

APPLICATION STORY



ŠKODA DEALERSHIP PROTECTS ITS PARKING LOT FOR NEW CARS WITH FLIR FC SERIES S THERMAL IMAGING CAMERAS

With over 25 years of experience, Rindt & Gaida has become a firmly established car dealership for the Škoda brand in the Hannover region. Customers have come to appreciate the good service, well-maintained used cars and the high-quality new Škoda vehicles offered by Rindt & Gaida. Unfortunately, this is true not only for honest customers, but also for criminals. Therefore, the Škoda dealership is now protecting its parking lot for new cars with a customized safety concept, in which FLIR thermal imaging cameras play an important role.

"On our parking lot for new cars, we were having problems with some pretty audacious thieves, who were after the alloy rims on our brand-new vehicles," explains Stefan Butterbrodt, Service Manager at Rindt & Gaida. "This type of theft alone is bad enough in itself, but even more damage was incurred because they simply dropped the new vehicles on their door sills. You can't sell a vehicle like this as a new car. Of course this also causes a considerable effort in dealing with the insurance company and leads to higher insurance premiums on the long run."

SOPHISTICATED SECURITY CONCEPT

Therefore in 2014 the dealership decided to actively combat this organized theft. The Škoda dealership contacted security specialist Tobias Vieth at the security technology company HDS Sicherheitstechnik. After analyzing the requirements on site, it was clear to him: a standard solution would not be suitable in this case. "A fence had already been built to discourage burglars. Unfortunately, this

did not have the desired effect. What we needed was a comprehensive concept, including a camera and video analysis system," says Tobias Vieth.

Mr. Vieth therefore developed a security concept together with Dirk Ostermann from the company DOI Video Security Business. It relies on detection by FLIR thermal imaging cameras. Originally, the site including the parking lot for new cars was to be monitored using three or four FLIR FC series S thermal imaging cameras, which have a resolution of 320 x 240 pixels and different lenses for different fields of view. However, due to the fact that the parking lot for new cars is divided by a road, there would have been an area that would no longer be visible for the cameras. "Now we have set up two FLIR cameras on this space for new cars", explains Tobias Vieth. "The area measures 50 x 70 meters and the biggest challenge was that a road runs between the space and the mast." As a solution, Dirk Ostermann recommended using a FLIR FC 645 S with a high thermal



FLIR FC series S



Three FC series S FLIR cameras monitor different areas from a central mast and, in the case of an alarm, they trigger a central high-speed dome camera to identify the perpetrator.

image resolution of 640 x 480 pixels. With its field of view of 45 x 37 degrees, it is able to oversee the entire area.

MASSIVE MAST FOR CLEAR DETECTION CONDITIONS

The thermal imaging cameras have been installed at different heights and facing in

different directions. Tobias Vieth designed a 16-meter mast and had a structural engineer calculate it specifically for this purpose. "We decided to make it extra sturdy to avoid vibration and fluctuations in the camera image and thus allow for crystal clear presentation and accurate detection." A megapixel speed dome camera has been installed on the mast. As soon as the FLIR thermal imaging cameras detect suspicious activity, the speed dome automatically targets the location in question. This helps ensure clear identification of possible thieves.

MINIMIZING FALSE ALARMS

Dirk Ostermann, owner of DOI Video Security Business advised HDS Sicherheitstechnik advice on product selection and system design. "It was important for us that as few false alarms as possible were sent to the security control center. That's why we used high-quality products from FLIR Systems, Norma Systems and Heitel. This combination had proven itself in other projects," explains Dirk Ostermann. "The video analysis method used here was specifically aligned with thermal imaging technology. This has to be extremely precise to ensure that as few false alarms as possible are sent from the Heitel system to the security control center operated by the company Mebo Sicherheit GmbH in Bad Segeberg, Germany. The video analysis should detect people and not small animals such as cats or rabbits. For potential burglars, who enter the grounds at night, the security control center has to be able to see what's going on immediately by using live images."

RAPID RESPONSE IN THE EVENT OF AN EMERGENCY

Torsten Ulmer from the company Xtralis provided the Heitel recording system with the Norma systems software, which sends live images directly to the security control center whenever suspicious activity is detected. "In cases of emergency, intervention measures are immediately implemented: the police or security personnel takes action on site without delay. The control center can then see exactly whether there is a single perpetrator or several. It can then provide the police with targeted information. This could include whether a robbery or buildings are being vandalized. Instructions from the control center like "back up a few meters, the perpetrators are to your right" can be very helpful in these situations. It would also be conceivable to address the perpetrators directly over the loudspeakers to scare them away if it is more important to protect the property than to apprehend the intruders."

WIDE-RANGE PROTECTION

"So far, we have secured three areas, which include the parking lot for new vehicles, the area in front of the building and a back courtyard. Just three days after installing the system, it detected a theft on the parking lot for new cars," explains Tobias Vieth proudly. Dirk Ostermann is also impressed with the results: "Coordination between the system manufacturers worked really well. We not only did the planning, but provided the customer with support during startup together with experts from the individual manufacturers, who were on site and helped get the system up and running. This worked out really well."



The graffiti attacks on used cars have caused unsightly damage.

Škoda Service Manager Stefan Butterbrodt is also satisfied: "The pictures I've seen are sensational. Now that the final installations are finished, we have full camera surveillance and video analysis capabilities. I can confidently say that it was worth the investment. We are very satisfied and can only recommend it."

EXTENDING THE SECURED AREA

The parking lot for new vehicles, the area in front of the building and a back courtyard have been secured, but in September 2014 a new problem arose in the area reserved for used cars. "Unfortunately, a small section of our site is not yet covered, and that's exactly where an incident has now occurred. We had a graffiti attack on some vehicles in the used car area," says Stefan Butterbrodt. "At the moment we have between 5 and 10 vehicles in the sales area with graffiti on them, which of course have to be cleaned. Therefore we are now planning to extend the security to cover the entire site."

It's a new challenge for Tobias Vieth's design team at HDS and security specialist Dirk Ostermann - and of course for FLIR's FC series S thermal imaging cameras.



The team of security specialists from left to right: Bertrand Völckers (FLIR), Dirk Ostermann (DOI Video Security Business), Torsten Ulmer (Xtralis-Heitel), Tobias Vieth (HDS Sicherheitstechnik).



The video analysis method used here was specifically aligned with thermal imaging technology: If somebody gets into the secured area an alarm is being processed.

For more information, visit
www.flir.com/security

The thermal images shown here do not always reflect the current resolution of the camera. All images are for illustrative purposes only.