

# Model UX – Special Products

EDI can customize any of its underground products or design special products to meet the unique requirements of a particular application. These products are designated as Model UX followed by a sequence number. Contact us for additional information on any of these products.

## Special and Custom Underground Products:

| <u>Model</u> | <u>Description</u>                                                                                                                                                                                           |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UX08</b>  | Model UX08 is a cylindrical metal coupon, either steel or ductile iron.                                                                                                                                      |
| <b>UX09</b>  | Model UX09 is a variant of Model UL bagged underground reference. It has been adapted for installation at the bottom of a test station riser.                                                                |
| <b>UX10</b>  | Model UX10 is a multiple reference assembly consisting of 2 USs plus a ½ inch (1.2 cm) diameter rod coupon encased in cement. The entire assembly is contained in a cotton bag and encapsulated in backfill. |
| <b>UX15</b>  | Model UX15 is Model UL reference electrode and a #4 rebar coupon encase in cement, the entire assembly is contained in a cotton bag filled with gypsum bentonite backfill.                                   |

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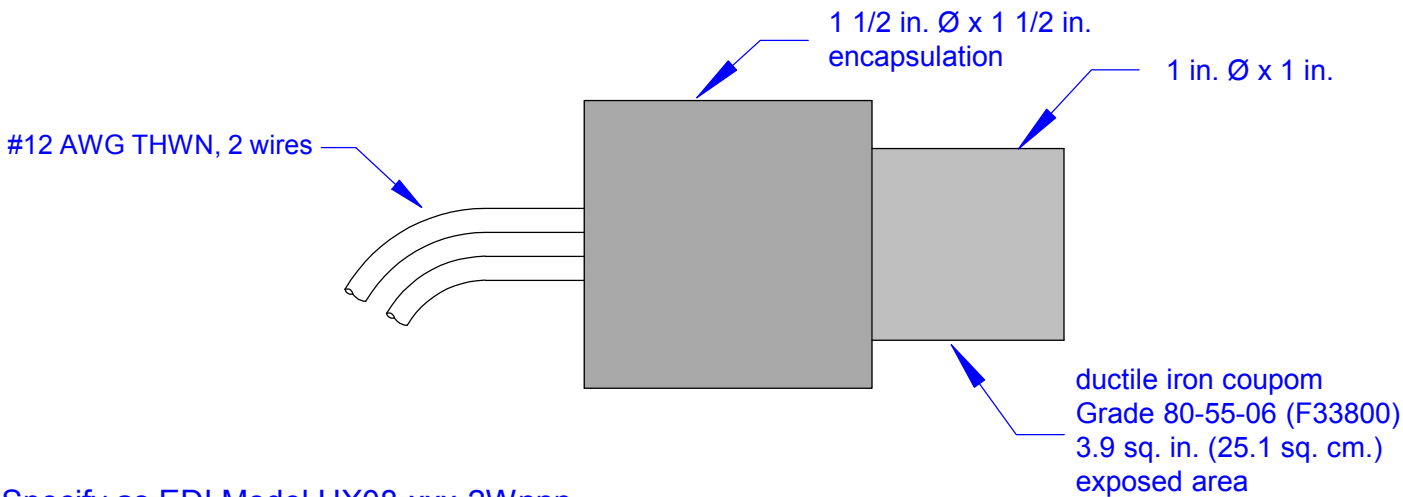
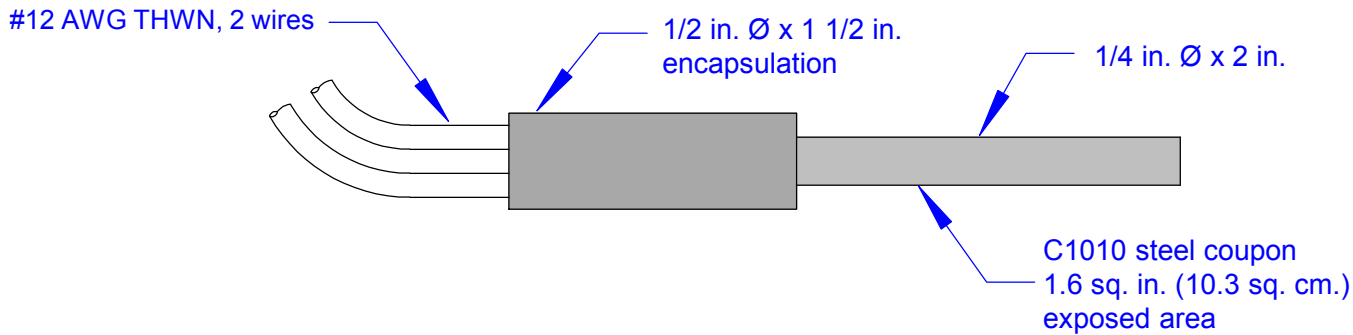
**electrochemical devices, inc.**

