



## Electronic Temperature Transmitter HTT 8000

### 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 the medium are in stainless steel, and are welded together.

For integration into modern controls, standard analog 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 connections are available.

The pressure resistance up to 8700 psi and excellent EMC characteristics make the HTT 8000 ideal for use in harsh conditions.

### Special features:

- Accuracy  $\leq \pm 1.5\% \text{ FS B.F.S.L.}$
- Small, compact design
- Excellent EMC characteristics
- Long-term stability

### Technical data:

#### Input data

|   |  |                 |
|---|--|-----------------|
| Measuring principle                                   | Silicon semiconductor device   |                 |
| Measuring range <sup>1)</sup>                         | -13 .. +257 °F   |                 |
| Probe length  | 16 mm  |                 |
| Pressure resistance                                   | 8700 psi   |                 |
| Mechanical connection <sup>2)</sup><br>(Torque value) | SAE 6, 9/16-18 UNF 2A (15 lb-ft; 20 Nm)<br>G1/4 A DIN 3852 (15 lb-ft; 20 Nm) |                 |
| Parts in contact with medium                          | Mech. conn.:   | Stainless steel |
|   | Seal:  | FPM             |

#### Output data

|                                 |   |
|---------------------------------|---|
| Output signal                   | e.g.: 4 .. 20 mA, 0 .. 5 V, 1 .. 6 V, 0 .. 10 V,<br>ratiometric: 0.5 .. 4.5 V for $U_B = 5 \text{ V DC}$<br>(10 .. 90 % $U_B \pm 5\%$ ), etc. |
| Accuracy (at room temperature)  | $\leq \pm 1.0\% \text{ FS typ.}$<br>$\leq \pm 2.0\% \text{ FS max.}$  |
| Temperature drift (environment) | $\leq \pm 0.012\% \text{ FS / } ^\circ\text{F}$   |
| Rise time to DIN EN 60751       | $t_{50} : \sim 4 \text{ s}$<br>$t_{90} : \sim 8 \text{ s}$  |

#### Environmental conditions

|  |  |
|--|--|
| Ambient temperature range <sup>3)</sup>  | -40 .. +185 °F / -13 .. +185 °F                      |
| Storage temperature range  | -40 .. +212 °F                                       |
| Fluid temperature range <sup>3)</sup>  | -40 .. +257 °F / -13 .. +157 °F                      |
|  mark               | EN 61000-6-1 / 2 / 3 / 4                             |
|  mark <sup>4)</sup> | Certificate No. E318391                              |
| Vibration resistance to<br>DIN EN 60068-2-6 at 10 .. 500 Hz  | $\leq 25 \text{ g}$                                  |
| Shock resistance to<br>DIN EN 60068-2-27   | 100 g / 6 ms / half sine<br>500 g / 1 ms / half sine |
| Protection class to IEC 60529  | IP 67  |

#### Other data

|                                   |  |
|-----------------------------------|--|
| Electrical connection             | M12x1, 4 pole<br>AMP DIN 72585 code 1, 3 pole<br>Packard Metri Pack Series 150, 3 pole<br>Deutsch DT 04, 3 pole<br>AMP Superseal, 3 pole<br>AMP Junior Power Timer, 3 pole<br>Flying leads, 1 m cable length<br>EN175301-803 (DIN 43650), 3 pole. + PE |
| Supply voltage                    | 8 .. 30 V DC<br>12 .. 30 V DC for 0 .. 10 V,<br>5 V DC $\pm 5\%$ (ratiometric)   |
| for use acc. to UL spec.          | - limited energy - according to<br>9.3 UL 61010; Class 2;<br>UL 1310/1585; LPS UL 60950  |
| Current consumption               | $\leq 25 \text{ mA}$   |
| Residual ripple of supply voltage | $\leq 5\%$   |
| Weight                            | $\sim 145 \text{ g}$   |

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

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

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

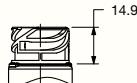
<sup>2)</sup> Other mechanical connections on request

<sup>3)</sup> -13 °F with FPM seal, -40 °F on request

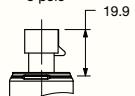
<sup>4)</sup> Environmental conditions according to 1.4.2 UL 61010-1; C22.2 No 61010-1

## Dimensions:

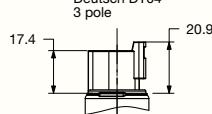
Male connection  
DIN 72585  
3 pole



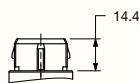
Male connection  
Metri-Pack  
series 150  
3 pole



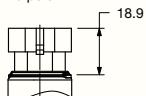
Male connection  
Deutsch DT04  
3 pole



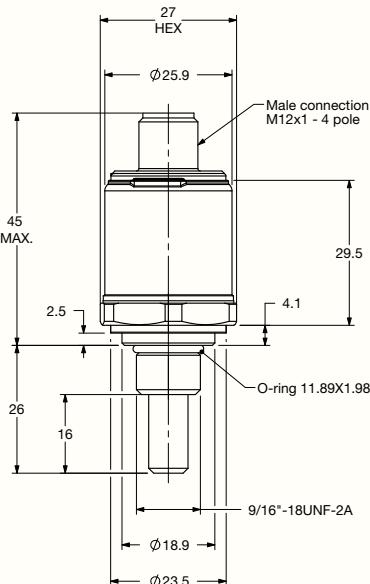
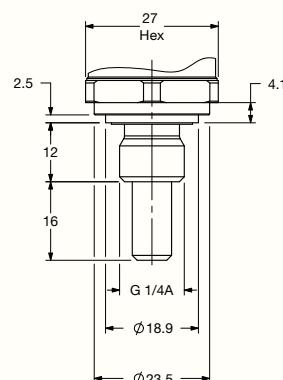
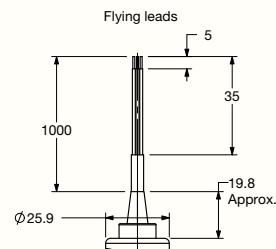
Male connection  
Junior Power Timer  
3 pole



Male connection  
Supraseal  
series 1.5  
3 pole



Male connection  
EN175301-803 (DIN 43650)  
3 pole



## Note:

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

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

Subject to technical modifications.

## Order details:

For precise specifications, please contact the Sales Department of HYDAC ELECTRONIC.

## HYDAC ELECTRONICS

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