

Expansion Joints

Expansion Joints per NEC

NEC 2011 Article 355.44 Expansion Fittings. "Expansion fittings for RTRC shall be provided to compensate for thermal expansion and contraction where the length change, in accordance with Tables 355.44, is expected to be 6 mm (1/4 in) or greater in a straight run between securely mounted items such as boxes, cabinets, elbows, or other conduit terminations."

Table 355.44
Expansion Characteristics of Reinforced Thermosetting Resin Conduit (RTRC)
 Coefficient of Thermal Expansion = 1.2 x 10⁻⁵ in/in/°F (2.2 x 10⁻⁵ m/m/°C)

TEMPERATURE CHANGE (°F)	LENGTH CHANGE OF RTRC CONDUIT (IN/100 FT)	TEMPERATURE CHANGE (°F)	LENGTH CHANGE OF RTRC CONDUIT (IN/100 FT)	TEMPERATURE CHANGE (°C)	LENGTH CHANGE OF RTRC CONDUIT (MM/M)
5°	0.09"	105°	1.89"	5°	0.14
10°	0.18"	110°	1.98"	10°	0.27
15°	0.27"	115°	2.07"	15°	0.41
20°	0.36"	120°	2.16"	20°	0.54
25°	0.45"	125°	2.25"	25°	0.68
30°	0.54"	130°	2.34"	30°	0.81
35°	0.63"	135°	2.43"	35°	0.95
40°	0.72"	140°	2.52"	40°	1.08
45°	0.81"	145°	2.61"	45°	1.22
50°	0.90"	150°	2.70"	50°	1.35
55°	0.99"	155°	2.79"	55°	1.49
60°	1.08"	160°	2.88"	60°	1.62
65°	1.17"	165°	2.97"	65°	1.76
70°	1.26"	170°	3.06"	70°	1.89
75°	1.35"	175°	3.15"	75°	2.03
80°	1.44"	180°	3.24"	80°	2.16
85°	1.53"	185°	3.33"	85°	2.30
90°	1.62"	190°	3.42"	90°	2.43
95°	1.71"	195°	3.51"	95°	2.57
100°	1.80"	200°	3.60"	100°	2.70

Straight Socket Connection (with adhesive) can be used for various applications:

- Below Ground, Direct Buried, Water Tight Joint
- Below Ground, Concrete Encased
- Under Bridge and Above Ground installations