PO Box 789, Middlefield, OH 44062 440-632-5616

info@edi-cp.com

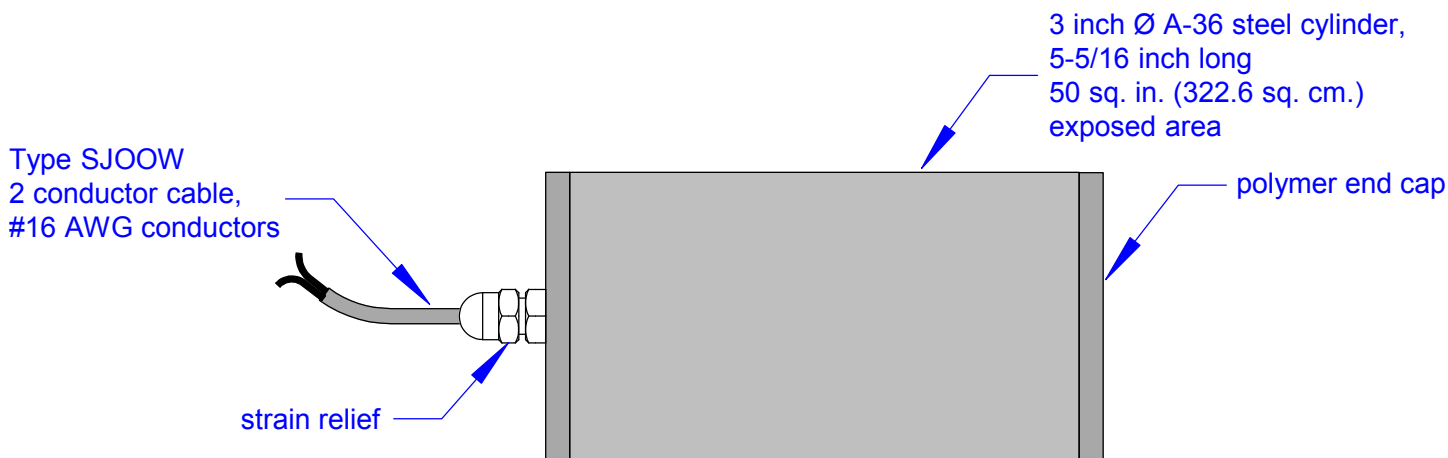
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*U Series  
Underground  
Reference  
Electrodes*



Specify as EDI Model UX08-xxx-2Wnnn  
where nnn is length of lead wires in feet, color as specified.  
and xxx is coupon material  
STL is C1010 steel  
DCI is F33800 ductile iron

