

SmartPole Meter for Service to Pole-Mounted Communication Equipment

SUMMARY

This bulletin describes a PG&E meter, called a SmartPole meter, approved for use with services connected to communication equipment mounted on steel and wood poles. The SmartPole meter and its enclosure is the preferred method for metering loads less than 68 amps. This bulletin also provides ordering information for the multiple types of SmartPole meters and enclosures as well as construction details to properly install a SmartPole meter.

Level of Use: Informational Use

AFFECTED DOCUMENT

Service Planning personnel must furnish non-PG&E personnel with a copy of this bulletin and the following documents, if applicable. See engineering document [027911, Installation Details for Service to Pole-Mounted Communication Equipment](#) for the main requirements when installing services to Pole-Mounted Communication and antenna Equipment.

[TD-027911-B003 Service to Communication Equipment on PG&E Owned Steel Streetlight Poles with Antenna Provisions](#)

[TD-027911-B004 PG&E Metering and Service Connections For Non-PG&E Owned Steel Streetlight Poles With Antenna and Communication Equipment](#)

[TD-027911-B005 PG&E Electric Service and Metering For Communication Company Equipment and Antennas on Non-PG&E Wood Poles](#)

TARGET AUDIENCE

PG&E electric departments: Service Planning, Estimating, Restoration, Maintenance and Construction, Inspection, Field Meter Operations

Non-PG&E Personnel: Communication Companies, Electrical Contractors, Installers, and designers

WHAT YOU NEED TO KNOW

1. Use Engineering Document 027911 and corresponding bulletins for installation and clearance requirements for service to communication and antenna equipment. This document provides modified and additional installation requirements for installing service to a SmartPole meter.
2. Install a 2-wire (1-hot, 1-neutral) 1-phase 120 volt service to the SmartPole meter.
 - 2.1. The customer load must not exceed 16 amps for non-transformer rated SmartPole meters.
 - 2.2. The customer load must not exceed 68 amps for transformer rated SmartPole meters.





Note: For locations where an existing 2-wire 1-phase 240 volt secondary system is available the SmartPole meter may be connected. These locations are not common.

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3. A 3-wire 1-phase 120/240 volt service is allowed with a SmartPole meter.
4. Installation of a NEMA 3R enclosure unit with pole bracket is required. The enclosure with receptacle, pole bracket, and meter strap come together as one unit manufactured by Tesco Advent. See Table 1 and Figures 2, 3, 4, and 7 for enclosure unit options. There is also a combination enclosure that includes a disconnect switch and receptacle for the SmartPole meter as well as a transformer rated enclosure unit.
5. Install the SmartPole Meter enclosure unit (Figure 2 or Figures 3 & 4) on the pole at a minimum of 7 feet to a maximum of 8 feet above grade, as measured from the bottom of the enclosure, and not exposed to vehicular traffic.
6. The disconnect switch for customer equipment load (e.g., Communication Equipment and Backup Power Supply) is required and must be installed above, below, or on the side position of the SmartPole meter equipment. 12 inches of vertical clearance is required when placed above the SmartPole meter. Six inches of horizontal clearance is required when placed on the side or below SmartPole meter equipment. The clearance distance is measured from the closest edges of any part of the equipment.
7. The installation of all customer equipment and PG&E's Smart Pole metering equipment must meet all PG&E requirements and CPUC General Order 95 rules.
8. Inspection and approval by a qualified PG&E inspector are required.
9. PG&E Meters must not be installed on poles that are in traffic medians or traffic islands where vehicle thoroughfares are on more than one side of the pole. A different pole must be selected for the meter, service, antenna, and communication equipment.
10. Do **not** install the SmartPole Meter in the shroud at the top of the pole for new or upgraded installations. The meter and enclosure must be installed as described in note 5.


