



ELECTRIC FENCING PRODUCTS THAT DELIVER PEACE OF MIND

NEMTEK
Electric Fencing Products





peace of
mind.

Nemtek, a pioneer in its field, has become the benchmark for the security electric fencing industry. The Nemtek group manufactures a full range of energizers and fencing hardware and has become a globally known and respected company.

Nemtek products have become a household name and are now being specified by many governments, local authorities and industries as the product of choice to protect their utilities, correctional facilities and defence infrastructures. This has been achieved by Nemtek's continuous innovation, fast response to the changing dynamics experienced in the security field, the reliability of their products and the continuous support and close working relationship with their clients.

This brochure offers you a holistic look into the electric fencing products that Nemtek designs and manufactures, which include a comprehensive range of electric fencing energizers and a complete range of fencing hardware. The Nemtek range addresses many types of fencing needs ranging from domestic, retail and commercial, to airports, power stations, defence facilities and utilities.

Nemtek's experience in the security field has revolutionised the way game farm and animal farm energizers are designed, not only to keep animals in, but now they also offer security experience and communication techniques to combat the theft of animals by poachers.

For more details and information on Nemtek's products visit www.nemtek.com

WHY ELECTRIC FENCING FOR SECURITY?

DETER, DETECT AND DELAY

A high-voltage shock combined with a physical barrier will deter anyone from attempting to penetrate the perimeter fence.

The detecting ability of a Nemtek electric fence energizer will sound an alarm when the perimeter of the property being protected has been infiltrated or tampered with.

By keeping the perimeter protected using an electric fence, the attempted break in of the protected area is delayed, giving additional time for a reaction team to respond.

NEMTEK™ FAMOUS BRANDS

- **Druid™ energizers**
- **Wizord™ energizers**
- **Merlin Stealth™ energizers**
- **Sage™ management systems**
- **FenceScope™ fence tool**
- **APT**
- **Nemtek Agri**
- **Omega brackets**
- **Modulus brackets**

ELECTRIC FENCING PRODUCTS THAT DELIVER PEACE OF MIND

Patents:

Nemtek's innovative culture has resulted in the company filing for many patents and trademarks around the world to protect its intellectual property and inventive spirit.


residential

Nemtek's revolutionary designs in security electric fencing have made its product range a trusted household name. Nemtek products are trusted by many homeowners as the product of choice to secure their private properties, housing estates and villages.

The cost-effective, reliable and effective designs have been Nemtek's focus over the past twenty years. A dynamic design team develops new and existing products to better secure your family and friends. The continually evolving Nemtek range offers innovative solutions for many residential applications, with many choices to ensure that the right product is available to make homes secure without compromising on aesthetics. The large range of wall top brackets and posts have made it easy to secure most walls offering a range of effective security solutions.



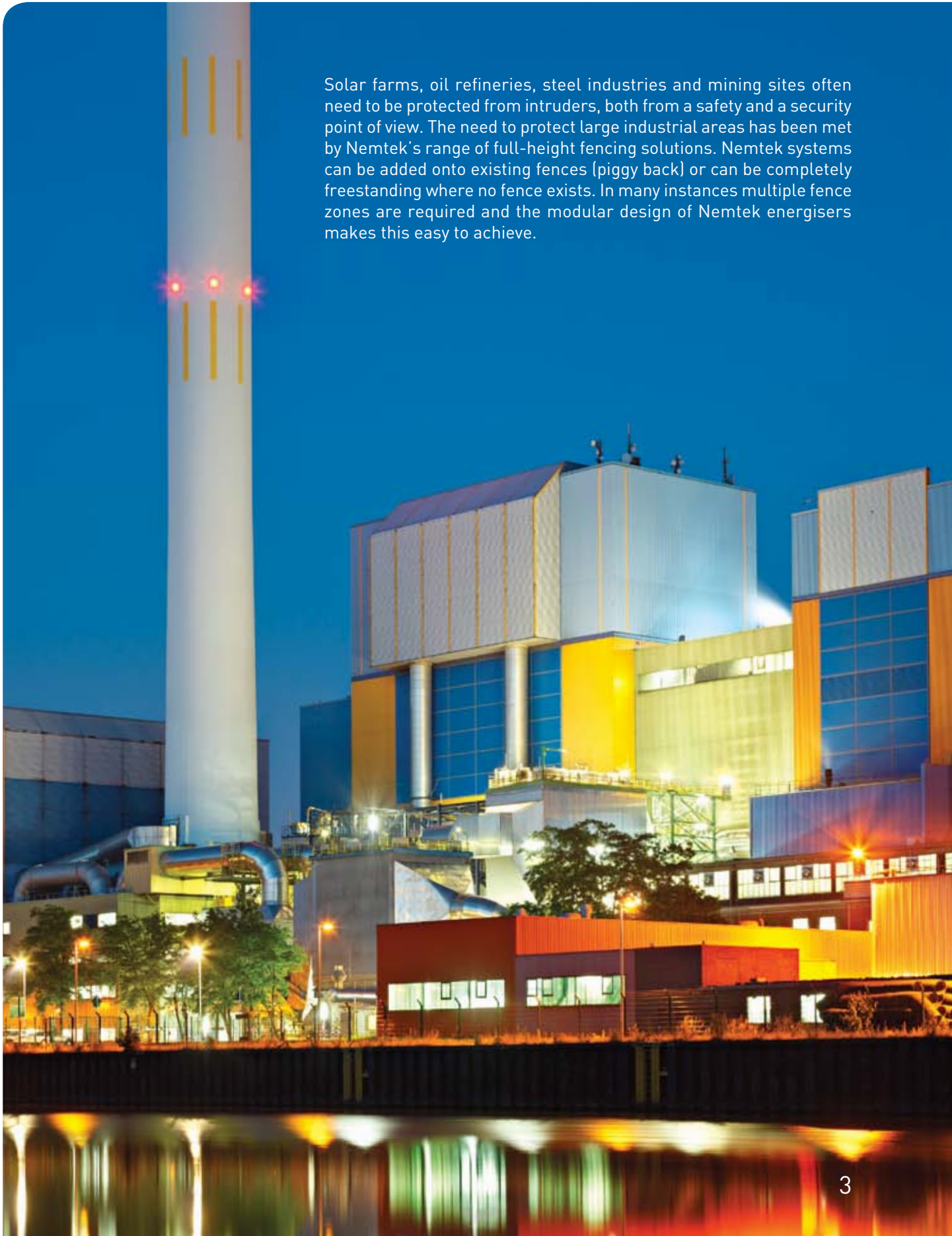
commercial



Office and commercial parks, car and boat showrooms and yards, caravan and motor home displays and outdoor showrooms have not been ignored by criminals and are often also a soft target for vandals. Nemtek has identified this need for secure perimeter protection combined with aesthetically pleasing designs that do not compromise on the effectiveness of the security. Modulus brackets and post systems are just some of the trusted solutions where the security electric fencing products look good yet work effectively.

industrial

Solar farms, oil refineries, steel industries and mining sites often need to be protected from intruders, both from a safety and a security point of view. The need to protect large industrial areas has been met by Nemtek's range of full-height fencing solutions. Nemtek systems can be added onto existing fences (piggy back) or can be completely freestanding where no fence exists. In many instances multiple fence zones are required and the modular design of Nemtek energisers makes this easy to achieve.



utilities



Government facilities and critical infrastructures need to be protected. Power distribution facilities, water reservoirs, transport depots, pumping stations and gas pipelines are some of the types of utilities that often need to be protected, as disruptions or interferences can cause large scale implications for governments, cities and the community as a whole.

In many instances protection is required to prevent harm to individuals by stopping them from gaining access to sensitive or dangerous areas such as train depots or even electrical transformers and electrical distribution areas.

high security

Nemtek manufactures all its products with high security in mind but certain sites require different types of high security solutions. The number of electric fencing zones and the number of fence wires can be increased. Heavier wires and brackets are a common need for high security sites. These sites include prisons, airports, naval bases, border fences, embassies, mints and money distribution points.

The need for integration with other technologies such as cameras is common and Nemtek offers an integration solution for this. Remote access to the sites is also usually a requirement. Our vast experience in these types of sites in many different parts of the world have made Nemtek a trusted source for products and knowledge to address most high security needs.



Traditionally electric fence energizers for animal farming control did not have a fence monitor to detect a break in the fence.

The detecting feature has become an integral part of game and animal control. It allows the user to monitor the condition of the fence at the energizer without having to patrol the fence regularly, thus saving time and money.

Poaching of game is an additional problem faced by game reserves and game farms, but the security features offered by the Nemtek electric fencing energizers can assist in this battle.



contents

Nemtek products have become the benchmark in the electric security fencing industry.

The Nemtek group manufactures and supplies a full spectrum of energizers and fencing hardware for industrial, commercial and residential applications, and is the product of choice to protect and deliver peace of mind.

