

Orientation of bridging wires:

Diagram 7 indicates the correct orientation of the bridging wire on the DATS3 to reduce arcing for the Earth and Live connections

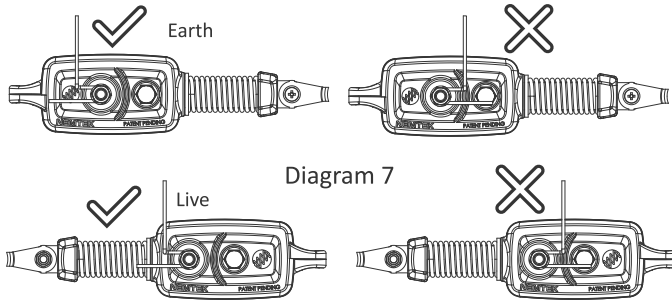


Diagram 7

WARRANTY

Unless otherwise specified all Nemtek energizers have a 2 year warranty and all other fencing components have a 1 year warranty from date of sale against defects due to faulty workmanship or materials.

Nemtek (Pty) Ltd will, at its discretion, either repair or replace a product that proves to be defective.

Nemtek (Pty) Ltd does not guarantee that the operation of the product will be uninterrupted and totally error free. Faulty units must be returned to one of the Nemtek Group outlets. The buyer shall pay all shipping and other charges for the return of the product to Nemtek (Pty) Ltd.

LIMITATION OF WARRANTY

The warranty does not apply to defects resulting from acts of God, modifications made by the buyer or any third party, misuse, neglect, abuse, accident or mishandling.

EXCLUSIVE REMEDIES

The remedies provided herein are Nemtek (Pty) Ltd's sole liability and the buyers sole and exclusive remedies for breach of warranty.

Nemtek (Pty) Ltd shall not be liable for any special, incidental, consequential, direct or indirect damages, whether based on contract, tort, or any other legal theory. The foregoing warranty is in lieu of any and all other warranties, whether expressed, implied, or statutory, including but not limited to warranties of merchantability and suitability for a particular purpose.

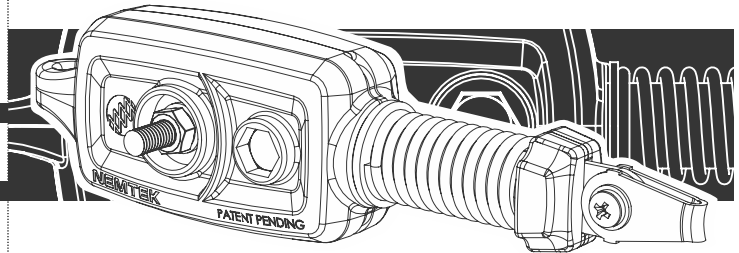
NEMTEK Dual Action Tension Sensor

www.nemtek.com

Models:

TS-DATS3 - Dual Action Tension Sensor 15kg Set (Galvanised)

TS-DATS3/SS - Dual Action Tension Sensor 15kg Set (Stainless Steel)



INTRODUCTION

The Nemtek Dual Action Tension Sensor - DATS (Diagram 1) can detect a change of tension of the fence wire. It uses the electric fence monitoring circuit to create an alarm condition on the energizer. The dual action increases the likelihood of an intruder being detected and reduces the possibility of tampering.



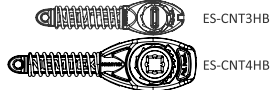
Diagram 1

INSTRUCTIONS

1. The Dual Action Tension Sensor is paired up with the Nemtek Compression Spring Hybrid (Diagram 2).

- The ES-CNT3HB pairs with the DATS3 for wire diameters up to 2.0mm
- The ES-CNT4HB pairs with the DATS3 for wire diameters greater than 2.0mm

Diagram 2



2. The Compression Spring Hybrid is used to maintain the tension of the fence wires. The spring must be compressed to at least 80%. The Compression Spring Hybrid is typically installed on the opposite side of the fence wire relative to the Dual Action Tension Sensor.