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Table 1 Bill of Material to Be Furnished and Installed by the Communication Company

Item	Description		
1	Conduit, Rigid, PVC, Schedule 80, size as required		
3	Conduit Fittings, as required		
4	Wire, 600 V, Size as Required		
12 ¹	Catalog # 701-120, Enclosure Unit, NEMA 3R, 3-pin receptacle, ground/bond lug, meter strap, pole bracket, 2- wire 1-phase 120 V	Code M241572	
	Catalog # 702-120, Disconnect Enclosure Unit, NEMA 3R, 3-pin receptacle, ground/bond lug, meter strap, 2-wire 1-phase 120 V	M241698	
	Catalog # 702-240, Disconnect Enclosure Unit, NEMA 3R, 3-pin receptacle, ground/bond lug, meter strap, 2-wire 1-phase 240 V	M241677	
	Catalog # 703-120, Transformer Rated Disconnect Enclosure Unit, NEMA 3R, 4-pin receptacle, ground/bond lug and meter strap, 2-wire 1-phase 120 V	M241697	

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Table 1 Bill of Material to Be Furnished and Installed by the Communication Company

	Catalog # 703-240, Transformer Rated Disconnect Enclosure Unit, NEMA 3R, 4-pin receptacle, ground/bond lug and meter strap, 2-wire 1-phase 240 V.	M241692	
13	Disconnect Switch, for customer equipment (e.g. Communication Equipment and Backup Power Supply), as required		

- Product is manufactured by Tesco Advent. Order using the PG&E material code. For questions contact John Greenewald at (609) 864-3358, john.greenewald@tescometering.com.

Table 2 Bill of Material to Be Furnished and Installed by PG&E

Item	Description	Code
11	SmartPole Meter, Non-transformer Rated, Watthour, 3-pin SmartMeter, 2-wire 1-phase 120 V or 2-wire 1-phase 240 V	M241490
	SmartPole Meter, Transformer Rated, Watthour, 4-pin SmartMeter, 2-wire 1-phase 120 V	M241508
	SmartPole Meter, Transformer Rated, Watthour, 4-pin SmartMeter, 2-wire 1-phase 240 V	M241492

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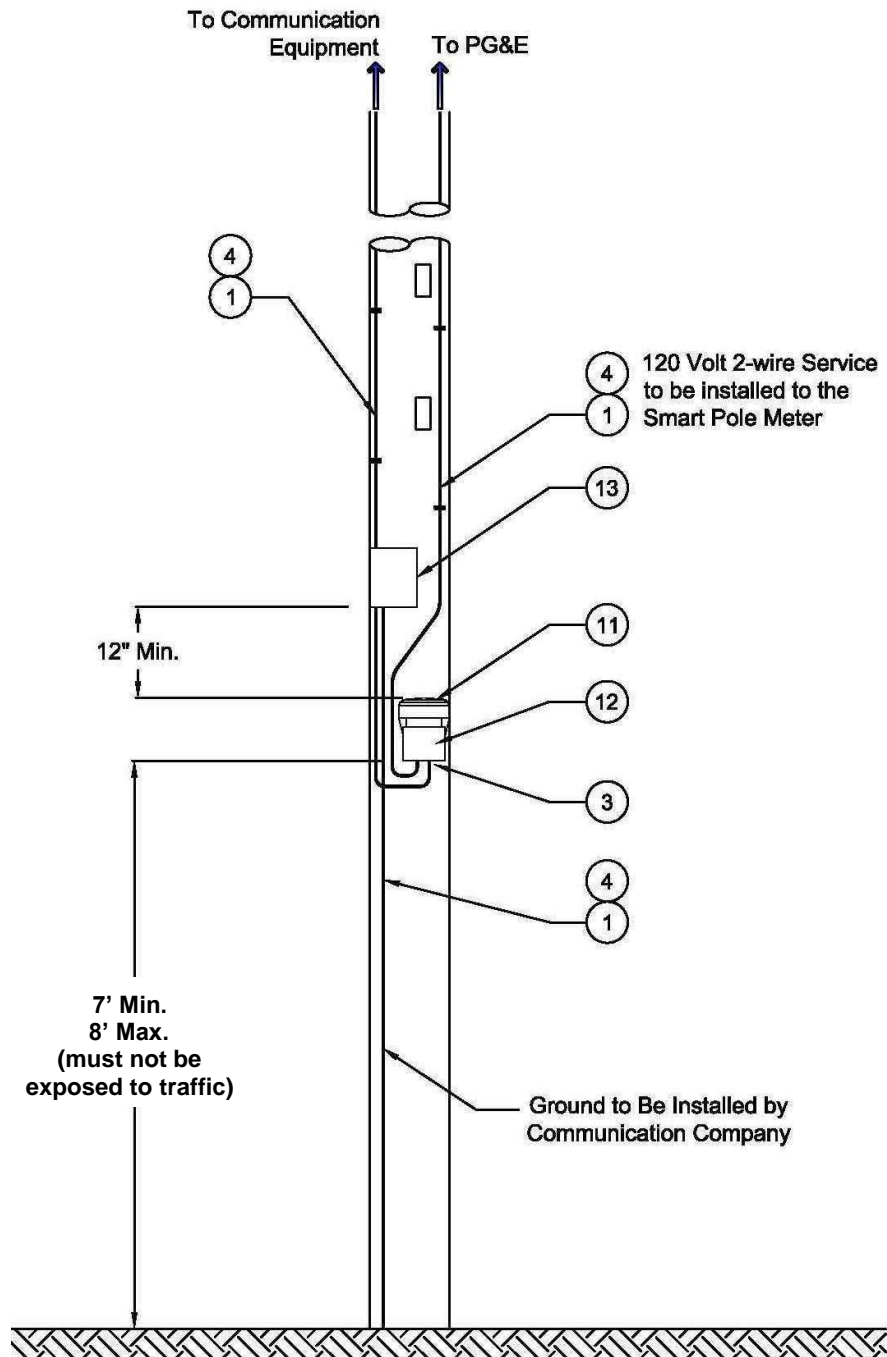