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ENERGIZERS

WIZORD™ 2 and 4 (SINGLE ZONE)



The Wizord 2 or 4 is the logical choice for domestic and light industrial installations where a medium-powered energizer is required. This generation of energizers has been field tested for many years and boasts unsurpassed reliability. Simple to install and easy to maintain.

FEATURES

- High voltage monitor will alarm when the live wires are tampered with
- Earth wire monitor will alarm when the earth wires are tampered with
- Easy-to-use tag switch for controlling the unit
- Connectable to an armed response radio or GSM module
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression built in to reduce the possibility of damage due to power surges
- Battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy
- Siren and strobe outputs to indicate fence condition

MERLIN 4 (SINGLE ZONE)



The Merlin 4 offers what the Wizord 4 has in terms of features, but with remote control through a dedicated keypad. The keypad also allows the user and the installer to programme and control the energizer from a remote location. This allows the energizer to be installed near the fence and the keypad to be located where it is most convenient for the user. Additional features that the standard Wizord does not have can be enabled through the keypad.

FEATURES

- Voltage outputs can be controlled to reduce or increase the output energy as required by the user
- Low voltage mode option to reduce power on the fence, and yet keep the alarming capability intact
- Gate chime to notify if the gate has been opened and closed
- Bypass options for the siren, strobe and gate as required
- Siren times can be programmed to suit the different needs of the user

**MERLIN STEALTH M15S, M18S (SINGLE ZONE)
MERLIN STEALTH M25S, M28S, M28X
(DUAL ZONE)**



The Nemtek Merlin Stealth is a powerful range of energizers, that can be used as simple high-end security energizers, but can also be programmed to offer a customised solution. The Merlin Stealth dual zone energizers are ideal for higher security requirements and can be networked if required.

There are:

- Single zone energizers – M15S and M18S
- Dual zone energizer – M28X (non-expandable)
- Dual zone 16Mhz energizers – M25S and M28S offer two monitored zones and can be expanded into a multi-zoned system

SINGLE (M15S, M18S) AND DUAL ZONE (M25S, M28S, M28X) ENERGIZER FEATURES

- High voltage monitor will sound alarm when the live wires are tampered with
- Earth wire monitor will sound alarm when there is tampering with the earth wires
- Easy-to-use tag switch for controlling the unit with keypad being an optional extra (up to 4)
- Connectable to armed response radio or GSM module
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression built in to reduce the possibility of damage due to power surges
- Battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy

M25S AND M28S ADDITIONAL FEATURES

Dual zone energizers boast the same features as the single zoned Merlin Stealth energizers, with a few extras. This makes the unit a cost-effective solution where more than one zone is required.

- Dual zones, both in high voltage and earth wire monitoring
- Smart design allows the maximum amount of energy to be transferred to the zone that needs it, yet the combined energy of the two zones will not exceed the legal maximum permitted
- Ideal product for networking and large fence system requirements



DRUID™ 13 LCD, 15 LCD (SINGLE ZONE)



The Druid 13 and 15 offer 3.0 J and 4.6 J output energy.

Using the **Adaptive Power Technology (APT)**, pioneered and patented by Nemtek, these two energizers offer a new and unique method in detecting how much power a fence can accept and handle before it starts to arc and waste energy. This allows the fence to operate at higher voltages and more efficiently.

Changes in the surrounding environment can affect a fence's efficiency. The APT actively analyses the fence and adapts the transfer of power as required to ensure maximum performance.

These Nemtek energizers are an excellent choice for coastal areas, where the salt build-up during the dry season can result in increased power losses along the fence. The APT feature will modify the output pulse to maximise the transfer of power onto the fence and minimise arcing. The energizer ensures that the fence only receives the amount of power it can manage thus making it energy efficient and economical.

- LCD display shows information which is quick and easy to read
- The background colours on the LCD display give a quick glance indication of the energizer status without the user having to approach the unit in order to read the display. For example, "green" indicates all is fine, "orange" indicates that attention is required and "red" indicates an alarm condition. The coloured lights are visible from a distance
- The Druid LCD range can accept up to two keypads to remotely control the energizer
- Quick walk test mode on the system offers the installer a quick test facility to walk the fence and test it
- High voltage monitor will sound alarm when the live wires are tampered with
- Earth wire monitor will sound alarm when there is tampering with the earth wires
- Easy-to-use tag switch for controlling the unit if the keypad option is not used
- Connectable to an armed response radio or GSM module
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression is built in to reduce the possibility of damage due to power surges
- Internal battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy
- Relay outputs, which can be used to control lights. It can also have a timer mode to activate and deactivate these functions





DRUID™ 18 LCD (SINGLE ZONE)



The Druid 18 LCD is a powerful version of the Druid 15 LCD, boasting 7.2 output Joules into 500 Ω load. The Druid 18 LCD is the correct choice for large series fence systems.

- LCD display shows information which is quick and easy to read
- The background colours on the LCD display give a quick glance indication of the energizer status without the user having to approach the unit in order to read the display. For example, "green" indicates all is fine, "orange" indicates that attention is required and "red" indicates an alarm condition. The coloured lights are visible from a distance
- The Druid LCD range can accept up to two keypads to remotely control the energizer
- Quick walk test mode on the system offers the installer a quick test facility to walk the fence and test it
- High voltage monitor will sound alarm when the live wires are tampered with
- Earth wire monitor will sound alarm when there is tampering with the earth wires
- Easy-to-use tag switch for controlling the unit if the keypad option is not used
- Connectable to an armed response radio or GSM module
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression is built in to reduce the possibility of damage due to power surges
- Internal battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy
- Relay outputs, which can be used to control lights. It can also have a timer mode to activate and deactivate these functions



DRUID™ 114 LCD (SINGLE ZONE)



The Druid 114 LCD has a revolutionary design which offers both the security features with game and animal requirements. It is the ideal choice for long parallel fencing systems which require monitoring. The Druid 114 LCD boasts an output of 13.8 Joules into 150 Ω fence and an impressive voltage of 7 100 V. At 100 Ω , it delivers 13.4 Joules output at 5 600 V.

- LCD display shows information which is quick and easy to read
- The background colours on the LCD display give a quick glance indication of the energizer status without the user having to approach the unit in order to read the display. For example, "green" indicates all is fine, "orange" indicates that attention is required and "red" indicates an alarm condition. The coloured lights are visible from a distance
- The Druid LCD range can accept up to two keypads to remotely control the energizer
- Quick walk test mode on the system offers the installer a quick test facility to walk the fence and test it
- High voltage monitor will sound alarm when the live wires are shorted to the earth wires in a parallel configuration
- Earth wire monitor will sound alarm when there is tampering with the earth wires
- Easy-to-use tag switch for controlling the unit if the keypad option is not used
- Connectable to an armed response radio or GSM module
- Gate monitor input monitors the position of the gate to indicate if the gate is open
- Lightning and power surge suppression built in to reduce the possibility of damage due to power surges
- Internal battery backup system in case of power failure
- Intelligent power saving to extend the battery life and save energy
- APT technology will modify the energizer's output characteristics to maximise the power transfer in these situations
- Relay outputs, which can be used to control lights. It can also have a timer mode to activate and deactivate these functions

DRUID™ 24 (DUAL ZONE)



The Druid 24 LCD is the dual zone version for the LCD range. Each independently controlled zone offers 2 joules of output energy into a 500 ohms load. This integral unit is ideal for dual zone systems and can be expanded to a 4 zone system.

- Two independently monitored and controlled zones
- A four zone system can be created by linking two D24 LCD energizers together
- Keypad programmable
- Each zone can be set independently to on/off or high/low voltage mode
- LCD display – quick and easy to read
- The unit can be used as a standard electric fence energizer, but can also be programmed to use the expansion card to be an integral part of an alarm system

D24 EXPANSION CARD

- 10 relay outputs
- 4 relay inputs
- Programmable configuration for relays
 - Zones 1 or 2 on and off
 - Zone 1 or 2 high and low voltage
 - Mains fail
 - Battery low
 - Alarms zone 1 and 2
 - Service indication
 - Tamper indication
 - Check indication zone 1 and 2
 - Communication time out
- Relay inputs can be programmed to control
 - Zone 1 and 2 on and off
 - Zone 1 and 2 high and low voltage



FG7 TOUCHSCREEN

The FG7 is a touch screen LCD keypad interface that can be used to control a multiple number of energizers. The FG7 can be used with the Druid 24 LCD or with both the Merlin M25S and the M28S energizers.



