



PT Compact Plus

- All stainless steel
- Temperature range -200...600°C
- 4-20mA output
- Changeable insert

Technical specification

Model	PT Compact (Plus and USB)
Sensor	PT100 class B (option PT100 class A)
Output signal and supply voltage	4-20mA, 2 wire supply voltage: 10-30 V DC 0-10 V, 3 wire supply voltage: 12-30 V DC
Error signal	Sensor burnout: 23mA, sensor short circuit: 3.3mA
Temperature range	Standard: -50°C... +200°C; high temp. -200°C... +600°C
Measuring range	Standard version: minimum range 50°C (CU11-30°C) Maximum range 250°C High temperature versions: minimum range 150°C Maximum range 800°C
Process connections	Fixed thread G 1/2A (others on request)
Material	Stainless steel 1.4571 (316Ti)
Accuracy	<0.5% of measuring range
Ambient temperature	Max. 85°C
Storage temperature	-40°C... +85°C
Electrical connection	Connector to DIN EN 175301-803 form A (option: 4-pin, M12x1)

Stem diameter, length and pressure ranges

- Ø3mm fast response version with tapered stem up to 12 bar¹⁾:
- stem length 25mm: Ø3 x 0,3mm
- stem length 50mm up to 100mm: Ø6 x 0,3mm with tapered stem Ø3 x 0,3mm
- stem length 150mm Ø 8 x 1,75mm with tapered stem to Ø6 x 0,3mm with tapered stem Ø3 x 0,3mm
- Ø6 x 0,75mm for stem 50mm to 500mm: up to 40bar¹⁾
- Ø8 x 1,75mm for stem 50mm to 1000mm: up to 100bar¹⁾
- special versions for pressures up to 600 bar¹⁾

EMC resistance

Acc. to DIN EN 61326

Vibration resistance

Depended on the stem length, for stem lengths up to 100mm: resistance up to 20g acc. DIN EN 60068-2-6

Shock resistance

Acc. DIN EN 837

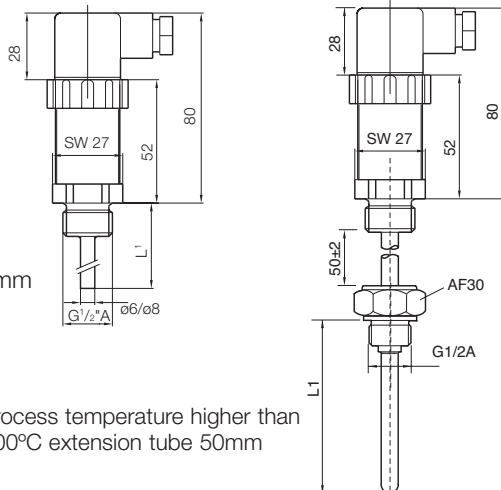
Protection class

IP65 acc. To DIN EN 60529 / IEC 529

- 1) Pressure ranges refer to static pressure; rating depends on:
- process medium
 - process pressure and temperature
 - flow rate
 - stem design (length, diameter, wall thickness)

Dimensions

Type CP11/CU11

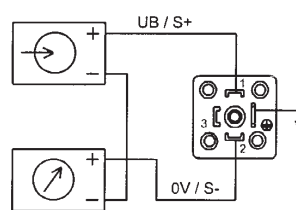


All dimensions in mm

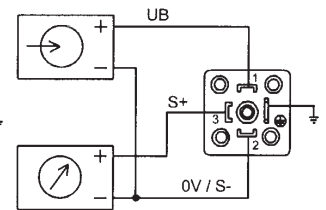
process temperature higher than 200°C extension tube 50mm

