

Model CWL – Long Potential Well

Typical Applications

- Bridge decks and substructures, parking garages, docks and buildings

Featuring

- No need to wet down the surface to take potential readings on rebars
- Ability to take potential readings under surfaces covered with a membrane or sealer
- Elimination of errors from reading through a carbonated surface layer
- Fixed location for consistency in comparing data with previous readings
- Salt bridge (Luggin) extension permits measurement of a remote location



Housing Specifications

1 ½ inch (3.8 cm) dia. PVC fitting
Pipe plug with 9/16 in. (1.4 cm) hex socket

Extension Specifications

¼ in. (0.63 cm) dia. X 8 ft. (2.4 m) long HDPE
Cotton bag with special backfill
PP compression union for greater lengths

Model Designation

Specify as EDI Model CWL-HOL-Lnnx
nn = extension length in feet
x = B for Black plug, Y for yellow plug

Application Notes:

The **Model CWL** Long Potential Well is intended for use where it is best to take a potential reading on a rebar with a portable reference electrode from a remote location. As an example, this model with the standard 8 foot (2.4 m) extension permits potentials to be taken under a traffic lane from an access point on the sidewalk. Longer extensions are available if required. The **Model CWL** can also be used to calibrate a permanent embedded reference electrode by placing the sensing bulb adjacent to the permanent electrode. For proper installation, the sensing bulb should be placed as close as possible to the rebar where measurements are to be taken. Ideally, there should be a layer of the original concrete between the sensing bulb and the rebar. To take readings: remove the threaded plug with the hex socket, wet the foam, and then press a calibrated portable reference electrode into the foam. For those installations where it is possible to take potential readings directly over the rebar, a short version of this model is available. See the EDI Data Sheet for the Potential Well (Short), **Model CWS**

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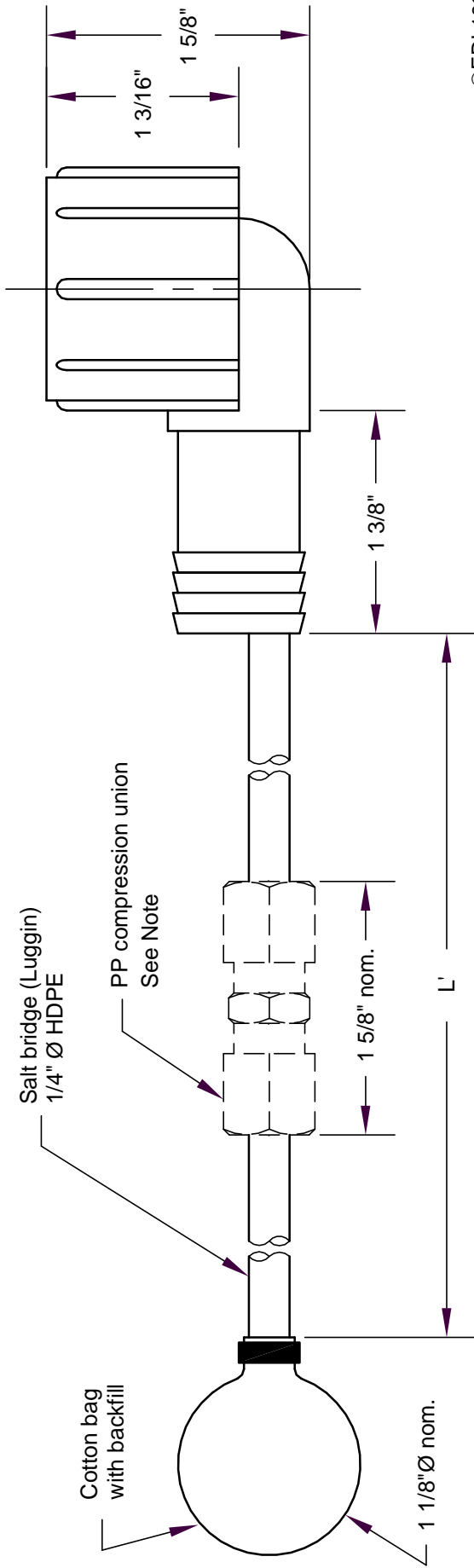
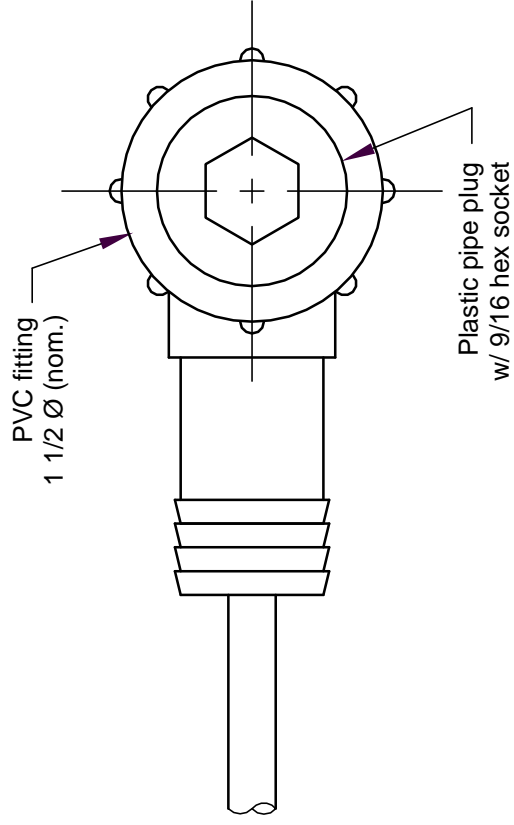
*C Series
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Specify as EDI Model CW-HOL-Lnn