Figure 1
SmartPole Meter on Wood Pole with 120 Volt 2-Wire
Service Connection to Communication Equipment

SmartPole Meter for Service to Pole-Mounted Communication Equipment

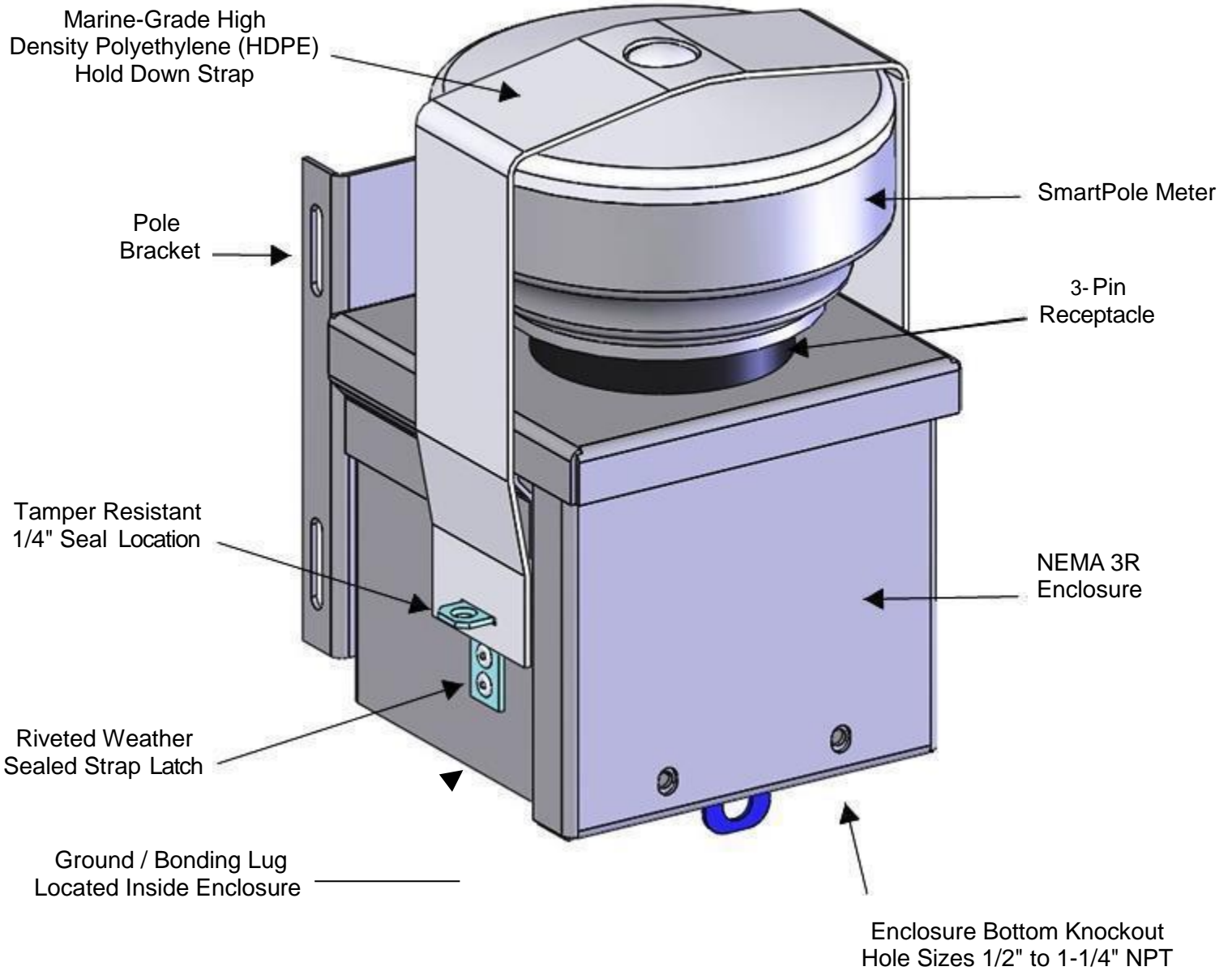


Figure 2 - SmartPole Meter, Enclosure, and Pole Bracket

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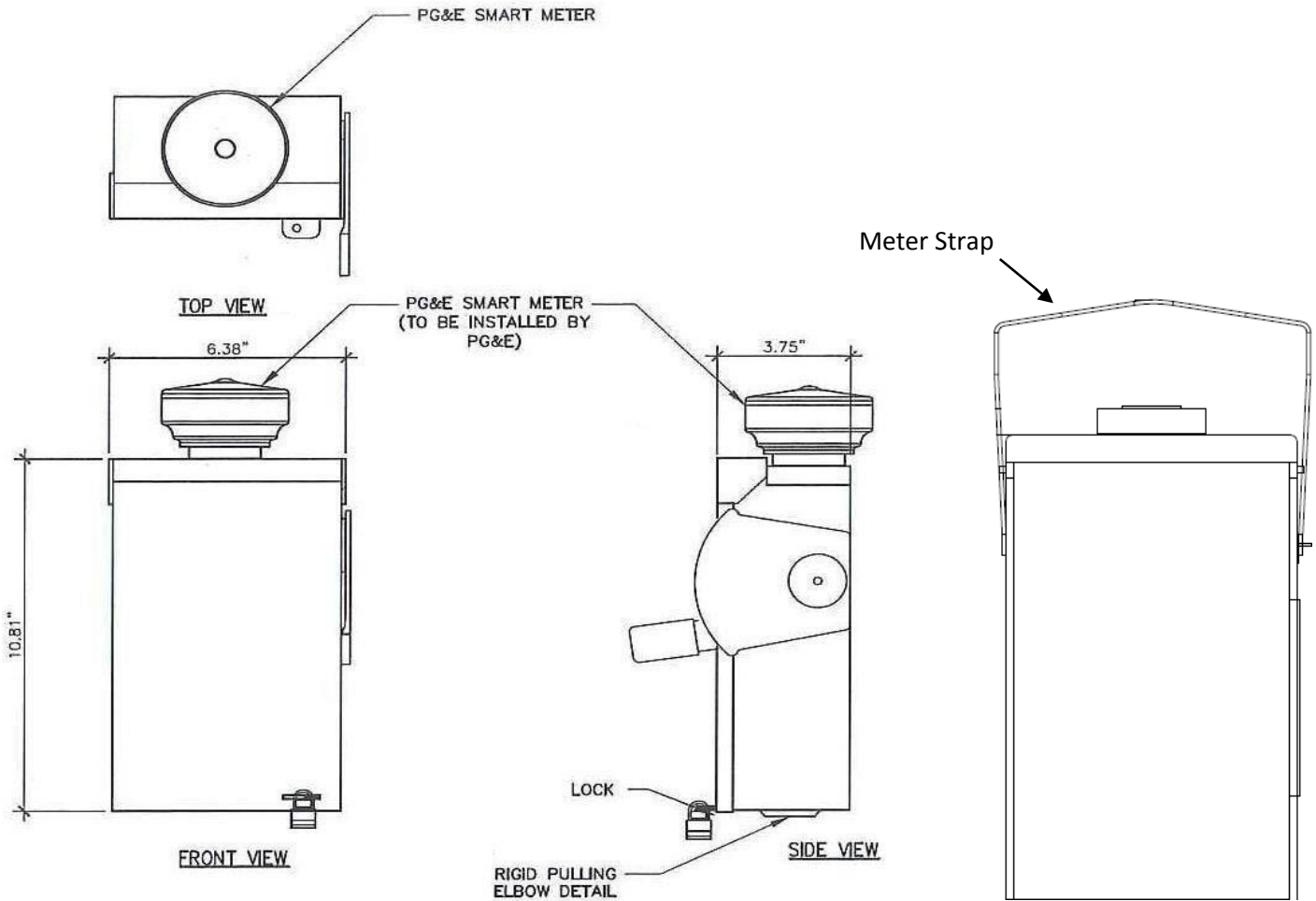