Wiring connections

2-wire



3-wire



	2-wire mA	3-wire V DC
Supply UB+	1	1
Supply 0V-	2	2
Signal S+		3
Signal S-		2

Ordering information

Stem length (mm)	Part number								
	stem Ø3mm			stem Ø6mm			stem Ø8mm		
	0...50°C	0...100°C	0...120°C	0...50°C	0...100°C	0...120°C	0...50°C	0...100°C	0...120°C
50	CP11121301	CP11121302	CP11121303	CP11221301	CP11221302	CP11221303	CP11321301	CP11321302	CP11321303
75	CP11121401	CP11121402	CP11121403	CP11221401	CP11221402	CP11221403	CP11321401	CP11321402	CP11321403
100	CP11121501	CP11121502	CP11121503	CP11221501	CP11221502	CP11221503	CP11321501	CP11321502	CP11321503
160	CP11121601	CP11121602	CP11121603	CP11221601	CP11221602	CP11221603	CP11321601	CP11321602	CP11321603
200	CP11121701	CP11121702	CP11121703	CP11221701	CP11221702	CP11221703	CP11321701	CP11321702	CP11321703

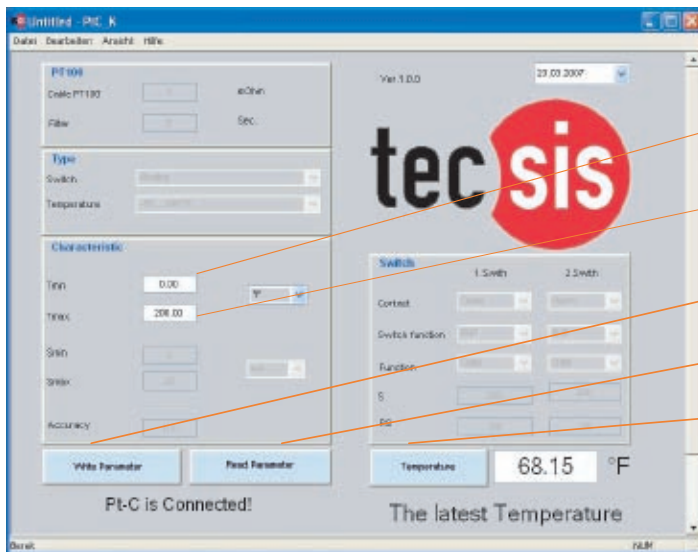


PT Compact USB

- Programmed to customers' exact requirements within temperature range
- Temperature range -50°C...600°C
- USB interface mini USB Form B, 5 pins

Technical specification - see page 72

Programming - Software for setting the measuring range via USB



- temperature at 4mA
- temperature at 20mA
- write parameters to transmitter
- read out transmitter settings
- show actual temperature

Ordering information

Stem length (mm)	Part number					
	Tapered stem 3mm pressure up to 12 bar		Stem diameter 6mm, pressure up to 40 bar		Stem diameter 8mm, pressure up to 100 bar	
	-50...200°C	-50...600°C	-50...200°C	-50...600°C	-50...200°C	-50...600°C
50mm	CU1121010	-	CU11221010	CU11241010	CU11321010	CU11341010
75mm	CU1121020	-	CU11221020	CU11241020	CU11321020	CU11341020
100mm	CU1121030	-	CU11221030	CU11241030	CU11321030	CU11341030
160mm	CU1121040	-	CU11221040	CU11241040	CU11321040	CU11341040

(-50... 600°C with 100mm extension tube)



Electronic switch with digital display

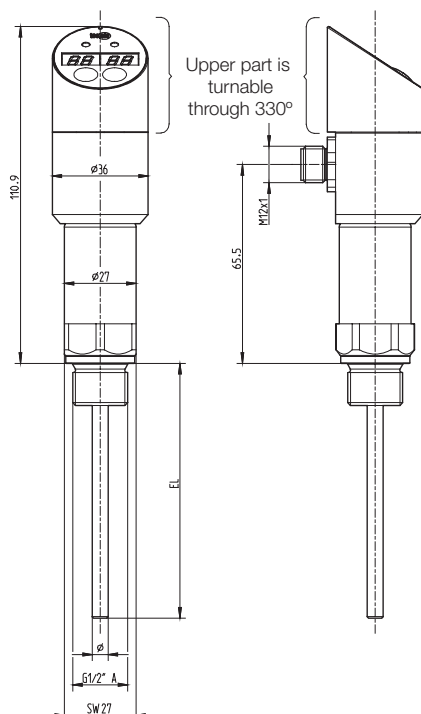
- All stainless steel
- Temperature ranges -50°C...600°C
- Switched and analogue outputs

