

## ADJUSTING FROST GUARD JVS 24

### APPLICATION:

JVS 24 is a safety device of the air handling unit protecting water radiators against freezing. JVS 24 is assembled on the 35 mm DIN-rail. Plug connectors make service and commissioning easy. The sensor of PTC1000/2000  $\Omega$ , Pt1000 or Ni1000-LG may be selected at the commissioning by coding connectors S1...S3 on the circuit card behind the front plate.

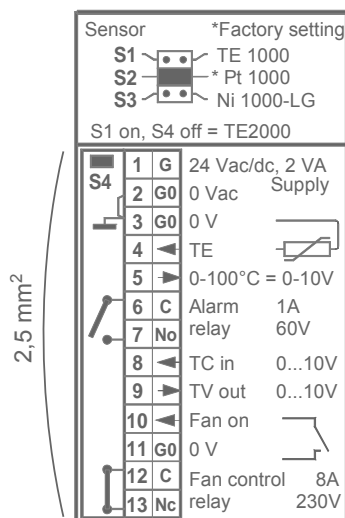
### FUNCTION:

1. Running time: When the unit is ON, JVS 24 is monitoring and, if necessary, controlling temperature of return water from the radiator. TEV sensor is detecting temperature and JVS 24 is transmitting the signal to the control system. When temperature is approaching the alarm set point within the range of restriction, the frost guard is adjusting the signal of the control system to the actuator (green light). When temperature is dropping below alarm set point JVS 24 is stopping the unit and triggering alarm (red light). Alarm is reset by the Reset-button or by breaking the supply voltage of the JVS 24.

2. Stand-by time: When the unit is OFF, the temperature of return water is controlled by JVS 24 to meet the set point of the Unit Off Temperature.

**ATTENTION!** Measured  $> 130^{\circ}\text{C}$  temperature or faulty sensor circuit (cut or short circuit) is triggering alarm and JVS 24 is opening the actuator (control valve) completely. The break of supply voltage of JVS 24 is stopping the air handling unit and triggering alarm.

### WIRING:



**IMPORTANT:** The device must be installed inside a suitable housing that cannot be opened without using tools.



### Technical data:

|   |  |
|---|--|
| Supply  | 24 Vac/dc, 2 VA                                    |
| Connectors, plug  | 2.5 mm <sup>2</sup>                                |
| Control relay, NC contact                               | 8 A / 230 Vac                                      |
| Alarm relay, NO contact                                 | 1 A / 60 V   |
| Sensor type   | selectable, Pt1000 factory setting                 |
| Alarm setting   | 0...+16 °C   |
| Start point of restriction                              | 3...16 °C > alarm sp                               |
| Span of restriction                                     | 1...8 °C   |
| Return water temperature output                         | 0...100 °C = 0...10 V                              |
| Master control signal (TC in) Ac-tuator signal (TV out) | 0...10 Vdc   |
| Faulty sensor alarm                                     | > 130 °C temperature or cut / short sensor circuit |
| Housing   | IP 20  |
| Dimensions (w x h x d)                                  | 53 x 90 x 59 mm                                    |

### Ordering guide:

| Model         | Product number | Description   |
|---------------|----------------|---|
| JVS 24        | 1110120        | adjusting frost guard; selectable sensor type (1000/2000 PTC) Pt1000 or Ni1000-LG |
| TEV Pt1000    | 1174020        | Pt1000 sensor   |
| TEV Ni1000-LG | 1178020        | Ni1000-LG sensor  |