

SCS-JK Intelligent AI Video Image Analysis and Warning System BJK-□/ HJ□ Series Explosion-proof Environmental Monitoring Camera



- ◆ Explosion protection to
 - CENELEC
 - IEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
- ◆ Product features: intelligent control, intelligent monitoring, intelligent communication, intelligent recognition, intelligent analysis, intelligent monitoring.

■ Product Features - Smoke Detection

- ◆ **Enhance Safety:** Smoke detectors can promptly identify fire hazards and prevent fires. Factories, as places of production and work, are densely populated with numerous devices, making them prone to accidents. Installing smoke detectors significantly improves factory safety and protects employees' lives and property.

Compliance with Legal Requirements: According to national building regulations, smoke detectors must be installed in public areas. As factories are considered public spaces, they must meet these requirements. Installing such equipment is a legal necessity.

Environmental Protection: Through smoke monitoring, pollution sources can be detected and controlled in time, reducing atmospheric pollutant emissions and protecting the ecological environment. Smoke monitoring data also provides decision-making support for environmental agencies to develop and enforce environmental protection policies.

Public Health Protection: Pollutants in smoke have significant impacts on human health. Monitoring helps assess the effects of pollutants on air quality and enables timely measures to safeguard public health.

Optimization of Industrial Production: Smoke monitoring data offers valuable insights for industrial production, helping companies optimize processes, reduce energy consumption, minimize pollutant emissions, and improve production efficiency.

Energy Conservation and Emission Reduction: Smoke monitoring not only helps identify instances of pollutant emission exceeding limits but also provides energy management data to support enterprises in optimizing their energy structure and achieving energy conservation and emission reduction goals.

Promote Green Economy: The promotion and application of smoke monitoring technology contribute to advancing green economy by reducing environmental damage, improving resource utilization efficiency, lowering production costs, and enhancing corporate competitiveness.



Zones 1&2; 21&22

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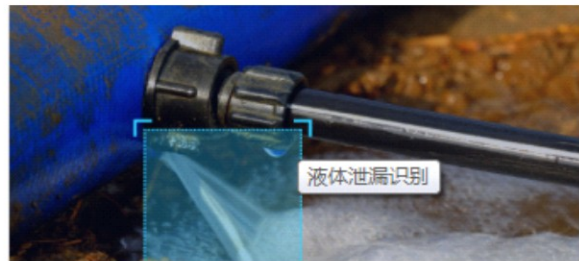
■ Product Features - Flame Detection

- ◆ **Fire Prevention and Safety Assurance:** The flame detection system can promptly identify the presence of flames, preventing fires. During industrial production, flame detectors can detect potential fire hazards, issue timely alarms, and initiate protective measures such as automatically cutting off power supply or activating fire suppression systems, effectively preventing fires and safeguarding personnel lives and corporate assets.
- ◆ **Enhance Production Efficiency and Continuity:** Flame detection systems not only provide early warnings before fires occur but can also integrate with other equipment to automatically shut down material transfer systems or activate fire suppression devices. This enables rapid response to fire risks, minimizing prolonged production downtime and ensuring continuous, efficient operations.
- ◆ **Standards:** Many industries are subject to strict safety regulations and standards requiring measures to prevent fires and explosions. Installing flame detectors is a key step toward meeting these requirements, helping companies demonstrate their proactive safety management practices and avoiding legal liabilities and financial penalties due to non-compliance.
- ◆ **Reduce False Alarms and Operational Errors:** Flame detection systems typically feature high sensitivity and strong interference resistance, enabling accurate flame detection even under complex lighting conditions. For example, by utilizing ultraviolet detection technology, these systems are insensitive to sunlight, infrared radiation, or artificial lighting sources, ensuring stable performance in industrial environments with intense illumination or other heat-emitting sources.



■ Product Features - Leak Detection

- ◆ **Ensure Safety:** Leaks can lead to serious accidents such as fires, explosions, and poisoning, endangering both production safety and human life. Timely leak detection helps prevent such incidents, ensuring safe plant operations.
- ◆ **Reduce Environmental Pollution:** Leaked chemicals or other pollutants can damage the environment, disrupt ecological balance, and harm human health. Leak detection enables early identification and resolution of leaks, minimizing environmental impact.
- ◆ **Improve Economic Efficiency:** Persistent leaks reduce equipment efficiency and increase maintenance costs. Regular leak detection allows early identification and repair of issues, enhancing equipment performance and lifespan while lowering overall operating costs.
- ◆ **Enhance Production Efficiency:** Leak detection helps companies promptly identify and fix leaks, ensuring a safe working environment and smooth production processes—thereby boosting productivity.
- ◆ **Comply with Regulations:** Certain industries and regions require regular leak detection under regulatory frameworks. Using leak detection instruments enables companies to meet compliance requirements and reduce legal risks.



