

Circuit Integrity Under Fire Conditions Apparatus

(BS 6387; IEC 60331; EN 50200)

firetesting
technology



The apparatus is supplied with ability to assess:

Resistance to fire alone
(BS 6387 Protocol C)

Resistance to fire with Water
(BS 6387 Protocol W)

Resistance to fire with Mechanical Shock
(BS 6387 Protocol Z)

Resistance to fire with Mechanical Shock
IEC 60331-1

Resistance to fire with Mechanical Shock
IEC 60331-2

Resistance to fire with Mechanical Shock
IEC 60331-3

Resistance to Fire Alone
IEC 60331-11

Shock Test with Optional Water Add-on
IEC 50200

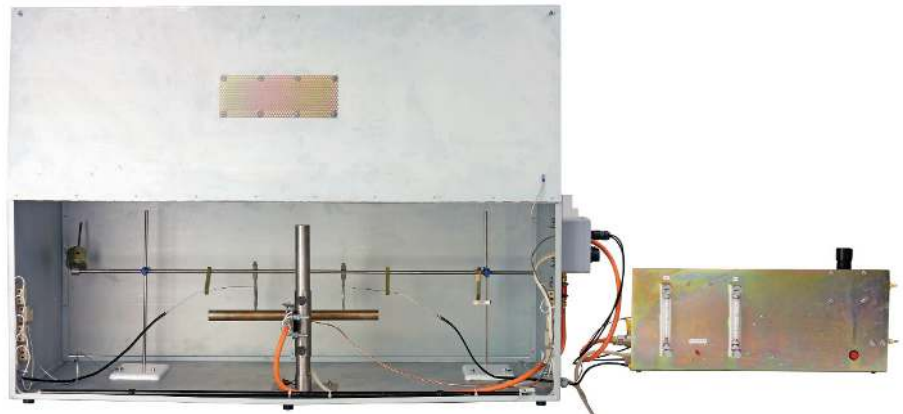
1. Resistance To Fire Alone Testing (as prescribed in BS 6387 Protocol C / IEC 60331-11)

The cable in question is mounted horizontally into a chamber, constructed of Zintec, with up to 5 ring clamps. It is then exposed to a 610mm long tube-type gas burner.

Electrical continuity is checked throughout a 3-hour exposure to the gas burner set at an appropriate temperature.



Ring Clamps for Resistance to Fire Alone Testing



Resistance to Fire Alone Testing

2. Resistance to Fire with Water (as prescribed in BS 6387 Protocol W)

The cable is held with a metal support and the assembly is housed in an electrically earthed test frame which is held in a large, watertight, Stainless Steel trough.

The frame is also fitted with gas burners, a water sprinkler head and means to power and test the continuity of the cables.

A 400mm section of the cable in question is exposed to flames at 650°C, produced by a gas burner, for a period of 15 minutes.

The water spray is then switched on, in order to comply with the standard BS 6387 (Protocol W), the cable must maintain electrical integrity whilst both water and flames impinge on the cable for a further 15 minutes.



Resistance to Fire with Water (Protocol W)

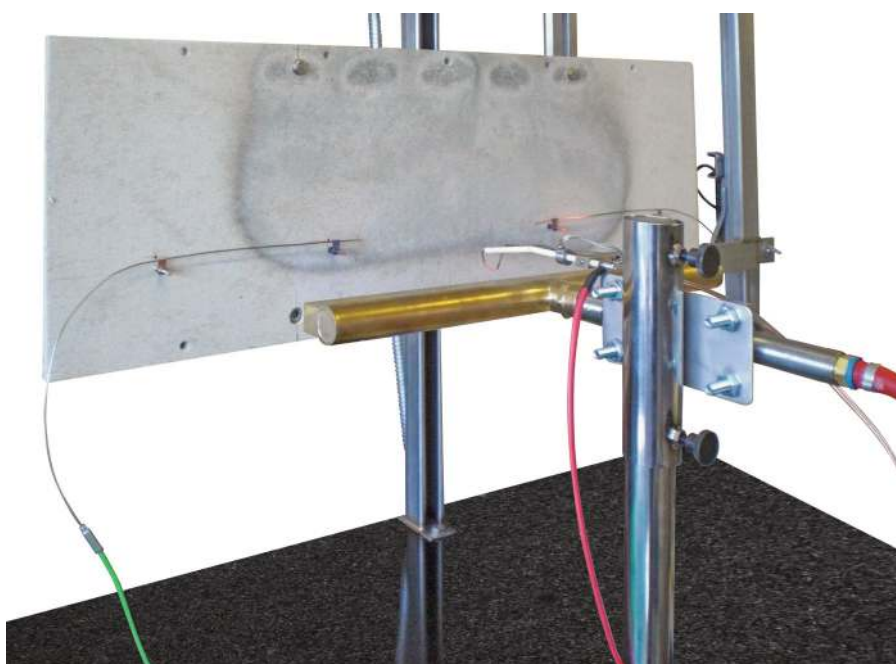
3. Resistance to Fire with Mechanical Shock (as prescribed in BS 6387 Protocol Z / IEC 60331 parts 1, 2 and 3 / EN 50200)

The cable is mounted on a vertical framework or board made from non-combustible material, depending on the standard.

This vertical framework / board is mounted onto rubber bushes such that it will be hit by a bar which is

driven to fall on to the top edge of the framework / board at regular intervals during the test.

The powered cable must maintain electrical continuity when exposed to the flames from the burner and impact from the falling bar.



Resistance to Fire with Mechanical Shock

Unrivalled Experience in Design and Manufacturing

FTT's site in East Grinstead, is home to the largest group of fire scientists and instrumentation design engineers working on fire testing instrumentation, and is at the heart of our design and manufacturing. For almost 30 years FTT has provided the highest quality instruments and service for fire testing and research professionals worldwide, directly and through its extensive global sales and support network.



Quality

- World-class manufacturing in accordance with multiple international and national standards, including: EN, ISO & ASTM
- ISO 14001, ISO 9001 certified

Integrity

- A dedicated team passionate about fire testing instrumentation and continuous product improvement
- Delivering reliable, robust and easy-to-use instruments for the past 30 years

Excellence

- A world-class team made up of qualified fire scientists, mechanical, electrical and electronic fire instrument design engineers and production, installation and maintenance engineers

Global

- World-wide distribution network for global sales, installations, training, maintenance and technical support
- Leading global supplier of the Cone Calorimeter, Large Scale Calorimeter, NBS Smoke Chamber and Oxygen Index