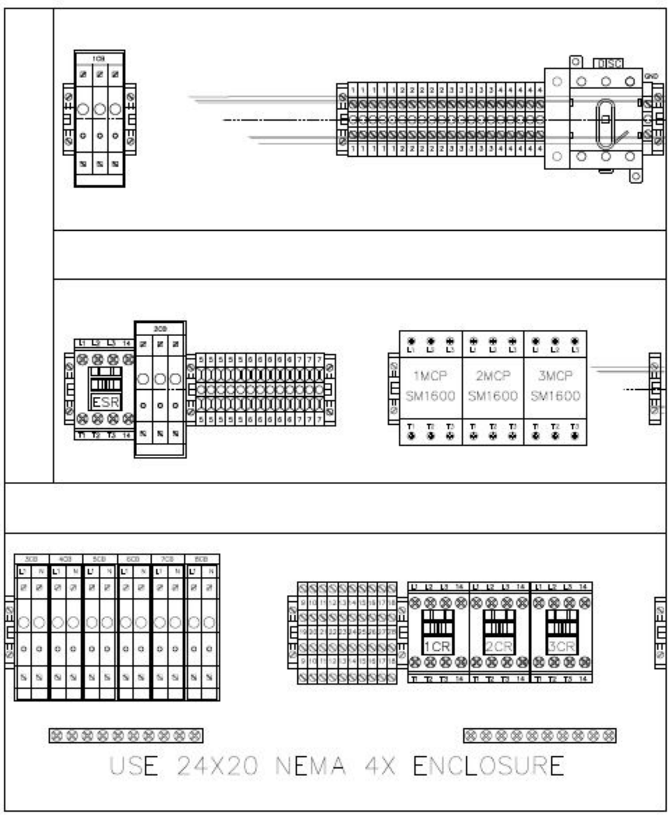
Core Engineered Solutions
620 Herndon Parkway, Suite 120
Herndon, VA 20170
P: 703-563-0320
F: 703-563-0330
info@core-es.com
www.core-es.com

safety. compliance. reliability.

SafeSite Dispensing System Controller



Dispensing System Controller Installation

GENERAL

(1) The SafeSite Dispensing System Controller (DSC) is a power distribution system that is designed for use with petroleum fueling system. The DSC is designed as a single input power connection with outputs to pumps, dispensers, fuel management, tank gauging, fire suppression and other equipment associated with the fueling system.
(2) The DSC should be installed by licensed electricians and certified by a qualified and trained technician.
(3) The installer must follow the relevant manufacturers' instructions for properly installing the tanks, dispensing equipment, pumps, gauging and all other equipment being powered by the DSC Panel.
(4) Start-up must be carried out by a qualified and trained company.
(5) Follow the NEC and all relevant regulations for electrical installations.
(6) Follow all OSHA regulations related to safety prior to starting any work.

MOUNTING THE CONTROL PANEL

The control panel is housed in a NEMA 4X (weather tight) enclosure for mounting in the non-hazardous area. The panel should be installed as follows:
(1) The DSC includes four mounting 1/8" thick tabs with 1/2" diameter holes.
    (a) Concrete wall mounting: It is recommended to use 3/8" diameter x 3" concrete anchors with washer/lock washer.
    (b) Wood wall mounting: It is recommended to use 3/8" diameter x 1-1/2" lag bolts with washer/lock washer.
(2) The DSC shall be mounted outside of the hazardous area as may be required by local code. For flammable liquid applications, the DSC should be mounted a minimum of 20ft. from the tank and dispensing are.
(3) Wall mounting, within a building.
    (a) If DSC is mounted inside of building, not visible from tank and dispensing area - install remote emergency stop located between 20 and 100 feet from the tank and dispensing area. The remote emergency stop shall also include a sign that reads: "EMERGENCY STOP."
(4) Wall mounting outside, in the non-hazardous area.
    (a) If DSC is mounted outside of building, is visible from tank and dispensing area, and is located between 20 and 100 feet from the tank and dispensing area, a remote emergency stop shall not be required.