Full Scale



Specify as EDI Model UX08-A36-LWnnn  
where nnn is length of lead wires in feet

Half Scale

## Ductile iron and steel coupons

SCALE 1/2 & FULL

DRAWN BY FJA

DATE 3 JUL 2015

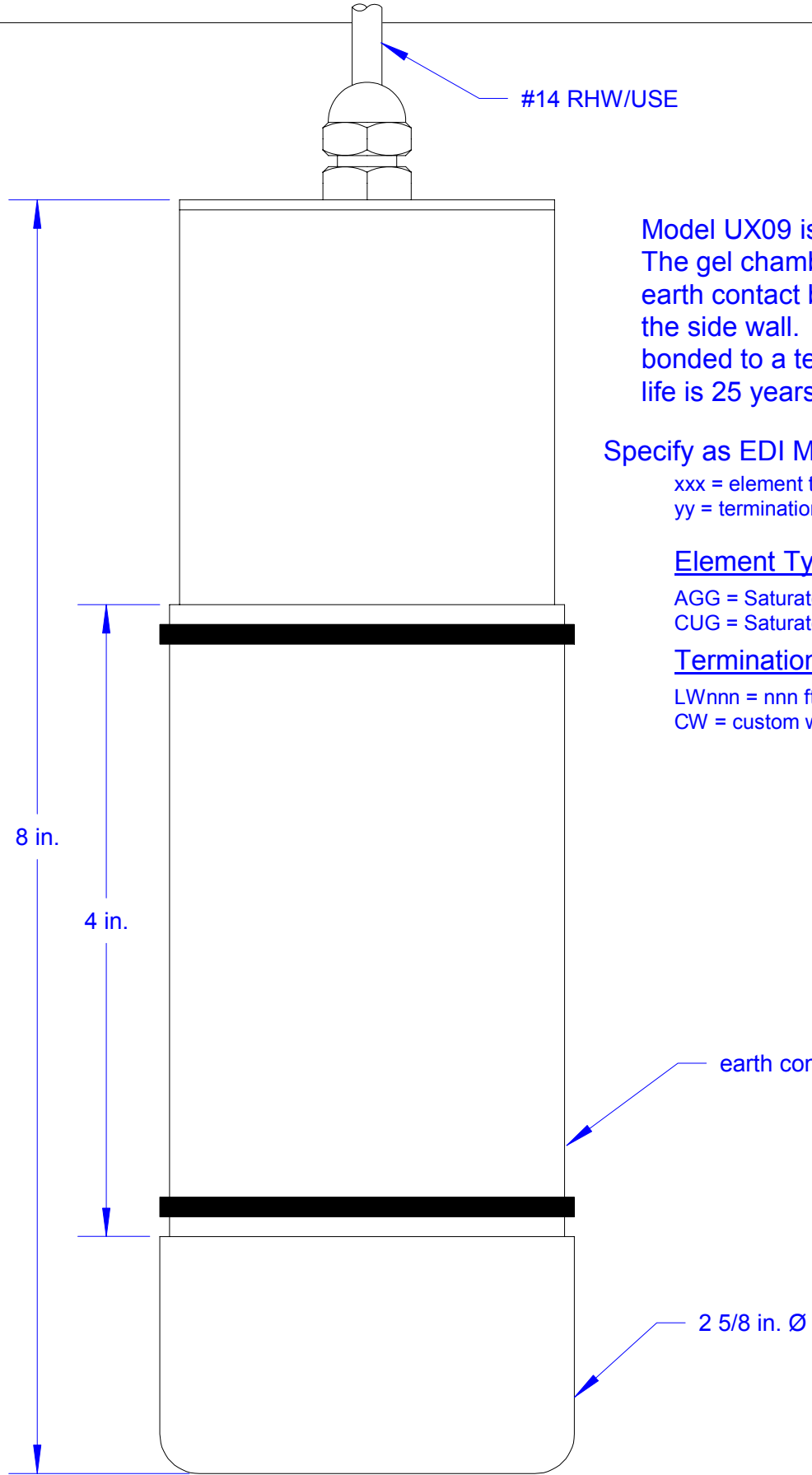
DRAWING NUMBER UX08 - 3



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#14 RHW/USE

Model UX09 is a variant of Model UL. The gel chamber is smaller and the earth contact bag has been moved to the side wall. It is designed to be bonded to a test station riser. Design life is 25 years.

Specify as EDI Model UX09-xxx-yy where  
 xxx = element type, AGG or CUG  
 yy = termination, LWnnn or CWnnn

Element Types

AGG = Saturated gelled Ag/AgCl  
 CUG = Saturated gelled Cu/CuSO4

Termination Types

LWnnn = nnn ft. #14 RHW/USE lead wire  
 CW = custom wire as specified by customer

earth contact fabric

2 5/8 in. Ø

8 in.

4 in.

