

# **ADJUSTING FROST GUARD JVS 24**

## APPLICATION:

JVS 24 is a safety device of the air handling unit protecting water radiators against freezing.

Installation on the 35 mm DIN-rail. Plug connectors make service and commissioning easy. The sensor of PTC1000/2000 ohm, 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 reseted 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°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:

Sensor *Factory setting  \$1						
	1 G 24 Vac/dc					
S4	2	Go	0 Vac	Supply		
<u> </u>	3	Go	0 V			
	4	-	TE	لکیا۔		
	5	-	0-100°C	= 0-10V		
<i>-</i>	6	С		1A		
<b>/</b> _	7	No	relay	60V		
	8	-	TC in	010V		
	9	-	TV out	010V		
	10	4	Fan on	$\neg$		
	11	Go	0 V			
Ιî	12	С	Fan cont	rol 10A		
∟ــ	13	Nc	relay	230V		



#### Technical data:

Supply	24 Vac/dc, 2 VA
Connectors, plug	2,5 mm <sup>2</sup>
Control relay, NC contact	10 A / 230 Vac
Alarm relay, NO contact	1 A / 60 V
Sensor type	selectable
Alarm setting	0 +16°C
Start point of restriction	3 16 °C > alarm

1...8 °C Span of restriction

Return water temperature output  $0...100^{\circ} \text{ C} = 0...10 \text{ V}$ 

Master control signal (TC in) 0...10Vdc Actuator signal (TV out) 0...10Vdc

Faulty sensor alarm >130°C temperature or cut /

short sensor circuit 53 x 90 x 60.5 mm

Dimensions (w x h x d)

### Ordering guide:

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

Products fullfill the requirements of directives 73/23/EEC and 2004/108/EY and are in accordance with the standards EN60730, EN61000-6-3: 2001 (Emission) and EN61000-6-2: 2001 (Immunity).