Figure 3 – Meter and Disconnect Switch Combination Enclosure

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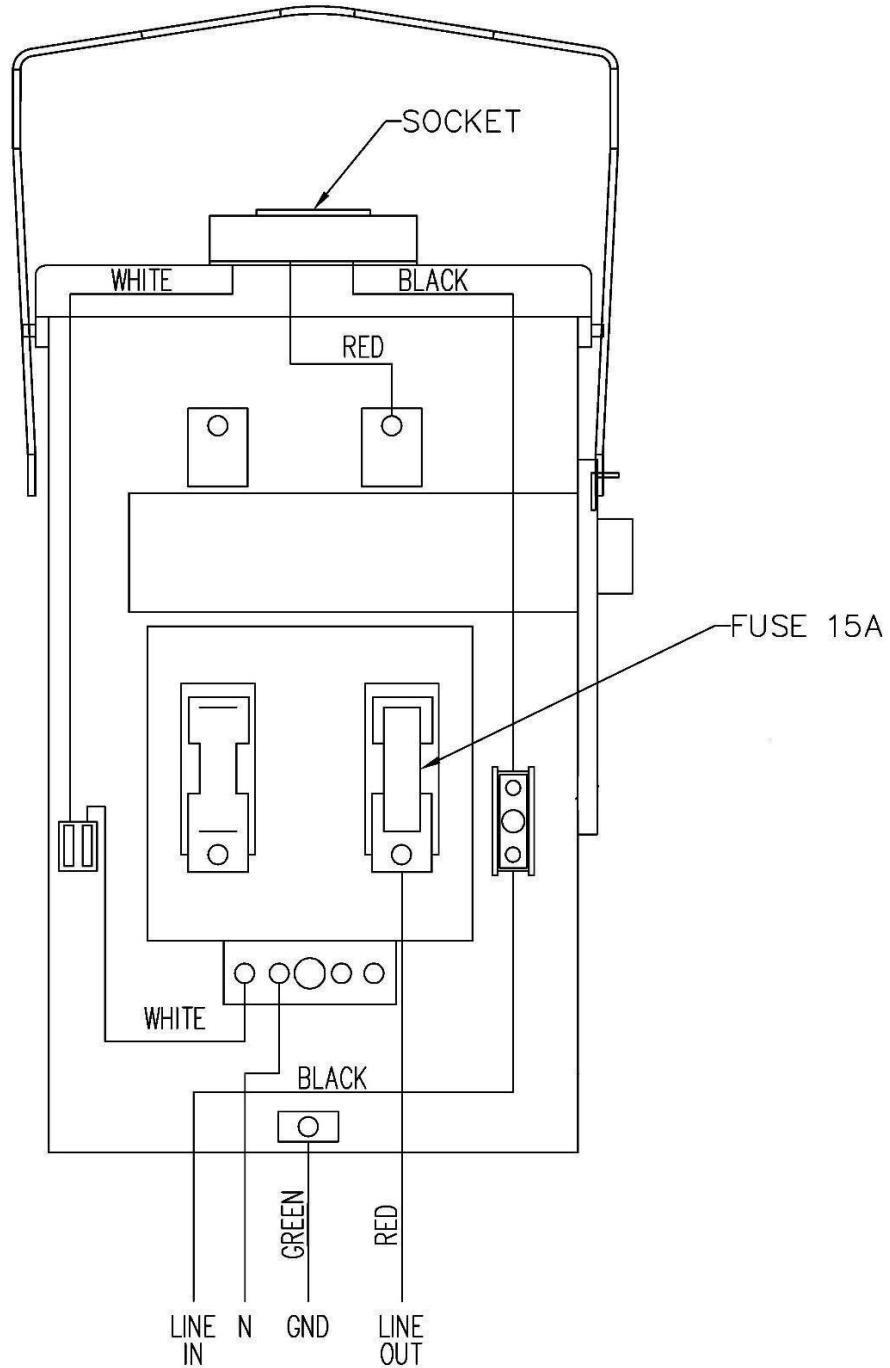


