

Battery-Powered Thermometer TIB10x

- ♦ All stainless steel design
- ♦ 4-digit 18 mm LCD display
- ♦ Captures minimum and maximum readings
- ♦ Powered by 2 AA batteries
- ♦ 20000 hours average battery life
- ♦ Programmable display ranges and alarms
- ♦ User calibration available
- ♦ Selectable temperature units

COMECO's TIB10x series is a useful combination of a digital indicator and a resistance thermometer. These models combine the power supply independence of the bimetallic/gas thermometers and the advantages of the digital temperature measuring instruments. TIB10x can be ordered with various stem dimensions as well as process connections, thermowells, etc.



Technical specifications

Input

Input (RTD) type	Pt10k (w=1.385)
Measurement range	min. -50.0...max. 400 °C (min. -58.0...max. 752.0 °F)

Accuracy

Measurement error	± 0.3 °C at 0 °C; ± 1.3 °C at 200 °C
Non-linearity	within measurement error
Hysteresis	within measurement error
Repeatability	within measurement error
Temperature drift	0.005% from span for 1 °C

Indication and controls

Digital display	4-digit LCD, 18 mm
Display resolution	0.1 or 1 °C, programmable
Display functions	on/off, °C/°F/K, min/max, auto off
Keyboard	3 membrane keys
Device calibration	through the keyboard
Alarms	2 programmable alarms on display

Power supply

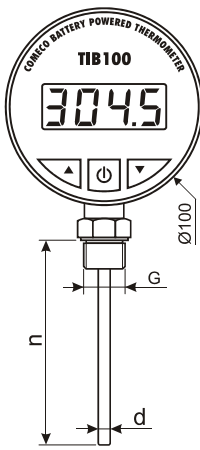
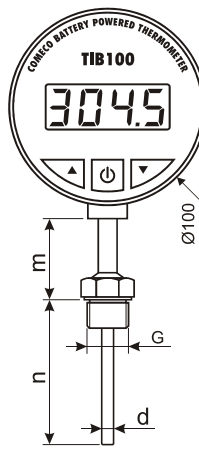
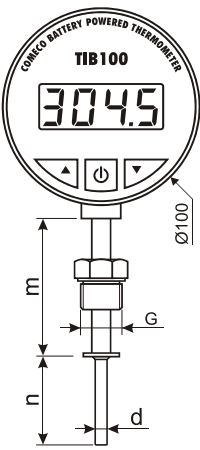
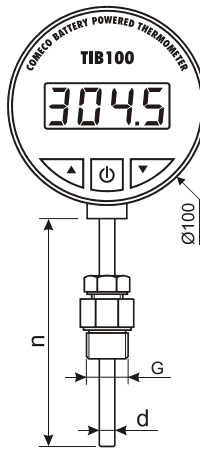
Supply voltage	3 V from 2 batteries AA 1.5 V
Battery life	up to 20000 h (depending on battery)
Battery state control	automatic
Auto-power-off time	0...9999 min, programmable

Operating conditions

Ambient temperature	-20...85 °C
Ambient humidity	0...95 %RH

Design and materials

Wetted parts	stainless steel
Case material	stainless steel
Process connection	threaded nipple (union nut) or flange
Dimensions	approx. 220x100x40 mm (w/ 50 mm stem)
Weight	max. 400 g (w/ 50 mm stem)
Protection class	IP65 (NEMA 4X)

Model	TIB100	TIB101			TIB102			TIB104		
Specifications										
Stem design	without extension	extended			extended			without extension		
Process connection	fixed (welded)	fixed (welded)			movable (rotating)			adjustable (gland-type)		
Insertion length ('n') [mm]	50...2000	50...2000			50...2000			50...2000		
Insertion diameter ('d') [mm]	4.5, 6, 8, 10	≤ 6	8	10	≤ 6	8	10	4.5, 6, 8, 10		
Extension diameter ('D') [mm]	-	6	10	8	12	10	14	-		
Extension length ('m') [mm]	-	50...100 101...500	50...100 101...500	50...100 101...500	50...100 101...500	50...100 101...500	50...100 101...500	-		
Process temperature	max. 200 °C	max. 400 °C			max. 400 °C			max. 400 °C		
Process pressure	25 bar	25 bar			16 bar			6 bar		

Ordering code TIB10(0,1,2,4) - G0.G3.G4.G6.G7.G9'9".G10.G14 - #1

Code	Feature or option	Code values
G0	Stem position	A - axial, R - radial
G3	Temperature range	T9 - -50...200 °C, T1 - -50...400 °C
G4	Stem diameter 'd' [mm]	
	normal stem	4.5, 6, 8, 10
	MI stem	8, 10
G6	Stem insertion length 'n' [mm]	30...2000 (see table overleaf)
G7	Stem extension length 'm' [mm] ⁽¹⁾	0...500
G9'	Mounting connection	Q0 - M16x1.5, Q1 - M18x1.5, Q2 - M20x1.5, Q3 - G3/8", Q4 - G1/2", Q5 - M27x2, Q6 - G3/4", Q9 - 3/8" NPT, Q10 - 1/2" NPT, Q11 - 3/4" NPT, Q12 - G1", Q15 - 1" NPT, Q25 - M33x2, Uxx - union nut (xx - same as for Qxx), F - flange (specify!), Z - other connection (specify!)
G9"	Compression fitting ferrule ⁽²⁾	TF - Teflon®, BR - brass, SS - stainless steel
G10	Stem material	M1 - 1.4301, M2 - 1.4541, M3 - 1.4571, M9 - 1.4404
G14	Tip shape	X - standard closed, N - narrowed
#1	Options	X - none, OV - vibration proof ⁽³⁾ , OT - thermal isolation ⁽⁴⁾ , OP - electrochemically polished sheath surface

⁽¹⁾ Only for TIB101 and TIB102!

⁽²⁾ Only for TIB104!

⁽³⁾ Requires MI stem!

⁽⁴⁾ To be ordered when n+m<100!