Model US - SlimLine™ Reference

Typical Applications:
- Underground and aboveground storage tanks, buried pipelines, elevator shafts

Featuring:
- 30 year design life with EDI's LongLife™ gelled element
- Can be installed in a 2 inch (5 cm) diameter hole
- Proprietary backfill mix to retain moisture and minimize migration of contaminants from the surrounding soil
- 50 feet (15 m) of #14 AWG HMW/PE lead wire is standard

Housing Specifications
Size – 1 5/8 inch dia. x 18 inch long
(4.2 cm dia. x 45 cm long)
Shipping weight – 5 lb (2.3 kg)

Element Specifications
Design life – 30 years
Shelf life – 1 year minimum
Stability - ± 5 mV

Element Types
AGG - saturated gelled Ag/AgCl
CUG - saturated gelled Cu/CuSO₄

Terminations
SW – 50 feet (15 m) of #14 AWG HMW/PE
LWnnn - nnn feet #14 AWG HMW/PE
CWnnn - nnn feet of custom wire
(#12 HMWPE is the largest size wire that can be used on this model)

Model Designation
Specify as EDI Model US-xxx-yy
xxx = Element type
yy = Termination type

Design Compatibility
The Model US is designed for installation in a 2 inch (5 cm) diameter hole. It is ideal for retrofit through asphalt or concrete where it is difficult or costly to drill a larger diameter hole. This electrode can be used between storage tanks at service stations or between the primary and secondary containment of an aboveground storage tank. Also, the Model US weighs far less than the industry standard bagged electrode, which reduces shipping costs where this is a consideration. Also see Model US50 which has been optimized for a 50 year design life.

Installation
Drill a 2 inch (5 cm) dia. hole, lower the electrode into place and slurry in backfill.
Model US - 30 year (nom.) design life

Specify as Model US-xxx-yy where
xxx is element type and
yy is termination type

Element Types
AGG = Ag/AgCl (saturated, gelled)
CUG = Cu/CuSO4 (saturated, gelled)

Termination Types
SW - 50' #14AWG HMWPE lead wire
LWnnn - nnn' #14 AWG HMWPE lead wire

Refer to the following EDI drawings for installation guidance:
USAPP1 - Installation in a bore hole
USAPP2 - Installation beneath an above ground storage tank
USAPP3 - Installation in a test station riser
1. Drill hole 2" dia. min. Lower reference electrode into hole.

2. Pour or pump slurry mix into hole. Fill to at least 1 foot above electrode. Measure and record potential of permanent reference using a calibrated portable reference.

3. Fill balance of hole with suitable backfill.

Slurry mix:
75% sand plus 25% bentonite clay
Add water to make pourable consistency
1. Place reference electrode on a bed of sand approximately 1/2" to 1" thick.

2. Build a dam of sand around the electrode. Thoroughly saturate bag with potable water. Measure and record potential of permanent electrode using a calibrated portable reference electrode.

3. Cover electrode with at least 1" of sand. From this point on, the electrode must not be disturbed or moved.
Suggested installation method for a test station using a 2 inch pipe size or larger riser, including stations with attached cathodic protection coupons. Using a permanent reference allows measurements to be made with data loggers or remote monitors. A portable reference may be placed in the opening on top to confirm or calibrate readings.

local soil

Grade

moisture retaining backfill
75% sand, 25% bentonite

Model US reference

local soil

Installing Model US in a Test Station