nn = extension length in feet

Note: Standard extension length is 8'. For custom lengths over 10', one union will be required for every 10' length or fraction thereof. Actual distance between unions will vary. Joint between sections is made in the field using EDI supplied joining materials.



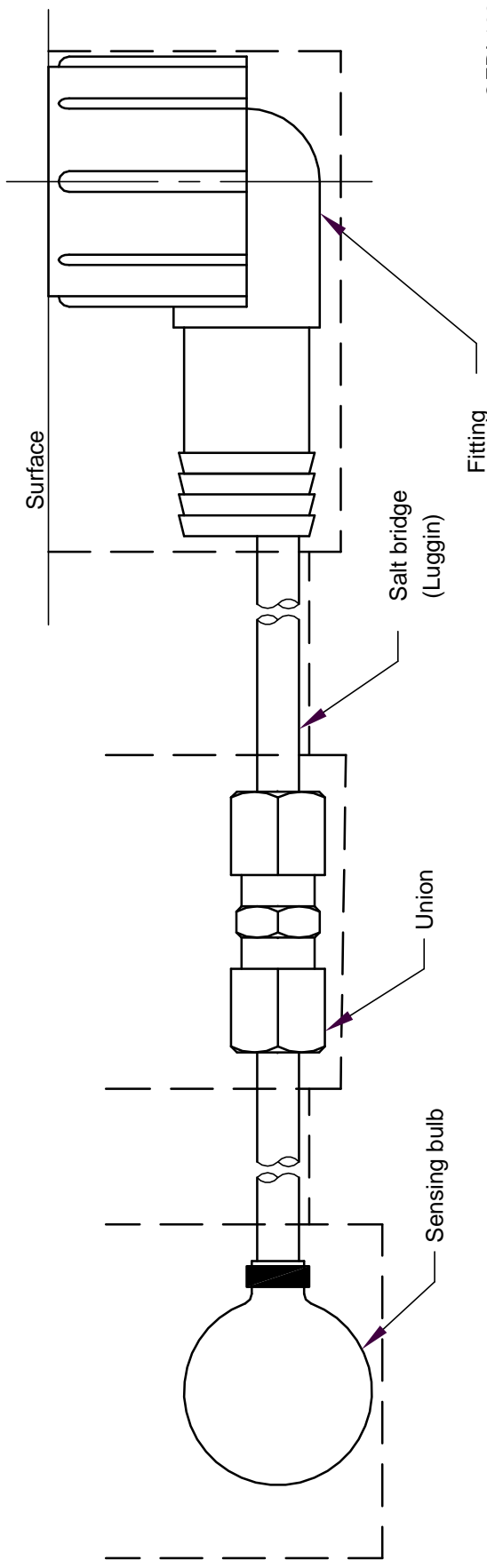
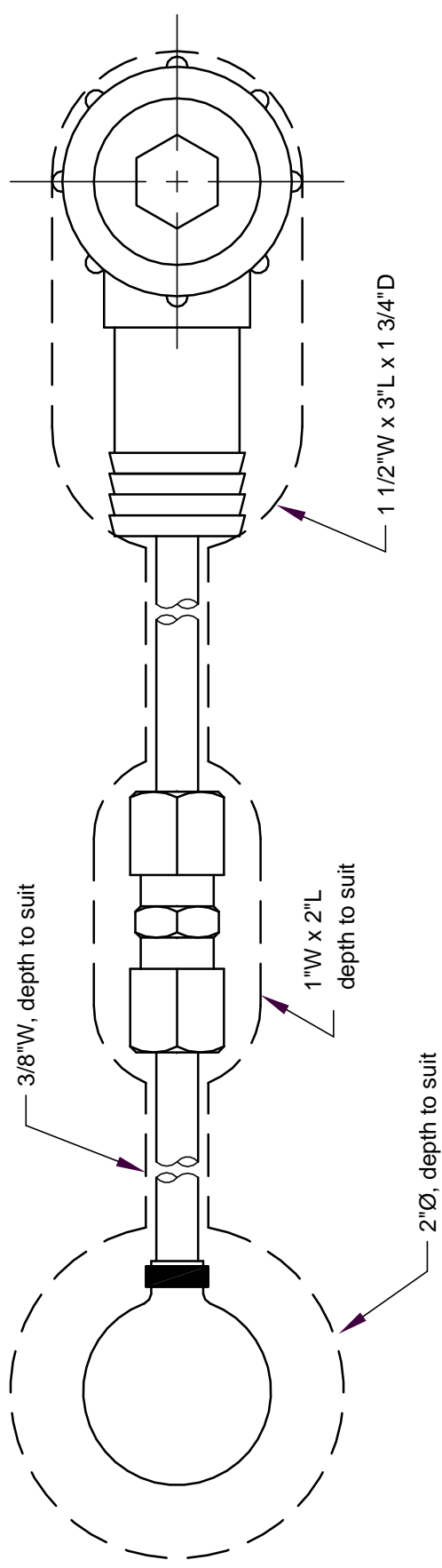
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Concrete Potential Well with Extension

