

Our Range of Conductors



Electric fencing offers a convenient and cost effective method of containing livestock. Choose the conductor material that best meets your requirements to ensure that you have the most effective conductor that suits your purpose to save yourself unnecessary expense later. There are 4 main types of electric fence conductors available, each has its own physical characteristics and is suitable for different purposes.

Electric fence poly tape is highly visible compared to other conductor materials and its width ranges from 7 to 40 mm. It comes normally in 200 m spools and is divided into 3 main categories 10, 20 and 40 mm tape. These are standard widths, although you may see a number of variations from various manufacturers. For example, looking for a 10 mm tape you can find 8, 12, 12.5, 13 mm tapes and so on. The differences are minimal as they usually still have same number of conductors, but they may cost a bit less or more since less or more raw materials are used. 20 and 40 mm tapes are often recommended for horses, with a 40 mm one having higher breaking point and double the amount of conductors (usually 8). However, due to its width it is also more susceptible to damage from strong winds. In such cases thinner 10 or 20 mm tape or poly rope are a better choice.

You can also find tape in a variety of colours - white, orange and green being the most popular. White tape is highly visible and is used especially for horses or wild animals to clearly mark the boundaries. White tape is more visible against green vegetation or brown landscape, whereas brown or green tape is more visible against a white background.

When selecting the tape please consider the following: **width** and colour affect visibility, the **amount of conductors** affects fence security and maximum fence length and the **type of metal or alloy** used affects conductivity and therefore also the fence length.

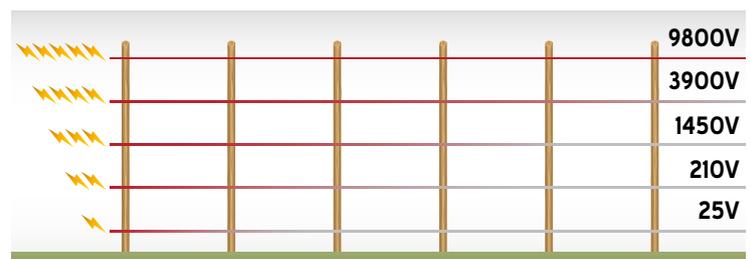
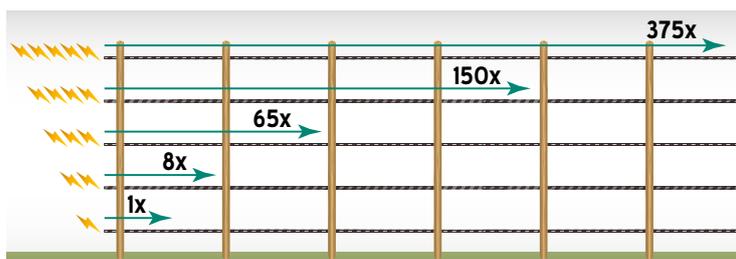
Electric fence poly wire is particularly simple to handle and is long-lasting. It has the least breaking point of all wires and is up to 3 mm thick. Just like the poly tape it has metal wires intertwined with polywire strands. These metal conductors rarely exceed thickness of 0.25 mm each. Poly wire is a perfect material for short distances, temporary fence solutions and mobile reel systems. It is very light and transportable. It is mostly suitable for cattle, sheep, goats and dog fences. Although we would always recommend nets for containing pets, especially cats.

Electric fence poly rope should have a diameter of 6 mm or 8 mm. Due to its high breaking point and visibility it is also widely used for horses and wild animals, although more often in conjunction with high-visibility signal tape. It is a great material for establishing fence perimeters and for areas with windy conditions.

Electric fence high-tensile wire can be considered the most cost-effective solutions. It is used for large permanent fences. However, it is not recommended for horses or other fast-moving animals as they can considerably injure themselves. It is, however, a great choice for cattle, sheep and goats. It is normally made of steel or aluminium. **Aluminium is 4 times more conductive** than normal steel wire. It is also impressively resistant to corrosion and its light weight makes it a great material for fences. Of course, these qualities make it more expensive.

The fence length depends on the conducting material. The more conductors, the better the electricity is carried along the fence. Two conductors made from the same material have double the conductivity - i.e. the fence can theoretically be made twice as long without any loss of voltage. This increases to 4 times with 4 conductors, i.e. **the lower the resistance of the fence wires in (ohms per m), the better the electricity flows along the fence** which is very important for long fences. Disturbances on the fence such as vegetation, etc. reduce this flow accordingly. Connections between wires are always weak points. These connections are made using tape, rope and wire connectors. The metal ends of polywire and ropes should be additionally stripped at the ends and twisted together. This creates the best connection with the lowest transfer resistance.

The following two images show how the quality of the conductor affects the fence length. Using the highest quality conductor allows the fence to be around 375 x longer than when using the basic quality conductor without any significant loss in fence voltage. As well, you can achieve higher voltages with the same length.



