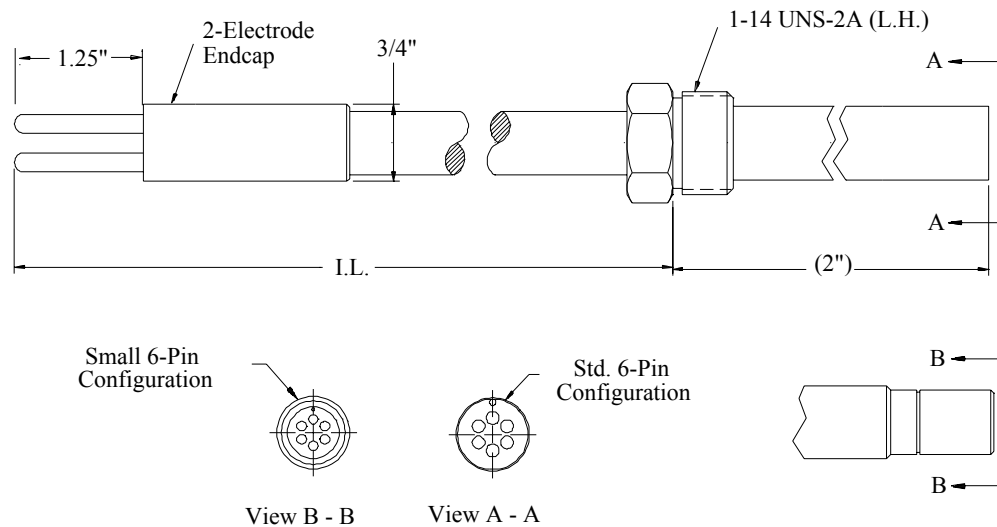
**Electrode Part Number - EL412XXX2800000** (XXX - use Code in Alloy Chart)  
 LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

Alloy Chart		
Code	Description	UNS #
377	C1018	G10180
159	316L S.S.	S31603
419	CDA110	C11000
434	CDA443	C44300

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.

# Model LP7000

## Linear Polarization Resistance Probe Retrievable with 2-Electrode Endcap for High Pressure (HP™ and MH™) Access Systems



**Model LP7000** is a fixed-length, linear polarization resistance probe for use with HP™ and MH™ high pressure access systems. The probe assembly consists of an insertion rod with a hermetically sealed two-electrode endcap, a hollow plug nut, and a standard six-pin connector, 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.) is specified by the customer, using the formula below. (This includes 1.25" for the length of the electrode.)

$$\text{I.L.} = \text{PD} + \text{WT} + 1.75''$$

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

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

Several standard electrodes are available to meet your specific needs. Probe adaptors are also available and must be ordered separately.

### Specifications:

**Probe Body** - 316 Stainless Steel or C276

**Endcap Seal** - Glass

**Fill Material** - Epoxy

**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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E-mail: [msc@alspi.com](mailto:msc@alspi.com) Internet: [www.metalsamples.com](http://www.metalsamples.com)

**Houston Office:** 8811 Kensington Court, LaPorte, TX 77571 Phone: (281) 471-2777 Fax: (281) 471-3405



## LP7000 Ordering Information

Model							
HL	Linear Polarization Two-Electrode Probe for High Pressure Access System						
	<b>Mounting Material</b>						
	2	316					
	3	C276					
	<b>Connector Type</b>						
	1	Small connector					
	2	Standard connector					
	<b>LP Electrode Options</b>						
	0	Two-electrode integral type					
	<b>Seal Type</b>						
	0	Glass					
	1	Epoxy					
	<b>Length</b>						
	XXX	Length in inches, stated in 2 decimal place format (Ex: 6¼" = 0625)					
<b>Options</b>							
000	None						
<b>HL</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0625</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