WIRING THE CONTROL PANEL

The DSC wiring should be performed by a certified and licensed electrician who has reviewed the site specific wiring diagrams provided by the manufacturer and can be found inside the control panel.
(1) The DSC control panel requires 208-230 VAC, Single Phase, 30 Amp, 60HZ incoming power feed with neutral (standard). Incoming power feed varies in accordance with the equipment being powered - refer to site specific wiring diagram and front of DSC panel to verify incoming power required.
(2) The DSC control panel shall be wired to each of the fueling system components as shown on the site specific wiring and conduit diagrams.
(3) All wiring shall be in compliance with equipment manufacturers requirements. Refer to typical wiring chart on following page for wiring guidelines.
(4) Rigid metal conduit is required by dispenser manufacturers and Veeder-Root.

Contact a factory authorized representative for assistance.

Dispensing System Controller Installation

Typical Wiring			
Device	**Power**	**Type**	**Comments**
Incoming Power Feed	Single Phase (208/230)	(4) #10 AWG THHN Stranded	L1, L2, Neutral and Ground
Pump(s) Power	Single Phase (208/230)	(3) #12 AWG THHN Stranded	L1, L2 and Ground
Dispenser Power	Single Phase (115)	(3) #12 AWG THHN Stranded	Hot, Neutral and Ground, Handle Feed
Anti-Siphon Solenoid Valve(s)	Single Phase (115)	(3) #14 AWG THHN Stranded	Hot, Neutral and Ground
Remote Emergency Stop	Single Phase (115)	(4) #14 AWG THHN Stranded	Hot Feed, Hot Return
Rfuel Management System Power	Single Phase (115)	(3) #14 AWG THHN Stranded	Hot, Neutral and Ground
Tank Monitor System Power	Single Phase (115)	(2) #14 AWG THHN Stranded, (2) #12 AWG THHN Stranded	Hot, Neutral, (2) #12 Ground(s)
OMNTEC Tank Monitor Level Probes	Intrinsically Safe	Probes EC2 / Belden #8761	#22 AWG Minimum
OMNTEC Tank Monitor Leak Sensors	Intrinsically Safe	Sensors EC4 / Belden #9940	#22 AWG Minimum
OMNTEC Tank Monitor Remote Alarm	12 VDC	(6) Cable, THHN or TFFN (Minimum #22 AWG) Stranded	Rest, Test, Tank 1 and 2
Veeder-Root Tank Monitor Level Probes	Intrinsically Safe	Probes Belden #88760 or #8760	
Veeder-Root Tank Monitor Leak Sensors	Intrinsically Safe	Sensors Belden #88760 or #8760	
Veeder-Root Tank Monitor Remote Alarm	115 VAC	#16 Minimum THHN or TFFN Stranded	24+, 24-, Reset, Test, Tanks
Dispenser Pulsar Wire	24 VDC	#18 AWG TFFN	
Gasboy Dispenser Pulsar Wire (RS-485)	24 VDC	Belden #9729 or #8723	
Fuel Management System Communication (RS-232/422)	Communication	Belden #8102, #3073F/#9451, #1419A or Equal	#22 AWG Minimum
Fuel Management System Communication (RS-485)	Communication	Belden #3107A, #9842, #9729, #8723 or Equal	#22 AWG Minimum
Fuel Management System Comunication (Ethernet)	Communication	CAT 5/Belden #7928A or Equal	
Fuel Management System Communication (Telephone)	Communication	Standard 4 Conductor #22 AWG Solid / Carol #C4404A.21.17 or Equal	
Fire System Remote Pull Station	See Mfg. Specification	(2) #14 AWG THHN Stranded	In/Out
Fire System Power	Single Phase (115)	(3) #14 AWG THHN Stranded	Hot, Neutral and Ground
Fire System Alarm Bell	Single Phase (115)	(2) #14 AWG THHN Stranded	
Fire System Alarm Strobe	Single Phase (115)	(3) #14 AWG THHN Stranded	Hot, Neutral and Ground
Fire System Thermostat	Single Phase (115)	(2) #14 AWG THHN Stranded	
Fire Suppression System	N/A	N/A	Nitrogen Lines Required
Fire Supression Control	Single Phase (115)	(3) #14 AWG Stranded	Hot, Neutral and Ground
Mechanical Interface Fuel Management	Single Phase (115/208-230)	(5) #12 AWG THHN Stranded	Hot, Neutral and Ground

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