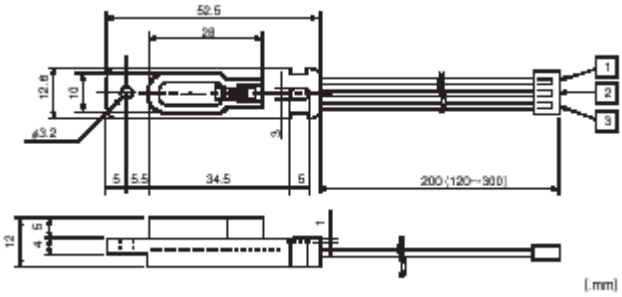
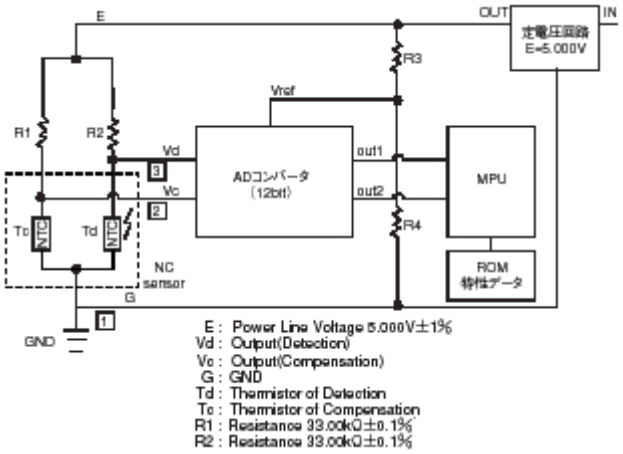
F-Type Non Contact Infrared Sensor

* High resistance to dust - very little deterioration in output is caused by dirt or toner particles
* High heat resistance - operating temperature range is from -10°C to 150°C
* Resistant to electrical noise - no special housing required in micro-wave applications
* Simple to use - using a thermistor sensor, the output signal output is very high and easy to process

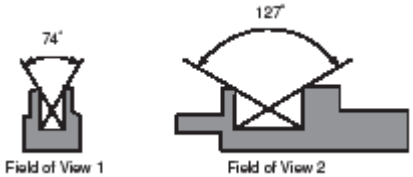
NC Sensor Dimensions



Sensing Circuit



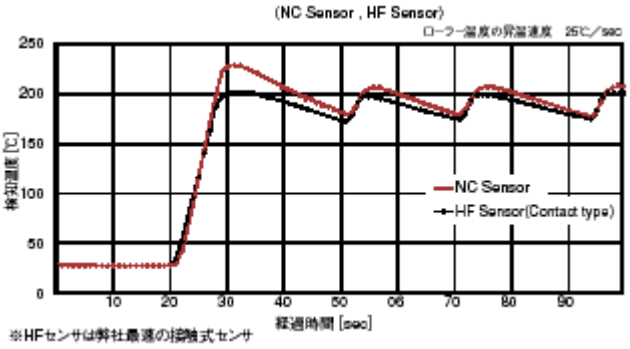
Specifications

Parameters	Performance	Conditions
Accuracy Temperature	180°C ±3°K	Blackbody Temperature 180°C Thermal Emissivity 0.96 Compensation Temperature 100°C Roller Size 40mm Test Distance 5mm Resistor Connected 33.0kΩ Power Line Voltage DC5.000V
Field of View Field of View 1 Field of View 2		
Operating Temperature Range	-10°C - 150°C	
Temperature Detection Range	-10°C - 260°C	

Rating for Thermistors

Parameters	Performance	Method
Rated Zero - Power Resistance R180 (kΩ)	7.0kΩ ±3%	Rated Zero - Power Resistance Value at 180°C
B Value B25/85 (K)	3370K ±1%	Determined by R25 and R85
Steady State Power Dissipasion	2mW	Maximum Power Rating at 25°C

Characteristics



Compensation Temperature [°C]	Compensation Output Vc [V]	Roller Temperature [°C]					
		100	120	140	160	180	200
		Detection output Vd [V]					
0	4.8380	4.8031	4.7915	4.7777	4.7613	4.7415	4.7180
10	4.7584	4.7146	4.6993	4.6812	4.6599	4.6347	4.6048
20	4.6505	4.5981	4.5786	4.5557	4.5289	4.4975	4.4607
30	4.5092	4.4494	4.4254	4.3974	4.3650	4.3275	4.2839
40	4.3310	4.2668	4.2382	4.2052	4.1673	4.1239	4.0740
50	4.1149	4.0503	4.0174	3.9799	3.9371	3.8886	3.8336
60	3.8629	3.8029	3.7665	3.7253	3.6787	3.6265	3.5680
70	3.5806	3.5305	3.4915	3.4478	3.3989	3.3446	3.2844
80	3.2769	3.2410	3.2008	3.1561	3.1065	3.0517	2.9916
90	2.9623	2.9437	2.9034	2.8589	2.8101	2.7567	2.6986
100	2.6480	2.6480	2.6088	2.5659	2.5191	2.4684	2.4137
110	2.3440		2.3250	2.2846	2.2409	2.1939	2.1436
120	2.0582		2.0582	2.0210	1.9810	1.9383	1.8930
130	1.7961			1.7789	1.7429	1.7047	1.6645
140	1.5603			1.5603	1.5283	1.4947	1.4594
150	1.3516				1.3373	1.3080	1.2774

Specifications are subject to change for improvement without prior notice.
AUGUST 2002