

Electrical Safety & Testing

Safety Product Catalogue



SPC 030124SD

We can also support you with our range of Electrical based Training Courses

**Ask your training advisor
for details**

- 1 day, **Duty Holder Safety of Electrical Systems**
- 1 day, **Industrial Electrical H&S, Safe Electrical Isolation, Resetting Trips & Overloads**
- 5 day, **Industrial Electrics & Control Fundamentals Part 1**
also known as Mechanical to Electrical Up-skilling Part 1
- 5 day, **Industrial Electrics & Control Fundamentals Part 2**
also known as Mechanical to Electrical Up-skilling Part 2
- 5 day, **Troubleshooting Electrical Control Systems**
also known as Mechanical to Electrical Up-skilling Part 3
- 3 day, **C&G, 18th Edition Wiring Regulations, 2382-22 qualification**
- 3 day, **Fundamental Inspection, Testing & Initial Verification of Electrical Installations (C&G 2392-10)**
- 5 day, **Periodic Inspection, Test & Certification of Electrical Installations C&G 2391-50/51/52**
- 2 day, **In-Service Inspection & Testing of Electrical Equipment (PAT), Industrial course, INTACS Accredited with open book assessment**
- 1 day, **BS EN-60204-1 Machinery Safety**
- 4 day, **C&G Machinery Safety**

**We also provide Maintenance & Troubleshooting training courses covering
PLC Automation Systems, Communications, Networking, Drives, Servo, HMI, SCADA,
Hydraulics, Pneumatics & much more ...**

Electrical Safety Testing & Accessories

Industrial Quality Test Lead set with fused leads & spring loaded clear shutters

Did you know!
see page 9

**Spring loaded
Clear Shutters**
see the
connection!

- **GS 38 Compliant**
- **Screw fit probe with integral fuse holder & clear shutter**
- **Metal probe can be exposed to 18mm**
- **Will take screw fit Crocodile Clips**
- **1.2 Metre Double Skin Silicone Cable**
- **Multistranded very flexible leads**
- **Temp. Rating -10°C to +150°C**
- **Burn proof leads (150°C)**
- **IEC 1010 Rating: 1000 Volts CAT III**
- **Fuse supplied in each Lead**

£48.00 + VAT
for 1 to 9 pieces

£44.00 + VAT
for 10 to 24 pieces

£41.00 + VAT
for 25+ pieces

Package, post & insurance extra

code GS38LSET

Electrical Safety Testing & Accessories

Industrial Quality Crocodile Clip Set



No longer permitted!

~~CAT II~~
~~CAT III~~
~~CAT IV~~

Check your crocodile clips are safe

The International Standard for Test Equipment Accessories (IEC/EN 61010-031) informs that it **MUST NOT** be possible to touch any metal of the crocodile clip when in their closed state. This is particularly important with crocodile clips that employ the open jaw style if **CATII, CATIII or CATIV** rated. Please consider replacing with these safer type that INTACS stock.

£12.60 + VAT
price per set

code CROCSET38

- *Screw fit with integral fuse holder*
- *Suitable for the INTACS Industrial Test Lead set on page 3.*
- *Supplied as a set consisting of 1 Black & 1 Red*
- *IEC 1010 Rating: 1000 Volts CAT III*

Package, post & insurance extra

Electrical Safety Testing & Accessories

Martindale VIPD138 VI13800 Voltage Indicator & PD440 Proving Unit with Carry case



**As USED
on our
Training Courses**

This kit comprises of the following

VI-13800 Voltage Indicator

- *This is the latest type without the need for an expensive 500mA HRC safety fuse,*
- *(Complies with BS EN61243-3 2010)*
- *Indicates present of 50V - 600V AC/DC*
- *Polarity & Voltage indication from 12V AC & DC*
- *Heavy duty double insulated leads*
- *Bright LED indication*
- *GS38 compliant*

PD440 Proving Unit

- *440V industry leading proving unit for all Voltage Indicators & high impedance DMM*

TC69 VIPD Soft Carry Case

Package, post & insurance extra

£188 + VAT,
(Includes carry case)

code VIPD138

Electrical Safety Testing & Accessories

Martindale PD440 Proving Unit

**Did you
know!**

see page 10

**As USED
on our
Training Courses**



- *In our opinion this is one of the best Proving Units available*
- *Provides a safe method of proving the operation of 2 pole Voltage Indicators*
- *Will check & prove standard multi-meters are capable checking for dead on up to 440 V AC*
- *Will prove the Drummond and other filament lamp Voltage Indicators*
- *Has a High Voltage LED indicator to indicate the Proving Unit is working correctly*
- *Has a Low Voltage warning LED to indicate batteries need replacing*
- *Can be powered by 6 x LR6 / MN1500 1.5V alkaline batteries or equivalent*
- *Can be powered by an optional mains powered 12 volt DC power adaptor Martindale power adaptor type PSUPD230 available to order separately only*

