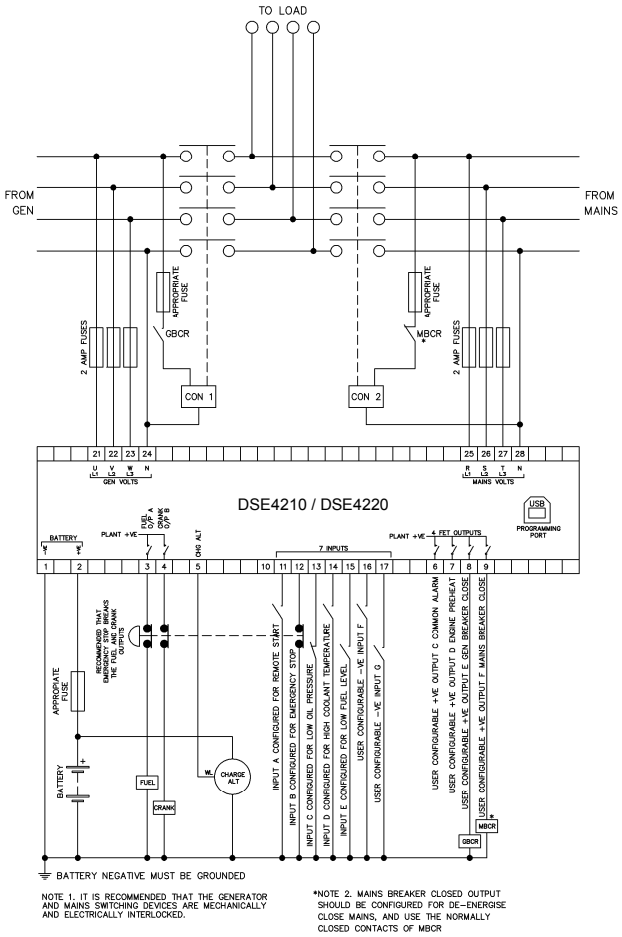
TYPICAL WIRING DIAGRAM



NOTE: Terminals 8, 9, 25, 26, 27 and 28 are fitted to DSE4220 only. For DSE4210, Gen Breaker Close is set to Output C (terminal 6).

NOTE: For a larger version of the typical wiring diagram, refer to DSE publication: *057-181 DSE4210 & DSE4220 Operators Manual*, which can be obtained from www.deepseaplc.com.

DIMENSIONS AND MOUNTING

For flat surface mounting in a Type 1 enclosure.

DIMENSIONS	PANEL CUTOUT	TERMINALS
140mm x 113mm x 43mm (5.5" x 4.4" x 1.7")	118mm x 92mm (4.6" x 3.6")	Tightening Torque: 0.5Nm (4.5lb-in) Conductor Size: 0.5mm² to 2.5mm² (AWG 24 to AWG 10)

DEEP SEA ELECTRONICS PLC

DSE4210 & DSE4220 Installation Instructions

ACCESSING THE FRONT PANEL EDITOR

Press and hold the (-) button and (✔) button together to enter.

The LED above the (✔) button flashes to indicate that the editor is active.

The first five LEDs on the top row of the module's fascia indicate the current parameter. The last three LEDs indicate the parameter's value.

The example below is showing the ***Start Delay*** parameter set to ***15 seconds***.

SELECTING A PARAMETER

Press the (+) button to select the next parameter or the (-) button to select the previous parameter.

EDITING A PARAMETER

To edit the parameter, press the (✔) button.

Press the (+) button or the (-) button to adjust the value to the required setting.

Press the (✔) button the save the current value.

If an invalid parameter has been entered via PC Configuration, the LEDs used to indicate the parameter value begin to flash.

EXITING THE FRONT PANEL EDITOR

Press and hold the (✔) button to save and exit the editor. The LED above the button ceases flashing.

Press and hold the (-) button to exit the editor without saving. The LED above the button ceases flashing.

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TABLE OF TIMER VALUES

!1	!2	Value
○	○	0 Seconds
○	●	5 Seconds
●	○	10 Seconds
●	●	15 Seconds
○	○	20 Seconds
○	●	30 Seconds
●	○	60 Seconds
●	●	180 Seconds

TABLE OF INPUT FUNCTIONS

!1	!2	Value
○	○	Immediate Warning Close on Fault
○	●	Immediate Warning Open on Fault
●	○	Immediate Shutdown Close on Fault
●	●	Immediate Shutdown Open on Fault
○	○	Delayed Warning Close on Fault
○	●	Delayed Warning Open on Fault
●	○	Delayed Shutdown Close on Fault
●	●	Delayed Shutdown Open on Fault

TABLE OF OUTPUT FUNCTIONS

!1	!2	Value	Polarity
○	○	Not Used (DSE4210)	Energise
		Close Mains (DSE4220)	De-Energise
○	●	Pre-Heat During Pre-Heat Timer	Energise
●	○	Close Generator	Energise
●	●	Common Warning	Energise
○	○	Common Shutdown	Energise
○	●	System in Auto	Energise
●	○	Common Alarm	Energise
●	●	Energise to Stop	Energise

NOTE: **Front Panel Configuration is limited. For more advanced configuration using a PC, refer to DSE publication: *057-180 DSE4210 & DSE4220 PC Configuration Manual*, which can be obtained from www.deepseaplc.com.**

Function							!1	!2	Value *(Default In Bold Italics)*
Pre-Heat		○	○	○	○	●	See Table Of Timer Values Overleaf		***0 Seconds***
Start Delay		○	○	○	●	○			***5 Seconds***
Return Delay		○	○	○	●	●			***30 Seconds***
E Solenoid Hold		○	○	●	○	○			***0 Seconds***
Warming Up Time		○	○	●	○	●			***0 Seconds***
Cooling Time		○	○	●	●	○			***60 Seconds***
Check Oil Pressure Prior to Starting	NOTE 7	○	○	●	●	●	○	○	Disabled
							○	●	***Enabled***
Nominal Frequency	NOTE 1,2	○	●	○	○	○	○	○	***50 Hz***
							○	●	60 Hz
Nominal DC Voltage	NOTE 1,3	○	●	○	○	●	○	○	***12 V DC (Charge Failure at 8 V)***
							○	●	24 V DC (Charge Failure at 16 V)
Low Oil Pressure Switch	NOTE 4	○	●	○	●	○	○	○	***Close On Fault***
							○	●	Open On Fault
Coolant Temperature Switch	NOTE 4	○	●	○	●	●	○	○	***Close On Fault***
							○	●	Open On Fault
Crank Disconnect On Oil Pressure	NOTE 7	○	●	●	○	○	○	○	***Disabled***
							○	●	Enabled (2 Second Delay)
Under Frequency Detection Enable		○	●	●	○	●	○	○	Disabled
							○	●	***Enabled (Nominal Frequency -20%)***
Assigned Input Function (DSE4220)	NOTE 5	○	●	●	●	○	○	○	Remote Start Off Load
							○	●	Simulated Mains Available
							●	○	***Remote Start On Load***
Assigned Input Function (DSE4210)	NOTE 6	○	●	●	●	●	○	○	Remote Start Off Load
							○	●	***Remote Start On Load***
Digital Input F Function		●	○	○	○	○	See Table Of Input Functions Overleaf		***Immediate Warning Close On Fault***
Digital Input G Function		●	○	○	○	●	See Table Of Input Functions Overleaf		***Immediate Warning Close On Fault***
Digital Output C Function		●	○	○	●	○	See Table Of Output Functions Overleaf		***Close Generator (DSE4210)*** ***Common Alarm (DSE4220)***
Digital Output D Function		●	○	○	●	●	See Table Of Output Functions Overleaf		***Pre-Heat During Preheat Timer (DSE4210)*** ***Pre-Heat During Preheat Timer (DSE4220)***
Mains Under Voltage (DSE4220)	NOTE 1	●	○	●	○	○	○	○	60 V Under Voltage Trip / 70 V Return
							○	●	70 V Under Voltage Trip / 80 V Return
							●	○	80 V Under Voltage Trip / 90 V Return
							●	●	90 V Under Voltage Trip / 100 V Return
							○	○	120 V Under Voltage Trip / 140 V Return
							○	●	140 V Under Voltage Trip / 160 V Return
							●	○	160 V Under Voltage Trip / 180 V Return
							●	●	***180 V Under Voltage Trip / 200 V Return***

NOTES:

1) When the Front Panel Editor changes more than one setting, only the setting being edited is checked to determine if it matches the stored configuration.

2) When the Nominal Frequency is edited, automatically the Under Frequency Shutdown Trip is set to -20%, Under Frequency Pre-Alarm Warning is set to -16%, Loading Frequency is set to -10%, Over Frequency Pre-Alarm Warning is set to +10%, Over Frequency Shutdown Trip is set to +14% and Over Frequency Overshoot is set to +25%.

3) When edited, the Charge Fail alarm is set to 66% (2/3) of the Nominal DC Voltage setting.

4) The parameter is not available if no input is assigned to this function.

5) The parameter is only available if a digital input is assigned to Remote Start On Load, Remote Start Off Load or Simulated Mains. The parameter is not available if digital inputs are assigned for both Remote Start and Simulated Mains.

6) The parameter is only available if a digital input is assigned to Remote Start On Load or Remote Start Off Load. The parameter is not available if digital inputs are assigned for both Remote Start On Load and Remote Start Off Load.

7) The parameter is only available if an Oil Pressure input is assigned.