Figure 4 – Wiring for Meter and Disconnect Switch Combination Enclosure

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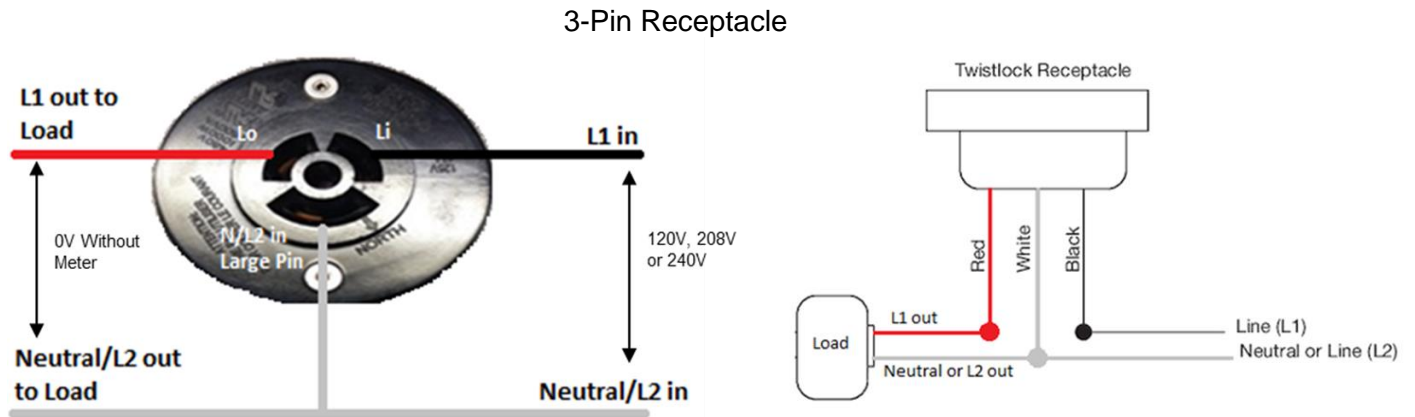