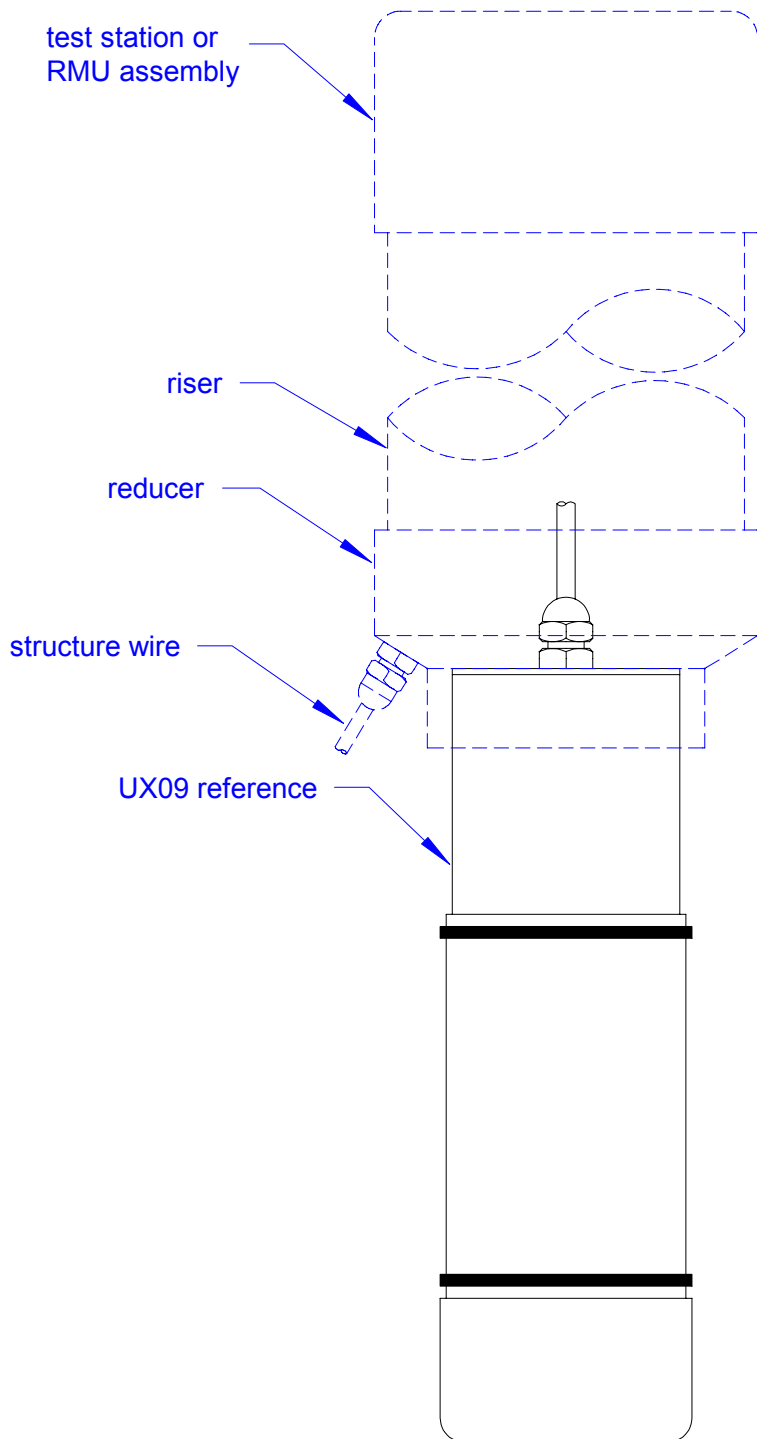
Riser Shoe Reference Electrode

|                |            |
|----------------|------------|
| SCALE          | FULL       |
| DRAWN BY       | FJA        |
| DATE           | 6 JUL 2015 |
| DRAWING NUMBER | UX09 - 2   |

