AXIS COMMUNICATIONS

# A cost-efficient way to fight metal theft and graffiti

**Thermal technology enables security cameras to see in the dark. When adding intelligence, they can also provide automatic alerts if persons or vehicles appear in their field of view. In 2010, Axis Communications launched the world's first full-featured thermal network camera, combining the capabilities of traditional thermal cameras with the many advantages offered by modern, IP-based surveillance cameras.**

*AXIS Q19 Thermal Network Cameras automatically alert suspect activity – regardless of lighting and weather conditions*

## As darkness falls...

One of the challenges for the security enforcers of any transportation system is that many incidents take place under the cover of darkness. Even the highest resolution security cameras will struggle to provide images from dimly lit corners of a network. The cost of illuminating every nook and cranny of every station, depot and goods yard makes night lighting unfeasible and the same goes for security patrols around the clock.

## ...the problems arise

The types of incidents that take place in the shadows are some of the most disruptive to the service and can pose real danger to passengers and workers. Graffiti vandals are deliberately tripping rail signals and stopping commuter trains in order to gain kudos for a riskily sprayed tag. This is clearly dangerous but passengers also feel less secure in a heavily sprayed or vandalised system.

Severe delays are caused by metal theft, a problem that is escalating with the rising metal prices. In addition, transit authorities spend millions of Euros in cable replacement and compensation to train operators.

## How do thermal cameras work?

One of the most powerful tools for detecting these types of incidents is thermal imaging. A thermal camera is able to function outside the range of visible light, in total darkness. This is possible because all objects emit a certain amount of infrared radiation as a result of their temperature. The camera detects this radiation and displays it as a black and white image, which typically is digitally coloured to visualise objects of different temperature levels.

## What goes on in the shadows?

Axis thermal cameras are able to detect a person from up to a kilometre away. They operate across an IP network which means that the images can be viewed remotely and in real-time. With applications such as motion detection and tampering alarm, the cameras can send automatic alerts to the control room when there is activity in the monitored area. The operator can then evaluate the situation and decide on an appropriate response.

Thermal cameras are perfect for deployment in dark tunnels, for perimeter surveillance, detecting activity along the tracks and in deserted areas at night that are prime targets for vandals.

**Axis Communications AB**
Emdalavägen 14, SE-223 69 Lund, Sweden
Tel: +46 46 272 18 00 Fax: +46 46 13 61 30
Email: pressoffice@axis.com
Web: www.axis.com