£96.00 + VAT
price each

Package, post & insurance extra

code PD440

Electrical Safety Testing & Accessories

Martindale

New VI 13800 Voltage Indicator LED Indicators

Did you know!

see page 10

**AS USED
on our
Training Courses**



- *This is one of the simplest & most reliable Voltage Indicators available*
- *Provides a safe & clear method of safely identifying AC & DC voltages from 50V to 600V*
- *Ideal for Electrician & competent Multi-skilled maintenance person as a Test for Dead or simple Voltage Indicator*
- *Tough moulded case with heavy duty, double insulated leads*
- *In order to fully comply with BS EN61243-3:2010 Martindale has released an updated version of VI13700/2 with a model number of VI13800. 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.*
- *Conforms to BS EN 61243-3:2010 CAT IV 600 V, CAT III 1000V*
- *IP rating: IP54*

£64.00 + VAT
price each

code VI13800

Package, post & insurance extra

Electrical Safety Testing & Accessories

GS38 Compliant Fuse 500mA HRC Fuses

Did you know!
see page 9



**SPECIAL
Safety Fuses**

£6.20 + VAT

code FUSEGS38

- ***Supplied in pack of 3***
- ***500mA 1000 Volt/ 50 kA HRC FF ceramic fuse***
- ***(FF means fast acting)***
- ***Suitable for INTACS Industrial Standard Test Lead set***
- ***Fuse size 6mm x 32mm***

Package, post & insurance extra

Did you know!

Industrial Quality Test Leads

The first thing to remember about Test Leads is that they give the user the means of making an electrical connection between an item under test and the test instrument. The next most important point to note is you must consider the potential risk of injury that you might expose yourself to in the process of performing the testing task.

The following are a list of key points that you should know about test leads. The Test Leads we supply fully comply with GS38 & IEC1010 guidance

- The probes should have finger barriers or are shaped to guard against inadvertent hand contact with the live conductors under test.
- The probes should be insulated to leave an exposed metal tip **not exceeding 4 mm** measured across any surface of the tip. Where practicable it is strongly recommended that this is reduced to **2 mm or less**, or that spring loaded retractable screened probes are used.
- The leads should have suitable **High Breaking Capacity (HBC)**, sometimes known as **High Rupture Current (HRC)**, fuse, with a low current rating (**usually not exceeding 500 mA**), in each lead.
- The leads should be adequately insulated (choice of insulating material may be influenced by the environment in which the leads are to be used).
- The leads should be coloured so that one lead can be easily distinguished from the other, **typically RED & BLACK for test meters**.
- The leads should be flexible and of sufficient capacity for the duty expected of them.
- The leads should be sheathed to protect against mechanical damage.
- The leads should be long enough for the purpose, while not too long so that they are clumsy or unwieldy.
- The leads should not have accessible exposed conductors other than the probe tips, or have live conductors accessible to a person's finger if a lead becomes detached from a probe, indicator or instrument when in use.

GS38 is a **Health & Safety Electrical Test Equipment Guidance Note** & it offers guidance in the safe selection of: **Test Probes, Leads, Fuse, Voltage Indicator devices**

You can download a **FREE** copy from the HSE website: -<http://www.hse.gov.uk/pubns/priced/gs38.pdf>

500mA Fuse, High Breaking Capacity or High Rupture

GS38 compliant Test Lead Fuses are not just an ordinary Fuse; they are High Breaking Capacity or High Rupture Capacity Fuses and are designed to **protect the user from injury**. They are relatively expensive compared to the standard range of Fuses and are designed to fail with the hole length of the fuse element disintegrating. This is slightly different to a standard Fuse where the Fuse link or wire may just break leaving a small gap where a high voltage could track across thus potentially resulting in injury if used in place of the correct Fuse. You must only use the correct Fuse for GS38 compliant Test Leads otherwise the leads will no longer provide the user with the protection as intended. Note each HRC 500mA fuse has a resistance of 1.2R (ohms) & this should be taken into account if measuring resistance with these fused leads.

Electrical Safety Testing & Accessories

Proving Units (PD440)

The PD440 Proving Unit is designed to enable the user of a simple **Voltage Indicator**, **Voltage Detector** or **Multi-meter** to verify that they can detect an AC voltage of up to 440 volts AC. The PD440 Proving Unit is designed to operate from six 1.5 volt batteries (*included*) and as a result of suitable internal circuit design produces a synthesised voltage to test Voltage Indicators, Voltage Detectors or Multi-meter as specified in their user guide. The HSE guidance notes recommend you test your Voltage Indicator, Voltage Detector or Multi-meter with a suitable Proving Unit before and directly after checking for dead. See the Martindale video for guidance; <https://www.youtube.com/watch?v=ZOeQHz67iD8>

Voltage Indicators or Voltage Detectors

The **Health & Safety Executive (HSE)** recommends the use of **simple Voltage Indicator** or **Voltage Detector** because they do not have any switches or functions that could inadvertently be set selecting a range that could result in an accident.

