

PT Compact with integrated display

To screw in

Programmable

Analogue or switching output



Description

Thermometer probe of model PT Switch measure temperatures, display measured values and hand over control signals as well as analogue output signals to processes.

Switching points and hysteresis are changeable via two buttons on the display.

Together with a wide measuring range the PT Switch is suitable for numerous applications.

Dimensions process thread, stem length and diameters can be arranged flexibly matching into your application.

Special features

- Simple assembly
- Ingress Protection up to IP 65
- Stainless steel case
- free temperature switching point adjustment

Switching range

-50°C to 200°C

Applications

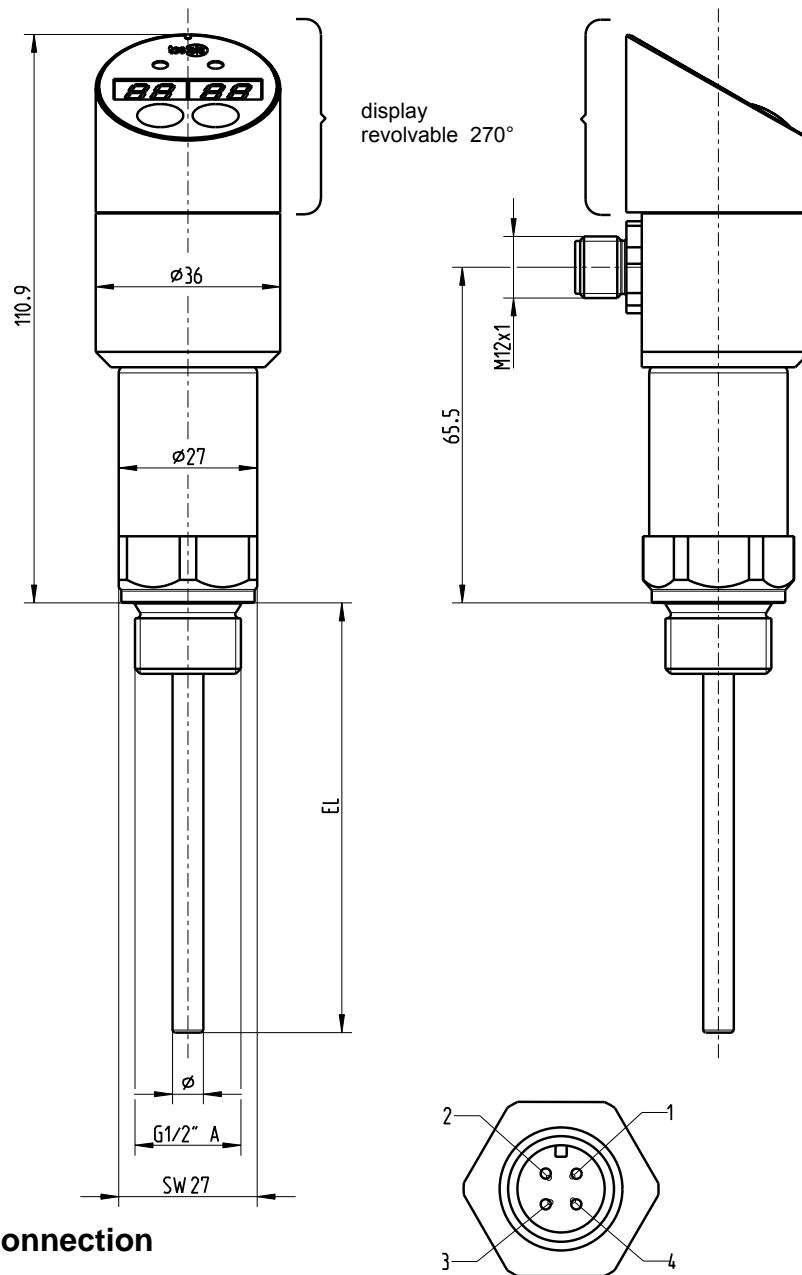
Cooling and heating circuits
Plant construction
Compressors
Engines