SCS-JK Intelligent AI Video Image Analysis and Warning System

BJK-□/□/□ Series Explosion-proof Environmental Monitoring Camera

Technical data

Explosion-proof Environmental Monitoring Camera (Fixed type) BJK-□/□/□

Explosion protection

Global (IECEX)	IECEX (applied for)
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	⊕ II 2 G Ex db IIC T6 Gb ⊕ II 2 D Ex tb IIIC T80°C Db

Certificates

IECEX; ATEX

Conformity to standards

IEC 60079-0, IEC 60079-1, IEC 60079-31, EN 60079-0, EN 60079-1, EN 60079-31

Intelligent Analysis Function

Smoke detection, flame detection, leak detection

Rated voltage

176-264V AC, 24V AC, 24V DC, 12V DC

Material

304 stainless steel or 316 stainless steel

Pixels

2 million, 4 million, 8 million (optional)

Optical zoom

4x, 25x, 32x (optional)

Focal length

2.5~12mm, 4.8~120mm, 5.9~188.8mm(Optional)

Infrared function

Optional

Image sensor

1/1.8" progressive scan CMOS, 1/2.8" progressive scan CMOS(Optional)

Min. Illumination

Color: 0.0005 Lux; Monochrome: 0.0001 Lux

Signal-to-noise ratio

>52dB

White balance

Manual white balance, indoor, outdoor, daylight lamp, sodium lamp, auto white balance, auto tracking white balance, locked white balance

Day/Night mode

Auto ICR color-to-black

Video compression

H.264/H.265

Angle adjustment

Manual semi-fixed pan-tilt mount with adjustable up/down and left/right angles

Transmission method

Wired, 4G/5G/WiFi (optional)

Mounting bracket

ZJ001 wall mount bracket

Bracket materia

Q235 carbon steel, 304 stainless steel, 316 stainless steel (optional)

Protection rating

IP68

Temperature range

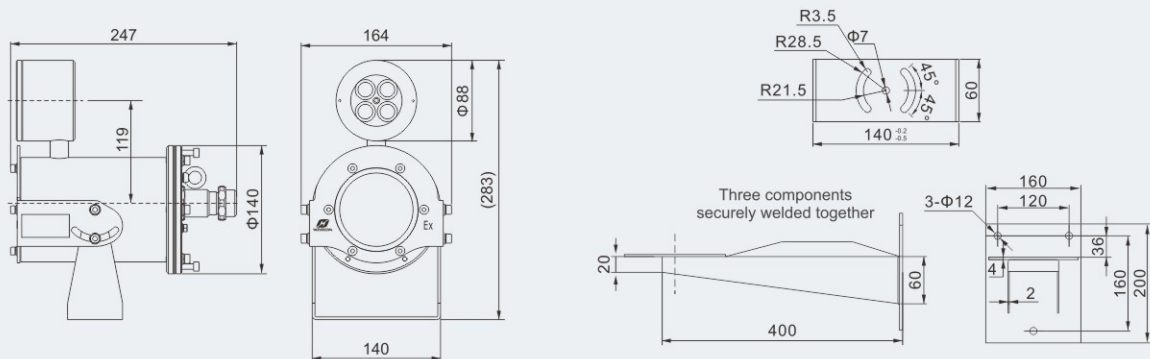
-40°C~+60°C

Weight

5kg



Dimension drawings (all dimensions in mm) - subject to alteration



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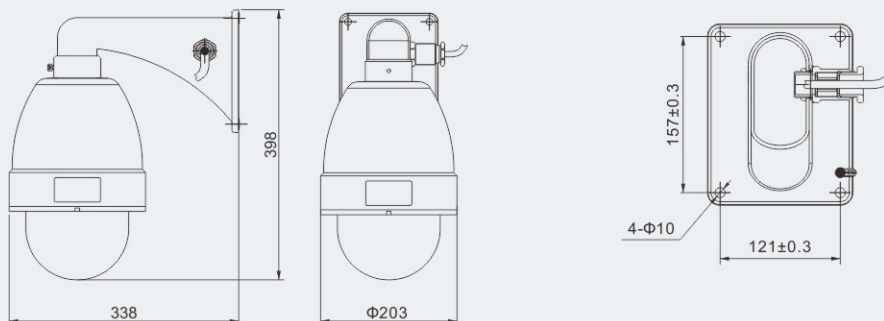
Technical data

