

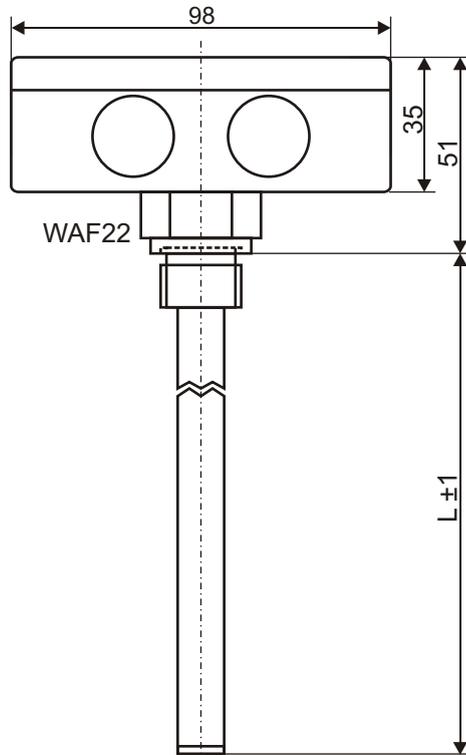
Data sheet

Adjustable temperature switch with actual value indicator

Type: ETSA-1...

Design 01

- see page 2 for further designs



Dimensions in mm



Features

- Adjustable temperature switch up to max. 2 steps
- Temperature sensor in tube, mounted on the housing or externally via cable connection
- 2-digit display

Fields of application

- Temperature control
- Monitoring of cooling and heating circuits
- Temperature overload protection for systems

Order key

Type ETSA-1

Number of temperature steps, max. 2

Length of sensor tube L in mm

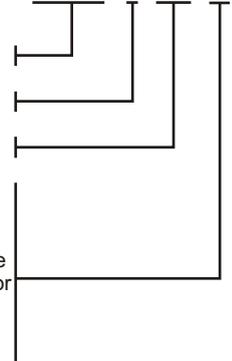
Design - see page 2

01 = mounting via alu-thread 1/2", tube Ø12mm material brass, 2x M16x1.5 cable glands

09 = mounting via housing floor, with external sensor, tube Ø12mm material brass, 4xM12x1 plug-type connector

12 = aluminium housing, upright, 360° rotatable, tube Ø8 material brass, mounting via 1/2" thread material brass, 2x M16x1.5 cable glands

Example: **ETSA-1. 2. 500. 01**



Terminal diagram

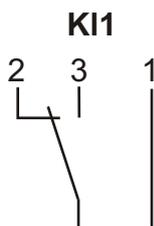


Diagram in de-energized state

Step 1: Temperature switch change-over contact 230VAC / 2A

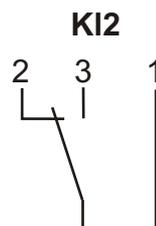
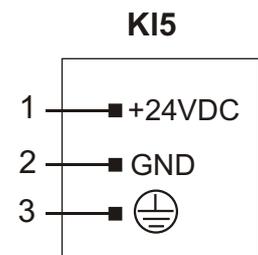


Diagram in de-energized state

Step 2: Temperature switch change-over contact 230VAC / 2A



Supply voltage

Data sheet

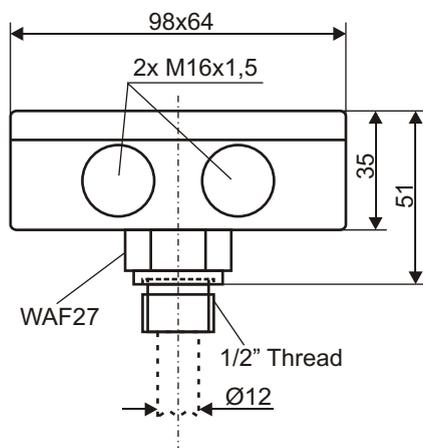
Adjustable temperature switch with actual value indicator

Type: ETSA-1...

