

# HygroClip Alarm

We have frequent requests for an alarm solution that is independent of other manufacturers control equipment, and which offers flexible options for alarm or control. With the new HygroClip Alarm, we can now fulfil these customer requests.

HygroClip Alarm is a universal programmable alarm and control system that can either be interfaced with the HygroFlex, HygroLab and M-series instruments on an RS485 Bus, or operates independently from measurement equipment and PC's. With four relays, it is possible to control four single alarm conditions or a block of up to 128 AND/OR linked alarms. The configuration of the relays and the related logic array is performed with the Rotronic HW3 software to precisely meet the requirements of the user. The relays can be directly used for switching of loads up to 2500W.

HygroClip Alarm may be used when connected to a PC or independently.

A timer function may, for example, be used to control a ventilation system at nighttime, control opening and closing of the windows of a greenhouse, or switch lights depending on time etc.. The possible applications are extensive.



## Features

- 4 alarm relays assigned to independent values
- 1 alarm computed from up to 128 measured values (OR/AND linked)
- Dew point calculation from humidity/temperature values
- 2 digital inputs
- 4 relay outputs (with status LED's)
- Real time clock with battery backup
- Freely configurable internal logic, consisting of:
  - 12 Signal delays
  - 6 Flipflops
  - 12 Gates (AND / OR / XOR)
  - 2 Monoflops
  - 1 Pulse width modulator
  - 2 Alarm times from the real time clock
  - 4 virtual keys (controlled by PC-software)
  - Event protocol generation by HW3Software

Order code:

- HygroClip Alarm 1** with power supply 12...35 VDC/12...24 AC  
**HygroClip Alarm 2** with power supply 90...250 VAC  
**HW3** software

## Operation

1. Query of measured values:  
The measurement data from a HygroFlex, HygroLab or M-series transmitter are queried via the RS485 network. If a preset alarm condition is detected, the device sets an alarm by switching on one or more relays according to the units programming. Any of the parameters measured by the instruments mentioned above can be monitored (humidity, temperature, pressure, air flow etc.)
2. Independent control unit  
HygroClip Alarm may be used as an independent control unit, and as such, switch various devices. For example, switching on a ventilation unit for 10 minutes every hour. In this mode, HygroClip Alarm is completely independent of any PC or other device.
3. Remote control  
Using HW3 software, virtual keys can be operated. This may be useful to cancel an alarm or switch a relay remotely.

**Note:** On request, we offer a programming service for this product.



## Operating modes

For HygroClip Alarm, two operating modes are available: Easy and Expert modes.

### Easy Mode

In the Easy Mode, HygroClip Alarm is configured using the HW3 software. The user interface allows only the most important functions, which makes programming very easy. As a maximum, 4 parameters and 2 external signals (switches) can be processed.



### Expert Mode

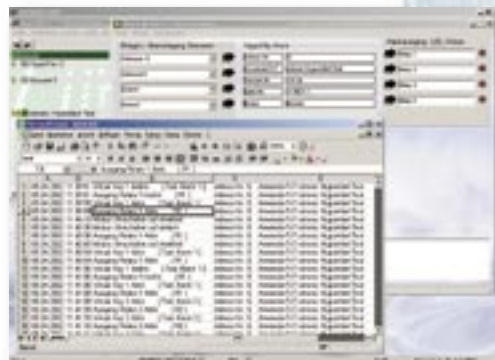
In the Expert Mode, the functions can be displayed graphically and directly programmed by dragging and dropping various logic symbols. The logic links allow very complex functions. Programming is performed directly within HW3 software and is organised in a user-friendly way.



## Data logging

Data logging is performed by the HW3 software. All alarm events are logged together with the measured values.

Even if the PC is switched off (e.g. due to power failure or at night time), HygroClip Alarm logs up to 20 events. These may be evaluated afterwards from a PC.



## Technical Data HygroClip Alarm

Power supply	90...250 VAC or 12...35 VDC / 12...24 VAC
Power consumption	50 mA (without relays)
Inputs	2 digital inputs 0...5 V or switches
Outputs	4 Relays (10 A @ 250 VAC/30 VDC, 12 A @ 125 VAC)
Clock	Real-time clock
Interface	RS485 interface
Radio interface	optional
Housing material	Makrolon
Dimensions	160 x120 x 75 mm
Electrical connections	3x M12, 5x M16 Cable glands
Protection class	IP65