**Electrode Part Number - EL400XXX2800000** (XXX - use Code in Alloy Chart)

LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

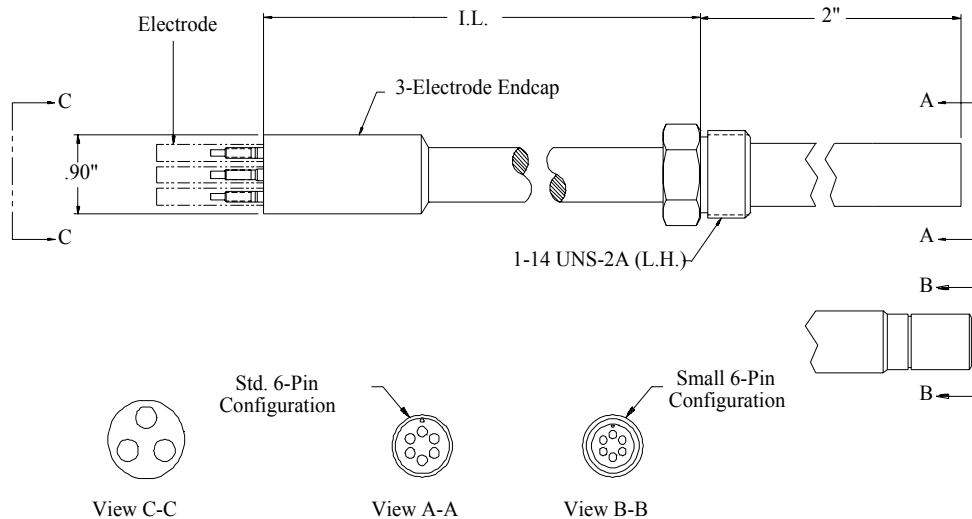
Alloy Chart		
Code	Description	UNS #
375	C1010	G10100
419	CDA110	C11000
434	CDA443	C44300
159	316L S.S.	S31603

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

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

# Model LP7100

## Linear Polarization Resistance Probe Retrievable with 3-Electrode Endcap for High Pressure (HP™ and MH™) Access Systems



**Model LP7100** is a fixed-length, linear polarization resistance probe for use with HP™ and MH™ high pressure access systems. The probe assembly consists of an insertion rod with a hermetically sealed three-electrode endcap, a hollow plug nut, and a standard six-pin connector, 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. Several standard electrodes are available to meet your specific needs. Probe adaptors are also available and must be ordered separately. The insertion length (I.L.) is specified by the customer, using one of the following formulas.

Top-of-the-line monitoring:  $I.L. = WT + 1.75$   
Middle-of-the-line monitoring:  $I.L. = PD + WT + 1.75 - \frac{1}{2}EL$   
Bottom-of-the-line monitoring:  $I.L. = PD + WT + 1.75 - EL$   
(where PD = penetration depth, WT = wall thickness,  
EL = electrode length - see Alloy Chart on back)

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

### Specifications:

**Probe Body** - 316 Stainless Steel or C276

**Endcap Seal** - Glass

**Fill Material** - Epoxy

**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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E-mail: [mcs@alspi.com](mailto:mcs@alspi.com) Internet: [www.metalsamples.com](http://www.metalsamples.com)

**Houston Office:** 8811 Kensington Court, LaPorte, TX 77571 Phone: (281) 471-2777 Fax: (281) 471-3405

## LP7100 Ordering Information

Model							
HL	Linear Polarization Three-Electrode Probe for High Pressure Access Systems						
	<b>Mounting Material</b>						
	2	316					
	3	C276					
	<b>Connector Type</b>						
	1	Small connector					
	2	Standard connector					
	<b>LP Electrode Options</b>						
	1	Three-electrode integral type					
	<b>Seal Type</b>						
	0	Glass					
	<b>Length</b>						
		XXXX	Length in inches, stated in 2 decimal place format (Ex: 6¼" = 0625)				
	<b>Options</b>						
		000	None				
<b>HL</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0625</b>	<b>000</b>	<b>Example of Probe Ordering #</b>