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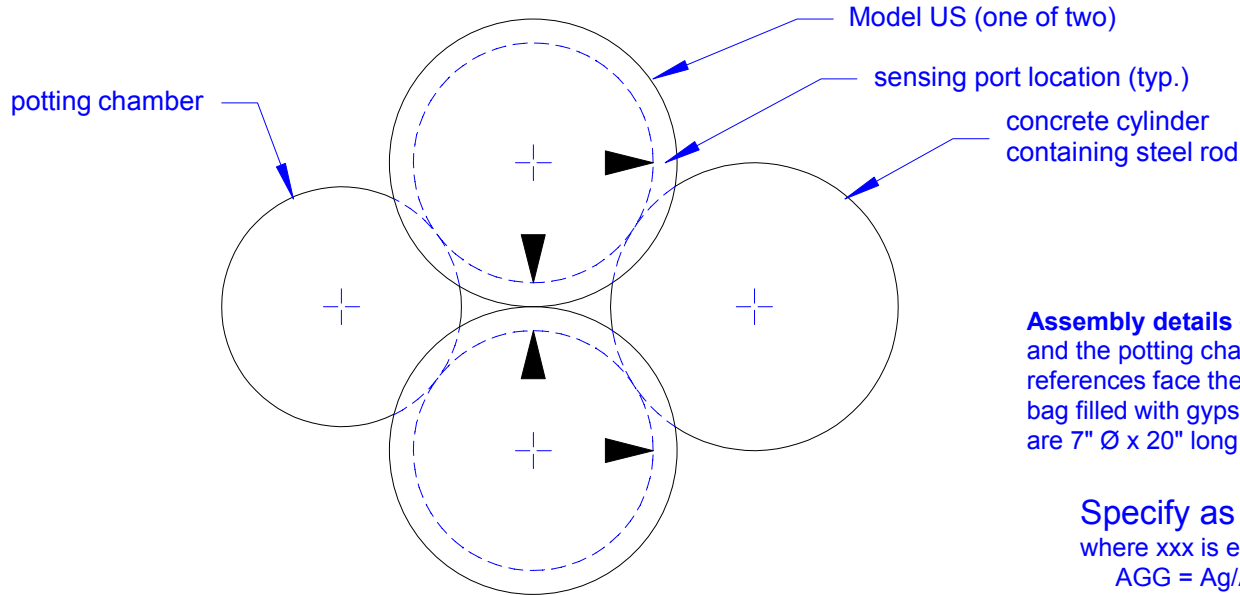
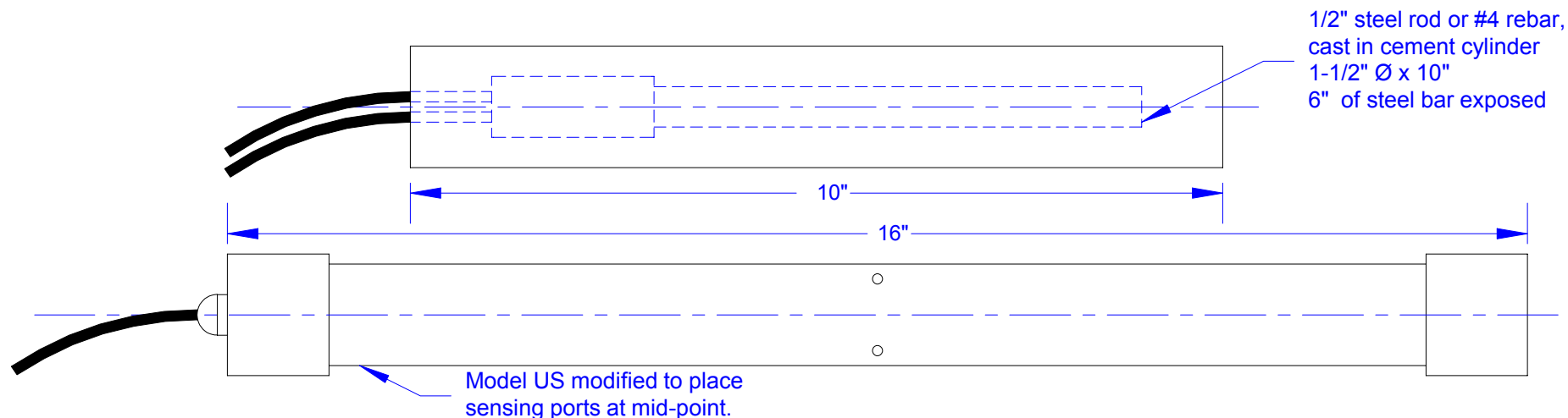


Typical installation of Model UX09 reference electrode on an RMU or test station riser. Components shown in dashed lines are user supplied.

After installation, fill hole to top of reference electrode with a moisture retaining backfill consisting of 75% sand and 25% bentonite. This will minimize the chance of the reference electrode drying out.

