CITY OF AUSTIN ELECTRIC UTILITY DEPARTMENT

PURCHASE SPECIFICATION

FOR

THIRTEEN TERMINAL, INSTRUMENT TRANSFORMER RATED, THREE PHASE METER SOCKET WITH PRE-WIRED TEST SWITCH

DATE	PREPARED BY	ISSUANCE/REVISION	APPROVAL PROCESS MANAGER/STD. SUPV.
01/30/76		Issuance	
04/21/99	Herman Millican	Revision	
11/30/2009	Carlos Tello	Revision	
07113/2010	Carlos Tello	Revision	
03/10/2011	Carlos Tello	Revision	
05/24/2011	Carlos Tello	Revision	
04/11/2016	Abdur Rahman, P E.	Revision	
07/18/2018	Abdur Rahman, P.E.	Revision	
07/18/2018	Abdur Rahman, P.E.	Revision	Scott Larson

REASON FOR REVISION	***AFFECTED PARAGRAPHS***
Add Pre-wired test switch	All
Add barcode requirement	5.1.8, Attachment 1, Table 1
Remove barcode requirement	5.1.8, Attachment 1, Table 1
Remove Aluminum or	5.1.3
Change B phase switch handle color to yellow	5.2.2

This specification, until rescinded, shall apply to each future purchase and contract for the commodity described herein. Retain for future reference.

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FOR
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1.0 SCOPE & CLASSIFICATIONS

1.1 This specification covers the classification, applicable standards, functional requirements, wiring, and performance requirements of transformer rated meter sockets with pre-wired test switches.

1.2 No deviation from this specification on the part of the bidder will be allowed. Any items supplied under this specification not in compliance with this specification shall be unacceptable.

2.0 APPLICABLE SPECIFICATIONS

2.1 The equipment furnished under this specification shall be manufactured and tested in accordance with current ASTM, NEMA and ANSI (C12.7 - Requirements for Watthour Meter Sockets and Cl2.9 - Test 1.0 Switches for Transformer Rated Meters).

3.0 FUNCTIONAL REQUIREMENTS

3.1 The meter enclosures under this specification shall be used to protect metering connections in electric service installations for transformer rated meters.

4.1 PERFORMANCE REQUIREMENTS

4.1 The meter socket and test switch shall have, at minimal, 20 ampere, 600-volt capacity.

4.2 Test switch shall be wired to meter socket with AWG No. 12 copper (solid or stranded) wire and color coded in accordance with Section 5.2.2.

4.3 Wiring will be neat with 90-degree bends and tie-wrapped.

5.0 MATERIAL REQUIREMENTS

5.1 Meter Socket

5.1.1 All enclosures shall be 16 gage galvanized steel or 14 gage aluminum with baked on gray finish.

5.1.2 All enclosures shall have insulating materials of rosite, Phenalic, fiberglass, or equivalent non-tracking material rated 600 volts. (Ceramic material not acceptable.)

5.1.3 Terminals shall be tin plated copper sleeve type connectors compatible with copper lugs and will accommodate AWG No. 14 through No. 4 wire.

5.1.4 Knockouts shall be concentric. At least one l", 1 1/4" and 1 1/2" on each side, at bottom, and at back and 1/4", 1/2" ground at bottom.

5.1.5 All enclosures shall have test switch below meter.

5.1.6 All enclosures shall have a one-piece raintight ringless cover, with latch and approved sealing means for padlock type seal.

5.1.7 Minimum outside dimensions of the enclosure shall be sufficient to provide ample room for the distribution of the maximum-size conductors for which the socket is intended. Internal wiring space shall be sufficient to allow line and/or load conductors to enter through either end of the enclosure for routing to the proper terminal.

5.2 Test Switch

5.2.1 Standard test switches shall be ten poles.

5.2.2 All test switch arrangements and color coding of handles and wiring shall be as follows:

Phase Arrangements	Switch Handle Color Code	Switch Pole No. (Left to Right)	Wiring Color Code Between Switch And Socket
Current (A0)	Red	l	Red
Current Retum(A0)	White	2	Red
Voltage(A0)	Orange	3	Orange
Current(B0)	Black	4	Black
Current Retum(B0)	White	5	Black
Voltage(B0)	Yellow	6	Yellow
Current(C0)	Green	7	Green
Current Retum(C0)	White	8	Green
Voltage(C0)	Blue	9	Blue
Current Return (Ground/Neutral)	White	10	White

5.2.3 All test switches shall have insulating barriers adjacent to the voltage switches. All copper parts will be nickel-plated.

5.2.4 Each double-pole, short-circuiting current switch shall be so designed as to permit the insertion of a test plug.

5.2.5 Test switches shall be provided with wiring terminals for the connection of AWG No. 12 secondary conductors with facilities for attaching test clips provided on the terminals.

5.2.6 Test switchblade hinges shall be held in place by locknuts or pins so arranged that a firm and secure connection would be maintained at any position on the switchblade.

5.2.7 Test switch cover shall be made of Lexan or fiberglass, and shall be held in place by cover studs 1/4 x 20. Studs shall have suitable provisions for sealing. When test switch cover is in place, all switches shall be in a closed position and socket cover can be sealed.

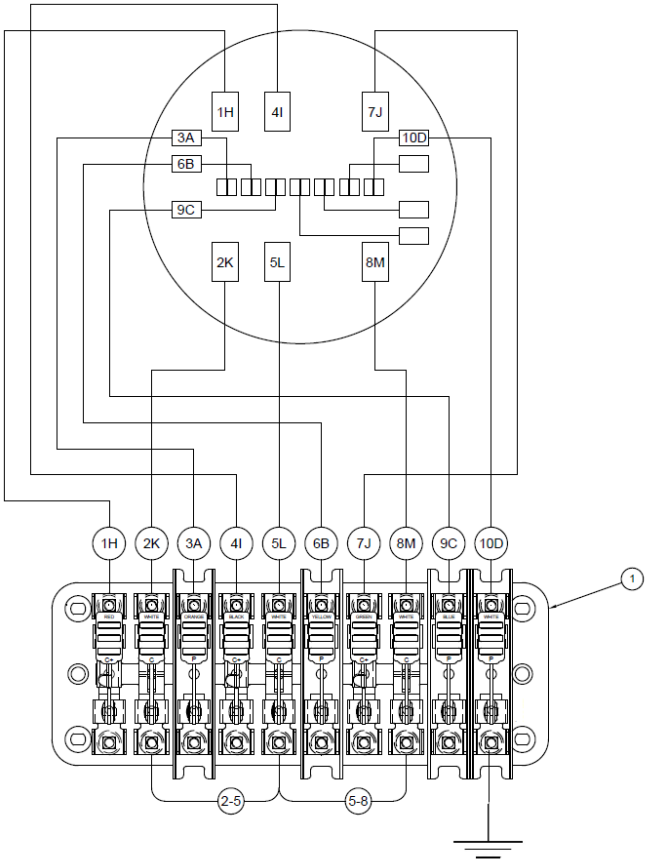
5.2.8 Return jumper wire shall be installed between positions 2, 5, 8, and 10. Ground wire shall be connected to position 10 of test switch.

5.2.9 Each double pole current switch shall be designed such that a universal test plug shunt may be inserted.

6.0 DESIGN DRAWINGS

6.1 The Vendor shall provide AE Advanced Metering Systems & Engineering, at the beginning of each year in the month of January, drawings for all applicable meter sockets regardless of whether revisions have been made to the drawings.

6.2 The Vendor shall provide revised drawings to AE Advanced Metering Systems & Engineering as soon as the drawings are revised.


1H
4I
7J
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9C
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1H
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7J
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