

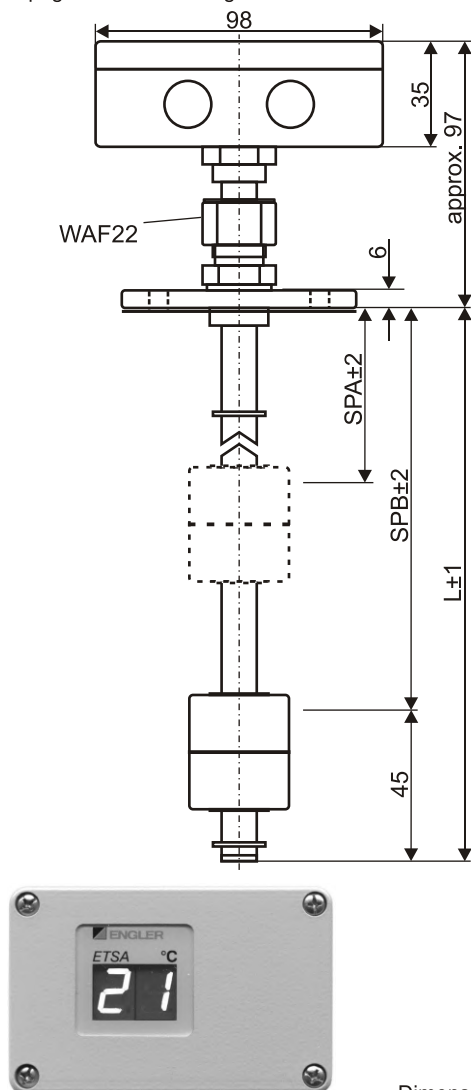
Data sheet

Adjustable temperature switch with actual value indicator and float switch

Type: ETSA-2...

Design 03

- see page 2 for more designs



Dimensions in mm

Features

- Adjustable temperature switch up to max. 2 steps
- Temperature and level switch combined
- 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

Example: **ETSA-2. 2.A5.B5.160.200.03**

Type ETSA-2

Number of temperature steps, e.g. 2

Level switching points A and B

A - contact at the top

B - contact (designation with 1 switching point)

Switching functions:

- 1 - closes on level rise
- 2 - opens on level rise
- 3 - closes on level drop
- 4 - opens on level drop
- 5 - change-over contact

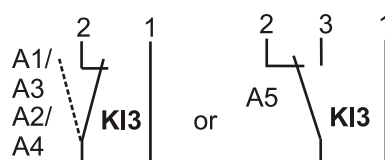
Switching points in mm

Example: **SPA5 = 160mm, SPB5 = 200mm**

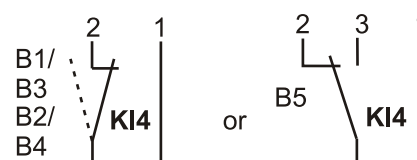
Design see page 2:

- 01 = Aluminium housing with 2 M16x1.5 cable glands
Mounting via floor of housing
- 03 = Aluminium housing with 2 M16x1.5 cable glands
Mounting via oval flange
- 10 = Aluminium housing with 2 M16x1.5 cable glands
Mounting via adjustable brass thread 1/2"

Terminal diagram



Level 1: SPA
n.c. / n.o. / c. o. contact
230VAC / 1A / 60VA



Level 2: SPB
n.c. / n.o. / c. o. contact
230VAC / 1A / 60VA

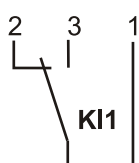


Diagram in de-energized state
Step 1: Temperature switch
change-over contact, 230VAC / 1A

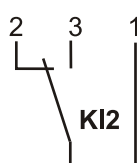
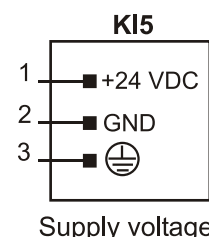


Diagram in de-energized state
Step 2: Temperature switch
change-over contact, 230VAC / 1A