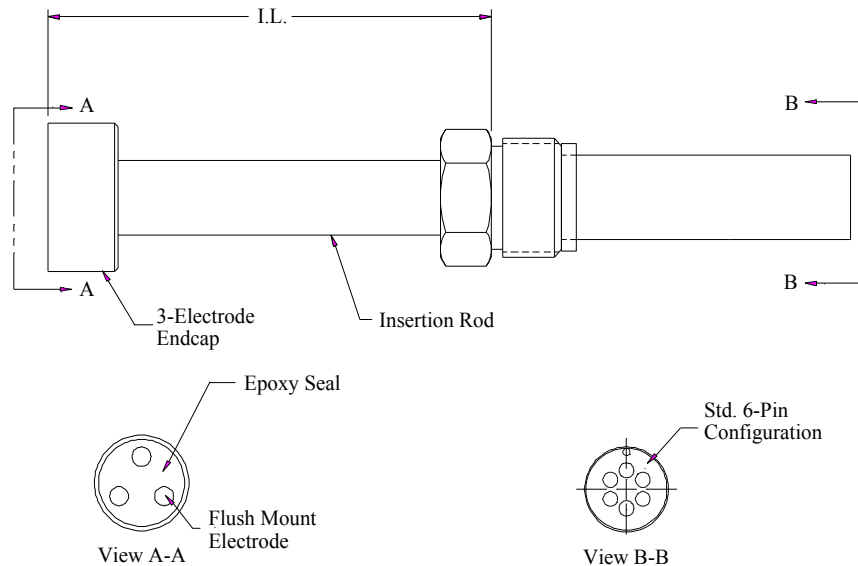
**Electrode Part Number - EL412XXX2800000** (XXX - use Code in Alloy Chart)  
 LPR probe electrodes are replaceable and sold separately. See [Electrodes](#).

Alloy Chart			
Code	Description	UNS #	Electrode Length (EL)
377	C1018	G10180	1.72"
159	316L S.S.	S31603	1.62"
419	CDA110	C11000	3.50"
434	CDA443	C44300	3.17"

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.

# Model LP7210

## Linear Polarization Resistance Probe Retrievable with Flush-Mount 3-Electrode Endcap for High Pressure (HP™ and MH™) Access Systems



**Model LP7210** is a fixed-length, flush-mount, three-electrode, retrievable, linear polarization resistance probe for use with HP™ and MH™ high pressure access systems. These probes are ideally suited for applications where the probe electrodes need to be flush with the wall of the pipe. The probe assembly consists of an insertion rod, a flush-mount three-electrode endcap, and a six-pin military connector. 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 probe's three-electrode endcap is filled with an epoxy seal. Electrodes are not replaceable. The insertion length (I.L.) can range from a minimum of 1.75" up to any length specified by the customer, using the formula:

$$\text{I.L.} = \text{PD} + \text{WT} + 1.75''$$

(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).

### Specifications:

**Probe Body** - 316 Stainless Steel

**Endcap Seal** - Epoxy

**Fill Material** - Epoxy

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

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

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

### Metal Samples Corrosion Monitoring Systems

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E-mail: [mssc@alspi.com](mailto:mssc@alspi.com) Internet: [www.metalsamples.com](http://www.metalsamples.com)

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## LP7210 Ordering Information

<b>Model</b>							
HL	Linear Polarization Three-Electrode Probe for High Pressure Access Systems						
	<b>Mounting Material</b>						
	2	316					
	3	C276					
	<b>Connector Type</b>						
	2	Standard connector					
	<b>LP Electrode Options</b>						
	4	Three-electrode integral flush type					
	6	Three-electrode integral flush adjustable type					
	<b>Seal Type</b>						
	1	Epoxy					
	<b>Length</b>						
	XXXX	Length in inches, stated in 2 decimal place format (Ex: 6¼" = 0625)					
	<b>Electrode Alloy</b>						
	XXX	Use Code in Alloy Chart					
<b>HL</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>0625</b>	<b>XXX</b>	<b>Example of Probe Ordering #</b>

<b>Alloy Chart</b>		
Code	Description	UNS #
377	C1018	G10180
159	316L S.S.	S31603
419	CDA110	C11000
434	CDA443	C44300

For alloys, sizes, or other special requirements not listed, contact our sales department.  
 Note: Not all alloys are available with all element types and seals.