DATAKOM

DKG-114-J MANUAL AND REMOTE START UNIT WITH J1939 INTERFACE

DESCRIPTION

The DKG-114-J is a low cost engine control unit designed to start and stop **electronic engines** both manually and remotely. The manual control is made using the pushbuttons on the front panel. The remote control is made via the **REMOTE START** input signal.

The unit connects to **ECU** controlled electronic engines through its standard **J1939 CANBUS** port providing engine control and protection without extra senders. It has the ability of engine starting and stopping with J1939 messages. The ECU alarms are displayed with appropriate leds.

In the **STOP** position, the DC supply is removed from the module, thus **zero power consumption** is achieved.

The unit powers up when the **RUN** button is pressed or **BAT +** is applied to the **REMOTE START** input. This will also energize the fuel solenoid relay. The engine is automatically started 3 times until operation.

Once the engine is running, it monitors the ECU alarms. If a fault condition occurs, the unit shuts down the engine automatically and indicates the failure source with the corresponding red led lamp.
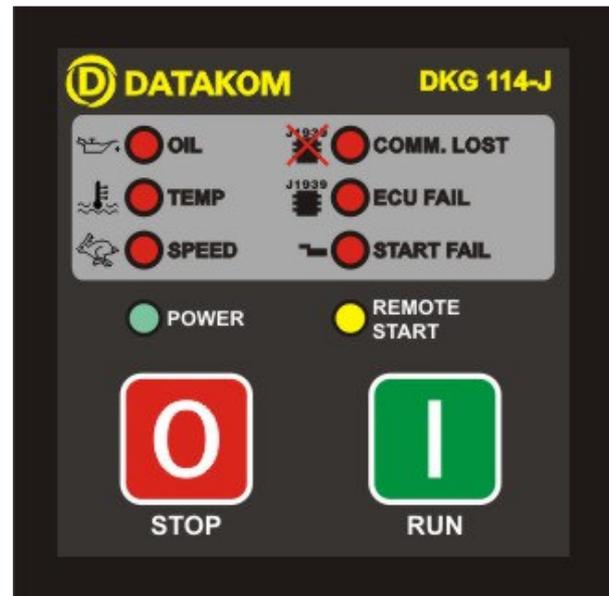
If the **STOP** button is pressed or the **REMOTE START** signal removed, the engine will be stopped.

The unit offers jumper selectable operating parameters, which lets it to be used with various engine brands and models.

The unit fits into a standard 72x72mm panel meter opening and offers a very cost effective and space saving solution for the electronic engine control. Thanks to the completely sealed structure, IP65 protection degree is achieved from the front panel.

The unit works on both 12 Volt and 24 Volt gensets.

The unit is designed for front panel mounting. Connections are made with 2 part plug and socket connectors.

FEATURES

Both manual and remote starting and stopping
ECU control and monitoring via J1939 CANBUS
Zero power consumption at rest
Various engine brands and models supported
Automatic shutdown on fault condition
Built in alarms and warnings
LED displays
Survives cranking dropouts
Sealed front panel
Plug-in connection system for easy replacement
Low cost,
Small dimensions,
Standard panel dimensions, (72x72mm)

INPUTS AND OUTPUTS

FUEL: Fuel solenoid control.(10 A @28V-DC)
START: Engine starter solenoid control. (10 A @28V-DC)
ALARM: Positive output relay activated by any alarm condition. (10 A @28V-DC)
DC SUPPLY: 12 or 24 volts DC, (+) and (-) terminals.
REMOTE START: If the battery positive voltage is applied to this input the genset will start. If the positive voltage is removed, it will stop.
CHARGE: This terminal will be connected to the charge alternator D+ terminal. It will supply the excitation current.
J1939-H / J1939-L: CANBUS connection terminals. The 120 ohms termination resistor is inside the unit. It may be removed by jumper control.

TECHNICAL SPECIFICATIONS

DC Supply Range: 9.0 to 30.0 V-DC
Cranking dropouts: survives 0 V for 100ms.
Typical Standby Current: 0 mA-DC in OFF mode.
Maximum Operating Current:
    250 mA-DC (Relay outputs open)
DC Relay Outputs: 10 A / 28V
Charge excitation current: 150mA-min
Number of starts: 3
Start duration: 8 sec.
Wait between starts: 10 sec.
Alarm duration: 1 minute.
Protection delay: 8 sec.
Operating temp.: -20°C (-4°F) to 70 °C (158°F).
Storage temp.:   -40°C (-40°F) to 80 °C (176°F).
Dimensions: 72 x 72 x 43 mm (WxHxD)
Humidity: max 95% (non-condensing)
Panel Cut-out Dimensions: 69 x 69 mm minimum.
Weight: 180 g (approx.)
Case Material: High Temp. ABS (UL94-V0, 100°C)
IP Protection: front panel:IP65, rear: IP30
Conformity: (EU directives)
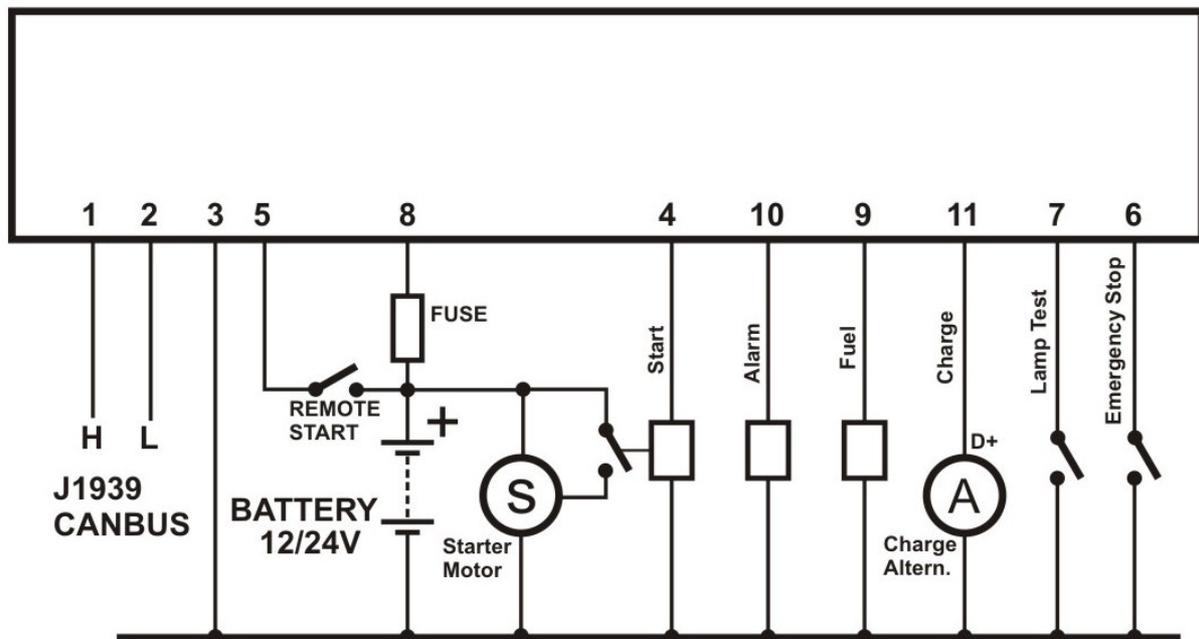   -2006/95/EC (low voltage)
    -2004/108/EC (electro-magnetic compatibility)
Norms of reference:
    EN 61010 (safety requirements)
    EN 61326 (EMC requirements)

TYPICAL CONNECTIONS