

SPECIFICATION

The SafeSite™ DSC-100 Dispensing System Power Distribution and Controls

1.0 GENERAL DESCRIPTION AND STANDARDS

- 1.1** The DSC-100 is a single source power connection with dedicated power / control outputs to pumps, dispensers, control valves, fuel management system, tank gauging and monitoring, fire suppression, and other ancillary devices. The DSC-100 includes a monitored emergency stop. Each system comes with a specific tank, equipment, and conduit layout with point to point wiring diagrams.
- 1.2** The system in its entirety shall be provided by Core Engineered Solutions, Inc. .

2.1 DESIGN AND CONSTRUCTION

- 2.1** The SafeSite DSC-100 Dispensing System Power Distribution and Controls shall be provided and shall integrate the following functions into one system:

2.1 Control Panel Specifications:

- 2.1.1** Single input power connection with main power disconnects.
- 2.1.2** NEMA 4X enclosure suitable for outdoor and high corrosion areas.
- 2.1.3** Panel mounted emergency stop control button.
- 2.1.4** Dedicated dispenser control and anti-siphon circuit.
- 2.1.5** Dedicated fuel management control circuit.
- 2.1.6** Dedicated tank level gauge circuit.
- 2.1.7** Dedicated fire suppression / emergency stop controls circuit.
- 2.1.8** Dedicated motor starter control and overload protection circuit (1-1/2 HP max).
- 2.1.9** Dedicated dry output for remote emergency stop controls circuit.

2.2 Circuit Disconnects:

- 2.2.1** General. Each circuit leading to or through dispensing equipment, including all associated power, communication, data, and video circuits, and equipment for remote pumping systems, shall be provided with a clearly identified and readily accessible switch or other approved means, located remote from the dispensing devices, to disconnect simultaneously from the source of supply, all conductors of the circuits, including the grounded conductor, if any. Single pole breakers utilizing handle ties shall not be permitted.

2.3 Attended Self-Service Motor Fuel Dispensing Facilities. Emergency controls as specified in 2011 NEC 514.11(A) shall be installed at a location acceptable to the authority having jurisdiction, but controls shall not be more than 30 m (100 ft.) from dispensers.

2.4 Unattended Self-Service Motor Fuel Dispensing Facilities. Emergency controls as specified in 2011 NEC 514.11(A) shall be installed at a location acceptable to the authority having jurisdiction, but the control shall be more than 6 m (20 ft.) but less than 30 m (100 ft.) from the dispensers. Additional emergency controls shall be installed on each group of dispensers or the outdoor equipment used to control the dispensers. Emergency controls shall shut off all power to all dispensing equipment at the station. Controls shall be manually reset only in a manner approved by the authority having jurisdiction.

3.0 OPTIONAL EQUIPMENT

3.1 Where indicated on the Drawings for the DSC-100 controller, optional additional equipment shall be provided for:

3.1.1 Dedicated circuits for additional equipment (emergency stop controlled or non-emergency stop controlled)

3.1.2 Lighting and control circuit.

3.1.3 Timer relays for fuel oil filtration

For drawings or more information contact Core Engineered Solutions at www.core-es.com
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