

# Camera system

## Series niteZoom, for use in hazardous areas



Ex camera niteZoom, stainless steel enclosure  
Ex d IIB T6, Ex tD A21 IP67 T80°C, Ex II 2 G + D.

The VIDEOLUX niteZoom, equipped with state of the art technology, is the **smallest camera with zoom for hazardous areas currently available in its class**. Despite its small dimensions, the standard version is already equipped with a motorized 10 times zoom lens. This feature allows the user to set up the camera for a precise angle of vision or for a particular lighting situation. The niteZoom may be used for interior as well as for applications outside of buildings.

Thanks to the VISCA® communication protocol, the camera can not only be implemented into existing CCTV applications but for industrial picture processing as well. **This makes it a unique product on the market in its class.**

**The VIDEOLUX niteZoom is certified for dust and gas hazardous areas according to the European Directive 94/9/EC (ATEX).** The safety flameproof enclosures in stainless steel are designed pursuant to IP67. The borosilicate glass of the enclosure is scratch resistant and free from any optical distortion. The allowed **ambient temperature** of use covers a wide range of applications: From 0 °C to + 50°C in the standard version, or even from - 20 °C to + 50 °C with the optional integrated heating.

In case of short distance into the hazardous area and / or for analog real-time applications the camera may be controlled and configured from a safe area by a control panel / joystick. The sequence is displayed on a conventional screen with analog coaxial input (without PC).

The analog composite signal can be converted into a digital video stream using our "Connection Rail" which is available for safe and hazardous areas. The "Connection Rail" consists among other things of a video server, which is not only able to display the digital video stream but also to control the camera via a conventional PC. Simultaneous MPEG-4- and Motion JPEG video streams allow optimized picture quality and bandwidth usage of Ethernet networks.

### 1/3" Super HAD CCD-Sensor II

Excellent image quality, very high sensitivity, high resolution. The VIDEOLUX niteZoom with its newly-developed 1/3" Super HAD CCD II sensor offers significantly improved sensitivity and colour reproduction compared to other sensors. In addition, the camera can operate with a minimum illumination of 0,0004 Lux, resulting in a significantly improved image quality under limited lighting conditions. By combining a powerful DSP with this new CCD sensor, the camera achieves a high horizontal resolution of 530 TV lines.

### Day/Night Function

The VIDEOLUX niteZoom features a day/night function, which provides for optimum sensitivity and image quality in both day and night shooting conditions. As soon as the illumination of the scene decreases below a set value, the infrared filter is automatically removed. The camera then switches to B&W mode, which enables it to operate under a minimum illumination of 0,0004 Lux (Auto ICR on).

### Slow AE Response Function - Ideal for Abrupt Changes in Lighting Condition

The VIDEOLUX niteZoom camera is equipped with a „slow AE response“ function, which automatically adapts to abrupt changes in the lighting conditions. The rate may be set up to 32 times slower than when full-auto AE or priority (shutter/iris) modes are selected (standard settings). This function is essential for monitoring applications where lighting conditions may change rapidly.

### Advanced Spherical Privacy Zone

In addition to conventional color masking, unwanted or prohibited areas within the image may be masked using a mosaic effect.

## Technical data



Ex camera niteZoom, stainless steel enclosure, Ex d IIB T6, Ex tD A21 IP67 T80°C, Ex II 2 G + D, with wall fixing system.

### ATEX certification according to Directive 94/9/EC:

Ex II 2 G (zones 1 and 2), Ex II 2 D (zones 21 and 22)

### Protection against explosions:

Gas: Ex d IIB T6 (standard version), Ex d IIC T6 (on demand)  
Dust: Ex tD A21 IP67 T80°C

### Allowed ambient temperature of use:

0 °C to + 50 °C (standard version), - 20 °C to + 50 °C (with integrated heating)

**Enclosure protection degree:** IP67, dust and water jet tight to EN 60529 / DIN VDE 0470 part 1

**Power consumption:** Max. 6,5 W, with integrated heating max. 10 W

**Power supply:** 12 V DC to 30 V DC (heating: 12 V DC to 24 V DC)

**Reference power:** 24 V DC

**Power input:** 270 - 540 mA, with integrated heating ca. 1000 mA

### Video-optical specifications:

Sensor: 1/3" type Super HAD CCD II  
Effective sensor resolution: ca. 752 x 582 (PAL), ca. 768 x 494 (NTSC)  
Horizontal resolution: 530 TV lines wide end (PAL), 530 TV lines (NTSC)  
Minimum lighting of object: 1/4 s, 1/3 s mode and ICR on: 0,0004 Lux  
Signal / noise ratio: ≥ 50 dB

### Optical lens:

Optical zoom: 10 times, adjustable (additional digital zoom: 12 times)  
Minimum distance lens/object: 150 mm (WIDE), 800 mm (TELE)  
Focal length: f = 5,1 (WIDE) to 51,0 mm (TELE)  
Horizontal angle of vision: 52° (WIDE) to 5,4° (TELE)

**Video signal:** Analogue FBAS signal through 75 Ohm coaxial cable

**Control signal:** VISCA communication protocol through RS-422 interface

**Electronic functions:**  
Electronic shutter control (ESC)  
Back light compensation (BLC)  
IR CUT filter (IRC)  
Automatic white balance  
Aperture correction (APC)  
DSP

**Dimensions (mm):**  
Ø79 x H 128 (without cable gland)

**Fixation systems:**  
Tilting hinge ...Sch  
Flange collar ...R  
Wall and ceiling fixing system

**Accessories:**  
Sun protection roof  
Anti-dazzle shield ("baseball" cap)  
Supply cable  
Integrated heating  
Connection Rail