ENERGIZER SPECIFICATIONS

Nemtek Energizer Brand	Wizord		Merlin	Merlin Stealth™				Stealth Master		Druid					
Model Number	2	4	4	M15S	M18S	M25S	M28S M28X	M25M	M28M	13 LCD	15 LCD	18 LCD	114 LCD	24 LCD	
Energizer Dimensions															
	L180 x W205 x D120			L365 x W230 x D140					L180 x W205 x D120		L365 x W230 x D140				
High Voltage Outputs															
Typical energy output into 500 Ohms load (Joules)	2J	3.7J	3.7J	4.8J	7.6J	4.8J	7.6J	4.8J	7.6J	3J	4.6J	7.6J	13.8J (150 Ω)	1.9J x 2 zones	
Output Voltage into an open circuit	7 400V	8 000V	8 000V	8 500V	9 300V	8 500V	9 300V	8 500V	9 300V	9 000V	9 000V	9 600V	9 000V	10kV	
High or Low Voltage modes, alarm monitoring is enabled in both modes. Output voltage settings can be changed for both the High and the Low voltage modes	N/A	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Number of High Voltage monitored zones	1	1	1	1	1	2	2	2	2	1	1	1	1	2	
Number of Earth loop monitored zones	1	1	1	1	1	2	2	2	2	1	1	1	1	2	
Adaptive Power Technology (APT), reducing false alarms and arcing on the fence	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	
Fence Interference detection from foreign energizers	No	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	
Energizer Controls and Displays															
Keypads for the remote control of the energizer	No	No	4 max 1 incl	4 max	4 max	4 max	4 max	4 max	4 max	2 max	2 max	2 max	2 max	2 max	
Tag switch – to control the energizer without using a keypad	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Remote On/Off input	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes	
Displays the output and return voltages	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	
Display type	LED	LED	LED	LED	LED	LED	LED	LED	LED	LCD	LCD	LCD	LCD	LCD	
Gate and Panic Button inputs															
Timed gate switch input, used to monitor open and closing of the gate	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes	
Panic button input	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes	
Alarm outputs															
Siren output, time programmable	Fixed	Fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Strobe light output to visually indicate an alarm condition	1	1	1	1	1	2	2	2	2	1	1	1	1	2	
Power supply and battery backup systems															
Mains supply voltage***	230V	230V	230V	230V	230V	230V	230V	230V	230V	230V	230V	230V	230V	100 – 240Vac / 50 – 60Hz	
Typical power consumption under normal operating conditions	17VA	18VA	16VA	27VA	27VA	27VA	27VA	27VA	27VA	18VA	18VA	25VA	27VA	25VA	
Internal battery backup system in case of power failure, capacity of battery	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	7 Ah	
Typical standby time, with a fully charged battery	24 hrs	36 hrs	24 hrs	6 hrs	8 hrs	7 hrs	6 hrs	7 hrs	6 hrs	24 hrs	24 hrs	24 hrs	9 hrs	24 hrs	
Solar power panels can be connected to power the energizers, (recommend Watt size for 24 hr operation)**	60 Watts	60 Watts	60 Watts	120 Watts	140 Watts	120 Watts	140 Watts	120 Watts	140 Watts	60 Watts	60 Watts	140 Watts	140 Watts	60 Watts	

Nemtek Energizer Brand	Wizord		Merlin	Merlin Stealth™				Stealth Master		Druid				
Model Number	2	4	4	M15S	M18S	M25S	M28S M28X	M25M	M28M	13 LCD	15 LCD	18 LCD	114 LCD	24 LCD
Solar voltage regulator	5 Amp	5 Amp	5 Amp	9 Amp	10Amp	9 Amp	10Amp	9 Amp	10 Amp	5 Amp	5 Amp	10Amp	10Amp	5Amp
Deep cycle battery size recommended in Amp hours (20 % discharge over a 24 hr cycle)	60 Ah	60 Ah	60 Ah	120 Ah	150 Ah	120 Ah	150 Ah	120 Ah	150 Ah	60 Ah	60 Ah	150 Ah	150 Ah	60 Ah
Wire length per energizer (live wires in a series system) for both solid and stranded wires														
Galvanised wires, 1.2mm														
• Optimal performance up to	2km	3km	3km	8km	10km	2x4km	2x5km	2x4km	2x5km	3km	5km	10km	15km	2x2km
• Maximum	4km	5km	5km	18km	25km	2x9km	2x13km	2x9km	2x13km	5km	8km	25km	35km	2x4km
Galvanised wires, 2.0mm, 2.24mm														
• Optimal performance up to	3km	4km	4km	16km	20km	2x8km	2x10km	2x8km	2x10km	3.3km	5km	20km	20km	2x3km
• Maximum	6km	10km	10km	35km	50km	2x17km	2x25km	2x17km	2x25km	6.6km	12km	50km	50km	2x6km
Stainless Steel 1.0mm, 304 and 316 grade														
• Optimal performance up to	0.5km	0.6km	0.6km	0.6km	0.7km	2x0.7km	2x0.8km	2x0.7km	2x0.8km	0.6km	0.7km	0.8km	0.9km	2x0.5km
• Maximum	0.6km	0.9km	0.9km	0.9km	1km	2x1km	2x1.2km	2x1km	2x1.2km	0.9km	1km	1km	1.2km	2x0.6km
Stainless Steel 1.2mm, 304 and 316 grade														
• Optimal performance up to	0.6km	0.7km	0.7km	0.8km	1km	2x0.8km	2x1km	2x0.8km	2x1km	0.7km	0.8km	1km	1km	2x0.6km
• Maximum	0.9km	1km	1km	1.1km	1.3km	2x1.1km	2x1.3km	2x1.1km	2x1.3km	1km	1.1km	1.3km	1.3km	2x0.9km
Stainless Steel 1.6mm, 304 and 316 grade														
• Optimal performance up to	1.2km	1.4km	1.4km	1.6km	2km	2x1.6km	2x2km	2x1.6km	2x2km	1.4km	1.6km	2km	2km	2x1.2km
• Maximum	1.8km	2km	2km	2.2km	2.6km	2x2.2km	2x2.6km	2x2.2km	2x2.6km	2km	2.2km	2.6km	2.6km	2x1.8km
Stainless Steel 2.0mm, 304 and 316 grade														
• Optimal performance up to	1.8km	2.1km	2.1km	2.4km	3.3km	2x2.4km	2x3km	2x2.4km	2x3km	2.1km	2.4km	3.3km	3km	2x1.8km
• Maximum	2.7km	3km	3km	3.3km	3.9km	2x3.3km	2x3.9km	2x3.3km	2x3.9km	3km	3.3km	3.9km	3.9km	2x2.7km
Aluminium Wire 1.6mm and 2.0mm														
• Optimal performance up to	6km	8km	8km	32km	40km	2x16km	2x20km	2x16km	2x20km	8km	10km	40km	40km	2x6km
• Maximum	12km	16km	16km	60km	80km	2x30km	2x40km	2x30km	2x40km	16km	20km	80km	80km	2x12km
Multi energizer systems														
Can be used in multi-energizer network system	No	No	No	No	No	Yes	Yes No	Yes	Yes	No	No	No	No	Yes
Compliance														
IEC 60335-2-76	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cispr 14, EN 61000	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Output energy is a function of component tolerance and energy settings, and is reduced during power failure.

YES* Indicates that this function is available at the cost of another function, further details are on our website www.nemtek.com.

** Solar Panel sizes and Battery capacities are based on the exposure to sunlight in southern Africa and can change depending on the location of the solar panels.

*** All energizers are manufactured with a 230Vac ± 10% transformer, 110 Volts are available on request. Batteries are supplied as a standard.

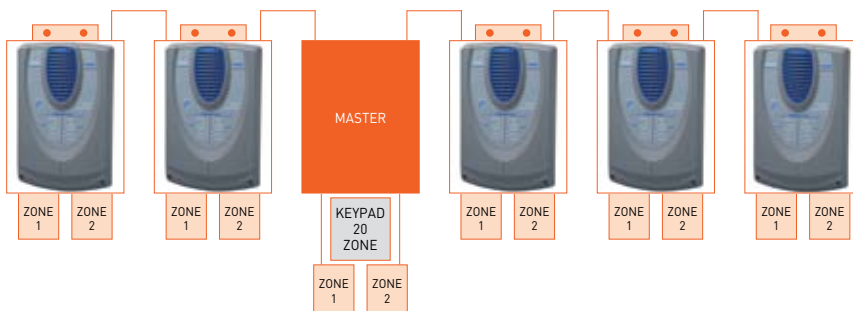
Specification may change without prior notice.

MULTI ZONED SYSTEMS

In situations where multiple electric fence zones are required both the Merlin Stealth and the Druid dual zone energizer systems offer a range of options.

