FTY Series

PTC thermistors

The temperature sensor is a kind of silicon temperature sensor, it have a positive temperature coefficient of resistance and suitable for use in measurement and control systems.

Tolerances of 0.5% or other special selections are available on request.

Typical Applications

- Temperature measurement
- Control system

Features

- High accuracy and reliability
- Long term stability
- Positive temperature coefficient
- Virtually linear characteristic

Technical Data

Item	Parameter
Sensing Element	silicon sensor element
Max working temperatures range	-40°C to +150°C
Max.Contanstant current @25°C	10mA
Rated working current @25°C	5mA
Rated Power: P_{DIS}	50mW
Thermal Time Constant	Within 60s in still liquid

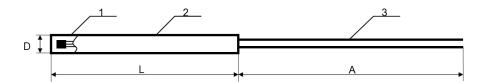KTY83-110 / 120/121/122/150/151 packed in DO34

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
R_{25}	Sensor Resistance	Isen(cont):1mA				
	KTY83-110		990	-	1010	Ω
	KTY83-120		980	-	1020	Ω
	KTY83-121		980	-	1000	Ω
	KTY83-122		1000	-	1020	Ω
	KTY83-150		950	-	1050	Ω
	KTY83-151		950	-	1000	Ω
T_C	Temperature coefficient		-	0.76	-	%/K
R100/R25	Resistance ratio	T_{amb}= 100 °C and 25 °C	1.65	1.67	1.69	
R-55/R25	Resistance ratio	T_{amb} = -55 °C and 25 °C	0.49	0.50	0.51	
τ	thermal time constant [1]	in still air	-	60	-	s
		in still liquid	-	38	-	s
		in flowing liquid	-	20	-	s
	rated temperature range		-40	-	+150	°C

Note:

(1) The thermal time constant is the time taken for the sensor to reach 63.2% of the total temperature difference.

Sensor Assembly

Item	Description	Remarks
1	Temperature Sensing Element	KTY83-110 / 120/121/122/150/151
2	House[1]	Various housing material and size available
3	cable	2 -4 wires, various wire material, gauge and length available

(1) Please consult the sales staff

Ordering code

$$\underline{FTK} \quad \underline{xx} \quad \underline{x} \quad \underline{x} \quad \underline{x} \quad \underline{x} \quad \underline{x} \quad \underline{x}$$
(1) (2) (3) (4) (5) (6) (7) (8)

(1) Focusens PTC series temperature sensor product.

(2) House shape.

Code	Type
1x	Epoxy package
2x	Round tube
3x	Naked resistance sensor without shell
4x	surface installation
5x	Multi-step type house
6x	Threaded fastening installation
7x	Flange shape
8x	Pipe clamp type

(3) Resistance value at 25°C, unit kΩ

(4) Resistance tolerance at 25°C. If tolerance is 20Ω showed by "2".

(5) Tolerance Direction.

Code	Type
0	Bilateral tolerance
1	Negative Tolerance
2	Positive Tolerance

(6) House size, please consult the sales staff.

(7) Wire type.

Code	Material	Code	Material
P	PVC	G	Fiber Glass
E	PTFE	T	Teflon

(8) Wire length, unit: cm.