Technical data

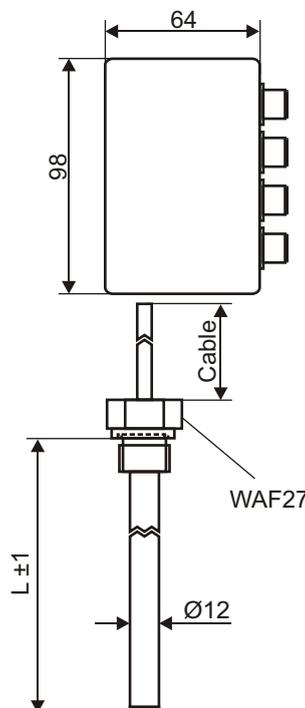
Housing:	aluminium die-cast housing, color RAL7001 (silvergrey), 98x64x36mm (wxhxd)
Connection:	see respective design, other connections on demand
Mounting:	see respective design, other mountings on demand
Sensor tube:	ø12mm or ø8mm depending on design, length L±1mm acc. to spec. material brass
Switching capacity	230VAC / 2A
Temperature setting range:	upper limiting value 0 °C to 99 °C lower limiting value = upper limiting value minus hysteresis hysteresis 3°C or acc. to specification
Temperature measuring range:	measuring range -9 °C to 125 °C (Attention! see operating temperature) resolution 1,0 °C measuring accuracy ± 0,5 °C from -9 °C to 125 °C
Supply voltage:	24 VDC ± 15% reverse polarity protected
Operating current:	<45mA
Pressure:	max. 1 bar
Operating temperature:	-20°C to 100°C in medium, -20°C to 70°C above mounting
Protection rating:	IP 65
Certificate:	in accordance with CE

Design



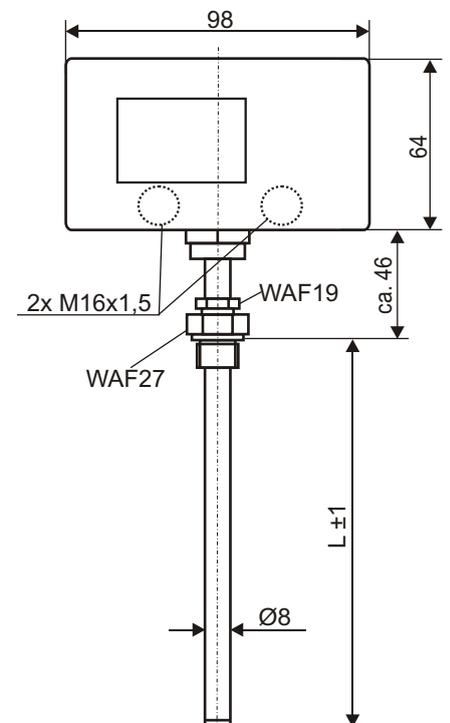
Design 01

Mounting via aluminium thread 1/2"
Sensor tube ø12mm material brass
2x M16x1.5 cable glands



Design 09

Mounting of aluminium housing on the wall 2x M4
4x M12x1 plug-type connector
Sensor mounting via brass thread 1/2"
Sensor tube ø12mm, material brass
Sensor connection M12x1
Sensor cable, standard length



Design 12

Aluminium housing, upright, 360° rotatable
Mounting via brass thread 1/2"
Sensor tube ø8mm, material brass
2x M16x1.5 cable glands

Maße in mm

Data sheet

Adjustable temperature switch with actual value indicator

Type: ETSA-1...

Technical information

Adjustment:	After opening the housing the temperature switching point can be set in °C by using the two rotary encoder switches. Use the left rotary switch to enter the 1 st digit respectively the tens digit of the value. Enter the 2nd digit respectively the unit digit by using the right rotary switch. You will also find a detailed adjusting guideline on our website.										
Intrinsic safety:	The contacts of the relays are connected in normal rest position, that means upper limiting value not exceeded. A defect of the sensor, sensor connection, exceeding of upper limiting value or break-down of the power supply results in a drop of the relays and eventually a failure indication.										
Operating indication:	The operating indicator (red display) indicates both, operation and failure. Every relay is equipped with an indicator (yellow LED) that lights up in normal rest position, that means upper limiting value is not exceeded.										
Commissioning:	During the set up of the power supply the indicator in the left display shows a small blinking „ u „ that characterizes the undefined condition. As soon as the temperature sensor has detected the first value, this value is shown in the display.										
Display:	Range of indication: -9°C to 125°C. As a result of the two-digit design of the indicator, temperature values lower than -9°C and higher than 99 °C can not be displayed. Temperatures lower than -9 °C are indicated by "- -". Temperatures higher than 99 °C are indicated by blinking. The blinking signalizes the indicated blinking value plus 100°C, e.g. a blinking "13" means 100°C + 13°C = 113°C										
Fault indication:	The combined operating and failure indication shows a failure code while blinking. <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-right: 20px;">Indication:</td> <td>Type of failure</td> </tr> <tr> <td>E1:</td> <td>Type of failure - Short circuit conductor 1 sensor</td> </tr> <tr> <td>E2:</td> <td>Type of failure - Short circuit conductor 2 sensor</td> </tr> <tr> <td>E3:</td> <td>Type of failure - Sensor defective</td> </tr> <tr> <td>E4:</td> <td>Type of failure - Sensor short circuit</td> </tr> </table>	Indication:	Type of failure	E1:	Type of failure - Short circuit conductor 1 sensor	E2:	Type of failure - Short circuit conductor 2 sensor	E3:	Type of failure - Sensor defective	E4:	Type of failure - Sensor short circuit
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