

## Fluke accessories are now Category IV safety rated

### Fluke's dual rated test leads

The test leads and probes listed below are all rated 1000 V CAT III and 600 V CAT IV 10 A, making them appropriate for use in most industrial and electrical applications

#### TL75 Hard Point Test Lead Set

- General-purpose replacement test lead for most Fluke DMMs and Clamps

Part No. 855705 cULus

#### TL24 Silicone Insulated Test Leads

- 1.5 meter long leads have a shrouded, right-angle connector on one end and a shrouded straight connector on the other

Part No. 874750 cULus

#### TL21A Test Lead Extension Kit

- 1.5 meter long silicone insulated test leads with shrouded, male connectors on both ends

Part No. 1278068 cULus

#### TL22 Silicone Insulated Test Leads

- 1.5 meter long leads have shrouded, right-angle connectors on both ends

Part No. 865527 cULus

#### TL71 Premium DMM Test Lead Set

- Recommended for  $\mu\text{V}$  measurements
- Distinctive comfort grip probes

Part No. 1274382 cULus

#### TL74 Lantern Tip Test Lead Set

- Banana-style, spring contact tips are designed for probing European electrical sockets

Part No. 650876 cULus

#### AC72 Probe Tip Alligator Clips

- Alligator clip extensions for TL71 and TL75 test probes

Part No. 1670095 cULus

#### TP1 Slim Reach™ Test Probes

- The flat blade ideal for electrical wall sockets

Part No. 650887 cULus

#### TP2 Slim Reach™ Test Probes

- 2 mm diameter tip for precise electronic probing

Part No. 650892 cULus

#### TP4 Slim Reach™ Test Probes

- Versatile 4 mm test probe with 2 mm tip for precise probing

Part No. 650895 cULus

#### TP38 Insulated Tip Test Probes

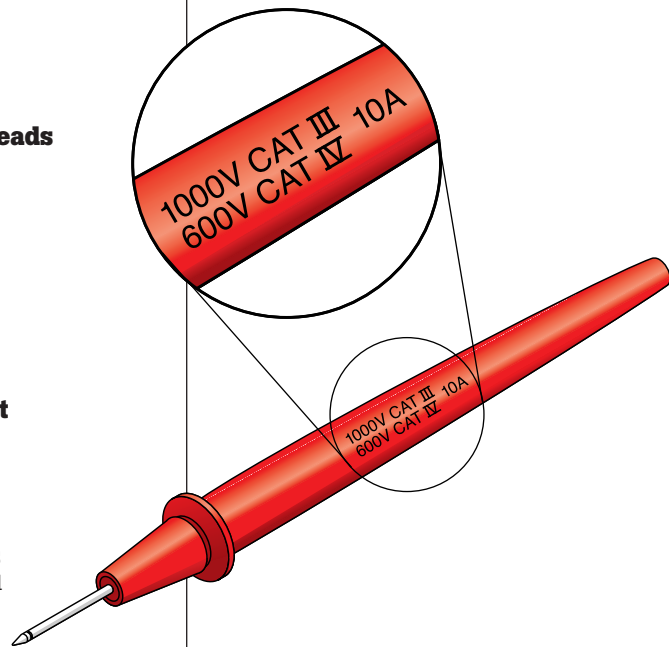
- Insulated to 4 mm from end to meet UK safety regulations

Part No. 1541636

### Your meter is only as safe as your accessories

Many Fluke test leads are now dual rated 1000 V CAT III and 600 V CAT IV to assure that they adhere to the same safety standards as Fluke's meters. Check your accessories. Be sure their rating meets or exceeds the rating of your multimeter.

**Now  
Dual Rated**  
1000 V CAT III  
600 V CAT IV



Fluke's 170 Series and 180 Series digital multimeters are dual rated 1000 V CAT III and 600 V CAT IV, making them safe to use in more environments.

# Fluke: where safety is built-in

## New international safety standards for digital multimeters

The increased occurrence and levels of transient overvoltages in today's power systems have given rise to more stringent safety standards for electrical measurement equipment. Transients that ride on top of power sources (mains, feeder or branch circuits) can trigger a sequence of events that may lead to serious injury. Test equipment must be designed to protect people working in this high-voltage, high-current environment.

The International Electrotechnical Commission, a developer of international general standards IEC-1010-1, specifies overvoltage categories for an electrical distribution system based on the distance from the power source and the natural damping of transient energy as it travels through the system. As you move closer to the power source (higher category number), a higher level of user protection is required.