Technical specification

Model	CF11 – PT100 2 wire with two switch outputs CF12 – PT100 2 wire with one switch output and one analogue output
Temperature ranges	-50 to +200°C (standard) -200 to +600°C (high temperature)
Measurement units	°C or F (selectable)
Sensor	PT100 class B (standard); PT100 class A (option)
Supply voltage	12...30 V DC
Power consumption	≤50mA, without load current
Connection thread	G 1/2 A (other connections on request)
Wetted parts	Stainless steel 1.4571 (316Ti)
Case	Stainless steel, display cover plastic
Stem and pressure ranges	- Ø3mm fast response version with tapered stem for up to 12 bar 25mm: Ø3 x 0.25mm up to 100mm: Ø6 x 0.25mm with taper to Ø3 x 0.25mm >100mm: Ø8 x 1.75mm with taper to Ø6 x 0.25mm with taper to Ø3 x 0.25mm
Standard	- Ø6mm for up to 40 bar 50mm: Ø6 x 0.75mm - Ø8mm for up to 100 bar: Ø8 x 1.75mm Special parts made of solid material up to 500 bar
Outputs	2 switch output PNP or 1 switch output PNP and 1 x analogue output 4-20mA
Switching function	Adjustable, normally closed (NC) or normally open (NO) contact
Switching rating	100mA per switch output
Adjustment	Programmable via the display

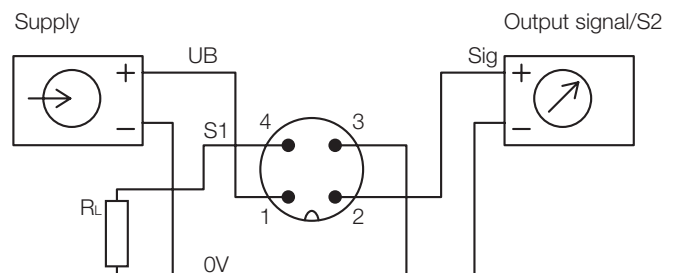
Set point	0.1° steps within temperature range
Reset point	0.1° steps from beginning temperature range until (set point -0.1°)
Analogue output	4...20mA programmable in 0.1° steps, span at least 20% of the temperature range
Load resistance	Dependent on the supply voltage, the formula is $R = \frac{U_{\text{supply}} - 7 \text{ V}}{0.022 \text{ A}}$
Display	4-digit 7-segment LED display, red, 7.6mm high
Accuracy	Switching output, analogue output and display: Accuracy of PT100 + 0.1% of the temperature range
Repeatability	0.05%
Electrical connection	M12x1; 4-pin gold-plated contacts
Electrical protection	Overload and reverse polarity
Temperature ranges	
Storage	-30...+80°C
Ambient	-25...+70°C
Temperature influence	0.1% of measuring range/10K
EMC	To EN 61326
Protection	IP65 according to IEC 529
Weight	Approx. 0.3kg depending on stem

Dimensions



Wiring connections

(TC400 with one switching output and one analogue output.)



	Plug
Supply UB	1
Supply 0V	3
Switching output 1	4
Switching output 2 or analogue output	2

Ordering information

Temperature range (°C)	Part number		
	Stem length (mm)	2 switching outputs	4...20mA plus 1 switching output
-50...+200	50	CF11121001	CF12121001
	100	CF11121002	CF12121002
	160	CF11121003	CF12121003
-50...+400	50	CF11221001	CF12221001
	100	CF11221002	CF12221002
-50...+600	50	CF11321001	CF12321001
	100	CF11321002	CF12321002
-200...+600	50	CF11421001	CF12421001
	100	CF11421002	CF12421002