GAM 3000
Switching modules for devices of the 3xxx-series

General description:
The GAM3000 is an alarm or control output for the GMH3xxx-series with alarm function. The GAM3000 is triggered via the serial interface of the GMH3xxx-devices. The alarm/switching limits are, as usual, set on the GMH3xxx. You have a choice between three different switching modes:

- **Alarm output**: relay dropping out as soon as the measuring value is no longer within the min./max. alarm limit or a fault condition (e.g. Err.1, Err.2, Err.7, Err.9, Err.11) at the channel set has been fulfilled. Relay picking up as soon as the measuring value is back within the min./max. alarm limits set.

- **Alarm output memorizing**: relay dropping out as soon as the measuring value is no longer within the min./max. alarm limit or a fault condition (e.g. Err.1, Err.2, Err.7, Err.9, Err.11) at the channel set has been fulfilled. Relay is not picking up automatically, i.e. the alarm is memorized. To reset the alarm the device has to be unplugged for a short time.

- **Control output**: The min./max. alarm limits of the GMH3xxx are used as switching points for switching on and off. (Min.alarm limit = switching on, max. alarm limit = switching off). In case of a fault condition being fullfilled the relay will be 'off' in its preferred state.

Specification:

- **Supply voltage**: 220-240V AC; 50/60Hz
- **Power consumption**: approx. 3 VA
- **Switching output**: controlled socket, switching mode make contact or break contact can be selected via switch.
- **Operating modes**: alarm output, alarm output memorizing or control output, selection via DIP-switch
- **Switching output**: 10A (ohmic load)
- **GMH-connection**: interface permanently connected with device via approx. 1 m of cable
- **Power supply unit**: integral power supply unit10.5V/10mA for the supply of the GMH3xxx device. Permanent connection with the device via approx. 1 m of cable
- **Working temperature**: 0 to 50°C
- **Storage temperature**: -20 to 70°C
- **Relative atmosph. humidity**: 0 to 80 %RH (non-condensing)
- **Dimensions**: 71 x 112 x 48 mm (W x H x D; housing only)
- **EMC**: The device corresponds to the essential protection ratings established in the Regulations of the Council for the Approximation of Legislation for the member countries regarding electromagnetic compatibility (89/336/EWG). Approved according to EN50081-1 and EN50082-1 and suitable for unlimited use in residential and industrial areas.

Disposal notes:
This device must not be disposed as 'residual waste'. To dispose this device, please send it directly to us (adequately stamped). We will dispose it appropriately and environmentally friendly.
Operating mode selection:
The operating mode can be selected via two DIP switches, which are accessible from the front side of the unit. The switches are equipped with a cover to protect them against dirt etc.; to set the operating mode please remove cover; make it a rule to put cover back on as soon as the setting has been completed.

![DIP switches diagram]

**S2 - Selection of operating mode**
- 0 (switch up): switching output = alarm output
- 1 (switch down): switching output = control output

**S1 - Selection of alarm function**
- (only required for alarm output)
  - 0 (switch up): alarm function will be memorized
  - 1 (switch down): alarm function will not be memorized

Indication of operating state: (red LED "Power")
- LED: permanently illuminated = searching for GMH3xxx
- LED: blinking for 1 s = device operating, connection with GMH3xxx has been established
- LED: rapid blinking = connection with GMH3xxx has been interrupted

Installation and commissioning:
Set operating mode desired following the above instructions.
Connect power supply unit and interface with GMH3xxx and set alarm points at the GMH3xxx as desired.
Connect switching module 220 - 240 VAC and plug in intermediate plug into the device to be switched.

Unless it is handled properly the GAM3000 may be damaged. The devices connected may also be damaged. In such cases we shall not assume any liability!
The manufacturer shall not assume any liability whatsoever for damage to connected devices resulting from the use of the GAM3000.

Safety Requirements:
This device has been designed and tested in accordance with the safety regulations for electronic devices. However, its trouble-free operation and reliability cannot be guaranteed unless the standard safety measures and special safety advises given in this manual will be adhered to when using the device.

1. Trouble-free operation and reliability of the device can only be guaranteed if the device is not subjected to any other climatic conditions than those stated under "Specification".
2. Always disconnect device and supply voltage before opening the device. When installing the device and its connections make sure that all parts are shock-hazard protected.
3. All common instructions and safety rules concerning electric, ligh and heavy current plants have to be observed; this also included domestic safety instructions (e.g. VDE 0100).
4. If device is to be connected to other devices (e.g. PC) the circuitry has to be designed most carefully. Internal connection in third party devices (e.g. connection GND and earth) may result in not-permissible voltages impairing or destroying the device or another device connected.
5. If there is a risk whatsoever involved in running it, the device has to be switched off immediately and to be marked accordingly to avoid re-starting.
   Operator safety may be a risk if:
   - there is visible damage to the device
   - the device is not working as specified
   - the device has been stored under unsuitable conditions for a longer time.
   In case of doubt, please return device to manufacturer for repair and/or maintenance.

6. **Warning:** Do not use these product as safety or emergency stop devices, or in any other appli-cation where failure of the product could result in personal injury or material damage.
   Failure to comply with these instructions could result in death or serious injury and material damage.