Recommended air clearance (Heat-shrink and cold-applied products) Phase/phase and phase/ground

The stress control system provides a linear voltage distribution from the lug at high voltage to the shield termination at ground potential. If the termination is installed too close to another phase termination or grounded metal, the electric stress in the air gap will rise to a level where discharge or flashover may occur. The table and diagrams below indicate the minimum clearances needed between various termination configurations. These clearances are based on IEEE Basic Impulse Levels (BIL).







Figure 3.



Figure 1. Phase to ground

Figure 2. Same phase

Between phases

Figure 4. Between phases

Minimum Clearance¹ (inches/millimeters)

BIL (kV)	а	b	C ²	d
95	6.5 (160)	3.5 (90)	1.2 (30)	0.8 (20)
110	7.0 (175)	4.0 (100)	1.4 (35)	0.9 (23)
125	9.0 (225)	6.0 (150)	1.6 (40)	1.0 (25)
150	9.0 (225)	6.0 (150)	1.6 (40)	1.0 (25)
200	13.0 (325)	9.0 (225)	2.0 (50)	1.4 (35)

¹ Values are based on normal operating conditions. Humid or poorly ventilated environments may require additional air clearance.

² For skirted, outdoor terminations, the value for c is equal to the distance from the edge of one skirt to another or from a skirt to ground.

Recommended cable bending radius

Tyco Electronics' terminations are as flexible as the original cable. A cable end should not be bent to a radius less than that recommended by the manufacturer.

D = Cable jacket O.D.

R = 10 x D–Minimum bending radius (consult cable manufacturer's values and check them against Tyco Electronics'. Select the higher of the two values. Preheat cable to approximately 80°C before bending.)



Figure 5. Bending radius