



## Temperature transmitter HTT 1000 for series applications

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

Temperature probe

Accuracy 1%

### Features

- Very compact design
- Robust

### Description

The HTT 1000 is a digital temperature transmitter, especially developed for serial utilisation, e.g. in mobile applications where space is extremely limited.

The temperature sensor, based on a PT 1000 and corresponding evaluation electronics, allows the measurement of temperatures ranging from -25 °C to +125 °C.

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 integrated connectors as well as various cable solutions are available.

With a pressure resistance of 600 bar and excellent EMC characteristics, the HTT 1000 is ideal for use in harsh conditions.

### Application fields

Wide range of applications within the mechanical engineering sector, such as:

- Hydraulics
- Pneumatics
- Cooling power units
- Compressors
- and much more

The temperature sensor is mainly used in systems requiring continuous, intelligent monitoring.

## Technical data

Input data			
Measurement range	-25 .. +125 °C		
Probe length	mm	16	40
Probe diameter	mm	6.7	6.7
Pressure resistance	bar	600	600
Mechanical connection <sup>1)</sup>	G1/4 A ISO 1179-2		
Tightening torque, recommended	20 Nm		
Parts in contact with fluid <sup>1)</sup>	Mech. connection: stainless steel Seal: FKM		
Output data			
Output signal	Various signals, e.g.: 4 .. 20 mA, 0 .. 5 V, 1 .. 6 V, 0 .. 10 V Ratiometric 0.5 .. 4.5 V with U <sub>B</sub> =5 V DC, (10 .. 90 % U <sub>B</sub> ± 5 %)		
Accuracy (at room temperature)	≤ ± 1.0 % FS typ. ≤ ± 2.0 % FS max.		
Reaction time acc. to DIN EN 60751	t <sub>90</sub> : ~ 4 s t <sub>90</sub> : ~ 8 s		
Temperature drift	≤ ± 0.02 % FS / °C		
Environmental Conditions			
Operating temperature range <sup>2)</sup>	-40 .. +85 °C / -25 .. +85 °C		
Storage temperature range	-40 .. +100 °C		
Fluid temperature range <sup>2)</sup>	-40 .. +125 °C / -25 .. +125 °C		
CE mark	EN 61000-6-1 / 2 / 3 / 4		
Vibration resistance acc. to DIN EN 60068-2 at 0 .. 500 Hz	≤ 25 g		
Shock resistance acc. to DIN EN 60068-2-27	100 g / 6 ms / half sine		
Protection type acc. to DIN EN 60529 <sup>3)</sup>	IP 67, IP 69, IP 6K9K (depending on electr. connection) <sup>1)</sup>		
Other data			
Supply voltage	8 .. 36 V DC 2-conductor 8(12) .. 36 V DC 3-conductor 5 V ± 5 % for ratiometric output signal		
Residual ripple of supply voltage	≤ 5 %		
Current consumption	≤ 25 mA		
Weight (without Junction Box)	~ 50 g		

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

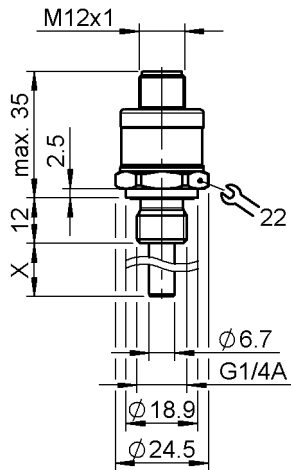
**FS (Full Scale)** = relative to complete measuring range

<sup>1)</sup> Others on request

<sup>2)</sup> In the standard up to -25 °C with FKM seal, -40 °C on request

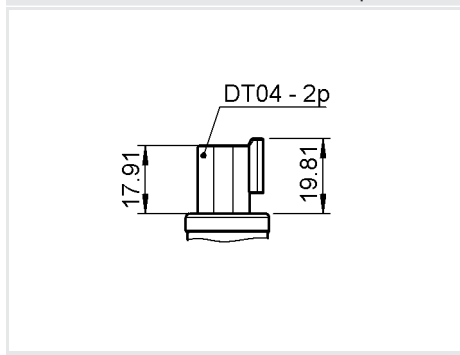
<sup>3)</sup> With mounted mating connector in corresponding protection type

## Dimensions

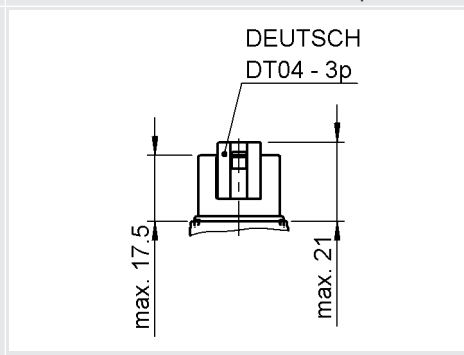


### Electrical Connection Variants, i.e.

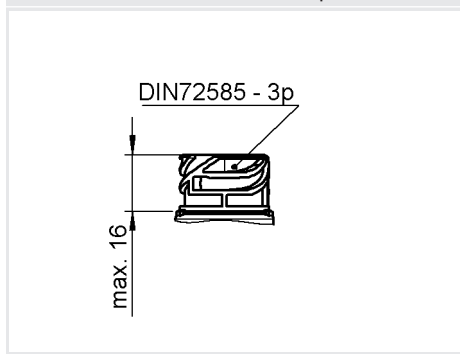
Device connector, Deutsch DT04 - 2 pole



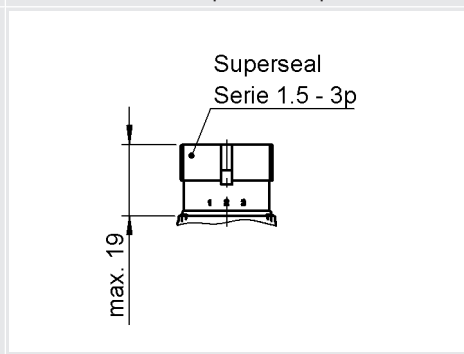
Device connector, Deutsch DT04 - 3 pole



Device connector, DIN72585 - 3 pole



Device connector, Superseal - 3 pole



## Order details OEM

Temperature transmitter HTT 1000 has been specially developed for OEM customers and is available for minimum order quantities of 500 pcs. per type.

For detailed specification, please do not hesitate to contact our HYDAC ELECTRONIC Sales department.

## Note

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

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