When buying conductors one must not forget about connectors. They are needed to either extend the fence or repair it. We do not recommend tying the conducting material into the knot, as this will affect the fence security. Connectors ensure an optimal electrical connection and guarantee a secure flow of current. Conducting materials at the start and end of the fence are also attached using connectors. Different connectors are available depending on the conducting material chosen.

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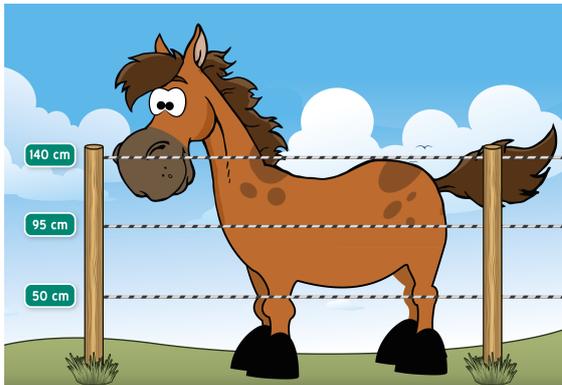
In our shop you will find 4 series of conductors: profiline, expert plus, expert and basic plus. With each progressive series you get better materials and ability to construct longer fences.

	<p>Basic plus series is suitable for simple stretches of fences, mobile fences, paddocks, etc and has a quite high resistance (around 11 Ohm). Why "plus"? It is because even in our standard tape we offer a little bit extra, like extra stainless steel conductor in the tape.</p>
	<p>Expert series is for simple fencing: finest-quality plastic, top quality stainless steel, very strong and durable. Conductivity around 4 Ohm.</p>
	<p>Expert plus comes with even better conductivity (around 0.5 Ohm). In this series you can already find a combination of copper and stainless steel and special alloys.</p>
	<p>Proflin series offers ultra-high conductivity (around 0.1 Ohm), premium materials, highest durability, longevity and UV-resistance. It is an excellent choice for long-lasting fences.</p>

In addition to separating our items into series, you may also find the following icon in our shop. The quality of our conducting materials is graded on a scale from **A** (top premium quality) to **E** (basic quality). The lower the resistance of the material, the better the current can be transported along the fence without any losses. Using high-quality conducting materials (stainless steel, TLD, copper) and a high number of conducting lines, the electric resistance can be reduced and thus improve the conductivity of the material.



Horse fence



A rule of thumb for the height of horse fences is: 0.75 to 0.8 x withers height of the tallest horse you have. For an electric fence to provide the best protection for horses, you need at least two rows on the fence that are adjusted to the height of your horses. Depending on the nature of the risk, additional fence rows may be necessary, for example with very wild animals, a situation where you have both large and small horses in the same pasture or where there is a busy road running nearby, etc.

For large horses we recommend having three fence rows set at heights of around 50 cm, 95 cm and 140 cm. For small horses we recommend three rows at around 45 cm, 75 cm and 120 cm.

Due to its high visibility and low risk of injury, electric ropes or tapes are preferred conducting materials to use with horses.

The quality of the rope used should be matched with the length of the fence. Our simplest electric rope has a resistance of 3.45 ohm/m should suffice for a shorter fence (up to about 200m) and has one more stainless-steel conductor than our competitors' products (**Art: 44160**). For fences longer than this, a high-quality electric rope (low resistance of 0.07-0.104 ohm/m) should be used. Low quality rope will mean that a large amount of voltage is lost over the longer distance, leaving insufficient voltage at the end of the fence.



We recommend our highly conductive TLD series electric fence rope (**Art: 42390**), or for particularly high demands, the electric fence rope 3 x 0.3 **copper** + 3 x 0.3 **stainless steel** wires (**Art: 44659**). Electric tapes for horses should be 20-40 mm wide. As with electric ropes, the quality of tape required is decided by the length of the fence. The inexpensive electric fence tape 200 m, 20 mm, 5 x 0.16 stainless steel (**Art: 44140**) is sufficient for short fences (up to about 200 m). Longer fences require a higher quality tape (quality A or B) to ensure there is still sufficient voltage at the far end of the fence. For this we recommend, for example, the 20 mm TLD tape, 200 m, 6 x 0.25 (**Art: 42425**) or the 200 m electric fence tape, 40 mm, 4 x 0.3 copper + 6 x 0.3 stainless steel (**Art: 44675**).

