

# ENGLISH AND METRIC SYSTEM OF MEASUREMENT

A system of measurement is a set of units which can be used to specify anything that can be measured.

These are common units of measurement used in making layout and installation of electrical materials:

## A. Linear measures

1. **English system** provides the creative way on how people can measure by themselves. For example, people measure shorter distance on the ground with their feet. They measure long distances by their palms which is equal to a yard.

**Inch** - a unit of linear measure equal to one twelfth of a foot

**Foot** - a unit of linear measure equal to 12 inches

**Yard** - a unit of linear measure equal to 3 feet

**Miles** - a unit of linear measure equal to 1,760 yards

2. **Metric system** is a decimalized system of measurement. It exists in several variations with different choices of base units. Metric units are widely used around the world for personal, commercial, and scientific purpose.

**Millimeter** - one-thousandth of a meter

**Centimeter** - hundredth of a meter

**Decimeter** – tenth of a meter

**Meter** - first introduced as a unit of length in the metric system.

## **B. English units and each equivalent**

12 inches = 1 foot(ft)

3 feet = 1 yard (yd)

1 yard = 36 inches

1 miles = 1,760 yard

## **C. Metric units and each equivalent**

10millimeter (mm) = 1centimeter (cm)

10centimeter = 1decimeter(dm)

10 decimeter = 1meter

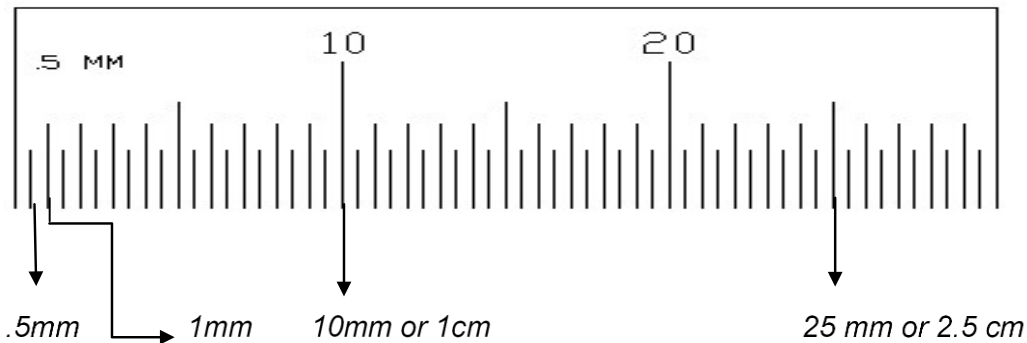
## **D. English to metric equivalent**

1 inch = 2.54 cm

1 foot = 30.48 cm

1 yard = 91.44 cm

# E. The centimeter graduation

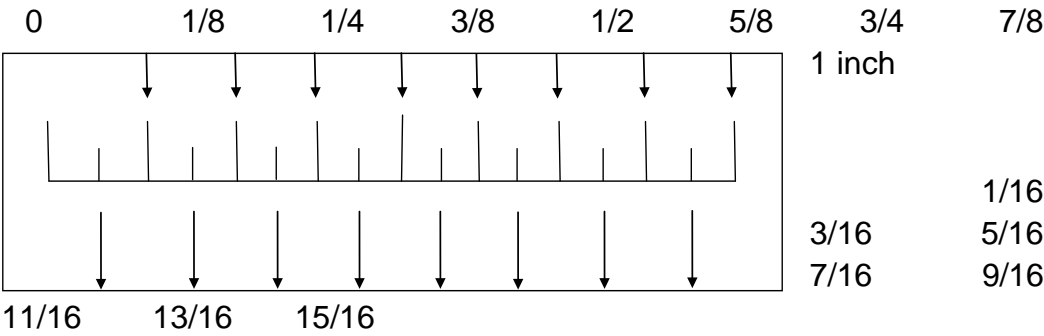


The graduation shows that every digit is .5mm  
How to read the cm graduation:

- 1. First graduation is .5 mm
- 2. Second graduation is 1mm
- 3. Third graduation is 1.5mm
- 4. Fourth graduation is 2mm

**Note:** If the graduation reaches 10mm, it is equivalent to 1cm.

# F. The inch graduation



How to read the inch graduation:

1. First graduation is  $\frac{1}{16}$
2. Second graduation is 18
3. Third graduation is  $\frac{3}{16}$
4. Fourth graduation is  $\frac{1}{4}$ , then follow the given scale above.