USING THE MERLIN STEALTH M25S AND M28S ENERGIZERS

1. MASTER 4 – 20 ZONE SYSTEM



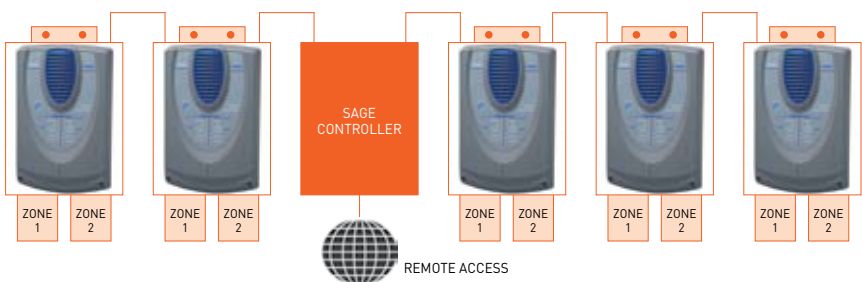
The Merlin master system comprises of a Merlin Stealth Master energizer and up to 9 standard dual zone Merlin Stealth energizers acting as sub-energizers or “slaves” to the Master. The master energizer has two zones and by adding 9 slaves to the system up to 20 electric fence zones can be controlled by one 20 zone LED keypad.

2. FG7 SYSTEM. 2 TO 32 ZONE SYSTEMS



The FG7 system provides the system operator with a touch screen user interface. This allows the operator to control and monitor up to 32 Merlin Stealth dual zone energizers, allowing for 64 zones. The FG7 communicates with a proxy controller that provides battery backup in the case of power failure. The administrator of the system can configure the system to allocate what is considered as an alarm condition.

3. NEMTEK FENCE PROBE SOFTWARE



The Sage controller provides TCP/IP connectivity to the outside world and in particular the Nemtek Fence Probe software allows a visual map image of the fence and its zones to be displayed on a computer screen. Each zone can be seen and controlled from a central computer. The Nemtek Fence Probe software can control a multitude of sites, logging events and visually displaying what is happening on the system.

4. THIRD PARTY SOFTWARE

The Merlin Stealth dual zone energizers range can be integrated with other technologies such as fire alarms, access control, CCTV and be part of a larger system using the Cortech Developments software. Visit www.cortech.co.uk for more information of this high-end management system.

USING THE DRUID 24 LCD ENERGIZERS

1. DRUID 24 LCD 4 ZONE SYSTEM



The Druid 24 LCD energizer can be networked into a 4 zone system using a second Druid 24 LCD energizer. No communication cards are needed for this simple and cost-effective 4 zone solution.

2. FG7 SYSTEM. 2 TO 64 ZONE SYSTEMS



The FG7 system comprises of a LCD touch pad and up to 32 Druid dual zone energizers. Up to 32 Druid dual zone energizers can be controlled by the FG7 offering up to 64 independent zones. This system can also control relay cards for other functions such as gate control and monitoring.

3. THIRD PARTY SOFTWARE

The Druid 24 dual zone energizers can be integrated with other software systems using software development kits (SDK) once these systems have been qualified by Nemtek.

COMMUNICATION CARDS ()

RS485 and fiber optic communication cards are available for both the Merlin Stealth and the Druid 24 dual zone energizers. These cards allow energizers that are located far apart to communicate with each other and the system. They are housed near or inside the energizers and are powered by the energizer.



RS485 CARD



RS485 CARD FOR D24 LCD



FIBER OPTIC CARD

Network Type	Energizer types	Max Zones per sites	Number of sites	Display and control	Physical network communication cards	External interface (Connectivity)
Master system	M25M, M28M, M25S, M25S	20	1	Led 20 zone keypad	1. RS485 2. Fiber optics	Mimic (relays)
FG7 system	M25S, M28S	32	1	LCD 7" touch pad	1. RS485 2. Fiber optics	
Nemtek Fence Probe software	M25S, M28S	32	5 (standard package)	Computer, screen and keyboard	1. RS485 2. Fiber optics	TCP/IP
Cortech Developments	M25S, M28S	32	Multiple	Computer, screen and keyboard	1. RS485 2. Fiber optics	TCP/IP, Expansion cards (Netiom)
Druid 24 – 4 zone system	D24	4	1	Led 4 zone keypad		Expansion card
FG7 system	D24	64	1	LCD 7" touch pad	1. RS485 2. Fiber optics	Expansion card TCP/IP
Third party software	D24	64	Multiple	Computer, screen and keyboard	1. RS485 2. Fiber optics	TCP/IP



BRACKETS AND ACCESSORIES

OMEGA BRACKETS

The Omega bracket offers a flexible solution to the piggy back systems, where an electric fence can use the mechanical strength of an existing fence to reduce the cost of constructing a complete new system. The Omegas can also be used to secure windows and roofs, thus making this bracket an extremely versatile and flexible solution. The pre-punched holes allow options of where insulators can be fixed.

FEATURES

- Available in pre-galvanised grade of mild steel for inland use
- Hot dip galvanised for coastal use where corrosion is high
- Available in pre-cut lengths, making it versatile and flexible where different lengths are required
- Lightweight, easy to transport reducing handling time and transport costs
- 2mm Omegas used for corners, end posts and gates where the bracket will be under stress of tensioning
- All 2mm omega brackets are hot dip galvanised for coastal use

OMEGA DOUBLE SHIELD INSULATOR



OMEGA BRACKET FINISH	OMEGA THICKNESS	OMEGA BRACKET – PRECUT SIZES (mm)						
		900mm	1 200mm	1 500mm	1 800mm	2 100mm	2 400mm	3 000mm
PRE-GALVANISED	1mm	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HOT DIP GALVANISED	1mm	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	2mm				Yes	Yes	Yes	Yes



OMEGA BRACKET ACCESSORIES

S-HOOK

- Suitable for end posts and gates
- HDG



90 DEGREE S-HOOK

- Suitable for corner posts
- HDG



180 DEGREE S-HOOK

- Suitable for splitting zones along straight runs
- HDG



OMEGA PULL THROUGH ASSEMBLY

- Ideal for wire change of direction in inner corners
- Quick and easy to install



OMEGA SPACER

- Used to offset the omega bracket away from the fence or wall
- Can be used on flat or round surfaces



OMEGA INSULATOR

- Quick fit design
- Double tracking fin to reduce tracking and arcing



HEAVY DUTY COMPRESSION SPRING

- Can be used with any electric fence wire
- Stainless steel spring



HYBRID BB HEAVY DUTY NYLON TENSIONER

- Can be used with any electric fence wire
- Can tension from 1.2mm to 2.5mm



WALL TOP BRACKETS AND ACCESSORIES

Nemtek brackets are made to a high standard to maximise security and long life in the field. The level of security achieved is directly affected by the choice of bracket, the number of wires forming the electrical barrier and the distance between the brackets. Nemtek offers a large range of brackets to suit most wall types and applications. They are made from steel and are finished in a high quality coating of outdoor powder, or hot dip galvanised for coastal conditions. Our factory can manufacture different types of designs and finishes on request.



PC: Powder coated finish, **HDG:** Hot dip galvanised, **HDG and PC:** First hot dip galvanised and then powder coated

	<p>SQUARE TUBE JURASSIC T-POLE</p> <ul style="list-style-type: none"> • 8 wires • Offering high security • Large base plate for stronger mounting • PC or HDG finish • 760mm long 		<p>SQUARE TUBE JURASSIC BRACKET</p> <ul style="list-style-type: none"> • 12 line fence offering high security • 25mm x 25mm square tube bracket • Three mounting holes for stronger mounting (footing) • Easy interchangeable Jurassic insulator • Greater arcing gap on insulator
	<p>T-POLE</p> <ul style="list-style-type: none"> • 6 wires • PC or HDG finish • 600mm long 		<p>PROFILE POLE</p> <ul style="list-style-type: none"> • 6 wires • PC or HDG finish • 385mm long
	<p>WALL TOP BRACKET STAYS</p> <p>Sturdy construction and support for brackets on corners and end of a fence.</p> <ul style="list-style-type: none"> • PC or HDG finish • 600mm, 750mm or 1 000mm long 		<p>STAY SLEEVE</p> <p>Insulates the stay thus reducing the potential of false alarm. Available in black and white.</p> <ul style="list-style-type: none"> • 600mm, 750mm or 1 000mm long
	<p>LUGS</p> <p>Lugs are used with the stays and are available for both the 8mm and 10mm stays.</p> <ul style="list-style-type: none"> • 6 x 70 • 6 x 35 		<p>HAMMER DRIVE NAIL IN ANCHORS</p> <ul style="list-style-type: none"> • Nylon plug and screw • For all bracket sizes • Zinc for coastal applications
	<p>STAY AND LUG</p> <ul style="list-style-type: none"> • Available in 600mm and 750mm • Available in black, white and hot dip galvanized • Easier and faster installation 		<p>COACH SCREWS AND PLUG</p> <ul style="list-style-type: none"> • Hot dip galvanised for coastal applications • Available for the square tube bracket
	<p>TEK SCREWS</p> <ul style="list-style-type: none"> • Self-drilling screws for mounting onto metal structures • HDG or electro-plated finish 		<p>STAY CLAMP</p> <ul style="list-style-type: none"> • Used with round bar brackets

MODULUS SYSTEM

The patented Modulus brackets are designed with flexibility in mind. By using the different components, a full range of sizes and different applications can be formulated. It gives the installer flexibility on the spacing of the insulators, amount of insulators and height of the fence. The key components are the 2-way and 3-way brackets. The 2-way is primarily used as an intermediate bracket. The 3-way is used as an end tensioning post, as a corner post, to change the wire direction, or as an inline strain post on long straight walls.



