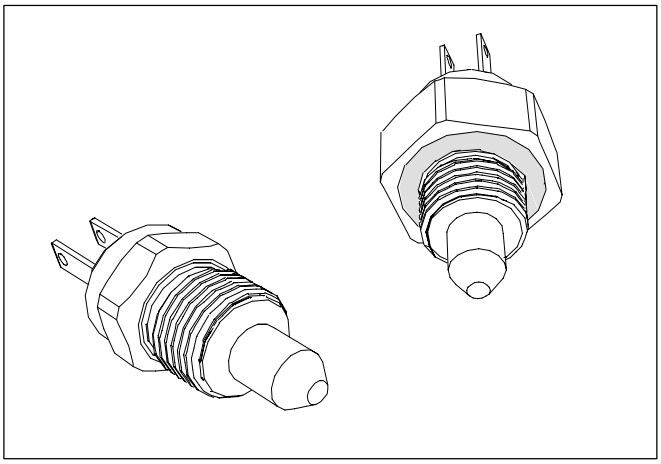
Honeywell

T7335 ”2000 series”

THERMISTOR TEMPERATURE SENSOR

INSTRUCTION SHEET



APPLICATION

The T7335 thermistor temperature sensor is for use with electronic controllers.

The T7335 thermistor temperature sensor provides an electrical temperature signal to the controller.

The T7335 thermistor temperature sensor is an direct immersion type sensor.

SPECIFICATIONS

Model
T7335A: direct immersion sensor with terminals.
T7335C: direct immersion sensor with terminals and sealing ring.

Dimensions
See fig. 1., 2. and 3.

Housing material
Dezincification resistant brass

Operating temperature range
−55 ... 125 °C

Maximum temperature
140 °C (short time peak due to temperature overshoot; <5 min above 125 °C).

Sensing element
NTC thermistor
Resistance at 100 °C: 690 Ω
For other values see table 1.

Accuracy
± 2 °C at 25 °C
± 1 °C at 100 °C

Thermal time constant (in water)
$\tau \leq 6$ s typical

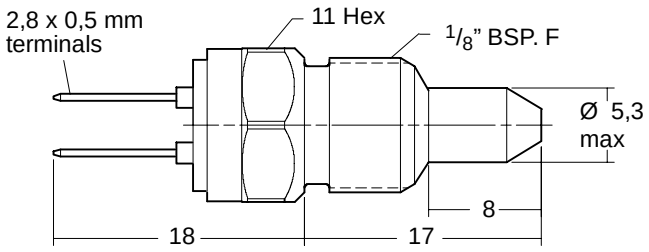


Fig. 1. T7335A dimensions

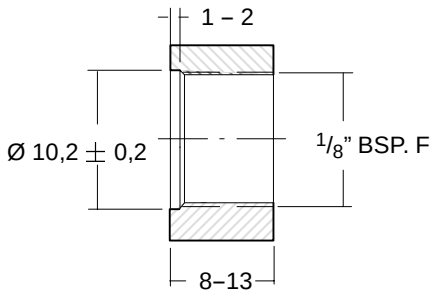


Fig. 2. Mouting hole dimensions for T7335A

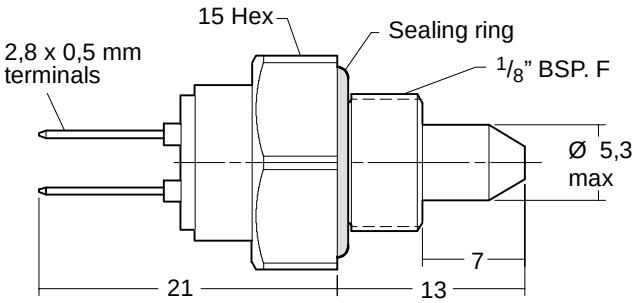


Fig. 3. T7335C dimensions

INSTALLATION

Location

The T7335 sensor should be located in a position where it can detect a representative water flow temperature.

Mounting

- Drain the water from the system.
- Mount the sensor into a threaded tapping and tighten (torque 8 ... 12 Nm). For suffix A use a mounting hole in accordance to fig. 1 (no sealing material necessary)
- Refill the system with water and test for tightness.

ELECTRICAL CONNECTIONS

CAUTION

Switch off power supply before making electrical connections.

Take care that wiring is in accordance with applicable electrical codes and local regulations.

Ensure that the connections are electrically and mechanically sound.

Wiring

- Use leadwire with good quality isolation which is suitable for the temperatures encountered.
- The sensor is provided with quick connect terminals which are suitable for 2,8 x 0,5 mm receptacles (e.g. series ”110” AMP fasteners).
- Connect sensor to controller.

Table 1. Relation between temperature in °C and nominal resistance in Ω

T (°C)	0	1	2	3	4	5	6	7	8	9
–60						977574	908043	843909	784720	730066
–50	679571	632894	589724	549774	512787	478525	446770	417324	390006	364649
–40	341101	319222	298884	279969	262370	245988	230730	216514	203262	190903
–30	179372	168609	158558	149168	140392	132185	124509	117325	110599	104299
–20	98397	92864	87676	82809	78241	73953	69925	66140	62583	59239
–10	56093	53132	50346	47722	45250	42921	40725	38654	36701	34858
0	33118	31475	29923	28456	27070	25760	24520	23347	22237	21186
10	20190	19247	18354	17507	16703	15942	15219	14533	13882	13263
20	12676	12118	11587	11083	10603	10147	9713	9300	8907	8532
30	8176	7836	7512	7203	6909	6628	6360	6105	5861	5628
40	5406	5193	4990	4796	4611	4434	4264	4102	3947	3799
50	3657	3521	3390	3266	3146	3032	2922	2817	2716	2619
60	2526	2437	2352	2270	2191	2116	2043	1973	1906	1842
70	1780	1720	1663	1608	1555	1504	1455	1408	1363	1319
80	1277	1236	1197	1160	1123	1088	1055	1022	991	961
90	931	903	876	850	825	800	777	754	732	711
100	690	670	651	633	615	597	581	564	549	534
110	519	505	491	478	465	452	440	428	417	406
120	395	385	375	365	347					

Example: at 25 °C the resistance is 10147 Ω, at 100 °C the resistance is 690 Ω.

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