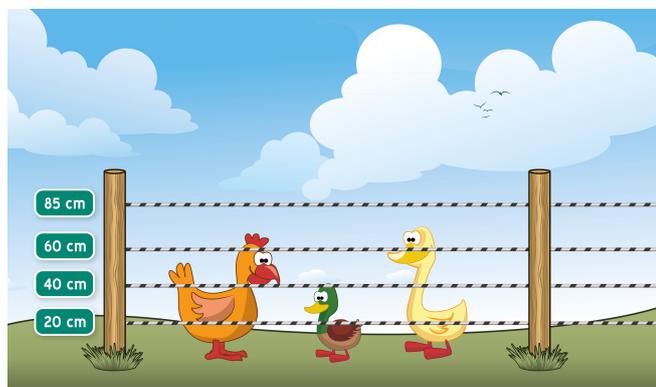
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Chicken fence

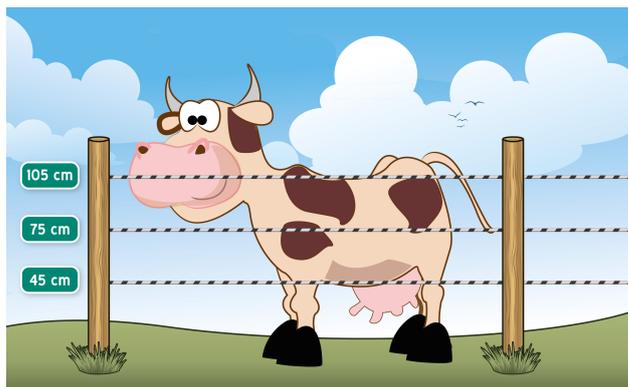
Chickens and geese are amongst the more difficult animals to keep. A powerful energiser with a high output voltage and powerful discharge is required. If it's not possible for you to use a mains powered device, we recommend a powerful 9 V battery device or even better – a powerful 12 V battery unit with high voltage and pulse energy. Four rows should be arranged on electric fences at heights of approx. 20 cm, 40 cm, 60 cm and 85 cm.

The quality of the wire used should be matched with the length of the fence. For a fence that is just 200 m long the poultry fence, the **Basic Plus**, wire will suffice. Longer fences require a high-quality wire to ensure there is still sufficient voltage at the far end of the fence. For a 400 m fence, an **Expert Plus** (4-star) electric fence polywire is recommended. A **Profiline** (5-star) series indicates top quality and highest conductivity, far outperforming the wire marked **Basic Plus** (2-star) series, meaning longer fences can be built.



Alternatively you can use our **farmNET** and **farmNET** nettings, which not only offer high security, but also come with extras not offered by our competitors.

Cattle fence



To make a fence secure for cattle you need at least two rows in the fence. Depending on the risk, additional rows may be necessary. For **cows** we recommend having **2 fence rows** set at a height of around 60 and 90 cm. For **bulls, mothers with calves and heavy breeds** we recommend having **3 fence rows** set at a height of around 45, 75 and 105 cm.

Conducting materials should be chosen based upon the length of the fence. The longer the fence, the higher the quality (conductivity) of the conducting material required. This is the only way to be certain that sufficient voltage will be available at the end of the fence to make it effective. Suitable materials for keeping cows are **electric polywire, electric rope and electric tape**.

For simple medium-length fences, electric fence polywire (**Art: 44613**) with a resistance of 3.45 ohm/m is best suited. It has 7 rust-proof high-grade steel conductors running through it and is extremely tough. For longer fences, an even more high-quality wire with an even lower resistance is required. Low quality rope will mean that a large amount of voltage is lost over the longer distance, leaving insufficient voltage at the end of the fence. We therefore recommend a highly conductive polywire from our **TLD series** (**Art: 42402**) or our premium green/white electric fence polywire with 3 x 0.25 **copper** and 3 x 0.2 **stainless steel** conductors (**Art: 44645**).

Due to its high visibility and low risk of injury, **electric ropes or tapes** are preferred conducting materials to use with cattle. A simple electric rope with a resistance of 3.45 ohm/m should suffice for a shorter fence (up to about 200 m) (**Art: 44160**). For longer fences a low resistance rope (0.07–0.104 ohm/m) should be used. We recommend our highly conductive **TLD series** (**Art: 42390**), or for particularly high demands, the electric fence rope with 3 x 0.3 **copper** and 3 x 0.3 **stainless steel** wires (**Art: 44659**).

Electric tape for cattle should be 10–40 mm wide. As with electric ropes, the quality of tape required is decided by the length of the fence. The inexpensive electric fence tape (**Art: 44140**) is sufficient for short fences (up to about 200 m). Longer fences require a higher quality tape (quality A or B) to ensure there is still sufficient voltage at the far end of the fence. We recommend, the 10 mm TLD tape (**Art: 42420**) or for very long fence systems the 40 mm tape with 4 x 0.3 copper and 6 x 0.3 stainless steel wires (**Art: 44675**).