Model: CF 11

Technical data

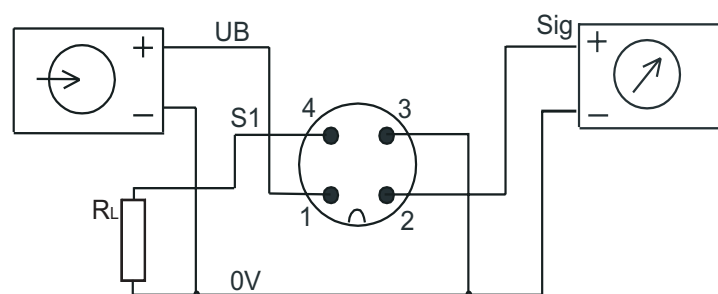
Model	CF 11
Description	Temperature detector including indicator, analogue output and temperature switch
Working range	-50 ... 200 °C, others on request
Signal output	4 ... 20 mA, 0 ... 10 V DC NPN, DC PNP
Electrical connection	M12 x 1, 4-pin plug with gold plated contacts
Switch function	NC / NO programmable
Stem	Steep construction with fixed connection G1/2 A Diameter: 6mm, EL = 50, 75, 100, 160, 200 mm
Display	4-digit 8-segment-LED-display, red, height 7,6 mm protected with foil
Power supply	12 ... 30 V DC
Current load	100 mA (up to 250 mA on request)
Electrical protection	Protection against overvoltage and wrong polarity
Power load	< 2 V
Power consumption	< 65 mA
Analogue output	4 ... 20 mA: 700 Ω @ 24 V DC 0 ... 10 V : 5 k Ω
max. process pressure	Ø 3 mm: 12 bar Ø 6 mm : 40 bar Ø 8 mm : 100 bar
Adjustment ranges	
set point	-49,5 ... 200,0 °C } -50,0 ... 199,5 °C } in steps of 0,5 °C
reset point	
Temperature scale	In °C or °F, factory preset, others on request
Accuracy	
Switching output	± (PT100-accuracy acc. to IEC 751, class B) + 0,2 K
Analogue output	± (PT100- accuracy acc. to IEC 751, class B) + 0,2 K + 0,2 %of F.S
Display	± (PT100- accuracy acc. to IEC 751, class B) + ½ digit
Resolution	
Switching output	0,5 °C
Analogue output	0,1 °C
Display	0,1 °C
temperature influence	0,1 K / 10 K
Start up delay	2 sec
Meas. / Display cycle	1 / sec
Sensor	Standard: 1x PT 100 / 2-wire, class B acc. to IEC 751 optional: PT 100 or PT 1000 with 2-/ 3- or 4-wire class B or A acc. to IEC 751
Response time	t ₅₀ 2,3 sec / t ₉₀ 5,4 sec
Ambient temperature	-25 ... 70 °C
Protection class	-30 ... 80 °C
Protection type	IP 65 acc. to IEC 529
Isolation resistance	> 100 M Ω / 500 V DC
EMC acc. to IEC / EN 61326	IEC 61000 / 4 / 2 ESD : B IEC 61000 / 4 / 3 HF blasted: A IEC 61000 / 4 / 4 burst : A IEC 61000 / 4 / 5 surge : A IEC 61000 / 4 / 6 HF wire depending : A

Dimensions



Electrical connection

M12 x 1, 4-Pin



Programming

Operating modes

On power on the switch performs an **initialisation routine**. The display and the status LEDs are switched on. The temperature range is displayed for a short time.

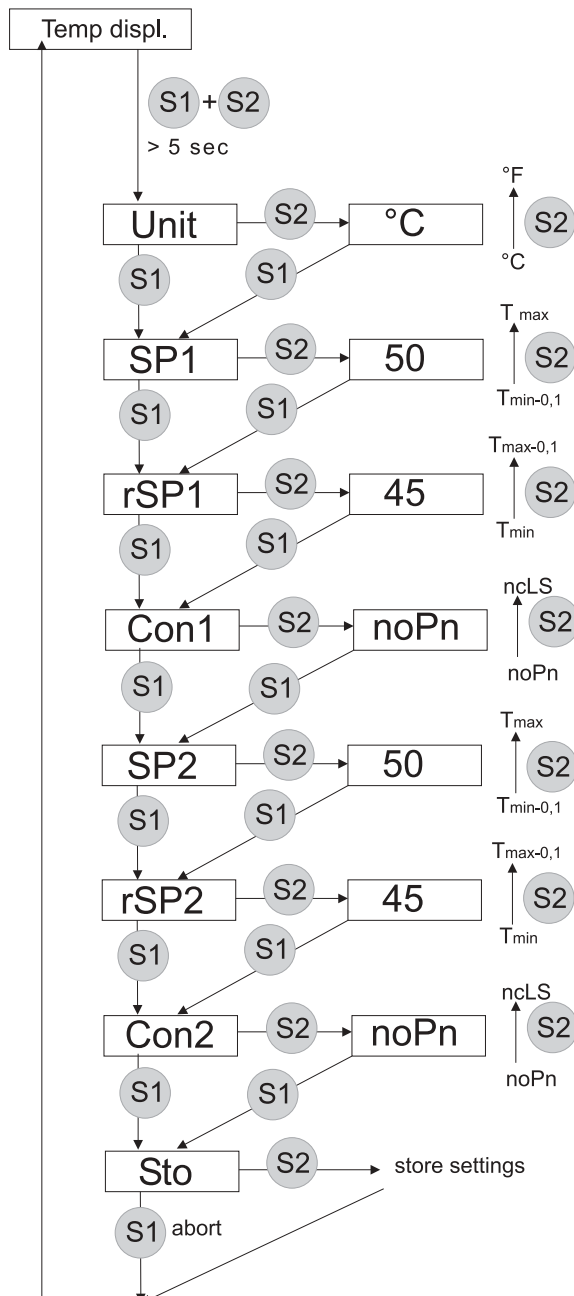
After this initialisation the switch is in **normal operation mode**. The temperature is displayed, the switching outputs are active and the LEDs display the status.

The programmed **set points** are **displayed** after a short push of S1 or S2. For this time the display is blinking.

A longer push (press the button >5 sec) checks the function of the switching output.

Programming mode

The programming mode is entered by simultaneously pressing both buttons. This mode allows a complete setup of the switch.



Subject to technical alternations