**WEBRO BLOG**

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**Subject: Alarm Cables**

**Your One Stop Guide to Alarm Cables**

**Explore Webro's guide to choosing the right alarm cables for optimal security. Understand Type 1, 2, and 3 cables, British Standard compliance, and installation tips to protect your property effectively.**

We’re now coming to the time of year when the weather is warmer and brighter, and we spend more time outdoors away from our home. As nice as this is, we should be mindful of the increased risk of leaving our personal properties unattended. One of the most effective deterrents is to have a good quality burglar alarm system installed. For it to deliver total reliability the system will need high-quality cable to form its connectivity backbone. That said, alarm cables come in a variety of options and choosing the right cable can be critical to the longevity and reliability of the alarm system.

Webro alarm cables are designed and manufactured to the British Standard BS 4737-3.30:2015, and there are three types - Type 1, Type 2, and Type 3. Within these the conductor material, insulation, and sheath materials used are highlighted. Most importantly, the maximum resistance of the conductor is shown. This development was added to the standard to give clarity several years ago to reduce the prevalence of cables passing off as having copper conductors when they were clearly manufactured from aluminium.

Below we look at the varying types of alarm cables and what the benefits of each one are, highlighting Type 1, 2 & 3 alarm cable differences:

**Type 1 – Maximum 100ohm/km in LSNH**

This type of alarm cable has a maximum conductor resistance of 100ohm/km, which can only be achieved using copper conductors. These conductors are tinned to stop them corroding during their lifetime, and to aid flexibility. All Type 1 cables are produced using Low Smoke Non-Halogen (LSNH) materials for the insulation and sheath, and are suitable for installation in public buildings.

**Type 2 – Maximum 100ohm/km in PVC**

Like Type 1 alarm cables these also use copper conductors with a coating of tin, but they're made entirely from PVC (Polyvinyl Chloride) materials. PVC is slightly more flexible than LSNH but when burnt it releases black smoke and harmful gasses. Type 2 cables are recommended for single dwelling units (SDU’s) such as homes, but not for public buildings.

**Type 3 – Maximum 155ohm/km in PVC**

Type 3 alarm cables have been designed to meet a budget; the maximum conductor resistance permitted is 155ohm/km, which is 55% higher than Types 1 & 2. These cables are usually manufactured using aluminium instead of copper, which is coated in tin to give it extra strength and reduce the risk of corrosion. These cables are all manufactured using PVC materials and have been designed for short runs. It should be noted that they can cause frustration if the installer is familiar with installing copper as the conductors can be brittle and prone to breaking when terminating. The higher resistance can also affect signals over longer distances, and aluminium, if wet and mixed with oxygen, can corrode easily.

**External Types**

At Webro we’ve also introduced external versions of these cables to further enhance their ability to be used outdoors, where they’re most commonly clipped to exterior walls or fencing. They’re designed using Type 1 & 2 conductors but have a black polyethylene (PE) sheath that’s waterproof and UV resistant.

**Screened Types**

All types above can come with an overall aluminium foil screen with a tinned copper drain wire to reduce electromagnetic interference from external signals.

**Labelling**

The British Standard is very clear on the requirements for these cables when it comes to labelling. They must be clearly marked with the manufacturer’s name, the British Standard number, cable type, length in metres, conductor construction with maximum resistance value, and finally the date and batch number for traceability.

**What we do**

At Webro we hold extensive stock of both Type 1 and Type 3 cables - both unscreened and screened versions as well as extensive external grade options. They’re supplied in standard 100 metre lengths with longer lengths up to 500 metres available for extra-long cable runs or to reduce wastage on site. The Webro Type 3 alarm cable range is clearly identified under the Cabnex brand. Designed for the cost conscious, it meets the relevant British Standard where applicable.

Need technical help & advice to choose the right cable for your project? Talk to our dedicated Webro Team for expert advice: [sales@webro.com](mailto:sales@webro.com) | 0115 972 4483 | [www.webro.com](http://www.webro.com)

Contact us: <https://www.webro.com/contact/get-in-touch.html>

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