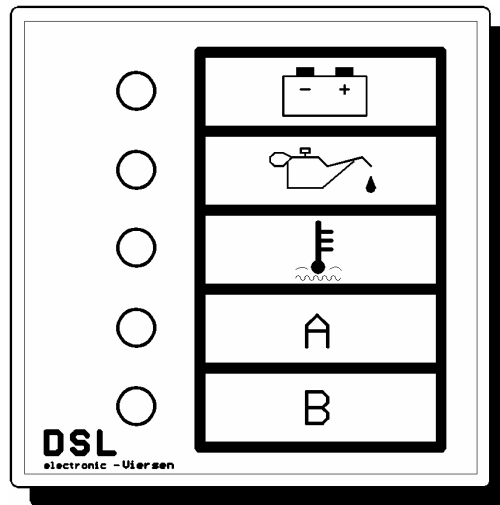


Diesel Monitor Unit DUB100



Application

The diesel monitor unit DUB100 is used to control and monitor internal combustion engines and is installed in the engine connecting box. The compact design allows it to be installed using the normal punching tools (68x68mm) available in the shops. The input circuits of the DUB100 are designed for operating the unit in a disturbed environment, so short-term disturbances do not address the unit or lead to failure. Normal 12V and 24V batteries can be used with the DUB100 as the operating voltage goes from 9 - 30VDC. For the purposes of auxiliary excitation of the dynamo, the dropping resistors for 12 and 24V located on the back can be switched on via the jumpers supplied with the unit. The contacts of the relay outputs are designed for a short-term current of 25A (long-term current 16A) and have additional free-wheeling diodes as a safeguard against spark-induced combustion.

Function

The DUB100 monitors and stores 4 incoming control circuits (oil pressure, water temperature, 2 reserve inputs) which trigger the integrated stop relay and the alarm relay. After the generator is started, the alarms are not triggered until the dynamo voltage is connected (terminal 61) and the waiting time of 10 seconds has past. Depending on the wishes of the customer, alarms can optionally be triggered without a delay (see DUB200). The alarm triggered stays stored as long as the unit is switched on. The control unit displays the first alarm. Other alarms are no longer accepted (first-value memory). Switching the DUB100 off and then on again deletes the alarm and the waiting time starts again when the generator has run up.

The stop magnet is not only activated by an alarm but also by switching the unit off at the On/Off switch. As with the alarms, though, the requirement for this is that terminal 61 indicates "Motor Running". After activation, the stop relay stays switched on by itself until the dynamo voltage drops and the follow-up time of 20 seconds is over.

Disturbances

Correct functioning of the dynamo voltage ("Motor Running" at terminal 61) is necessary for perfect functioning of the diesel monitoring unit DUB100. If terminal 61 does not receive a voltage from the dynamo, the stop magnet of the generator can be activated neither by an alarm nor by switching off terminal 15, so that the generator can only be stopped by interrupting the fuel supply or bypassing the DUB100 and activating the stop magnet.

Perfect functioning of the dynamo voltage is also necessary for the decoupling of the starter in generators with automatic start if this is not done via the generator voltage.

Technical Data

Type	Diesel Monitor Unit DUB100
Constraction	Built-in control panel housing 72 x 72mm, Tool 68 x 68mm
Installation depth	Appr. 70mm
Weight	0.2 kg
Working Voltage	9 - 36VDC
Mispolarization protection	Built in
Max. Power input	appr. 5W
Excitation for alternator	for 12V (2 Jumper) and 24V 1 Jumper on rear), for 0.2A
Stop Time	20 sec
Alarm Signal Delay	10 sec
On-period	100 %
Contact ratings	16A, 25A short time, 150VDC
Contact material	Silber-Cadmiumoxyd
Connecting terminals	For wire connection up to 2,5 mm ²
Type of protection	Housing IP 43 , Terminals IP 00
Ambient temperature	-10 °C to +55°C
Climatic strength	Constant climate 40(92 DIN 50015, Alternating climate FW 24 DIN 50016
Vibration resistance	Acc.to VDE 0160, better would be 2.5g
Interference Voltage	Acc.to VDE 0435 Part 303
Installation position	Any
Maintenance	Maintenancefree

Ordering Information

- Diesel control unit DUB100 : all fault signals with a delay
- Diesel control unit DUB200 : reserve fault signals A and B without a delay

Circuit Diagram

