

ViaCC video solution for automation

In industrial environments, and particularly in power plants and the oil and gas sectors, leaks in pipeline systems, valves and critical transfer points must be detected as quickly as possible so that appropriate measures can be taken.

Technical personnel need a precise overview of the damage or the hazardous area that's as precise as possible in order to keep response times short and to prevent personal injury. However, in certain environments it is very difficult to monitor drops in pressure, temperature changes and the development of steam or smoke, and under certain circumstances this monitoring can be too slow and inaccurate. In addition, an appropriate sensor system is often not available or its installation is too expensive. Specialized sensors can typically detect only certain leaks.

Our intelligent ViaCC video analysis solution offers detection capabilities that detect several different types of leaks, while providing all usual functions and benefits of modern video technology (live images, storing, etc.) A full integration in the automation system (T3000, PCS 7 and third-party system via gateway) permits a direct coupling of the current automation status and the live video situation. Process data can be integrated live in the video image and stored for later analysis, video images can be activated depending on the process being performed and/or recorded. Video detection data can be fed back into the automation system (edge deviation, color changes, etc.)

Our video solution is thus an outstanding and intelligent extension of conventional sensors in the world of automation.

ViaCC video solution for automation Leakage of smoke, steam and liquids

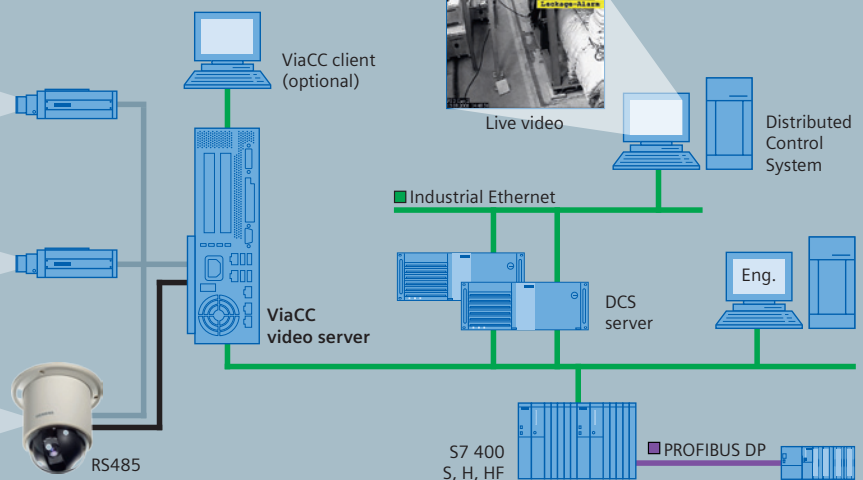
Liquids detection



Smoke and steam detection



Dome camera area surveillance



ViaCC video solution for automation

Leakage of smoke, steam and liquids

Application areas

- Detection of liquid leaks such as oil, water, coolant, or other materials in turbo-compressors, turbines, generators, etc.
- Monitoring of critical pipeline sections
- Smoldering fires/smoke development in closed rooms
- Steam detection irrespective of origin (all visible steam and any smoke development can be detected)
- Color monitoring of controlled process steam, for example for particular smoke colors
- Visual process monitoring (for example in coal feed in power plants)

Via the above solutions, which are already integrated in ViaCC, project-specific extensions can also be implemented on the basis of your particular needs.

Customer benefits

- Reliable alarms in the event of leaks (liquids, steam, smoke) in the automation system and live integration of the relevant video image
- Low installation and material requirements
- Integration of existing video systems, cameras, cabling etc. in the ViaCC solution is possible
- Faster response and rectification by visually supported analysis of system faults and problems
- Subsequent analysis of video data (on the course of the problem) as the basis for future optimization and enhancement of system availability
- Support of service deployment/remote diagnosis
- The visual image (live picture) of the fault enables targeted service deployment with the right spare parts and tools
- Project- and system-specific adaptations and extensions of the system are possible
- Software-based scalable solution (industry-based ViaCC server hardware from the Microbox or Box PC to a high-performance SIMATIC rack server)

Technical data/features

The ViaCC video solution "Leakage of smoke, steam and liquids" provides the following performance features:

- Detection processes can be combined as needed: edge, color, movement and OCR detection.
- Fully integrated in the automation system (T2000/3000, PCS 7, third-party)
 - Live images in case of alarm
 - Inclusion of process data
 - Bidirectional transmission of detection and process data to and from automation system
- Highly resistant to optical environmental effects
- Dynamic detection (detection period, threshold values, dynamic detection fields, etc.)
- Up to 16 cameras – 200 images per second per server (recording/transmission)
- Support of various compression methods (MJPG/MPEG4/encryption)
- Video transmission using multicast technology
- Support of different resolutions
 - quarter screen (384x288 pixel)
 - half screen (768x288 pixel)
 - full screen (768x576 pixel)
- Support of IP-cameras (Siemens, Axis, Mobotix)

Order data

ViaCC detection solution for leakage of smoke, steam and liquids

Our ViaCC video detection solution is offered on a project-specific basis.

Please direct your enquiries to our team of specialists. We will analyze your needs and prepare our bid on this basis.

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