SCALE FULL	DATE 06/29/99	DRAWN BY FJA	DRAWING NO. CWLASY
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Hole pattern for retrofit installation
 See detailed instructions outside.

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Installation - Potential Well with Extension			
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Installation Guidelines

Potential well With Extension

EDI Model CW-H0L-L

Joining Sections: If the required salt bridge length is greater than 10 feet (3 m), the bridge is shipped in sections of less than 10 feet long which are joined in the field. A joining kit consisting of a compression union fitting, a vial of de-ionized water and a bag of powder is included for each field joint.

1. Remove protective caps from the ends of each section; soak the ends in potable water for about 30 minutes. NOTE: Do not cut the sections to alter their length. If this is done, the bridge may not function properly.
2. Insert one end of the bridge fully into the union and tighten the compression nut.
3. Add powder to water and mix thoroughly by stirring or shaking for about 10 seconds. Immediately pour the slurry into the open end of the union. Press in the other end of the bridge, the excess slurry will exude out. Finish by tightening the other compression nut. NOTE: The total working time of the slurry after mixing is about 1 minute.

Sensing Bulb Preparation: Remove sensing bulb end of tube from protective packaging. Do not remove the cotton bag. Soak the bag in potable water for about 10 minutes. This must be done within 30 minutes of grouting the bulb in place.

New Installations: Locate the sensing bulb about 1 inch (2.5 cm) away from the section of rebar to be monitored. Route the salt bridge tube and secure as required. NOTE: Do not form any sharp bends or kinks in the bridge tube; position the PVC fitting so that it will be flush with the finished concrete surface.

Retrofit Installations: Layout the routing of the potential well assembly marking locations for the sensing bulb, unions and PVC fitting. Drill a 2 inch (5 cm) dia. hole, depth to suit, for the sensing bulb. Drill a 1 inch (2.5 cm) x 2 inch (5 cm) hole, depth to suit, for each fitting. Drill a 1 ½ inch (4 cm) x 3 inch (7.5 cm) hole, 1 ¾ inch (4 cm) deep, at the fitting location. connect the holes with a 3/8 inch (1 cm) slot, depth to suit, Do not make sharp bends greater than 30 degrees in the bridge tube.

Butter the bottom and sides of the sensing bulb hole with a Portland cement grout. NOTE: Do not use patching cement with vinyl or acrylic additives for grout. Press bulb into the grout. Pack about 1 inch (2.5 cm) additional grout over the top of the bulb. Balance of hole can be filled with any type patching compound. Place the rest of the potential well assembly into the holes and slots and patch with any suitable patching compound.