Pipe Clamp Temperature Sensor

- **Radius contact on brass housing to optimize thermal response**
- **Suitable for Fast time response applications**
- **Clamp provides a tight fit to the pipe without the need for additional fastening and is easily field mounted**
- **Supplied with cable and connector**
- **Designed to fit Ø 23.5mm pipe**
- **RoHS Compliant**

DESCRIPTION

This assembly consists of a thermistor mounted in a brass housing to provide the user with fast and accurate thermal response. The device is potted in a Delrin housing using epoxy resin.

FEATURES

- Suitable for fast time response applications
- Suitable for use in high humidity and high moisture conditions
- Custom tolerances available on request
- Available in a range of R/T curves
- Temperature range from -40°C to +105°C
- Supplied with cable and connector

APPLICATIONS

- Central heating systems
- Gas combi boilers
- Refrigeration units
- Solar collectors
- Domestic showers

PERFORMANCE SPECS

Parameters	Units	Value
Resistance @ +25°C	Ohms	10,000
Tolerance @ +25°C	%	± 2
Beta Value 25/85	K	3976
Tolerance on Beta Value	%	± 2
Time Response in application	Seconds	<3
Dissipation Constant	mW/°C	5
Insulation Resistance (Min. of 100Mohms for 1 Sec.)	Volts	500

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MECHANICAL DETAILS

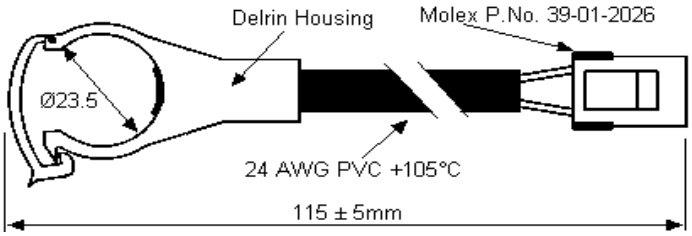

Figure 1: Pipe clamp temperature sensor

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms
-40ºC	336,108.9	-9ºC	52,385.5	22ºC	11,419.9	53ºC	3,215.8
-39ºC	314,563.2	-8ºC	49,638.0	23ºC	10,922.7	54ºC	3,098.0
-38ºC	294,533.7	-7ºC	47,050.8	24ºC	10,449.8	55ºC	2,985.2
-37ºC	275,905.0	-6ºC	44,613.6	25ºC	10,000.0	56ºC	2,877.0
-36ºC	258,570.8	-5ºC	42,316.9	26ºC	9,572.0	57ºC	2,773.3
-35ºC	242,433.7	-4ºC	40,151.8	27ºC	9,164.7	58ºC	2,673.9
-34ºC	227,404.0	-3ºC	38,110.1	28ºC	8,777.0	59ºC	2,578.6
-33ºC	213,399.4	-2ºC	36,184.1	29ºC	8,407.7	60ºC	2,487.1
-32ºC	200,344.0	-1ºC	34,366.7	30ºC	8,056.1	61ºC	2,399.4
-31ºC	188,167.9	0ºC	32,651.0	31ºC	7,721.0	62ºC	2,315.2
-30ºC	176,806.9	1ºC	31,030.9	32ºC	7,401.7	63ºC	2,234.4
-29ºC	166,201.8	2ºC	29,500.5	33ºC	7,097.3	64ºC	2,156.8
-28ºC	156,297.9	3ºC	28,054.4	34ºC	6,807.1	65ºC	2,082.3
-27ºC	147,044.8	4ºC	26,687.5	35ºC	6,530.3	66ºC	2,010.8
-26ºC	138,396.1	5ºC	25,395.1	36ºC	6,266.2	67ºC	1,942.1
-25ºC	130,308.9	6ºC	24,172.6	37ºC	6,014.3	68ºC	1,876.0
-24ºC	122,743.5	7ºC	23,015.9	38ºC	5,773.8	69ºC	1,812.6
-23ºC	115,663.2	8ºC	21,921.2	39ºC	5,544.2	70ºC	1,751.6
-22ºC	109,034.4	9ºC	20,884.8	40ºC	5,325.0	71ºC	1,693.0
-21ºC	102,825.5	10ºC	19,903.2	41ºC	5,115.6	72ºC	1,636.6
-20ºC	97,007.7	11ºC	18,973.4	42ºC	4,915.6	73ºC	1,582.4
-19ºC	91,554.1	12ºC	18,092.2	43ºC	4,724.4	74ºC	1,530.2
-18ºC	86,439.8	13ºC	17,256.9	44ºC	4,541.7	75ºC	1,480.1
-17ºC	81,642.0	14ºC	16,464.9	45ºC	4,367.0	76ºC	1,431.8
-16ºC	77,139.1	15ºC	15,713.7	46ºC	4,200.0	77ºC	1,385.3
-15ºC	72,911.6	16ºC	15,000.9	47ºC	4,040.2	78ºC	1,340.6
-14ºC	68,940.9	17ºC	14,324.5	48ºC	3,887.4	79ºC	1,297.5
-13ºC	65,210.1	18ºC	13,682.4	49ºC	3,741.1	80ºC	1,256.1
-12ºC	61,703.3	19ºC	13,072.6	50ºC	3,601.1	81ºC	1,216.1
-11ºC	58,405.9	20ºC	12,493.3	51ºC	3,467.0	82ºC	1,177.7
-10ºC	55,304.2	21ºC	11,943.0	52ºC	3,338.7	83ºC	1,140.6

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84ºC	1,104.9	90ºC	916.0	96ºC	763.6	102ºC	640.0
85ºC	1,070.5	91ºC	888.3	97ºC	741.2	103ºC	621.8
86ºC	1,037.3	92ºC	861.5	98ºC	719.6	104ºC	604.2
87ºC	1,005.3	93ºC	835.8	99ºC	698.6	105ºC	587.1
88ºC	974.4	94ºC	810.9	100ºC	678.4		
89ºC	944.7	95ºC	786.8	101ºC	658.9		

ORDERING INFORMATION

Part Number	Description	Ω @25ºC	MOQ
10K3D591	Pipe clamp temperature sensor	10,000	1000*

* For quantities less than Minimum Order Quantity – contact distribution