## Installation of Riser Shoe Reference Electrode

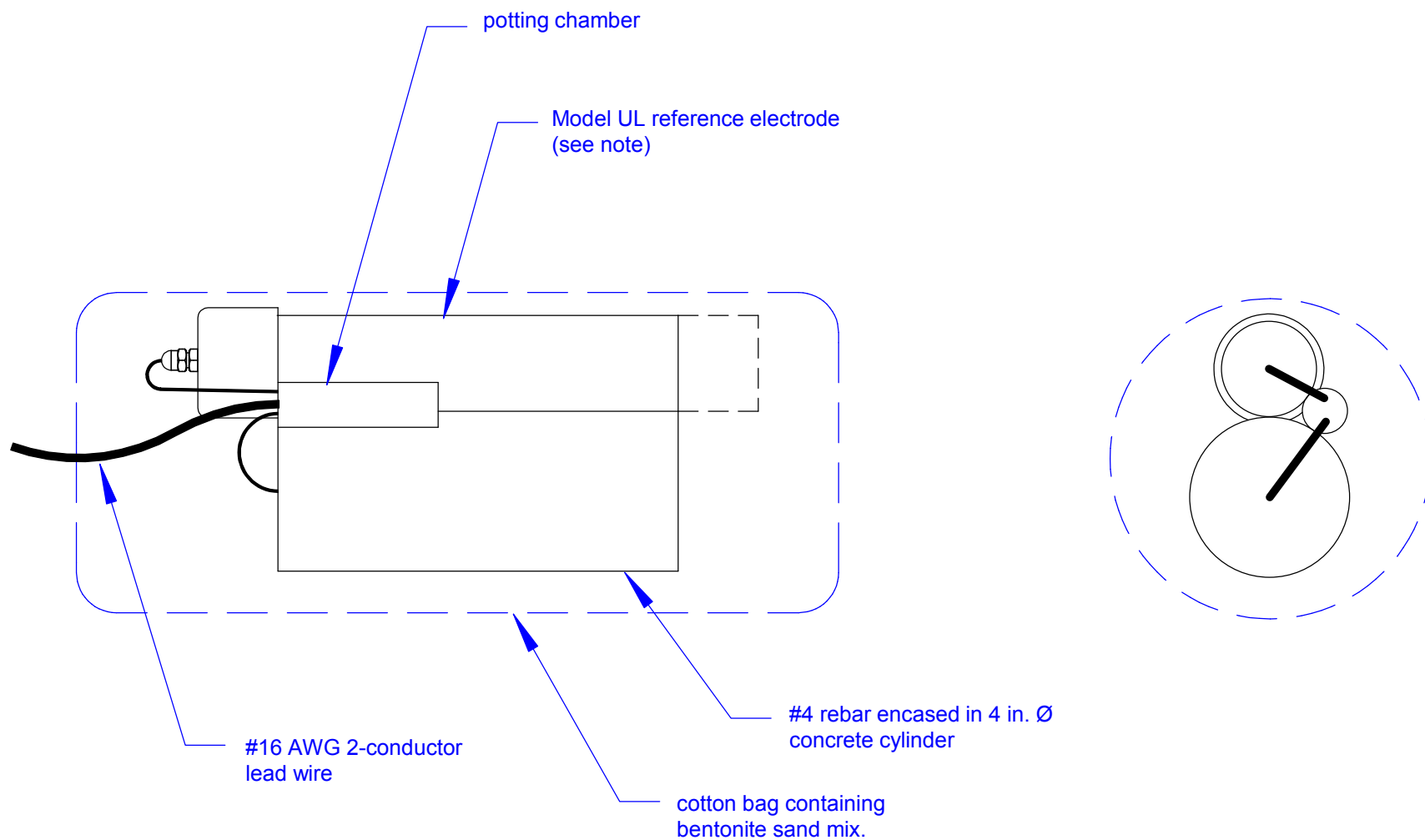
|                |            |
|----------------|------------|
| SCALE          | HALF       |
| DRAWN BY       | FJA        |
| DATE           | 6 JUL 2015 |
| DRAWING NUMBER | UX09 - 3   |



**Wire connections** - Lead wires are spliced to a four conductor shielded cable. Conductors are #14 PVC insulated with a nylon sheath; outer jacket is black PVC, 3/8" Ø. All splices are located in potting chamber and encapsulated in polyurethane or epoxy potting compound.  
**Red** wire - reference electrode  
**Orange** wire - reference electrode  
**Blue** wire and **black** wire - both connected to the rebar probe.

**Assembly details** - The two Model US references, the concrete cylinder and the potting chamber are secured as shown. Sensing ports on references face the concrete cylinder. Assembly contained in a cotton bag filled with gypsum-bentonite backfill. Approximate bag dimensions are 7" Ø x 20" long. Approximate weight is about 30 lbs.

Specify as **EDI Model UX10-xxx-LWnnn**  
 where xxx is element type  
 AGG = Ag/AgCl  
 CUG = Cu/CuSO4  
 and nnn is cable length in feet



Note: Model UL50 (50 year design life) can be substituted for the Model UL. This will extend the electrode length as shown by the dashed line. The model designation for the extended life reference is Model UX15A-xxx-LWnnn.

Specify as EDI Model UX15-xxx-LWnnn  
 where xxx = element type (CUG for Cu/CuSO<sub>4</sub> or AGG for Ag/AgCl)  
 and nnn = lead wire length in feet.