MODULUS 2-WAY BRACKET

- 2 660mm/27 wire EMOD – 2660C
- 2 360mm/24 wire EMOD – 2360C
- 1 960mm/20 wire EMOD – 1960C
- 1 160mm/12 wire EMOD – 1160C
- 960mm/10 wire EMOD – 960C
- 460mm/5 wire EMOD – 460C



MODULUS END CAP
19x19
EMOD – BENDCAP



MODULUS SLIDE
INSULATOR
EMOD – BSLD



MODULUS MOUNTING
BRACKET
Single hole EMOD – BRKT



KEY FEATURES OF THE MODULUS SYSTEM

- Durable and can be installed in most harsh environments
- Light to transport and easy to handle
- Insulator can be installed on both sides



MODULUS 3-WAY BRACKET

- 2 660mm/27 wire EMOD – 3WS2660C
- 2 360mm/24 wire EMOD – 3WS2360C
- 1 960mm/20 wire EMOD – 3WS1960C
- 1 160mm/12 wire EMOD – 3WS1160C
- 960mm/10 wire EMOD – 3WS960C
- 460mm/5 wire EMOD – 3WS460C



MODULUS END TRIPLE CAP 26x19
EMOD – BENDCAP 3



MODULUS SPACER
EMOD – BSPR



MODULUS HOOK
ES-HK/MOD



FREESTANDING SYSTEMS

Nemtek offers an angle iron or round post solution to the freestanding range. These posts can be used as end or intermediate posts, which generally will be concreted into the ground. Both the round and the angle iron posts are pre-drilled to fit the Nemtek hot dip galvanised hooks, tensioners and strain insulators, thus saving time.

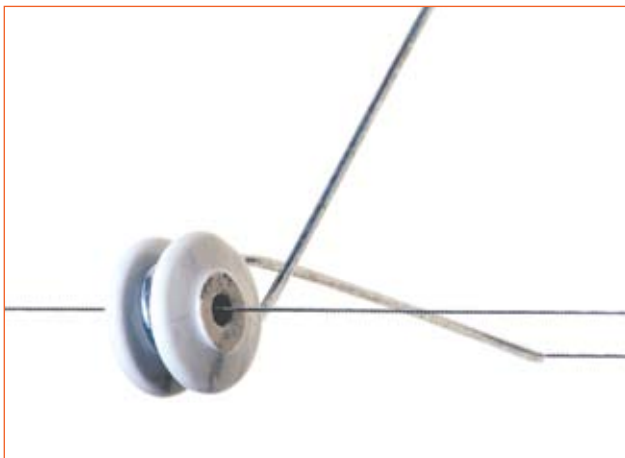
CORNER AND END STRAINING POSTS					
Angle Corner and End Straining Posts	Number of Wires	Number of Holes	Fence Height	Finish	Associated Stays
Angle Iron 60 x 60 x 6mm – 2.4m	20	2 x 20	2.0m	Hot Dip Galvanised or Bitumen	Angle 40 x 40 x 5mm – 2.4m
Angle Iron 60 x 60 x 6mm – 3.0m	24	2 x 24	2.4m	Hot Dip Galvanised or Bitumen	Angle 50 x 50 x 5mm – 3.0m
Round Corner and End Straining Posts	Number of Wires	Number of Holes	Fence Height	Finish	Associated Stays
Round Tube 76 x 2mm – 2.4m	20	2 x 20	2.0m	Hot Dip Galvanised	Round 38 x 2mm – 2.4m
Round Tube 76 x 2mm – 3.0m	24	2 x 24	2.4m	Hot Dip Galvanised	Round 48 x 2mm – 3.0m
INTERMEDIATE POSTS					
Nemtek Picket Intermediate Posts	Number of Wires	Number of Holes	Fence Height	Finish	Associated Insulators
Nemtek Y Picket – 1.5m	11	11	1.1m	Hot Dip Galvanised or Bitumen	Picket Insulator
Nemtek Y Picket – 2.4m	20	20	2.0m	Hot Dip Galvanised or Bitumen	Picket Insulator
Nemtek Y Picket – 3.0m	24	24	2.4m	Hot Dip Galvanised or Bitumen	Picket Insulator
Y Standard Intermediate Posts	Number of Wires	Number of Holes*	Fence Height	Finish	Associated Insulators
Y Standard – 2.4m	20	40	2.0m	Bitumen	Y Standard Insulator
Y Standard – 3.0m	24	48	2.4m	Bitumen	Y Standard Insulator



* Number of holes may vary.

OFFSET BRACKETS

Offset brackets utilise the strength and rigidity of an existing fence reducing costs of the electric fence system. They are generally used for animal control and are available in 4mm galvanised high tensile steel.



Live wire offset bracket

Available in 225mm offset and 450mm. Heavy galvanising option on request.



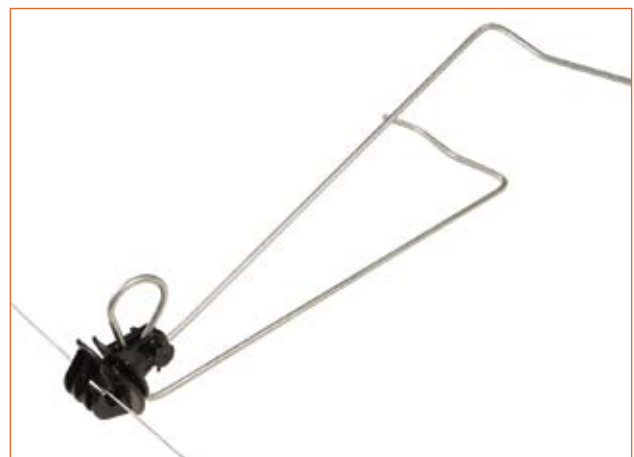
Live and earth wire offset bracket

Available in 225mm offset and 350mm. Heavy galvanising option on request.



Triple offset bracket

Available in 240mm. Double live and earth. Heavy galvanising option on request.



Out riggers bracket with picket insulator

Available in 230mm and 340mm. Quick and easy installation. Insulators can be changed without re-wiring. Heavy galvanising option on request.

FENCING WIRES AND CABLES

FENCE WIRES

A variety of solid and stranded (also known as braided) Nemtek wires are available to address the different environmental, mechanical strength, and electrical resistance requirements. The flexibility offered by the stranded wire construction makes working with the wire easier during installation and results in a neat clean look on the fence without compromising the fence performance.

ALUMINIUM WIRE

- This wire is available in both solid and stranded wire construction; 1.6 and 2.0mm
- Aluminium wire has the lowest resistance of all Nemtek wires, allowing long fences to be powered up, reducing the number of energizers required



- It has a high resistance against corrosion, offering a long lifespan on the fence

STAINLESS STEEL WIRE

- This wire is available in both solid and stranded wire construction, in a 304 and 316 grade
- 316 being the grade of choice for high corrosive coastal areas, where 304 can be used in less aggressive environments

GALVANISED WIRE

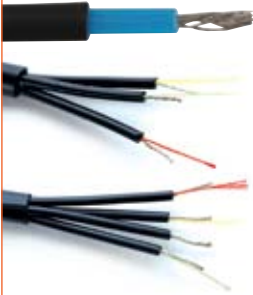


- This wire is available in both solid and stranded wire construction
- Galvanised A-grade stranded wire, 1.2mm, 1.6mm, 2.0mm. The larger diameters offer lower electrical resistance for longer fence lines, are hard to cut, and have a longer life span
- Galvanised 2.24mm is available in both light and heavy galvanised. This wire is mainly used for freestanding fencing where high strength mechanical fence is needed, such as game and animal control fencing applications