- Category IV, called the primary supply level, refers to the overhead or underground utility service to an installation.
- Category III, called the distribution level, refers to mains voltage feeder or branch circuits.
- CAT III circuits are typically separated from the utility service by at least a single level of transformer isolation. The equipment consists of fixed installations. Category II refers to the local level, to appliances, portable equipment, etc.
- Category I refers to the signal level, to the telecommunication, electronic equipment, etc.

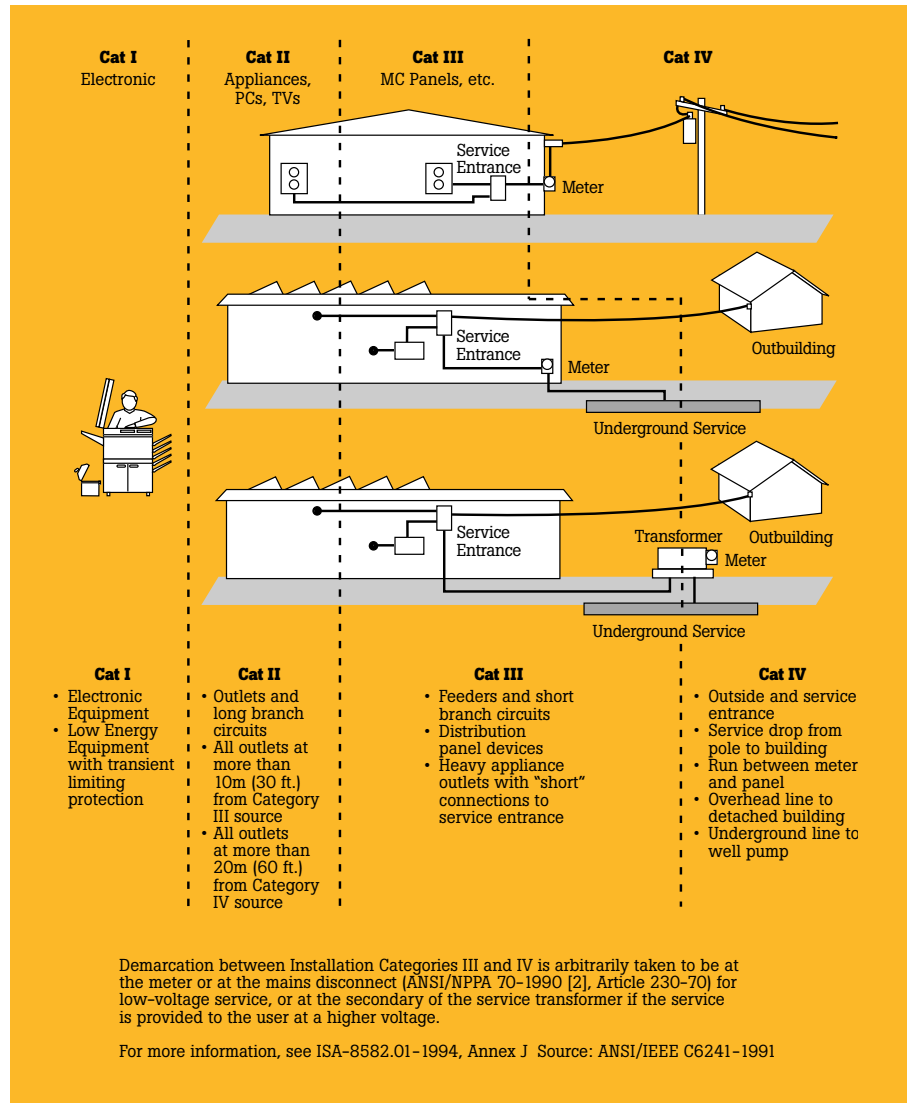
Within each installation category there are voltage classifications. It is the combination of installation category and voltage classification which determines the maximum transient withstand capability of the instrument.

### Instruments are tested as follows:

CAT II	600 V	4000 V peak impulse transient 12 Ohm source
CAT II	1000 V	6000 V peak impulse transient 12 Ohm source
CAT III	600 V	6000 V peak impulse transient 2 Ohm source
CAT III	1000 V	8000 V peak impulse transient 2 Ohm source
CAT IV	600 V	8000 V peak impulse transient 2 Ohm source

To learn more about multimeter safety, see the **ABCs of DMM Safety** application note at [www.fluke.com](http://www.fluke.com)

Look for these certifications on Fluke meters:



**Fluke. Keeping your world up and running.**

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