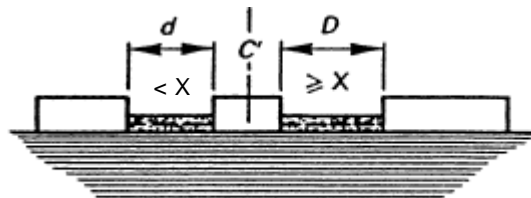


CTL DECISION SHEET (DSH)

Standard(s) (incl. year)	Subclause(s)	Tracking No.	Year
IEC 60664-1:2007	6.2	DSH 2160	2020
Category			
General			
Subject	Keywords	Developed by	To be approved
Creepage distance less than X	<ul style="list-style-type: none"> - Creepage distance - Zero - Sum 	WG 2	2020 CTL Plenary Meeting

Question

A PCB sample is tested according to sub-clause 6.2 of IEC 60664-1:2007. How to measure creepage distances when the path is split by floating conductive parts when $d < X$ and $D \geq X$?



NOTE: $d < X$, $D \geq X$, C is conductive floating part
Figure test PCB sample

Different interpretations of total creepage distance are as follows:

Opinion 1: The creepage distance is measured as shown in IEC 60664-1:2007 example 11. Creepage distance is the distance = $d + D$.

Opinion 2: Since the d is less than X , the d is considered as zero. Creepage distance is the distance = D .

Which opinion is correct?

Decision

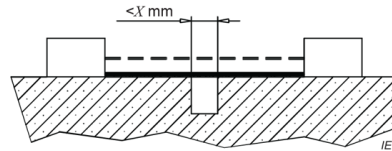
Opinion 1 is correct. Creepage distance is the distance = $d + D$.

Explanatory notes

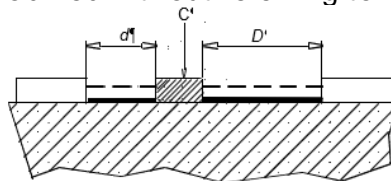
TC109 support the option 1 with the following agreement to the next edition of IEC 60664-1:

A first bullet is added in 6.8 as follow:

- Where the distance across a groove is less than the specified width X (see Table 1), the **creepage distance** is measured directly across the groove and do not take into account the contour of the groove (see Example 1).



- The example 11 is modified without referring to X as:



- On the same topic, the example 3 is improve as:
In the text it is explained the V shape has a width larger than X and when this shape has its value equal to X we make the measurement.
Clearance is the "line of sight" distance. **Creepage** path follows the contour of the groove but covers the bottom of the groove by an X mm insulating link.

