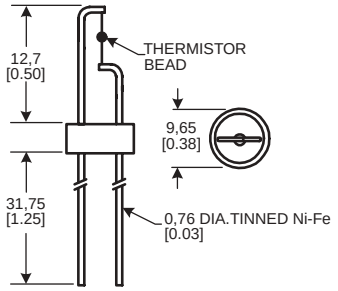
E-I Matched Bead Thermistors

E-I Matched Bead thermistors are designed for use in gas chromatography and other thermal conductivity gas analysis instruments. Each bead is mounted to a special hermetically-sealed header. For maximum sensitivity, the higher resistance units should be used at higher ambient temperatures.

Operating temperature range: -60 °C to 300 °C [-76 °F to 572 °F]
Encapsulation: Glass hermetic seal
Lead material: Tinned Ni-Fe



OPTIONS

Helium-matched assembly

Characteristics	115-802EDJ-801
Resistance at 25 °C [77 °F]	8000 Ohm ±25 %
Resistance at 0 °C [32 °F] (approx.)	23,200 Ohm
Resistance at 50 °C [122 °F] (approx.)	3,200 Ohm
Ratio of resisistance 0 °C/50 °C	6.56 to 7.99
Beta nominal at 25 °C	3495 K
Temperature coefficient at 25 °C	-3.9 %/°C
Time constant (TC) still air max.	1 s
Dissipation constant (DC) still air min.	0.16 mW/°C
DC helium	0.5 mW/°C
Power rating (air)	45 mW
Power rating (helium)	140 mW
Max. ambient temperature	250 °C [482 °F]
Max. operating temperature (including self-heat)	300 °C [572 °F]
Resisistance at max. operating temperature	25 Ohm

2 % resistance at 25 °C [77 °F]

DESCRIPTION	REFERENCE
Two 111-802EAJ-H01 each mounted on a glass hermetic seal and matched in helium to within 30 mV, 25 mV and 20 mV of each other at 2 mA, 5 mA, 10 mA and 15 mA.	115-802EDJ-801

Air-matched assembly

Characteristics	115-202CDK-801
Resistance at 25 °C [77 °F]	2000 Ohm ±25 %
Resistance at 0 °C [32 °F] (approx.)	4900 Ohm
Resistance at 50 °C [122 °F] (approx.)	890 Ohm
Ratio of resistance 0 °C/50 °C	4.95 to 6.95
Beta nominal at 25 °C	3000 K
Temperature coefficient at 25 °C	-3.4 %/°C
Time constant (TC) still air max.	1 s
Dissipation constant (DC) still air min.	0.16 mW/°C
DC helium	0.5 mW/°C
Power rating (air)	15 mW
Power rating (helium)	60 mW
Max. ambient temperature	100 °C [212 °F]
Max. operating temperature (including self-heat)	150 °C [302 °F]
Resisistance at max. operating temperature	88 Ohm

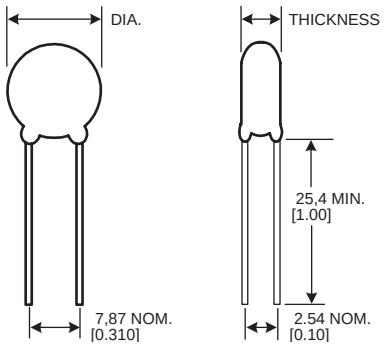
5 % resistance at 25 °C [77 °F]

DESCRIPTION	REFERENCE
Two 111-202CAK-H01 each mounted on a glass hermetic seal and matched in air to within 15 mV of each other at 5 mA, 10 mA and 15 mA.	115-202CDK-801

ICL Inrush Current Limiter Thermistors

ICL Inrush Current Limiter thermistors are a cost-effective way of limiting the inrush of current that may damage components in a switching power supply and in other power devices when the equipment is turned on. These devices have solderable leads and are PC board mountable.

Operating temperature range: -40 °C to 185 °C [-40 °F to 365 °F]
Maximum steady state current: 1 A to 30 A
Encapsulation: Black silicone
Lead material: Tinned copper
Dissipation constant (DC): 12.7 mW/°C to 23 mW/°C
Time constant (TC): 32 s to 93 s
Resistance range at 25 °C [77 °F]: 0.5 Ohm to 220 Ohm ±20 %
Resistance at max. steady state current: 0.01 Ohm to 2.34 Ohm
Max. diameter 9,5 mm [0.374 in] to 32.0 mm [1.260 in]
Max. thickness 5,0 mm [0.204 in] to 8.0 mm [0.327 in]
Lead diameter 0,8 mm [0.032 in] to 1.0 mm [0.040 in]



OHM	MAX. STEADY STATE CURRENT (A)	RESISTANCE AT MAX. STEADY STATE CURRENT (OHM)	REFERENCE
0.5	30	0.01	ICL32OR530-01
1	20	0.02	ICL221R020-01
1	30	0.02	ICL321R030-01
2	18	0.03	ICL222R018-01
2.5	8	0.07	ICL152R508-01
2.5	8	0.06	ICL122R508-01
2.5	15	0.03	ICL222R515-01
5	6	0.1	ICL155R006-01
5	7	0.07	ICL155R007-01
10	2	0.3	ICL1010002-01
10	3.2	0.18	ICL1010004-01
10	5	0.13	ICL1210005-01
10	6	0.15	ICL1510006-01
10	8	0.1	ICL2210008-01
12	4	0.26	ICL1512004-01
16	4	0.27	ICL1516004-01
20	2	0.5	ICL1220002-01
40	2	0.6	ICL1240002-01
50	2	0.72	ICL1250002-01
80	2.5	0.75	ICL1580003-01
120	3	0.9	ICL2212103-01
220	2	0.8	ICL1522102-01