



## Temperature Transmitter HTT 8000 for series applications

Integrated temperature probe

Accuracy 1 %

Customised designs thanks to diverse electrical and mechanical connections and a large number of output signals



### Description:

The HTT 8000 series of temperature transmitters was specifically developed for OEM applications e.g. in mobile applications. It is based on a silicon semiconductor device with corresponding evaluation electronics.

All parts in contact with fluid are in stainless steel, and are welded together.

For integration into modern controls, standard analogue output signals are available, e.g. 4 .. 20 mA, 0 .. 5 V, 1 .. 6 V or 0 .. 10 V. Ratiometric output signals are also available.

For the electrical connection, various built-in connection plugs are available.

The pressure resistance up to 600 bar and excellent EMC characteristics make the HTT 8000 ideal for use in harsh conditions.

### Technical data:

#### Input data

Measuring range <sup>1)</sup>	-25 .. +125 °C		
Probe length	mm	16	40
Probe diameter	mm	6.7	6.7
Pressure resistance	bar	600	600
Mechanical connection <sup>2)</sup>	G1/4 A ISO 1179-2		
Tightening torque, recommended	20 Nm		
Parts in contact with fluid	Mech. connection: Stainless steel Seal: FKM		

#### Output data

Output signal	Various signals: 4 .. 20 mA, 0 .. 5 V, 1 .. 6 V, 0 .. 10 V, ratiometric: 0.5 .. 4.5 V for $U_B = 5 \text{ V DC}$ (10 .. 90 % $U_B \pm 5 \%$ )		
Accuracy (at room temperature)	$\leq \pm 1.0 \%$ FS typ. $\leq \pm 2.0 \%$ FS max.		
Temperature drift (environment)	$\leq \pm 0.02 \%$ FS / °C		
Response time acc. to DIN EN 60751	$t_{50}: \sim 4 \text{ s}$ $t_{90}: \sim 8 \text{ s}$		

#### Environmental conditions

Operating temperature range <sup>3)</sup>	-40 .. +85 °C / -25 .. +85 °C		
Storage temperature range	-40 .. +100 °C		
Fluid temperature range <sup>3)</sup>	-40 .. +125 °C / -25 .. +125 °C		
CE mark	EN 61000-6-1 / 2 / 3 / 4		
UL US mark <sup>4)</sup>	Certificate no. E318391		
Vibration resistance acc. to DIN EN 60068-2-6 at 10 .. 500 Hz	$\leq 25 \text{ g}$		
Shock resistance acc. to DIN EN 60068-2-27	100 g / 6 ms / half-sine 500 g / 1 ms / half-sine		
Protection class <sup>5)</sup> acc. to DIN EN 60529 ISO 20653	IP 67 or IP 69 (depending on electr. connection) IP 6K9K		

#### Other data

Electrical connection	Various male connectors: M12x1, Packard Metri Pack, Deutsch DT 04, AMP Superseal, AMP Junior Power Timer, jacketed cable		
Supply voltage	8 .. 30 V DC 12 .. 30 V DC for 0 .. 10 V, 5 V DC $\pm 5 \%$ (ratiometric)		
when applied acc. to UL specifications	- limited energy - acc. to 9.3 UL 61010; Class 2; UL 1310/1585; LPS UL 60950		
Residual ripple supply voltage	$\leq 5 \%$		
Current consumption	$\leq 25 \text{ mA}$		
Weight	$\sim 145 \text{ g}$		

Note: Reverse polarity protection of the supply voltage, overvoltage, overdrive and short circuit protection are provided.

**FS (Full Scale)** = relative to complete measuring range

<sup>1)</sup> Other measuring ranges on request

<sup>2)</sup> Other mechanical connections on request

<sup>3)</sup> -25 °C with FKM seal, -40 °C on request

<sup>4)</sup> Environmental conditions acc. to 1.4.2 UL 61010-1; C22.2 No 61010-1

<sup>5)</sup> With mounted mating connector in corresponding protection class

