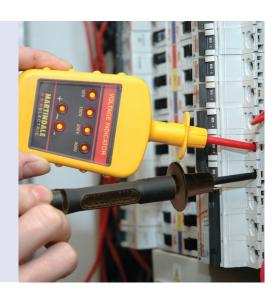


## Voltage indicator safety standards

BS EN 61243-3 changes and implications

The standard relating to 2 pole voltage indicators is BS EN 61243-3. All voltage indicators on the British & European market should comply. In May 2013 BS EN 61243-3:2010 came into force requiring a different approach to limit the current in the event of cable damage. All later editions have the same requirement.



The Martindale VI-13700 has been widely used for many years and as part of its design has always included a fuse in the probe to limit the current in the event of damage to the cable. In addition, the Martindale VI Series use heavy duty two layer double insulated cable with a white inner to give a clear indication of damage.

There is a technical argument that fuses in a voltage indicator can cause unreliability and any problem with the fuse could cause the voltage indicator not to indicate a hazardous voltage. In reality this risk is very small and correct proving procedures will identify the problem. None the less, because of this potential problem, BS EN 61243-3 prohibits the use of fuses in 2 pole voltage indicators.

In order to fully comply with BS EN 61243-3:2010 Martindale released an updated version of VI-13700/2 with a model number of VI-13800. This new model has the fuse replaced by a high wattage resistor in the probe that will limit the current in the event of damage to the cable. This protection is superior to the protection offered by the fuse as the current that can flow under fault conditions is considerably less. The vast majority of competitor products have no protection built into the probe.

In June 2015 a revised edition of HSE Guidance note GS38 was published which requires voltage indicators to be built to the new standard BS EN 61242-3. Edition 4 of GS38 also includes other useful advice on how to work safely through the proper selection and maintenance of test equipment.

Apart from the fuse/resistor in the probe everything else about the specification of VI-13700/2 & VI-13800 is identical, including the contrasting inner cable sheath to quickly identify cable damage. In order to distinguish VI-13700/2 from VI-13800, the new model has the probe changed to all black instead of yellow. The probe is clearly marked "impedance protected" rather than showing a fuse rating. It is sealed and has no user replaceable parts.

There is no specific requirement to replace the VI13700 products which are in use. NB Proper proving procedures should always be used with any voltage indicator. All new Martindale and Drummond voltage indicators currently available include impedance protection as standard in compliance with BS EN 61243-3.





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