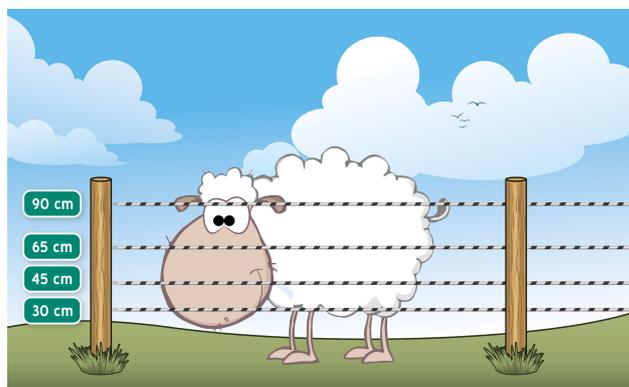


Plastic reel are a useful tool for winding and unwinding polywires, polyropes and tapes. Whichever the length we have a reel for you.

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Sheep fence



The rows in the electric fence should be set at a height of around 30 cm, 45 cm, 65 cm and 90 cm.

To ensure that a sheep makes sufficient skin contact with the electric fence even through its thick wool, electric fence polywire or galvanised wire with a high conductivity should preferably be used. Broad electric tape is not suitable, as this cannot easily get through the dense insulating fur.



For simple medium-length fences, electric fence polywire (**Art: 44613**) with a resistance of 3.45 ohm/m is best suited. It has 7 rust-proof high-grade stainless steel conductors running through it and is extremely tough. For longer fences, we recommend our highly conductive **TLD series (Art: 42405)**, or white-red polywire with **copper and stainless steel wires (Art: 44800)**.

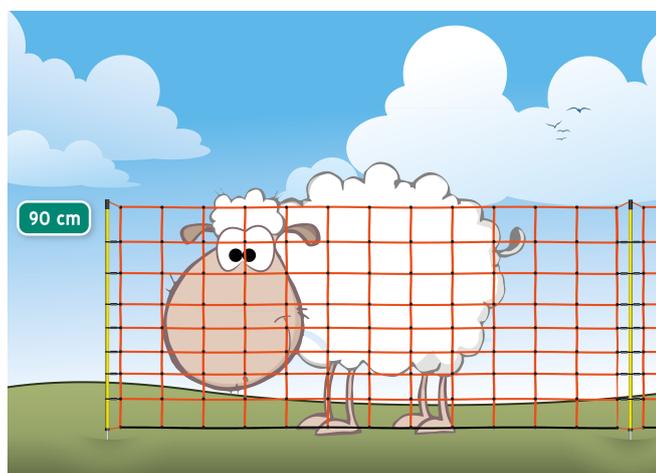
Stranded wire (Art: 44558) is extremely robust, but also flexible and therefore easy to work with. Its excellent conductivity (0.12 O/m) means it can be used for long fence systems. Thanks to the galvanised metal wires, the electrical impulse is transmitted with maximum efficiency. The **monowire (Art: 44544)** brings together the benefits of stranded wire and polywire. Like stranded wire, monowire has a high conductivity at a low cost. Monowire, however, is easy to handle, due to its plastic component, and is very durable!



Why use a sheep netting?

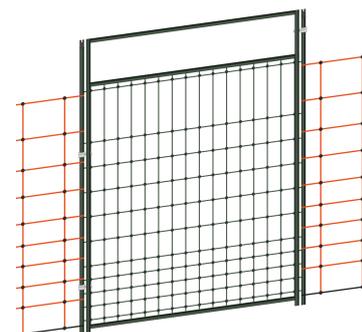
An electric fence for sheep should be 90 cm high and have sufficient conductivity for its length. For most, double security is the main motivation. Anyone wishing to combine a mechanical barrier with an electronic deterrent should purchase sheep netting. The beneficial product features also include:

- also suitable for extensive areas
- can even be used on uneven terrain
- closely meshed electric netting is difficult to break through
- equal distribution of conductors and voltage
- easy assembly and disassembly
- can be used on a mobile basis if required
- excellent value for money
- the length of the netting can be shortened
- the narrow mesh makes it ideal for keeping lambs safe



The latter aspect is further reinforced by sheep netting available from our online shop, as narrower mesh is used in the lower part of the netting. Regardless of how small and adventurous a lamb may be, it will not be able to get through the netting as it will inevitably come into contact with the conducting material and receive a short, sharp shock. Therefore, narrow mesh sheep netting is the right choice for anyone wishing to protect lambs. Here, the mesh distance of 9 cm is ideal, whereby vertical distances may otherwise be 13 or 15 cm. The horizontal distance is often 17.5 cm. Other designs include distances of 10 cm and 15 cm.

Many people are concerned that they cannot get direct access to the enclosure without having to turn off the electricity or laying the electric netting down on the ground. electric-fence.co.uk has the solution to this problem: **gate for electric netting (Art: 27402 or Art: 27407)** you can very easily and quickly build an electrified access point into your fence. This will give you easy access to the pasture without having to compromise safety.



In the next issue we will discuss other animal fences and their requirements.