Layer One Intrusion Detection

Physical protection of network cable infrastructure
Information has become one of the most sought-after commodities in the world today. Protecting the vital flow of data from theft and sabotage is becoming increasingly challenging for every organization: The cables used to form networks - both fiber optic and copper-based - are all vulnerable to any intruder wishing to tap into their data streams.

That's why Fiber SenSys offers SecurLAN®, an intrusion detection system designed to protect data networks at the physical layer.

SecurLAN protects network data by securing the network data cables. Using an advanced technology originally designed for protecting fenced perimeters, SecurLAN’s fiber optic sensor cable detects vibrations from any intruder attempting to physically access cable runs. By deploying the sensor cable alongside a network cable run, SecurLAN installers ensure network data cannot be compromised or stolen in the vulnerable stretch between terminals.

Certified and approved for use in U.S. government Protected Distribution Systems (PDS), SecurLAN offers a cost-effective alternative to expensive data encryption and Intrusion Detection Optical Communication Systems (IDOCS). SecurLAN is ideal for use in areas of a PDS that cannot be visually monitored but still require protection at all times. Best of all, SecurLAN ties into existing network infrastructure, requiring minimal cost to install and operate.

When considering the rising costs of installing and maintaining a data encryption system, SecurLAN offers a more effective solution for organizations seeking to protect Local Area Networks (LANs) from threats outside an organization - and from threats within. Given enough time, an inside intruder can defeat an encryption system. Having distinguished itself in harsh environments across the globe, however, SecurLAN’s base technology never changes its performance and never gives an intruder the same opportunities to defeat the system the way encryption codes might.

Whether you’re a government institution installing a PDS or just a business concerned about protecting your network from intrusion, Fiber SenSys’ SecurLAN provides complete and solid protection against unauthorized physical access of your network.
SecurLAN’s Fiber Optic Sensor

SecurLAN is primarily a vibration-sensing platform. Its fiber optic sensor cable detects vibrations from its surrounding environment.

SecurLAN’s Alarm Processing Unit transmits laser light through the sensor cable in a coherent pattern. Any physical disturbance of the sensor cable disrupts the pattern temporarily, creating an instant alarm state.

Like its perimeter protection counterpart, SecurLAN’s sensor cable is highly resistant to false positives or nuisance alarms, defeat, and sabotage. Because of its inert nature, SecurLAN’s sensor cable is immune to electromagnetic and radio frequency interference (EMI/RFI). It is built much like the cables it’s meant to protect, making it difficult for intruders to counter-detect while also making it easy for installers to deploy in parallel with existing network cable runs.

Dynamic Cable Choices

Installation Cost Savings

Whether you have an existing network to protect or you’re installing a new one, SecurLAN’s cable options save you money. Choose from single sensor strands to protect existing infrastructure, or one of SecurLAN’s bundled cable options, embedding the sensor cable together with network cables when you’re laying down a new network. Bundled cables are also available with armored jacketing that may eliminate the need for hardened conduit or raceway altogether. In some instances, it’s even possible to use existing network “dark fiber” as the sensing element.
SecurLAN® is a physical intrusion detection system designed to protect network data cables from physical tampering. The system uses an inert fiber optic cable as its sensing element.

1) The fiber optic sensor cable is deployed alongside a network cable throughout the protected area.
2) The alarm processing unit transmits laser light through the sensor cable.
3) Vibrations from intruders attempting to access the network cables disturb the pattern of conducted light in the sensor cable, triggering an alarm condition.

SecurLAN instantly alerts operators to the intrusion attempt and takes automatic protective action to route information flow away from the compromised cable.

**General Specifications**

<table>
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<tr>
<th>System Type:</th>
<th>Physical Layer Data Protection System</th>
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<tbody>
<tr>
<td>System Control:</td>
<td>PC-Based Control Software (SMS 2000)</td>
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<tr>
<td>Intrusion Sensor:</td>
<td>Fiber Optic Sensor Cable</td>
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<tr>
<td>Maximum Number of Zones:</td>
<td>128 Monitored Zones with Standard Hardware Configuration; Networking of Basic Components Allowed for Expansion</td>
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<td>Alarm Notification:</td>
<td>Local Alarm, Email Notification, and Hardware Printout</td>
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<td>Min. Required Components:</td>
<td>(1) Base Unit Controller, (1) FD-208 Alarm Processing Unit (APU), (1) SMS 2000 Control Software Package, Sensor Cable, Insensitive Leads</td>
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<td>Optional Components:</td>
<td>Alarm Input Module (AIM), Output Relay Module (ORM), Serial-to-CAT5 Converter, Optical Cutoff Switch, Remote AC Power Switch</td>
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**Government Certifications**

SecurLAN is certified and approved for use in network Protected Distribution Systems (PDS) at U.S. Government installations built in accordance with listed guidelines:

1) National Security Telecommunications and Information Systems Security NSTISSI 7003
2) Air Force Instruction 33-201 Volume 8 (AFI 33-201 V8)
3) U.S. Navy Protected Distribution Systems Guidebook NAVSO P-5239-22, Module 22