Supply voltage

Data sheet

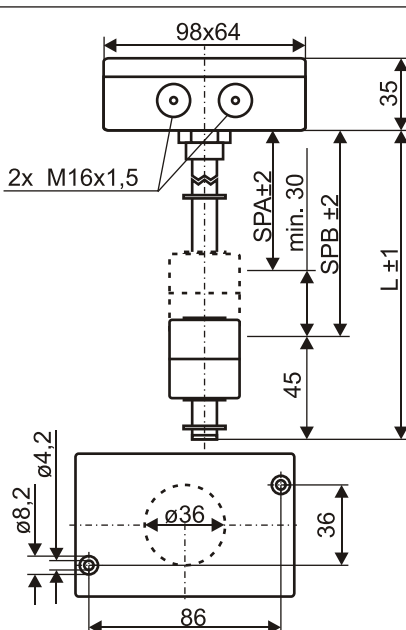
Adjustable temperature switch with actual value indicator and float switch

Type: ETSA-2...

Technical data

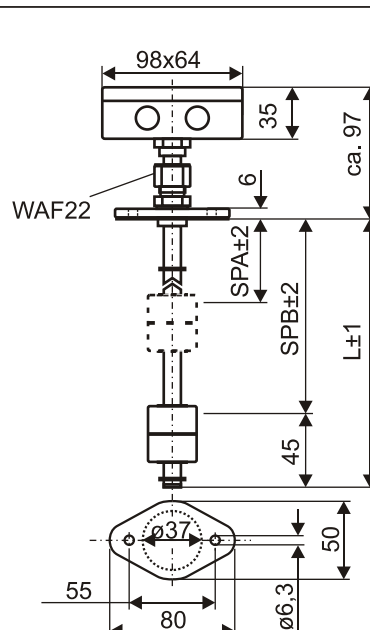
Housing:	aluminium die-cast housing, colour RAL 7001 (grey) 98x64x35mm (wxhxd)
Connection:	see respective design, other connections on demand
Mounting:	see respective design, other mountings on demand
Seal:	depending on design, material NBR
Tube:	Ø12mm or Ø8mm depending on design, length $L \pm 1$ mm acc. to specification, material brass
Float:	Ø35x40 mm, material PP, type S1; Ø17.8x32mm, material NBR, type S52 other floats on demand
Level Switching points:	Reed contacts: max. 2 n.o. / n.c. or change-over contacts
Temperature Switching points:	max. 2 change-over relays
Switching capacity level:	230VAC / 1A / 60VA
Switching capacity temperature:	230VAC / 1A
Temperature setting range:	upper limiting value 0 °C to 99 °C lower limiting value = upper limiting value - hysteresis hysteresis 3°C
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 $\pm 15\%$ reverse polarity protected
Operating current:	<45mA
Pressure:	max. 5 bar
Operating temperature:	-20°C to 80°C in medium, -20°C to 70°C above mounting.
Protection rating:	IP 65
Certificate:	in accordance with CE

Ausführungen



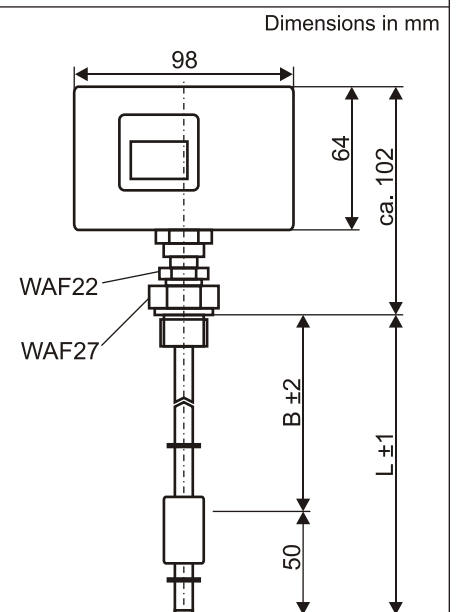
Design 01

Aluminium die-cast housing
Mounting via floor of housing
Tube Ø12mm material brass
2 M16x1.5 cable glands
Float PP Ø35x40mm type S1



Design 03

Aluminium die-cast housing rotatable
Mounting via oval flange
Tube Ø12mm material brass
2 M16x1.5 cable glands
Float PP Ø35x40mm type S1



Design 10

Aluminium die-cast housing, upright, rotatable
Mounting via adjustable brass thread 1/2"
Tube Ø8mm material brass
2 M16x1.5 cable glands
Float NBR Ø17.8x32mm type S52

Data sheet

Adjustable temperature switch with actual value indicator and float switch

Type: ETSA-2...

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 - 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. 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