

Electrical - Standard Specifications

DATA COLLECTION CONTROLLER

STANDARD SPECIFICATIONS

This standard specification is intended to be integrated into the project specifications. The Consultant shall write the specifications to meet the project needs in consultation with the Owner and in accordance with the attached design information section.

PART 1 - GENERAL

1.01 DESCRIPTION

A. Purpose

1. This section covers data collection controllers for use in the Owner's systems.

1.02 QUALIFICATIONS

A. Approved manufacturers

1. Data Collection Controllers
 - a. UW Meter PLC Cabinet, Contractor to contact Campus Utilities and Operations

1.03 RELATED SECTIONS

- A. 01 91 00 - General Commission Requirements
- B. 23 08 00.11 - Mechanical Meter Integration and Commissioning

1.04 REFERENCES

- A. Applicable codes, standards, and references codes, regulations and standards
 1. National Electrical Testing Association - NETA
 2. National Fire Protection Association - NFPA
 3. National Electrical Code - NEC
 4. UL 916 - Energy Management Equipment
 5. State and local codes and ordinances

1.05 COORDINATION

- A. Coordinate the quantity and location of Facility Network (Facnet) Ethernet ports with Campus Engineering & Operations and UWIT. Contractor shall provide a completed "Mechanical Meter Profile Report" form per Specification 23 08 00.11 Appendix A for each meter.

1.06 OPERATIONS AND MAINTENANCE (O&M) MANUALS

- A. Operations and Maintenance Manuals shall be in accordance with Conditions of the Contract and Division 01 Specification Sections.
- B. Operations and Maintenance Manuals shall include catalog information indicating complete electrical and mechanical characteristics.
- C. Manufacturer's Certified Test Reports

1.07 MEETINGS

- A. Pre-installation conference
 - 1. The Contractor shall request a pre-installation conference with the UW Engineering Services for projects requiring the installation of or the connection to a data collection controller.
 - 2. The Contractor shall request a pre-installation conference with Campus Utilities and Operations before project begins construction.
- B. Attend meetings with the Owner and/or Owner's Representative as required to resolve any installation or functional problems.

PART 2 - PRODUCTS

2.01 DATA COLLECTION CONTROLLER(S) AND CABINET(S)

- A. Provided by Campus Utilities and Operations. Project shall reimburse the Campus Utilities and Operations for cost of the controller and cabinet.
- B. Capacity
 - 1. Each data collection controller is capable of collecting 64 input points. The project shall coordinate input point quantity with the Campus Utilities and Operations to supply sufficient controllers and cabinets.

PART 3 - EXECUTION

3.01 REQUIREMENTS

- A. General installation

1. Identification
 - a. Reference section 26 05 53 Identification
 2. Installation
 - a. Only personnel qualified and experienced in this type of work shall make connections.
 - b. The installation of data collection controllers shall be done with care to avoid damage.
 - i. Controllers showing damage after installation shall be replaced.
 - ii. Controllers hung improperly shall be properly secured and all paint scratches shall be toughed up.
 - iii. Data collection controller cabinets hung improperly shall be secured and all paint scratched shall be touched up.
 - c. Each controller shall have dedicated CAT5E communication cable installed to connect the controller to the facility network. UW shall make communication cable terminations. Communication conduit shall be 1" minimum.
 - d. Controllers shall be installed no higher than 72" above the floor.
 - e. Wire labels shall be machine made shrink type labels.
 - f. All wire must be unbroken from source to endpoint.
 - g. No penetrations shall be made in the back or wire way of data collection controller.
 - h. Penetrations made in the top of the data collection controller shall "Myers Hub" installed.
 - i. IT Termination Box
 - i. Shall be 12" x12" x 6" (B-Line #12126-1) with keyed lock #1333 Dirak.
 - ii. Must be located in a serviceable location within 10' of data collection controller.
 - iii. Label (Brother P-touch or equal) shall be installed on inside cover indicated IT Room that service is from.
 - j. Owner shall verify installation prior to energizing data collection controller.
 3. The System Integrator will check the Contractor's work to ensure the accuracy of the connections.
 - a. The Contractor shall arrange with the Owner for the times when their services will be required, and under no circumstances shall the Contractor connect to the existing system without Owner's knowledge.
 - b. The proper connection of the wires and cables to other systems as specified is entirely the responsibility of the Contractor.
 - c. In the event the connections cannot be made as specified, the Contractor shall make the necessary corrections at his own expense.
 4. Install controllers per manufacturer's recommendations.
- B. Mounting and electrical connections
1. In accordance with manufacturer's installation instructions.

2. A dedicated 120VAC circuit from a panelboard to the data collection controller with #12 THHN/THWN in a dedicated GRC/IMC. Panelboard must be clearly labeled to show feed to data collection controller.
 3. Owner to verify power cable installation, and energize circuit after inspection.
- C. UL Listing
1. The Contractor shall ensure that the controller installation is UL Listed.
- D. Testing
1. Provide testing as required per Division 26 Inspection, Calibration and Testing.
- E. Integration and Commissioning
1. See section D Mechanical Meter Integration and Commissioning

