



## KS-02 Camera System

 Certificate: ATEX



ZSBE-M



Modem case – surface



KR-02

### Use:

The KS-02 camera system serves for monitoring equipment and procedure of technological processes at places without permanent operators in an environment with an explosion hazard and for transmitting the information to the surface via a telephone connection.

### Description:

The KS-02 camera system consists of two main parts. The first one is a stationary KR-02 camera serving for video signal transmission to the modem case or PC. The camera itself is mounted in a firm cylindrical enclosure with a vane. Two bushings on the side enable connecting the camera to the system. The camera is optionally supplied by 12 V DC from the modem case or 230 V AC independently. KR-02 has a fixed IP address which can be changed if needed.

The other part of the camera system is formed by a transmission system. A signal from the camera is led to the ZSBE-M modem case, where the video signal is converted to the telephone signal which can be transmitted via a twin wire to a longer distance. The ZSBE-M modem case is made as a firm enclosure. The telephone signal is led to the transmission system surface part, where it is converted by the modem to the Ethernet signal which can further be processed in PC. The surface part modem is mounted in a small compact switchboard or can be separately placed in the current device.

### Technical Parameters of KR-02 Stationary Camera:

Model	I M2 Ex de I
Supply voltage	12VDC / 230VAC
Power input	4.2W / 5.5VA
Camera resolution	1280x960 1.3 M CCD
Image format	MJPEG
Data output	Ethernet 10 Mbit/sec
Temperature range	0 - +40°C
Relative humidity	95% without condensation
Protection	IP54
Dimensions	φ 130 x 458 mm
Weight	23.5kg

### Technical Parameters of ZSBE-M Modem Case:

Model	I M2 Ex de I
Supply voltage	230 VAC
Power input	12 VA
Output supply	12 V DC / 350 mA
Data input	Ethernet 10 Mbit/sec
Data output	SHDSL line, twin wire
Transmission distance	max 3km
Temperature range	0 - +40°C
Relative humidity	95% without condensation
Protection	IP54
Dimensions	240 x 290 x 136mm
Weight	11 kg

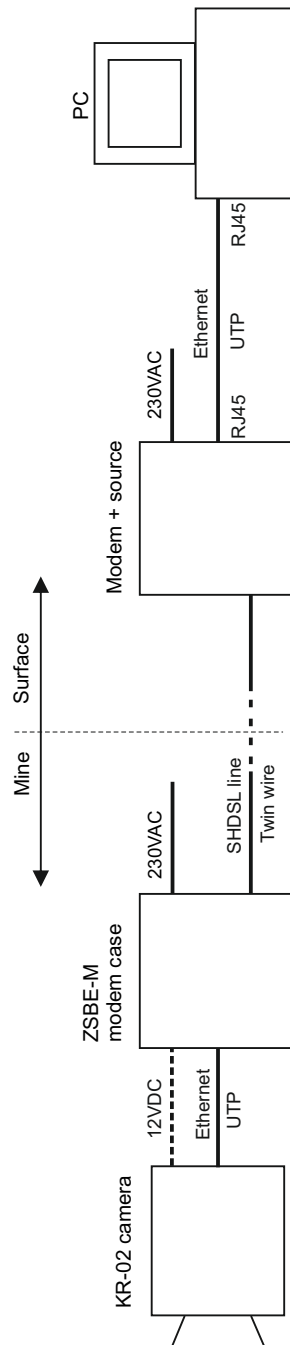
### Technical Parameters of the Surface Modem Case:

Supply voltage	230 V AC
Power input	4 VA
Data input	SHDSL line, twin wire
Data output	Ethernet TX 10 Mbit/sec
Temperature range	0 - +40°C
Relative humidity	95% without condensation
Protection	IP65
Dimensions	300 x 200 x 155 mm
Weight	4 kg

**The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.**



## KS-02 Camera System



Flow chart of the KS-02 camera system connection between the mine and surface

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