

ETF-110/99C

Thin Floor Sensor with Flat Wire

Data Sheet

**Thin Floor Sensor**

The thin floor sensor with stiff wire is suitable for floor heating thermostats, and fits the following OJ Microline® products: GFCI Thermostats for USA & Canada incl. EGFPD.

Type:	ETF-110/99C
Dimensions:	Ø5 x 20 mm, 4.5 m cable
Sensor Element:	NTC 10 k +25 °C = 10 kΩ Time Constant. (τ): Max 15 sec. (75 °C → 25 °C in air) $R_{25} = 10 \text{ k}\Omega \pm 1 \%$ $B_{25/85} = 3,997 \text{ k} \pm 1 \%$
Material:	Cable Jacket: PVC Molding: PVC
Operating Temperature range:	-4/+158 °F (-20/+70 °C)
Applications:	Universal sensor

Installation Recommendations

It is strongly recommended to insert the cable and sensor into a non-conductive conduit embedded in the floor.

The end of the conduit must be sealed and the conduit placed as high as possible in the concrete layer.

Alternatively, the sensor can be embedded directly in the floor.

The floor sensor must be centered between loops of heating cable.

The sensor cable may be extended with additional two-core cable. Max sensor extension, 30 m.

The two wires from the sensor to the thermostat must be kept separate from high voltage wires/cables. Place the sensor cable in a separate

conduit or segregate it from power cables in some other way. Never use two vacant wires in a multi-core cable.

Shielded cable does not connect the shield to earth (PE).

Installation must comply with national and/or local electrical codes.

Regulations

OJ Electronics A/S hereby declares that the product is in conformity with the following directives of the European Parliament:

EMC – Electromagnetic Compatibility

RoHS – Restriction of the use of certain Hazardous Substances

WEEE – Waste Electrical and Electronic Equipment Directive

Applies standards

EN 60730-2-9

NTC 10 k Ω Resistance Table

Temperature		Resistance (Ω)	Temperature		Resistance (Ω)
$^{\circ}\text{F}$	$^{\circ}\text{C}$		$^{\circ}\text{F}$	$^{\circ}\text{C}$	
-4.0	-20	97.083	+71.6	+22	11.421
+14.0	-10	55.329	+73.4	+23	10.924
+32.0	0	32.650	+75.2	+24	10.448
+41.0	+5	25.391	+77.0	+25	10.000
+50.0	+10	19.902	+78.8	+26	9.574
+51.8	+11	18.970	+80.6	+27	9.165
+53.6	+12	18.091	+82.4	+28	8.779
+55.4	+13	17.256	+84.2	+29	8.406
+57.2	+14	16.461	+86.0	+30	8.055
+59.0	+15	15.710	+95.0	+35	6.532
+60.8	+16	15.000	+104.0	+40	5.324
+62.6	+17	14.325	+113.0	+45	4.368
+64.4	+18	13.681	+122.0	+50	3.602
+66.2	+19	13.073	+131.0	+55	2.986
+68.0	+20	12.491	+140.0	+60	2.488
+69.8	+21	11.940	+158.0	+70	1.752