

HYDAC INTERNATIONAL



Electronic Temperature Transmitter ETS 4000

Description:

The ETS 4000 is a robust electronic temperature transmitter which is particularly suited to measuring temperature in hydraulic applications in industry.

The temperature sensor, based on a PT 100 and corresponding evaluation electronics, is capable of measuring temperatures in the range -25 °C to +100 °C.

The sensor has analogue output signals of 4 .. 20 mA und 0 .. 10 V available as standard to enable integration into modern controls.

The pressure resistance up to 600 bar and excellent EMC characteristics make the ETS 4000 ideal for use in harsh conditions.

Special features:

- Ideal for industrial applications
- Robust design
- Excellent EMC characteristics
- Good long-term stability
- Standard protection class IP 65

Technical specifications:

Input data	
Measuring principle	PT 100 resistance thermometer
Measuring range	-25 .. +100 °C
Pressure resistance	600 bar
Overload pressure	900 bar
Mechanical connection	G1/4 A DIN 3852
Torque value	20 Nm
Parts in contact with medium	Mech. conn.: Stainless steel Seal: FPM
Output data	
Output signal, permitted load resistance	4 .. 20 mA, 2 conductor $R_{Lmax} = (U_B - 10 V) / 20 \text{ mA} [\text{k}\Omega]$ 0 .. 10 V, 3 conductor $R_{Lmin} = 2 \text{ k}\Omega$
Accuracy	$\leq \pm 0.8 \% \text{ FS}$
Rise time to DIN EN 60751	$t_{90}: 3 \text{ s}$ $t_{95}: 9 \text{ s}$
Environmental conditions	
Ambient temperature range	-30 .. +70 °C
Storage temperature range	-40 .. +100 °C
Fluid temperature range	-30 .. +100 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz	$\leq 25 \text{ g}$
Protection class to DIN 40050	IP 65
Other data	
Supply voltage 2 conductor	10 .. 30 V DC
Supply voltage 3 conductor	12 .. 30 V DC
Residual ripple of supply voltage	$\leq 5 \%$
Current consumption 3 conductor	approx. 25 mA
Weight	approx. 200 g

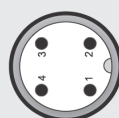
Note: Reverse polarity protection of the supply voltage, excess voltage, override, short circuit protection are provided.
FS (Full Scale) = relative to complete measuring range

Pin connections:



Binder series 714 M18

Pin	ETS 4144-A	ETS 4144-B
1	n.c.	+U _B
2	Signal+	Signal
3	Signal -	0 V
4	n.c.	n.c.



M12x1

Pin	ETS 4146-A	ETS 4146-B
1	Signal+	+U _B
2	n.c.	n.c.
3	Signal-	0 V
4	n.c.	Signal

Model code:

ETS 4 1 4 X - X - 000

Mechanical connection

4 = G1/4 A DIN 3852 (male)

Electrical connection

4 = 4 pole Binder series 714 M18, male
(connector not supplied)

6 = M12x1, 4 pole, male
(connector not supplied)

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Signal
A = 4
B = 20
C = 3
D = 2
E = 1
F = 1
G = 1
H = 1
I = 1
J = 1
K = 1
L = 1
M = 1
N = 1
O = 1
P = 1
Q = 1
R = 1
S = 1
T = 1
U = 1
V = 1
W = 1
X = 1
Y = 1
Z = 1

A = 4 .. 20 mA, 2 conductor
B = 0 .. 10 V, 3 conductor

Modification number

000 = Standard

Note:

Note. On instruments with a different modification number, please read the label for the technical amendment details supplied with the instrument.

Accessories:

Appropriate accessories, such as electrical connectors can be found in the Accessories section.

Dimensions:

