

Roxar™ Retractable LPR Probe



The Roxar Retractable Linear Polarization Resistance (LPR) Probe is an accurate and reliable tool for measuring current corrosion rates, and are designed for use in water systems.

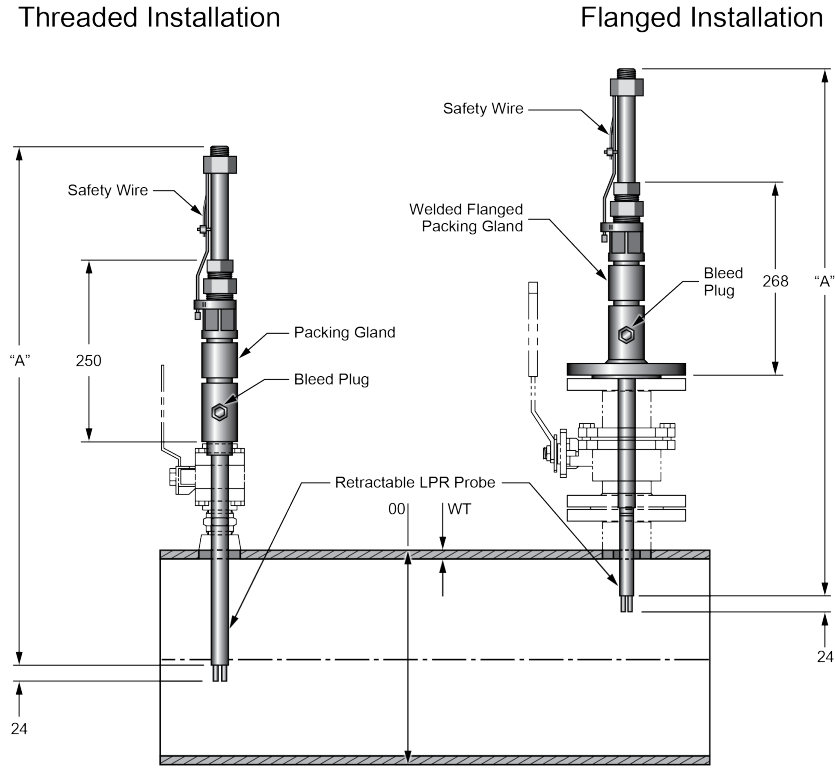
The Roxar Retractable LPR Probe has the following features:

- Provides a very high resolution and level of sensitivity compared to other technologies available on the market
- Determines the corrosive rate within hours
- Assists with optimizing the process, tune injection of inhibitors, and monitoring the performance of oxygen scavengers based on trend forecasts
- Provides measurements in an easy-to-understand and use format
- Detects corrosion upsets using the instant measurement response
- Available in adjustable lengths to fit different pipe sizes

Operating principle

The internal corrosion monitoring of the Roxar Retractable LPR Probe is based on measuring the current response to a small polarization (10-20 mV) to a steel electrode's corrosion potential. Electrochemical theory (Stern-Geary's equation) is used to validate that corrosion rates can be calculated directly from the current response to small and known polarization amounts. This enables the Roxar Retractable LPR Probe to provide an immediate corrosion rate value.

The following figure shows a typical installation for the Roxar Retractable ER probe. The shaded parts are standard deliveries from Emerson.



Dimensions - Retractable LPR Probe - 1"

Order length	"A" dimension	
	Inches	mm
18	21.7	549
24	27.7	702
30	33.7	854
36	39.7	1007

Model code selector - Retractable LPR Probe

Model	Product description
TLCMPR	Retractable Corrosion Monitoring Probe

Measuring method

Code	Measuring method
2	Linear Polarization Resistance

Probe body material

Code	Probe body material
2C7A	Stainless steel A312 Gr. 316L, Tube EN 10204 3.1 NACE MR0175

Element type and material

Code	Element type and material
30S	Projected Double C Carbon Steel (ST52-3N) UNS S355 J2+N

Probe length

Code	Probe length
L0	18"
L1	24"
L2	30"
L3	36"

Product accessory

Code	Product accessory
A2	Blowout preventer (AISI 316L)

Factory options

Code	Factory options
Z	Standard product

Certificates, tests, calibrations and services

Code	Certificates, tests, calibrations and services (optional)
D1	Dye penetrant test
PM	Positive material identification

Model code selector - packing box

Model	Product description
TPACK	Retractable system packing box (including safety wire and bleed valve)

Pressure rating

Code	Pressure rating
1	Max 1 500 psi design pressure

Process connection

Code	Process connection
50	NPT Male
60	Flanged 150 lbs. RF ASME B16.5 Socket Welding Flange
61	Flanged 300 lbs. RF ASME B16.5 Socket Welding Flange
62	Flanged 400/600 lbs. RF ASME B16.5 Socket Welding Flange
63	Flanged 400/600 lbs. RTJ ASME B16.5 Socket Welding Flange
70	Flanged 150 lbs. RF ASME B16.5 Integral Flange
71	Flanged 300 lbs. RF ASME B16.5 Integral Flange
72	Flanged 400/600 lbs. RF ASME B16.5 Integral Flange
73	Flanged 400/600 lbs. RTJ ASME B16.5 Integral Flange

Process connection size

Code	Process connection size
A	1 inch
B	1.5 inch
C	2 inch

Material packing box

Code	Material packing box
ONON ⁽¹⁾	Not applicable, same as material flange
OB6A ⁽²⁾	Carbon steel ASTM 350 Gr. LF2 Cl. 1, bar EN 10204 3.1 NACE MR0175

Code	Material packing box
2C6A ⁽²⁾	Stainless steel A479 Gr. 316L, bar EN 10204 3.1 NACE MR0175

(1) Only applicable for Process Connection option 70, 71, 72 and 73

(2) Not applicable for Process Connection option 70, 71, 72 and 73

Material flange

Code	Material flange
0N0N ⁽¹⁾	Not applicable
0B3A ⁽²⁾⁽³⁾	Carbon steel ASTM A350 Gr. LF2 Cl.1, forging EN10204 3.1 NACE MR 0175
2C3A ⁽²⁾⁽⁴⁾	Stainless Steel A182/182M Gr.316L, forging EN 10204 3.1 NACE MR0175

(1) Only applicable for Process Connection option 50

(2) Not available for Process Connection option 50

(3) Only available for Material Packing Box Option 0N0N and 0B6A

(4) Only available for Material Packing Box Option 0N0N and 2C6A

Operating mode and conditions

Code	Operating mode and conditions
S1	Standard Temperature (<230°C) PTFE 25% GF Main Seal
S2	High Temperature (>230°C) Grafoil Main Seal

Product specific options

Code	Product specific options
C0	No coating
C1 ⁽¹⁾	Roxar Standard Coating for CS with surface temperature below 120°C
C2 ⁽¹⁾	Roxar Standard Coating for CS with surface temperature above 120°C
C6 ⁽²⁾	Roxar Standard Coating for SS

(1) Only available for Material Packing Box option 0B6A or Material Flange 0B3A

(2) Only available for Material Packing Box option 2C6A or Material Flange 2C3A

Tag plates

Code	Tag plates
ZZ	No tag plates
TG	Standard tag plates for fittings

Factory options

Code	Factory options
Z	Standard product

Certificates, tests, calibrations and services

Code	Certificates, tests, calibrations and services (optional)
D1	Dye penetrant test
PM ⁽¹⁾	Positive material identification

(1) Only available for Material Packing Box option 2C6A or Material Flange 2C3A

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