

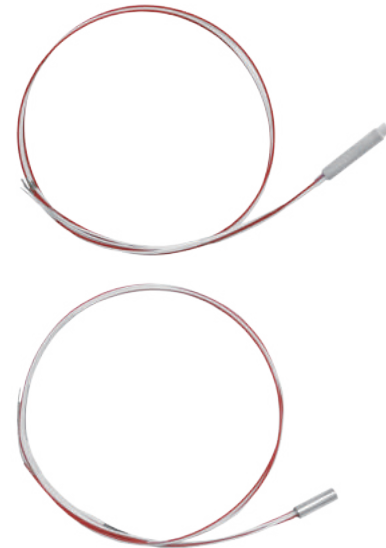
Coil End Temperature Detector and Bearing Temperature Sensor

Model : R840 series

Spec. sheet no. RD08-04

Service intended

Coil End Temperature Detector has its element covered in heat-resistance contraction tube and liquid silicone inside, which is engineered for fast response time and strong resistance to vibration. It is usually installed on motors or end part of generator stator. Bearing temperature sensor feature a sensing tip constructed of stainless steel. The bearing temperature sensor design also focuses the temperature sensitive portion of the sensor near the tip of the probe, providing improved accuracy in thermowells, bearings and other installations.



Standard features

Element

RTD : Pt 100 Ω at 0 °C(DIN) Film type

Body material

Coil End Temperature Detector : Teflon Bearing
Temperature Sensor : 304SS, 316SS, 316L SS

Body outer diameter and length

Coil End Temperature Detector : Min. 4 x Min. 25 mm
Bearing Temperature Sensor : Min. 3.2 x Min. 6.35 mm

Molding

Coil End Temperature Detector : Silicone filled
Bearing Temperature Sensor : Epoxy filled, Silicon filled

Standard

Explosive atmospheres.
Equipment - General requirements
IEC 60079-0 / EN 60079-0
Electrical apparatus for explosive gas atmospheres.
Increased safety "e"
IEC 60079-7 / EN 60079-7
Intrinsic safety "i"
IEC 60079-11 / EN 60079-11

Certificates

ATEX II 2G Ex e IIC Gb
IECEX Ex e IIC Gb
ATEX II 1G Ex ia IIC T6...T3 Ga
IECEX Ex ia IIC T6...T3 Ga
KCs Ex e IIC Gb
KCs Ex ia IIC T6...T3 Ga

Tolerances on temperature reading

R.T.D.

Class A : $\pm (0.15 + 0.002 |t|)$

Class B : $\pm (0.3 + 0.005 |t|)$

Service Temperature (Ex e)

$-40\text{ °C} \leq T_{\text{service}} \leq 180\text{ °C}$

Ambient Temperature

- Temperature class T6 : $-40\text{ °C} < T_{\text{amb}} < 75\text{ °C}$
 - (1) One Pt100
 $U_i = 30\text{ V}$, $I_i = 25\text{ mA}$, $P_i = 70\text{ mW}$
 - (2) Two Pt100
 $U_i = 30\text{ V}$, $I_i = 15\text{ mA}$ (each Pt100),
 $P_i = 50\text{ mW}$ (together)
- Temperature class T5 : $-40\text{ °C} < T_{\text{amb}} < 95\text{ °C}$
 - (1) One Pt100
 $U_i = 30\text{ V}$, $I_i = 55\text{ mA}$, $P_i = 630\text{ mW}$
 - (2) Two Pt100
 $U_i = 30\text{ V}$, $I_i = 45\text{ mA}$ (each Pt100),
 $P_i = 760\text{ mW}$ (together)
- Temperature class T4 : $-40\text{ °C} < T_{\text{amb}} < 130\text{ °C}$
 - (1) One Pt100
 $U_i = 30\text{ V}$, $I_i = 55\text{ mA}$, $P_i = 630\text{ mW}$
 - (2) Two Pt100
 $U_i = 30\text{ V}$, $I_i = 50\text{ mA}$ (each Pt100),
 $P_i = 1\text{ W}$ (together)
- Temperature class T3 : $-40\text{ °C} < T_{\text{amb}} < 180\text{ °C}$
 - (1) One Pt100
 $U_i = 30\text{ V}$, $I_i = 40\text{ mA}$, $P_i = 255\text{ mW}$
 - (2) Two Pt100
 $U_i = 30\text{ V}$, $I_i = 30\text{ mA}$ (each Pt100),
 $P_i = 260\text{ mW}$ (together)