WIRE RANGE	WIRE DESCRIPTION	WIRE SPECIFICATION		CORROSION GUIDELINES*			
		DIAMETER	RESISTANCE (OHMS/KM)	INLAND	COASTAL	HEAVY INDUSTRIAL	DISTANCE FROM THE COAST LINE
Galvanised wire range	Stranded galvanised wire	1.2mm	175	Yes	-	-	+50km
	Stranded galvanised wire	1.6mm	100	Yes	-	-	+50km
	Stranded galvanised wire	2.0mm	60	Yes	-	-	+50km
	Light galvanised high strain wire	2.24mm	50	Yes	-	-	+50km
	Heavy galvanised high strain wire	2.24mm	50	Yes	Yes	Yes	+0.5km
Stainless Steel 304 grade	Solid stainless steel wire	1.0mm	1 000	Yes	Yes	Yes	+5km
	Solid stainless steel wire	1.2mm	700	Yes	Yes	Yes	+5km
	Stranded stainless steel wire	1.2mm	700	Yes	Yes	Yes	+5km
Stainless Steel 316 grade	Solid stainless steel wire	1.0mm	1 000	Yes	Yes	Yes	+0km
	Solid stainless steel wire	1.2mm	700	Yes	Yes	Yes	+0km
	Solid stainless steel wire	1.6mm	390	Yes	Yes	Yes	+0km
	Solid stainless steel wire	2.0mm	250	Yes	Yes	Yes	+0km
	Stranded stainless steel wire	1.2mm	700	Yes	Yes	Yes	+0km
Aluminium Solid	Solid aluminium alloy wire	1.6mm	27	Yes	Yes	-	+0.5km
	Solid aluminium alloy wire	2.0mm	14	Yes	Yes	-	+0.5km
Aluminium Stranded	Stranded aluminium alloy wire	1.6mm	31	Yes	Yes	-	+0.5km
	Stranded aluminium alloy wire	2.0mm	18	Yes	Yes	-	+0.5km



* This table serves as a guideline only. For more accurate information, please seek professional advice on the corrosion environment and local conditions.

HIGH VOLTAGE CABLE

Nemtek offers a range of high voltage cables to lead out from your energizer to the fence and for all other insulated high voltage transmissions. The high voltage cables have been designed for a long life expectancy and low resistance on permanent fencing systems in most weather conditions. All Nemtek high voltage cables are double insulated.

	<p>S-SERIES HIGH VOLTAGE CABLE</p> <ul style="list-style-type: none"> • The S-Series high voltage cables can be used with all the Nemtek solid and stranded galvanised and stainless steel wire • Slimline designed for ease of installation and an aesthetically pleasing look • The 3, 4 and 5 core S-Series is faster to install than the standard single core high voltage cable
	<p>A-SERIES HIGH VOLTAGE CABLE</p> <ul style="list-style-type: none"> • The A-Series high voltage cable is used with the range of aluminium wires and galvanised earth spikes • Ideal for coastal conditions where aluminium wire is used • Low electrical resistance reducing power and voltage drops over long distances
	<p>U-SERIES</p> <ul style="list-style-type: none"> • The U-Series high voltage cable is used with galvanised wires • Available in 1.6mm and 2.5mm heavy galvanised inner conductor

WIRE AND CABLE CONNECTORS















	<p>FERRULES</p> <ul style="list-style-type: none"> • Available in tinned copper, aluminium and stainless steel • Ferrules offer a permanent connection and cannot be removed (for high security) • Good mechanical connection for a good electrical conductivity • Tinned copper is available in 6mm, 10mm and 16mm; aluminium in 6mm and 10mm; and stainless steel in 6mm
	<p>LINE CLAMPS</p> <ul style="list-style-type: none"> • The line clamps are used for the larger wire diameters • Can connect after the wire has been installed • 6mm electro-galvanised • 8mm mechanically galvanised for long life

INSULATOR RANGE




PLASTIC INSULATORS

Nemtek offers a range of plastic and porcelain insulators. The plastic products are designed for a long life. They are all UV stabilised for external use and only virgin materials are used in their manufacture.

	<p>ROUND BAR INSULATOR</p> <ul style="list-style-type: none"> • Used with the 10mm roundbar • Flexible inner core for increased clearance • Black and white 	
	<p>FLAT BAR INSULATOR</p> <ul style="list-style-type: none"> • Quick fit clips on the top and bottom for faster installation • Feed through clip option built in • Easy to change and maintain • Black and white 	
	<p>QF INSULATOR FOR SQUARE TUBING</p> <ul style="list-style-type: none"> • Longer tracking distance for less arcing • Feed through clip option built in • Black and white 	
	<p>NAIL ON INSULATOR</p> <ul style="list-style-type: none"> • Large clips for heavy duty applications with thicker wires • Larger clearance to eliminate power leakage • Black and white 	
	<p>Y STANDARD INSULATOR</p> <ul style="list-style-type: none"> • Quick fit design – easy to replace when required • Suitable for Y standard brackets • Anti-climb shear pin • Black and white 	
	<p>OMEGA INSULATOR</p> <ul style="list-style-type: none"> • Double tracking fin to reduce tracking and arcing • Quick fit design for the Omega bracket • Anti-climb version available • Black only 	
	<p>OMEGA PULL THROUGH INSULATOR</p> <ul style="list-style-type: none"> • Heavy duty and durable design • Large creepage distance • Black only 	
	<p>POP THROUGH HOLE INSULATOR</p> <ul style="list-style-type: none"> • Secure through insulator • Larger creepage distance to reduce power loss and arcing • Black and white 	







	<p>STRAIN INSULATOR – JUMBO</p> <ul style="list-style-type: none"> • Suitable for fences using up to 2.0mm wire • Larger creepage distance to reduce power loss • Suitable for low to medium tensioned fences • Black and white 	
	<p>STRAIN INSULATOR – ULTRA</p> <ul style="list-style-type: none"> • Suitable for fences using up to 2.5mm wire • Larger creepage distance to reduce power loss • Suitable for medium tensioned fences • Black and white 	
	<p>STRAIN INSULATOR – HARDENED ULTRA</p> <ul style="list-style-type: none"> • Suitable for fences using up to 3.0mm wire • Suitable for high tensioned fences • Black only 	
	<p>PICKET INSULATOR</p> <ul style="list-style-type: none"> • Used with Nemtek Y Picket • Double tracking fin to reduce tracking and arcing • Quick fit design clip • Black only 	
	<p>JURASSIC INSULATOR – SLOTTED</p> <ul style="list-style-type: none"> • Wire slot for quick installation • Larger creepage distance to reduce power loss • Black only 	
	<p>JURASSIC INSULATOR – THREAD THROUGH</p> <ul style="list-style-type: none"> • For high security • Larger creepage distance to reduce power loss • Black only 	
	<p>TENSION BOBBIN INSULATOR</p> <ul style="list-style-type: none"> • Heavy duty large insulator • Used with offset bracket where fire is not a concern • Black only 	



PORCELAIN INSULATORS















	<p>Fireproof insulators are generally used on game farms or farms where the likelihood of fire is high. These Nemtek insulators are made of porcelain and can withstand high temperatures for a prolonged period of time.</p>	
	<p>FEATURES</p> <ul style="list-style-type: none"> • Fireproof • Large design to reduce power loss • Suitable for long runs • Can withstand high tension 	

WIRE TENSIONING SYSTEMS

TENSIONING SYSTEMS AND ACCESSORIES

	<p>COMPRESSION SPRING LIMITER</p> <ul style="list-style-type: none"> • Light and medium duty: Available in a standard tension (silver) which can tension up to 1.2mm wires and a medium tension (gold) spring which can tension up to 1.6mm wires • It eliminates galvanic reaction between dissimilar metal thus reducing rust and can be used with any type of wire • Available in black and white 	
	<p>MINI NYLON TITAN TENSIONER</p> <ul style="list-style-type: none"> • The fence needs to be tensioned after installation, especially when the system needs maintenance due to sagging wires • It eliminates galvanic reaction between dissimilar metal thus reducing rust • Ideal for tensioning wires up to 1.2mm galvanised or stainless steel, and up to 1.6mm aluminium wire • A large headed screwdriver, which is generally easily available, is used to turn the spindle 	
	<p>HYBRID NYLON TENSIONER</p> <ul style="list-style-type: none"> • Offers what the compression spring and the mini nylon titan has to offer in one easy-to-use system. Available in a standard tension (silver) spring which can tension 1.2mm wires and a heavy tension (gold) spring which can tension up to 1.6mm wires • Combination of two tensioning systems, an active system to expand and compress as required, and the mini titan can take up any slack that has been created over time 	