Figure 5 - Wiring Diagram For 3-Pin Receptacle



Figure 6 - Example Receptacle

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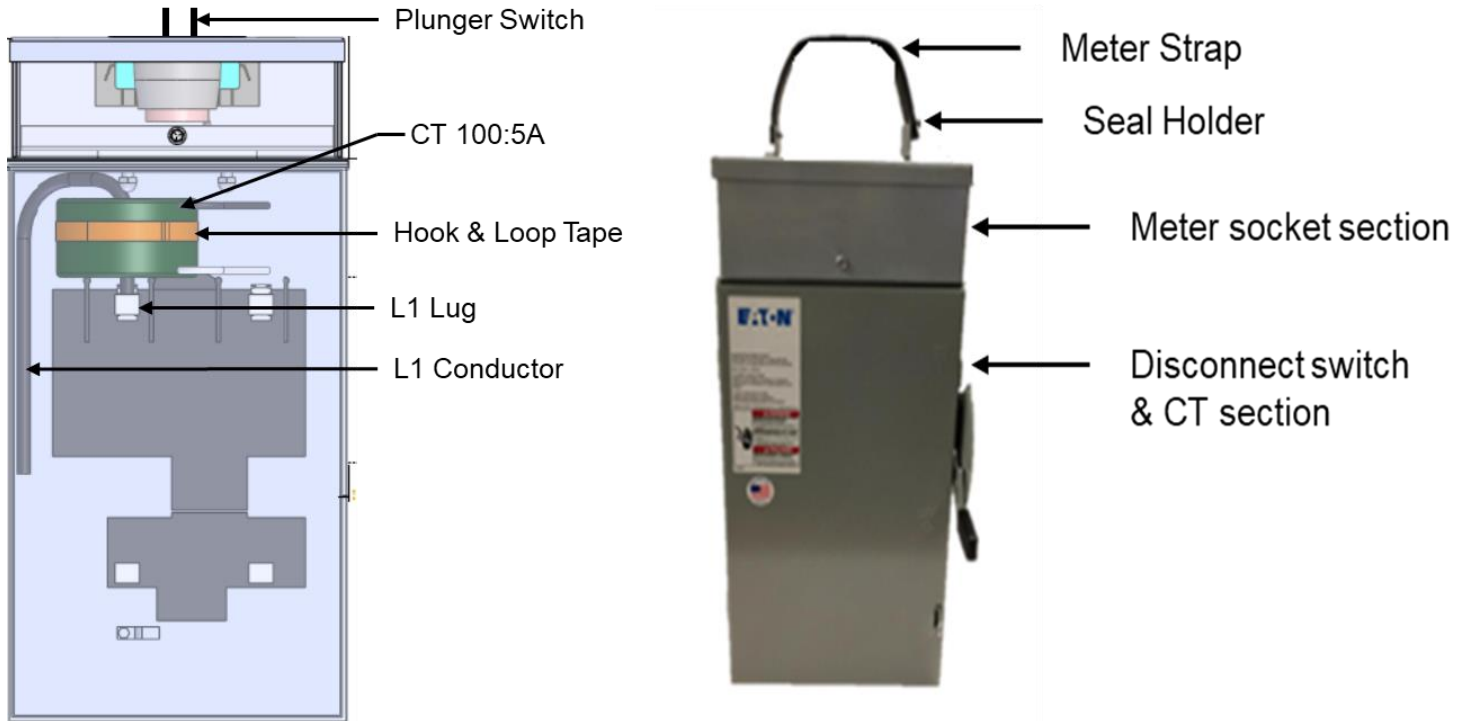


Figure 7 - Transformer Rated SmartPole Meter, Current Transformer and Enclosure

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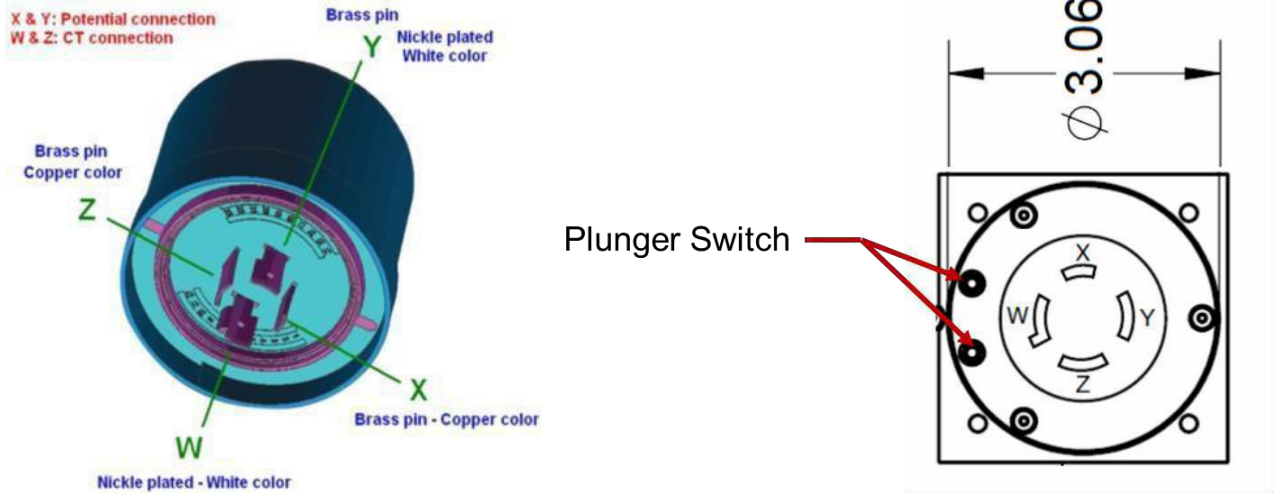