WISE[®]

1. Base model

- R841** RTD single element
R842 RTD double element
R843 RTD single element with shield wire
R844 RTD double element with shield wire

2. Certificates

- A** ATEX II 2G Ex e IIC Gb
B IECEx Ex e IIC Gb
E KCs Ex e IIC Gb
Z None

3. Element

- Q** Pt 100 Ω (B), 3-wire
9 Pt 100 Ω (A), 3-wire
A Pt 100 Ω (B), 4-wire
C Pt 100 Ω (A), 4-wire
Z Other

4. Body material

- 0** Teflon (Coil End Temperature Detector)

5. Body outer diameter and length (mm)

- D0** 4(D) x 40(L) - Single element
F0 6(D) x 40(L) - Double element
Z0 Other
 Min. 4(D) x Min. 25(L) - Single element
 (Coil end temperature detector)

6. Lead wire length (m)

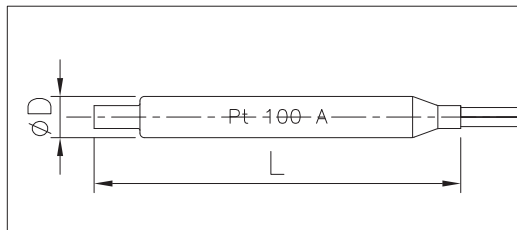
- L1** 1
L2 2
L3 3
L4 4
L5 5
L0 Other (Min. 300 mm)

7. Outer material of lead wire

- A** PVC
B Teflon (Standard)
Z Other

8. Option

- 0** None



1	2	3	4	5	6	7	8
R841	A	9	0	D0	L2	B	0

Sample
ordering code

1. Base model

- R845** RTD single element
R846 RTD double element
R847 RTD single element with shield wire
R848 RTD double element with shield wire

2. Certificates

- A** ATEX II 2G Ex e IIC Gb (Only Tip style E)
B IECEx Ex e IIC Gb (Only Tip style E)
C ATEX II 1G Ex ia IIC T6...T3 Ga
D IECEx Ex ia IIC T6...T3 Ga
E KCs Ex e IIC Gb (Only Tip Style E)
F KCs Ex ia IIC T6...T3 Ga
Z None

3. Element

- Q** Pt 100 Ω (B), 3-wire
9 Pt 100 Ω (A), 3-wire
A Pt 100 Ω (B), 4-wire (Only Ex e)
C Pt 100 Ω (A), 4-wire (Only Ex e)
Z Other

4. Body material

- 0** 304SS
1 316SS
2 316L SS

5. Product type

- D8** Tip style A (Ex ia)
E8 Tip style B (Ex ia)
F8 Tip style C (Ex ia)
G8 Tip style D (Ex ia)
H8 Tip style E (Ex e)
 Min. 3.2 (D) x Min. 7 (L)mm - Single element
 (Bearing Temperature sensor)

6. Lead wire length (m)

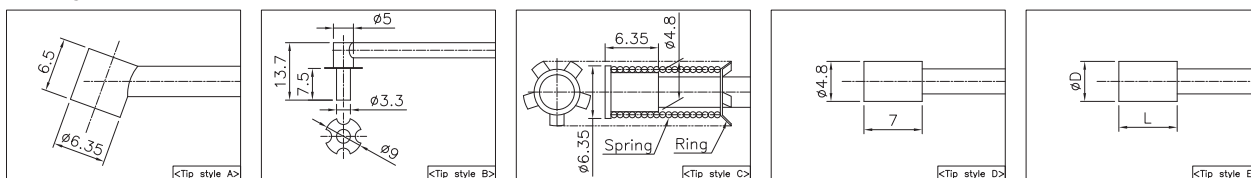
- L1** 1
L2 2
L3 3
L4 4
L5 5
L0 Other (Min. 300 mm)

7. Outer material of lead wire

- A** PVC (Ex e)
B Teflon (Standard) (Ex e)
C FEP (Ex ia)

8. Option

- 0** None

Tip style**Sample ordering code**

1	2	3	4	5	6	7	8
R845	A	9	0	D8	L2	B	B

Memo

