# DIESEL KEY START BOARD WITH LOW COOLANT SMD - DKSTLS

## **FEATURES**

Fault bypass timer
Low oil pressure alarm and shutdown
High coolant temperature alarm and shutdown
Dynamo failure alarm and shutdown
Auxiliary fault alarm and shutdown
Low coolant level alarm and shutdown
Dynamo excitation
Electric valve release timer if engine doesn't start within 15 sec
Green led to indicate that engine is running
Dedicated red led for each fault condition
Universal supply voltage
Wiring through plug in connector

#### **ABSOLUTE MAXIMUM RATINGS**

Supply voltage	30Vdc
Auxiliary contacts	8A ac1
Operating temperature	0 to 70°C



TOP VIEW

**BOTTOM VIEW** 

#### **OPERATION**

The **DKSTLS** is a basic engine protection board. It incorporates the necessary logic to implement full protection of the diesel engine. When powered the **DKSTLS** monitors the oil pressure switch as well as the dynamo excitation line. The fault bypass timer is enabled only after the oil pressure switch opens or the voltage on the dynamo excitation line exceeds 8 volts (in other terms when the engine is running). The low coolant level is a high impedance input. It connects to a radiator probe. The small current flowing via this probe through the coolant into the body of the engine and thus battery negative supply is enough to signal to the board logic that the radiator has enough coolant in it. This input is active as soon as the board is powered. After the elapse of the 15sec timed by the fault bypass timer, the remaining four faults inputs are active and a voltage of 0 to 1volts on any of these inputs will cause an immediate alarm signaled by the corresponding led and shutdown of the engine. All other fault inputs are immediately disabled following a fault on a specific input. If the engine does not start within 15sec, the electric valve is disabled without signaling any faults. A green led signals that the engine is running.

# **SPECIFICATION**

Operating voltage	8 to 28vdc
Response delay to faults	15sec
Auxiliary contact rating	5A 250 V ac1
Dimensions	61mmx141mm

## **INSTALLATION**

Terminal 1: oil pressure switch.

Terminal 2: engine temperature switch.

Terminal 3: dynamo excitation.

Terminal 4: input for auxiliary fault, active low.

Terminal 5: negative supply from battery (-Vbat).

Terminal 6: positive supply from battery (+Vbat) through key start switch.

Terminal 7: electric valve output.

Terminal 8: radiator probe or float switch (Normally Closed)