Connecting the DATS with a typical live wire fence line

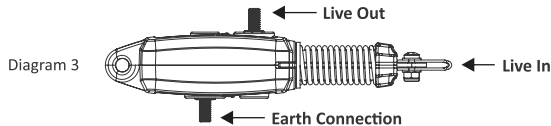


Diagram 3

1. The live wire feed must come from the front (piston) of the Dual Action Tension Sensor. This will ensure that the 2nd stage of detection is still available as an alarm condition.
2. The DATS live out will be connected to a bridging wire. (Galvanised bridging wire for the TS-DATS3 and Stainless Steel bridging wire for the TS-DATS3/SS.)
3. The DATS earth connection is secured to a fence earth wire using a bridging wire. (Galvanised bridging wire for the TS-DATS3 and Stainless Steel bridging wire for the TS-DATS3/SS.)

Connecting the DATS with earth wire monitoring from the fence line

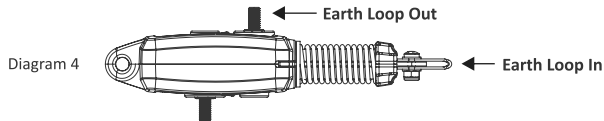
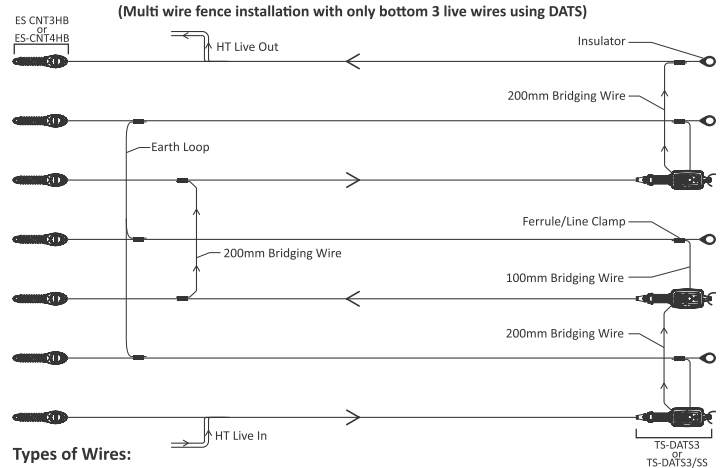


Diagram 4

The DATS can be used in cases where the earth wire monitoring is allowed on a fence. In this case the DATS capability will be relied upon to detect a change in tension on the fence line.

7 WIRE FENCE INSTALLATION SETUP

Diagram 5



Types of Wires:

1. **Stainless Steel wire:** both the stranded and solid wires will perform well due to their inherent tensile strength and low elongation under tension. Typical runs of 50m with no aggressive change of direction. Wire diameter of 1.60mm to 2.50mm. Use the TS-DATS3/SS model to minimise galvanic reactions with the stainless steel fencing wire.
2. **Galvanised wire:** both the stranded and the solid wires will perform well due to their inherent tensile strength and low elongation under tension. Typical runs of 50m with no aggressive change of direction. Wire diameter of 1.60mm to 2.50mm. Use the TS-DATS3 model to minimise galvanic reactions with the galvanised fencing wire.
3. **Aluminium wire:** the solid wires will perform well but caution is advised due to the wire's inherently long elongation under tension. The elongation on the braided aluminium may result in shorter runs being detected. Typical runs of 50m for the solid and 40m for the braided with no aggressive change of direction. Wire diameter of 2.0mm to 2.50mm. Use the TS-DATS3 model to minimise galvanic reactions with the aluminum fencing wire.

Brackets and Insulator types:

Most insulator types manufactured by Nemtek can be used if the wire can move freely through these insulators. The fencing brackets must not be installed more than 3m apart. Wall-top loops must still be used for the bottom two wires in a wall-top installation to increase the likelihood of detection.

Change of wire direction:

The DATS works best if there are no changes of direction in the wire run. If there are changes, they must not be aggressive to allow the wire to move freely. Once the system is set up, tests are conducted to make sure that the DATS will still detect after a change of direction.

Testing and maintaining the fence system:

A force of 4.5kg applied in the middle of any two fencing brackets should be enough to set off the first trigger on the DATS anywhere along the fence. This should be tested periodically to ensure correct operation. The Compression Springs (ES-CNT3HB and ES-CNT4HB) must be visually inspected periodically to see that it is still over 50% compressed and tensions to 80% as and when required.

Orientation of DATS unit:

Diagram 6 indicates the correct orientation of the DATS to reduce the likelihood of arcing.



Diagram 6