

ADJUSTING FROST GUARD EJV 24

APPLICATION:

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

FUNCTION:

1. Running time: When the unit is ON, EJV 24 is monitoring and, if necessary, controlling temperature of return water from the radiator. TEV 1000-sensor is detecting temperature and EJV 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).

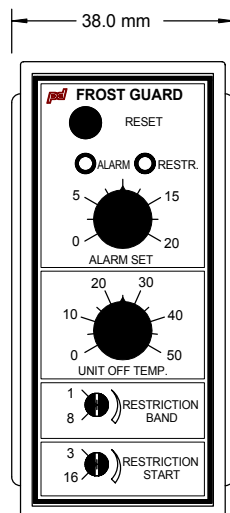
When temperature is dropping below alarm set point EJV 24 is stopping the unit and triggering alarm (red light). Alarm is reset by the Reset-button or by breaking the supply voltage of the EJV 24.

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

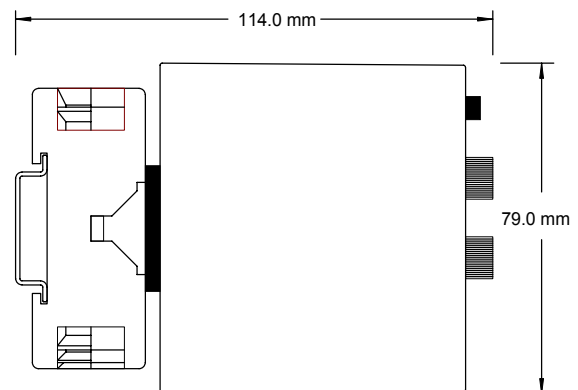
ATTENTION!

A fault of the sensor is triggering alarm and EJV 24 is opening the actuator (control valve) completely.

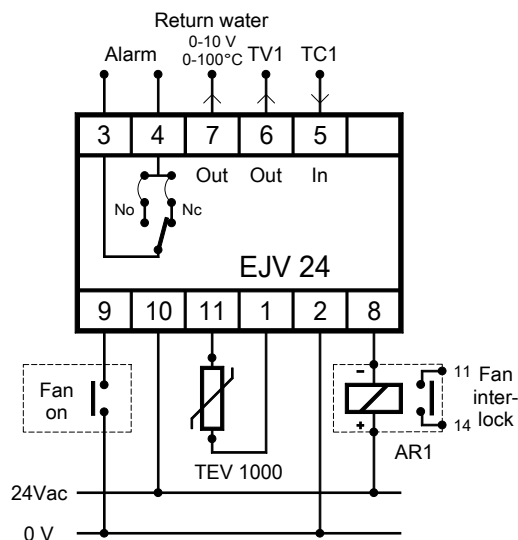
The break of supply voltage of EJV 24 is stopping the air handling unit, but no alarm is triggered at all.



- Reset
- Alarm = red light
- Restriction = green light
- Alarm set point
- Return water set point when unit is switched off
- Proportional band of restriction
- Start point of restriction



Connection:



Technical data:

Supply voltage	24 Vac, 2 VA
Control relay AR 1	10 A/230 V
Alarm relay	1 A/24 Vdc
Temperature sensor	1000 Ω/ 25 °C (PTC)
Output = return water temperature	0...100°C = 0...10 V, 10 mA
Input signal from controller	0(2)...10 Vdc, 0,5 mA
Output signal to actuator	0(2)...10 Vdc, 10 mA
Dimensions w x h x d	35 x 79 x 95 mm

Settings:

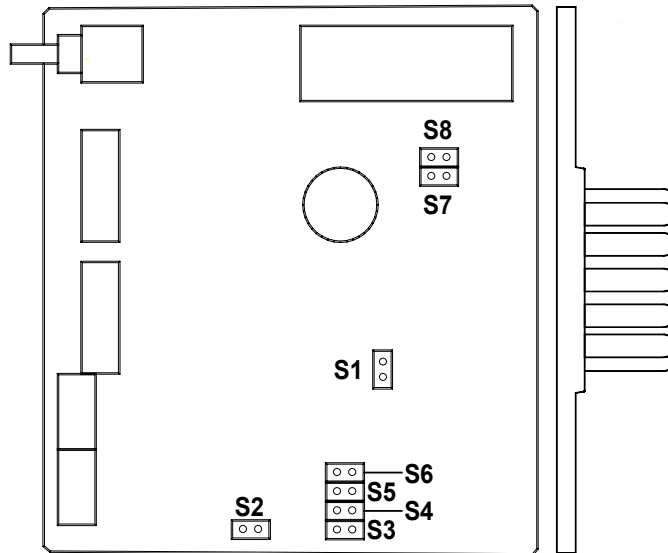
Alarm set point	0...20 °C
P- band of restricted signal	1...8 °C
Off-time temp. set point	0...50 °C
Start point temp. of restriction	3...16 °C > alarm set point

Accessories:

AR 1	aux. relay
TEV 1000	sensor

EJV 24 CODING

	Sensor selection		Range of input		Direction of input		Direction of output		Alarm contact	
	1000 Ω	2000 Ω	0...10 V	2...10 V	0/2...10 V	10...0/2 V	0/2...10 V	10...0/2 V	Normally open (No)	Normally closed (Nc)
S1	Closed	Open								
S2			Open	Closed						
S3					Open	Closed				
S4					Open	Closed				
S5							Open	Closed		
S6							Open	Closed		
S7									Closed	Open
S8									Open	Closed



CODING EXAMPLES

System:	S1	S2	S3	S4	S5	S6	S7	S8
Honeywell (2...10 V)	X	X					X	
• Danfoss	X						X	
• Satchwell	X						X	
• Landis & Staefa	X						X	
• Produal PDS 24 + 0...10 V actuator	X						X	
Tour & Andersson (10...2 V)	X	X	X	X	X	X	X	
PDS 2010/2050 + floating actuator	X				X	X	X	

• factory setting

X = Closed