Explosion-proof Environmental Monitoring Camera (PTZ type) BJK-□/□/□

Explosion protection	
Global (IECEX)	IECEX (applied for)
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	Ⓔ II 2 G Ex db IIC T6 Gb Ⓔ II 2 D Ex tb IIIC T80°C Db
Certificates	IECEX; ATEX
Conformity to standards	IEC 60079-0, IEC 60079-1, IEC 60079-31, EN 60079-0, EN 60079-1, EN 60079-31
Intelligent Analysis Function	Smoke detection, flame detection, leak detection
Rated voltage	176-264V AC, 24V AC
Material	304 stainless steel or 316 stainless steel
Pixels	2 million, 4 million, 8 million (optional)
Optical zoom	25x, 32x (optional)
Focal length	4.8~120mm, 5.9~188.8mm(Optional)
Infrared function	Optional
Image sensor	1/1.8" progressive scan CMOS, 1/2.8" progressive scan CMOS(Optional)
Min. Illumination	Color: 0.0005 Lux; Monochrome: 0.0001 Lux
Signal-to-noise ratio	>52dB
White balance	Manual white balance, indoor, outdoor, daylight lamp, sodium lamp, auto white balance, auto tracking white balance, locked white balance
Day/Night mode	Auto ICR color-to-black
Video compression	H.264/H.265
Angle adjustment	Pan: 0°~360°, Tilt: -20°~+90°, Auto flip 180° for continuous monitoring
Horizontal rotational velocity	Pan speed (key control): 0.1°~160°/s, Pan preset speed: 160°/s
Vertical rotational velocity	Tilt speed (key control): 0.1°~120°/s, Tilt preset speed: 120°/s
Transmission method	Wired, 4G/5G/WiFi (optional)
Mounting bracket	ZJ003 wall mount bracket
Bracket materia	304 stainless steel, 316 stainless steel (optional)
Protection rating	IP68
Temperature range	-40°C~+60°C
Weight	13.5kg



Dimension drawings (all dimensions in mm) - subject to alteration



SCS-JK Intelligent AI Video Image Analysis and Warning System

BJK-□/ HJ□ Series Explosion-proof Environmental Monitoring Camera

Technical data

Explosion-proof Environmental Monitoring Camera (Integrated type) BJK-□/ HJ□

Explosion protection	
Global (IECEX)	IECEX (applied for)
Gas and dust	Ex db IIC T6 Gb Ex tb IIIC T80°C Db
Europe (ATEX)	ATEX (applied for)
Gas and dust	⊕ II 2 G Ex db IIC T6 Gb ⊕ II 2 D Ex tb IIIC T80°C Db
Certificates	IECEX; ATEX
Conformity to standards	IEC 60079-0, IEC 60079-1, IEC 60079-31, EN 60079-0, EN 60079-1, EN 60079-31
Intelligent Analysis Function	Smoke detection, flame detection, leak detection
Rated voltage	176-264V AC, 24V AC
Material	304 stainless steel or 316 stainless steel
Pixels	2 million, 4 million, 8 million (optional)
Optical zoom	25x, 32x (optional)
Focal length	4.8~120mm, 5.9~188.8mm(Optional)
Infrared function	Optional
Image sensor	1/1.8" progressive scan CMOS, 1/2.8" progressive scan CMOS(Optional)
Min. Illumination	Color: 0.0005 Lux; Monochrome: 0.0001 Lux
Signal-to-noise ratio	>52dB
White balance	Manual white balance, indoor, outdoor, daylight lamp, sodium lamp, auto white balance, auto tracking white balance, locked white balance
Day/Night mode	Auto ICR color-to-black
Video compression	H.264/H.265
Angle adjustment	Pan: 360° continuous rotation, Tilt: -90° to +90°
Horizontal rotational velocity	0.1°/s~42°/s
Vertical rotational velocity	0.1°/s~42°/s
Transmission method	Wired, 4G/5G/WiFi (optional)
Mounting bracket	ZJ002 wall mount bracket
Bracket materia	Q235 carbon steel, 304 stainless steel, 316 stainless steel (optional)
Protection rating	IP68
Temperature range	-40°C~+60°C
Weight	≤33kg



Dimension drawings (all dimensions in mm) - subject to alteration

