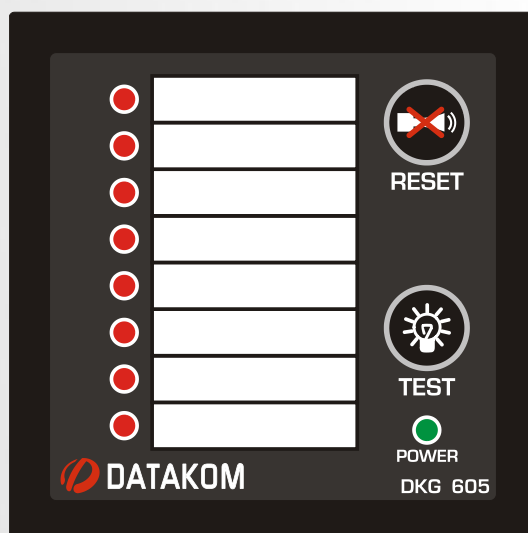


DKG-605

ALARM ANNUNCIATOR UNIT



DESCRIPTION

The DATAKOM model DKG-605 is a compact 8 channel programmable alarm annunciator unit used in generating sets and diesel engines.

Multiple DKG-605 units may be connected in parallel to form a larger scale alarm system.

The unit is designed to be used as either an alarm extension module or a stand-alone alarm annunciator and shutdown device.

The programming is made through the DKG-605-P hand terminal unit.

The unit has easy alarm identification feature via the insertable text label.

Each input channel is programmable as normally open or normally closed contact input, as well as the contact switching the positive or negative supply voltage.

The input channels are delayed between 0.5s and 4s in 4 programmable steps.

The input signal may be latching or non-latching.

The Safety On signal is programmed to be fed from the AC generator voltage input or from the input_8. The Safety On Timer is also programmable.

Low and high frequency protections are provided for the AC generator inputs.

The unit has both warning and shutdown relay outputs.

Each input is programmable as either a shutdown input, a warning input, a visual warning (no relay activation) or a no connection.

Each input has a separate semiconductor alarm output, enabling the use of distant visual warning lights.

An alarm signal will cause the related alarm led to flash, the output to be active and the relays to operate. A first pressure to the reset button will deactivate the relays and will turn the led steadily on. A second pressure on the reset button will reset the alarm leds and alarm outputs.

The unit is available in a panel mount package with standard dimensions of 72x72x76mm.

The unit has different models for 12 and 24 volt plants.

FEATURES

**Panel mounted,
8 input channels,
2 relay outputs,
8 semiconductor outputs,
44 programmable parameters,
Generator voltage input,
Survives cranking dropouts,
Configurable inputs,
Standard dimensions, 72x72mm,
Plug-in connection system for easy replacement,
Low cost**



OPERATION

In its initial state, the unit monitors the Safety On signal. In this state the Power On led is steadily on.

The safety on signal is picked up from either the AC generator voltage input or the input 8 following programming.

When the Safety On signal arrives, the unit enables alarm inputs after Safety On Timer has elapsed. In this state the power on led flashes.

When the Safety On signal disappears, the unit returns to its initial state.

If an alarm occurs when the alarms are active, the corresponding led flashes and the alarm output will turn on, and the warning and shutdown relays will operate. The relays supply the battery positive voltage. If the input is configured as a warning, the shutdown relay will not operate, if the input is configured as a visual warning, the warning relay will not operate too. If the input is configured as no connection, the alarm signal will have no effect.

If the input is defined as non-latching, the alarm condition will disappear when the alarm signal is removed. Otherwise the alarm condition will persist until manual reset.

To reset the alarm condition press the RESET button. In the first pressure the shutdown and warning relays will release, flashing alarm leds will turn on steadily and alarm outputs will remain on. A second pressure resets the alarm leds and alarm outputs.

INPUTS AND OUTPUTS

BAT(+) / **BAT(-)** : Plant battery voltage inputs.

GENERATOR AC VOLTAGE INPUT:

G/ N: generator phase and neutral. Use these inputs as Safety On signal in generator applications.

FAULT INPUTS: 8 configurable inputs. Normally open, normally closed, positive and negative switching contacts are acceptable. Use the input_8 as Safety On signal in engine control applications.

FAULT OUTPUTS:

The outputs are 'open collector' type semiconductor outputs. The output will be at negative supply level and sinks current when active. It is similar to an electronic relay contact to the negative supply.

RELAY OUTPUTS:

SHUTDOWN: Positive output relay activated by any alarm condition. (10 amps @28V-DC)

WARNING: Positive output relay activated by any warning condition. (10 amps @28V-DC)

OTHER INPUTS AND OUTPUTS:

Hand terminal connector (6 pins).

DISPLAY TEST

Press the TEST button for display test. All alarm leds, alarm and relay outputs will be activated when the button is pressed. They will resume normal operation when the button is released.

PROGRAMMING

Use the hand terminal to program the Safety On Timer value, Safety On signal source and the configuration of each individual input.

Programs are stored in a non volatile memory and are not affected by power failures.

TECHNICAL SPECIFICATIONS

Step control: 8 bit microcontroller.

Generator voltage: 50 to 277VAC (Ph-N)

Generator frequency: 20 to 100Hz.

DC Supply Range: 9 to 18 V-DC. (12V models)
18 to 33 V-DC (24V models)

Current consumption:

60 mA-DC typical (no alarm)

150 mA-DC max. (outputs open)

Total DC Current Output Rating: 10A-DC.

Max. Current for each relay output: 10A.

Max. Current for each alarm output: 250mA.

Operating temp: -20°C (-4°F) to 70 °C (158°F).

Storage temp: -30°C (-22°F) to 80 °C (176°F).

Maximum humidity: 95% non-condensing.

Dimensions: 72 x 72 x 76mm (WxHxD)

Panel cutout dimensions: 68x68mm minimum.

Weight: 200 g (approx.)

Case Material: Flame Retardant, High Temperature ABS (UL94-V0, 110°C)

Conformity (EU directives)

-73/23/EEC and 93/68/EEC (low voltage)

-89/336/EEC, 92/31/EEC and 93/68/EEC (electro-magnetic compatibility)

Norms of reference:

EN 61010 (safety requirements)

EN 50081-2 (EMC requirements)

EN 50082-2 (EMC requirements)