	<p>HEAVY DUTY COMPRESSION SPRING</p> <ul style="list-style-type: none"> • Can be used with any electric fencing wire • Stainless steel spring • Black only 	
	<p>HYBRID BB HEAVY DUTY NYLON TENSIONER</p> <ul style="list-style-type: none"> • A hardy heavy duty tensioner for all weather types • Can tension a 1.2mm to 2.5mm wire, making it very versatile • It eliminates galvanic reaction between dissimilar metal thus eliminating rust and can be used with any type of wire 	
	<p>STANDARD TENSIONER</p> <ul style="list-style-type: none"> • Galvanised permanent fence wire strainer • Can tension a 1.2mm to 2.5mm wire • Only use with galvanised wires to avoid galvanic reaction 	
	<p>COMBO TENSIONER STANDARD</p> <ul style="list-style-type: none"> • Insulator and tensioning system combined, minimising the need for an insulator • Hot dip galvanised body • Can tension a 1.2mm to 2.5mm wire • Only use with galvanised wires to avoid galvanic reaction 	
	<p>COMBO TENSIONER PORCELAIN</p> <ul style="list-style-type: none"> • Insulator and tensioning system combined, minimising the need for an insulator • Hot dip galvanised body • Fireproof insulator 	

	<p>MODULUS HOOK</p> <ul style="list-style-type: none"> • Stainless steel hook for long life expectancy • Quick fit onto the Nemtek Modulus slide insulator 	
	<p>LARGE TAIL HOOK</p> <ul style="list-style-type: none"> • Stainless steel hook for long life expectancy • Large tail to fit the Nemtek range of tensioning devices • Quick fit onto the Nemtek round and flat bar insulator • Heavy duty 2.5mm large tail hooks available 	
	<p>HOOK BOLT</p> <ul style="list-style-type: none"> • Electro galvanised hook bolt • Adjustable nut for finer adjustment 	
	<p>S-HOOK</p> <ul style="list-style-type: none"> • Hot dip galvanised for long life expectancy • Heavy duty durable design • Suitable for the Omega brackets, angled and round corner poles 	
	<p>90 DEGREE S-HOOK</p> <ul style="list-style-type: none"> • Hot dip galvanised for long life expectancy • Heavy duty durable design • Suitable for omega brackets 	
	<p>180 DEGREE S-HOOK</p> <ul style="list-style-type: none"> • Hot dip galvanised for long life expectancy • Heavy duty durable design • Suitable for omega brackets 	
	<p>THROUGH HOLE S-HOOK</p> <ul style="list-style-type: none"> • Hot dip galvanised for long life expectancy • Heavy duty durable design 	

FENCING TOOLS AND TESTERS

FENCING TOOLS AND WIRE DISPENSERS



LARGE WIRE DISPENSER

- Portable design



BRAIDED WIRE REEL HOLDER

- Hot dip galvanised wire dispenser



DISTANCE MEASURING WHEEL

- Quick, walk along distance measuring tool



KNIPPEX WIRE CUTTER

- Designed for high tensile wire cutting



PROFESSIONAL CRIMPING TOOL

- Durable ferrule crimping tool



HALF INCH RACHET

- For the Hybrid BB heavy duty tensioner



Y STANDARD POST DRIVER

- Used as a hammer to drive Y standards into the ground

FENCE SCOPE™ MULTI TOOL



Helping you diagnose problems and optimise your electric fence installation

FOUR SELECTABLE MODES OF OPERATION

- Fence Probe – quickly indicates the direction of a fault, showing the voltage and current
- Fence Energy – accurately measures the output energy (joules)
- Fence Scope – can record and display the waveform of the pulse
- Fence Noise – shows the amount of electromagnetic interference generated by the fence or energizer

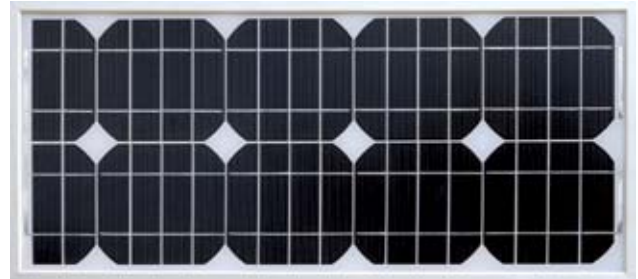
FEATURES

- Large graphic display with resolution of 128 x 64 picture elements
- Audio tone frequency output varies depending on the voltage for a quick measurement
- Simple five key user interface
- Designed for use up to 16 kV

SOLAR POWER

SOLAR PANELS

Nemtek solar panels offer a reliable source of power for electric fence systems in remote areas or where AC power supply is unreliable.



FEATURES

- Ease of access. In remote areas or over long distances, access to mains power can be difficult or expensive to run.
- Cost-effective. The solar panel harnesses the energy of the sun, stores it into a battery, and then uses it when needed – so no monthly costs.
- Uninterrupted power. The loss of power renders any security system useless. A solar powered backup can ensure no loss of power as a result of power cuts.

Module Characteristics:	SOL-SYS2W	SOL-SYS5W	SOL-SYS10W	SOL-SYS20W	SOL-SYS40W	SOL-SYS90W	SOL-SYS140W
Maximum Power (Pmax)	2 Watt	5 Watt	10 Watt	20 Watt	40 Watt	90 Watt	140 Watt
Voltage at Pmax	17.2V	17.2V	17.2V	17.2V	17.2V	17.2V	17.2V
Current at Pmax	0.12A	0.29A	0.58A	1.16A	2.32A	5.23A	8.14A
Open-circuit voltage (Voc)	21.6V	21.6V	21.6V	21.6V	21.6V	21.6V	21.6V
Short-circuit current (Isc)	0.14A	0.33A	0.68A	1.31A	2.57A	5.65A	9.26A
Operating temperature	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Weight	0.35kg	0.45kg	0.6kg	2.6kg	4.2kg	8kg	11.5kg
Module dimensions	186 x 140 x 18mm	251 x 205 x 18mm	385 x 280 x 30mm	646 x 290 x 30mm	646 x 580 x 30mm	1 198 x 546 x 35mm	1 492 x 670 x 35mm

BATTERIES



Battery Characteristics:	BAT-B55	BAT-B100
Nominal voltage	12V	12V
Nominal capacity	55Ah	100Ah
Type	Deep Cycle – Discharge – Sealed Rechargeable Battery	
Weight	17.5kg	29.8kg
Dimensions	229 x 138 x 213mm	329 x 172 x 218mm

REGULATORS

The efficient Nemtek LCD solar controller will minimise power losses when regulating the voltage while charging the battery. The controller is equipped with various devices to protect its electronics against:

- reverse polarity of the solar modules
- reverse polarity of the load and the battery
- overcharging and deep discharging of the battery

The controller will record and display information such as battery voltage, charging current, load current, battery charging and discharging on the LCD.



Regulator Characteristics:	SOL-PCS10-24C	SOL-PCS15-24C
System voltage	12V / 24V	
Maximum charge current	10A	15A
Maximum load current	10A	15A
Maximum consumption current	12mA	
Final charging voltage (floating charge)	Liquid: 13.9V / 27.8V Gel: 14.1V / 28.2V	
Fastest charge voltage	14.4V / 28.8V (2:00h)	
Even charge (except gel battery)	14.7V / 29.4V (2:00h)	
DOD recovery value (SOC/LVR)	>50% SOC (12.6V / 25.2V)	
DOD protecting value (SOC/LCD)	<30% SOC (11.1V / 22.2V)	
Operating temperature	-10°C to 50°C	
Installation	Wall Installation	
Weight	0.35kg	
Dimensions	187 x 96 x 44mm	

MOUNTING BRACKETS

Quick and easy to install onto most of the Nemtek solar panels.

Mounting Bracket Characteristics:	SY-SYZ040R
Adjustment Angle:	15°, 30° and 45°
Weight	2.4kg
Dimensions	580 x 50 x 30mm
Use on Panel	20W, 40W, 90W and 140W
Material Thickness	4mm
Material Composition	Extruded Aluminium
Fasteners	Stainless Steel

Mounting bracket available for fitment on top of shock box.





GENERAL FENCING ACCESSORIES

WARNING DEVICES



WARNING SIGNS

- UV protected for long life
- Wire clips on the warning sign reduce installation time
- Compliance requirements, every 10m and change of direction
- IEC 60335-2-76 compliant
- Custom-made version available to order

FENCELIGHT

- Install it on your electric fence to indicate power status for peace of mind
- One directional viewing angle, allowing the light to shine into the secure area only. The status is not visible to external areas
- Working voltage between 3 kV and 12 kV approximately
- Dual stage design allows the intensity on the light to increase as the voltage on the fence increases, giving a better indication of how much voltage is on the fence
- Can be installed between any earth and live wires
- Can be used with most electric fence energizers



SIRENS

- Available in 15 and 30 watt power output
- 12 volt DC supply

STROBE LIGHTS

- Visual indicator of an alarm
- Used to show the status of a fence after an alarm condition offering a visual alarm event memory
- 12 volt DC supply



ENERGIZER ENCLOSURES



METAL ENCLOSURE

- Powder coated metal enclosure with an inspection window
- Available in three sizes:
 - (h) 460 x (w) 305 x (d) 230
 - (h) 600 x (w) 460 x (d) 230
 - (h) 600 x (w) 800 x (d) 300
- Includes backing board



FIBREGLASS ENCLOSURE

- Weatherproof plastic
- For coastal applications with a stainless steel latch
- (h) 450 x (w) 300 x (d) 210
- Includes backing board



ALUMINIUM BOX

- Ventilated
- Large capacity to house double energizers, solar regulator and deep cycle batteries
- (h) 800 x (w) 600 x (d) 300
- Aluminium tread plate for coastal application
- Includes backing board
- **Available in shock box version**

GATE CONTACTS

HEAVY DUTY SLIDING GATE CONTACT WITH AN OPTIONAL GALVANISED STEEL MOUNTING BRACKET

- Used for series wiring of the gate
- Suitable for any sliding gate
- Robust construction using stainless steel and brass, making it suitable for outdoor use in most climates
- Large location plates allow for increased tolerance



LIGHTNING DIVERTERS

Lightning and power surges are the most common causes of electronic failure in energizers. Nemtek energizers have extensive lightning protection built into the units to help reduce the possibility of damage. Additional external



lightning protection reduces the likelihood of a surge coming through the fence wires and the mains supply into the energizer. Lightning kits help divert any power surge that may occur on the fence line away from the energizer and into the ground.