Voltage Indicators or **Voltage Detectors** of the type recommended in the **HSE GS38** guidance notes are of the Neon, Bulb or LED type simply illuminate to indicate the presence of a voltage. Other types of voltage measuring devices are mentioned but they tend to have a scale or readout to indicate an actual voltage and can have a selector to switch between different functions.

One of the most important tasks of a **simple Voltage Indicator** or **Voltage Detector** is to **check for Dead** (not electrically “LIVE” or “Charged”). This is a fundamental safety task and should be performed before attempting to work on any piece of plant or machinery that is powered by electricity and could give rise to danger or electrical shock. **Don't forget** to functionally test your Proving Unit as directed in the user instructions.

See the Martindale video for guidance; <https://www.youtube.com/watch?v=ZOeQHz67iD8>

Testing your Voltage Indicator or Voltage Detector

It is essential that you test your **Voltage Indicator** or **Voltage Detector** as recommended in the **HSE Guidance Notes**. You should test your Voltage Indicator or Voltage Detector with a suitable Proving Unit before and directly after checking for dead. You can then be sure that your Voltage Indicator or Voltage Detector is working and will indicate the presence or not of potentially dangerous voltage.

Always read the user guide for your Voltage Indicator or Voltage Detector and Proving Unit because for example the neon type can show 1 or more neon's illuminated if the long lead is connected to the switched socket whilst holding the display end of the unit. This will not happen if the Proving Unit and Voltage Indicator or Voltage Detector are tested correctly and in accordance with the user guide.

See the Martindale video for guidance; <https://www.youtube.com/watch?v=ZOeQHz67iD8>

Popular training courses

Scheduled or On-site courses

We run a regular programme of **Scheduled** Electrical Health and Safety courses at our Fully Equipped Wellingborough Training Centre. We also offer an **On-site** training option where we can deliver the benefits of the training course in the comfort of your Training Room and even focus on the key aspects that are important to your people and your company

Electrical Health & Safety Safe Electrical Isolation, Resetting Trips & Overloads

This course gives you the chance to get maintenance people or operators up to speed with the requirements of the **Law, Health & Safety Best Practices** and make sure they can **Reset Trips, Overloads** and perform **Safe Electrical Isolation**. *There is a legal requirement to provide training for such "high risk" activities. (this is requirement of the Health & Safety at Work Act section 2, & the Management of Health & Safety at Work Regulations 1992 regulation 11 & The Provision and Use of Work Equipment Regulations 1998 regulation 9)*

Duration: 1 day course with practical exercises

Scheduled course: only £370 + VAT per person

Electrical Duty Holder training

This 1 day **Electrical Duty Holder** course should have serious appeal to **Managers, Team Leaders** and of course persons who have or are about to take on the **responsibility of managing safety** in the workplace. It's all about how to ensure you have **Safe Systems, Safe People** and **Safe Place of Work**.

Duration: 1 day course with practical exercises

Scheduled course: only £370 + VAT per person

Troubleshooting Electrical Control Systems

Five days are allocated to our **Troubleshooting Electrical Control Systems** course. The course targets both electrical & non-electrical maintenance people (*who are currently performing or who are preparing to take on nominated electrical tasks*) and is a natural follow-on from our **Industrial Electrics & Control Fundamentals Part 1 and Part 2** programme. The course provides an update on Safe Working, includes new and safer test tools and equipment and thoroughly challenges troubleshooting skills whilst monitoring Safe, Accurate and Efficient Working as well as any components swapped unnecessarily. This topic is a major issue for companies to make sure their maintenance people manage the high risk activities and perform their tasks within the guidelines of the **Health & Safety at Work Act** etc. The feedback we get from running this course tells us even experienced technicians and electrical engineers need reminding about the **Logical Approach** to Troubleshooting and **ALTERNATIVE** and **SAFER** ways to troubleshoot.

Duration: 5 days (Mon – Fri), £1320 + VAT per person

See the full range of Electrical courses on the inside front cover

Industrial Maintenance & Troubleshooting Training

INTACS strives to work alongside leading manufacturers to offer a real alternative to manufacturers' own courses

Working really closely with leading Equipment Manufacturers

**INTACS wins the backing of brand leaders
Bosch Rexroth, Festo & Pilz**

In our 35th year as a specialist industrial controls training provider, INTACS continues to work with & support leading brand names in industry.

For some PLC & Drives manufacturers, we conduct a significant amount of training on their behalf with open courses & bespoke training, programmes, both of which can run on client sites if required with groups as small as only 3 delegates.

Key Competencies – a major focus for this year. We help you & your people understand the key knowledge & skills needed “to get the job done” & we give you the tools to help keep the knowledge & skills sharp.

Many of you know about our **Money Back Guarantee of Satisfaction**. This is our commitment to demonstrate to clients that they can rely on us to deliver the results they need.

INTACS, Industrial Training Centre

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