Figure 8 - Transformer Rated SmartPole Meter And 4-pin Socket

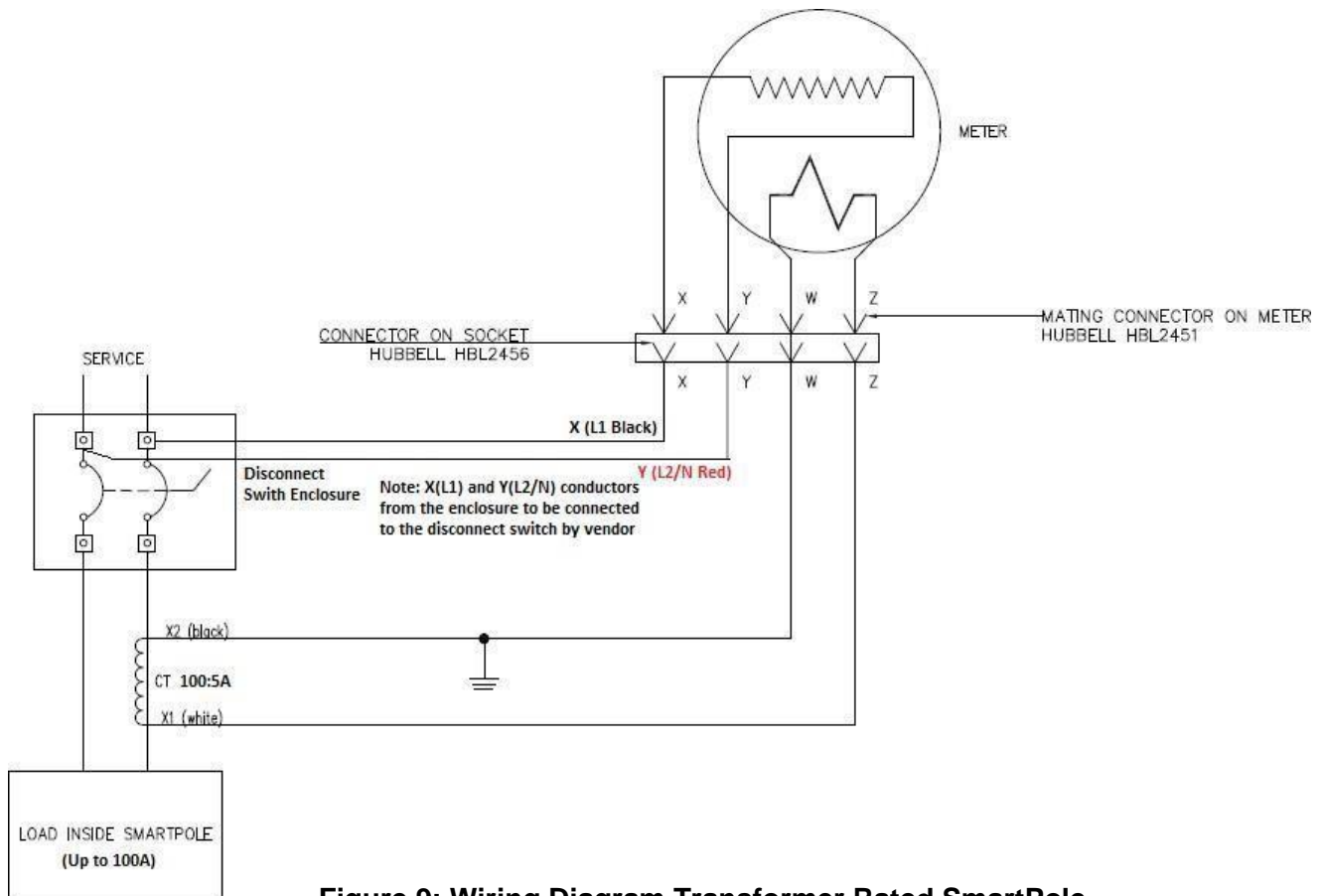


Figure 9: Wiring Diagram Transformer Rated SmartPole

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DOCUMENT APPROVER

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DOCUMENT CONTACT

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INCLUSION PLAN

There is no inclusion plan for this document at this time.

DOCUMENT REVISIONS

1. Added new note 9 on Page 2.
2. Added new note 10 on Page 2.
3. Updated Table 1 on Page 3 with pictures.
4. Updated vendor email address on Page 4.
5. Added new Figure 5 on Page 9.
6. Added new Figure 7 on Page 10.