Nemtek offers four kits for protecting the energizer from surges:

- LDK1.** Offers protection for a single zone fence energizer
- LDK2.** Offers protection for a dual zone fence energizer
- LDK3.** Offers protection for a single zone fence energizer as well as mains protection
- LDK4.** Offers protection for a dual zone fence energizer as well as mains protection

EARTH SPIKES



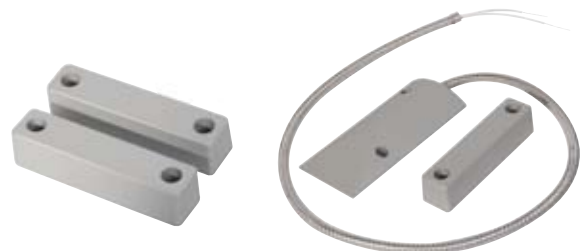
- Hot dip galvanised or copper clad earth spikes with nuts and washers
- Available in both 1.0m and 1.2m lengths
- Earthing kit available to be used in areas where the earthing conditions are not good. These kits include a conductive earth compound
- The double nut and washer makes a good electrical connection with the HT cables

CUT OUT SWITCH



- Isolates a section of the fence to allow for easy maintenance and fault finding

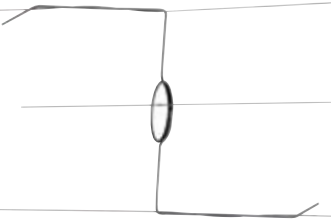
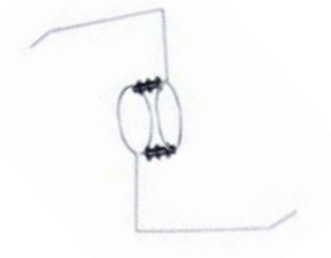

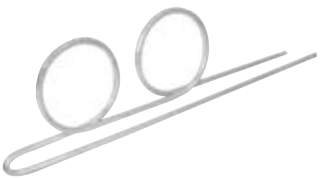
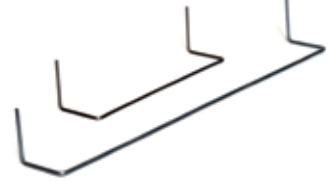
MAGNETIC CONTACTS



- Magnetic contacts are made of aluminium and are used to monitor the status of a pedestrian or vehicle gate

EARTH LOOPS AND BRIDGING WIRES

Earth loops are used to enhance the level of security offered by an electric fence by detecting attempted separation of fence wires and leaving just enough room for natural movement of the live wire. When a wire touches the loop a connection or short is made and the alarm will sound.

	<p>IN LINE LOOP</p> <ul style="list-style-type: none"> • Installed onto the fence wire, generally between the earth wires • Available in galvanised and stainless steel
	<p>EARTH LIVE LOOP</p> <ul style="list-style-type: none"> • Installed onto the fence wire, generally on the live wires • Available in galvanised finish
	<p>WALL MOUNTED EARTH LOOPS</p> <ul style="list-style-type: none"> • Installed onto the wall protecting the bottom wires on a wall top fence • They offer protection against lifting of the fence wires • Available in stainless steel, angled or straight depending on the type of Nemtek bracket used
	<p>GROUND ANTI CREEP LOOP</p> <ul style="list-style-type: none"> • Used in the freestanding applications to reduce the possibility of lifting of the fence • Concreted for maximum stability • Available in hot dip galvanised finish for a long life
	<p>QUICK FIT BRIDGING WIRE</p> <ul style="list-style-type: none"> • Reduces installation time, with an aesthetic and neat finish • Available in 100mm and 200mm stainless steel and galvanised wire • Hard to cut

GATE HANDLE AND SPRINGS



INSULATED HANDLE WITH HOOK

- Gate handle used with the galvanised spring
- Non-slip grip



GALVANISED SPRING 3.5M

- Used together with the insulated handle with hook to secure gates



GATE HANDLE WITH SPRING

- Used to secure gate

Animal control and safe keeping



The Nemtek group manufactures a range of electric fencing products that are dedicated to the safe guarding and controlling of animals. Over and above our game farm range of solutions, we offer a range of Nemtek products dedicated to horses, pets and farm animals. The equine range offers a modern design range to electric fencing products to keep horses safe and protected. The solar powered Petstop range was designed to keep pets safe and away from areas where they are at risk of being hurt. It can also be used to keep pets away from areas where they are not wanted to venture into.

An agricultural range is also available for farm animals to keep them safe and control their movements. This range can also keep wild animals away from farm areas without harming them.

Please visit www.nemtek.com to see our large range of animal control products.

TIPS TO INCREASE YOUR SECURITY

Nemtek's worldclass products are designed and manufactured to ensure a high security solution and offer reliability for many years. Due to the large range of products on offer here are a few tips to ensure your system meets your security needs and operates reliably.

- Spacing between fence wires must not exceed 100mm. This will reduce attempts to part wires. Earth or live loops fitted on the fence will cause an alarm when there is an attempt to part the wire.
- The bottom fence wire where possible should be live and fitted with an anti lift loop where there is a threat of lifting this bottom wire. The top wire must also be live.
- All electric fencing live wires must be connected in a series circuit so that a cut live wire can be detected anywhere along the fence.
- Spacing between posts must not exceed 3 metres. This will discourage attempts to part wires. In the case of freestanding fencing it is recommended that a shorter post be placed between the main posts reducing the span to 1.5m. This in-between shorter post will stop any attempts to lift the bottom wires. Ensure that the ground under the freestanding fencing is secure and not easy to dig under. The height of the freestanding fence must be at least 2m.
- The height of the bracket above the wall is important, the higher the wall brackets the more it discourages attempts to step over the fence. The wider walls will need higher and angled brackets to cover the span of the wall top and reduce any chance of standing on the wall.
- The fence wires must be under constant tension using compression springs. This will improve the aesthetics and the security of the fence.
- Alarm zones lengths should not be longer than 200 metres. The zones must be powered by independent energizer zones. This will help locate the fault faster. This is not always possible due to cost and location constraints. In high security areas shorter zones are recommended.
- No two zones must rely on each other being intact to operate effectively and must be independently alarm monitored. This is important in the case of an attempted multi-point entry breach of the fence.
- Gates can be a weak point. Make sure that sliding gates cannot be lifted up off the rack and be slid open. In the case of swing gates they can be forced open when they are closed. These gates can be monitored for unauthorised entry using a magnetic switch.
- Ensure that the fence is kept free of vegetation.

Frequent testing of the fence is imperative. This test must be on a few points along the fence line.

GENERAL INFORMATION

WARRANTIES: Energizer electronics come with a two year warranty, subject to our standard terms and conditions as set out on the Nemtek website.

COMPLIANCE: Nemtek energizers and products conform to the standards set out by the IEC 60355-2-76, CISPR 14 and EN 6100. Please refer to energizer section of the Nemtek website for more details (www.nemtek.com).

SPECIFICATIONS: Product details can change without prior notice. This brochure is for general information and marketing purposes only.

TERMS AND CONDITIONS OF SALE: Sales of all Nemtek products are done subject to our standard terms and conditions of sale and our distribution agreements. Nemtek terms and conditions of sale are available at all Nemtek branches.

Authorised distributors and representative offices are available around the world, please contact us at exports@nemtek.com for further information.

TRAINING COURSES: Nemtek offers training courses for beginners and advanced training on the principles of electric fencing and also on all the products that it manufactures. The scheduled course dates are displayed on our website on www.nemtek.co.za or email us at training@nemtek.com.

For international training courses please email exports@nemtek.com.

NEMTEK
Electric Fencing Products



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