



ATEX-Certified Explosion-Proof Digital Camera

Model No: SE-02-023 EDC

Product Description

The SharpEagle Ex-Proof Digital Camera is engineered for high-performance imaging in hazardous environments. Certified for ATEX Zone 1 & 2, it ensures safety compliance in explosive atmospheres while delivering superior durability.

With an impact-resistant design and extreme temperature resilience, this camera is built to withstand the harshest industrial conditions.

Equipped with a Wide Angle Optical Zoom Lens, advanced imaging software, and innovative connectivity features, it is the ideal choice for professionals requiring precision, reliability, and safety in every shot.

Key Features

- ☐ **ATEX Marking** - II 2G Ex ib IIC T4 Gb
- ☐ **ATEX Zone 1 & 2 Certified** – Safe for use in explosive gas environments.
- ☐ **IP68-Rated** – Waterproof and resistant to dust and extreme conditions.
- ☐ **Ultra-Rugged Build** – Drop-proof (2.1m), crushproof (100kgf), and freeze-proof (-10°C).
- ☐ **Advanced Imaging** – Wide-angle optical zoom, low-light enhancement & anti-fog lens.
- ☐ **Smart Connectivity** – GPS tracking, smartphone integration & hazard-specific modes.

Advanced Features for Industrial & Hazardous Environments

Automated Data Logging – Timestamped images for accurate record-keeping.

Construction Mode (Hazardous Area Mode)

- ☐ Removes dust interference for clearer images.
- ☐ Auto-adjusts brightness in low-light conditions.
- ☐ Adapts to sunlight to reduce shadows.

Enhanced Imaging Features

- ☐ **Slow Shutter** – Captures fine details in low light with extended exposure.
- ☐ **Document Mode (Label Capture)** – Ensures clear text for efficient reporting.
- ☐ **Macro Mode** – High-detail close-ups from just 1 cm away.

Environmental Logging: Tracks location, ambient temperature, and pressure with a built-in manometer.

OI.Share Integration: Wireless image transfer and real-time viewing via hazardous-area smartphones.

Product & Technical Specifications

The SE-02-023 EDC is an ATEX-certified explosion-proof modification of the OM System Tough TG-7 camera, designed for safe operation in hazardous gas atmospheres classified as Zone 1 and Zone 2.

To meet intrinsic safety requirements, the Xenon flash is disabled, while the built-in LED light remains fully operational, providing reliable illumination for inspection, maintenance, and documentation tasks in industries such as Oil & Gas, Petrochemical, Chemical, and Process Plants.

Explosion Safety Specifications (ATEX)

Parameter	Specification
Directive	2014/34/EU (ATEX 114)
Certificate No	ECM 25 ATEX-B DT03
Equipment Group / Category	II / 2G
Permitted Zones	Zone 1 & Zone 2 (Gas)
ATEX Marking	II 2G Ex ib IIC T4 Gb
Type of Protection	Intrinsic Safety (ib)
Applied Standards	EN IEC 60079-0:2018+A11:2024, EN IEC 60079-11:2024

Product Specifications (ATEX)

Camera Specifications Imaging & Optics

Parameter	Details
Image Sensor	12 MP - 1/2.3" BSI CMOS
Processor	TruePic VIII
Lens	25-100mm (35mm equiv.), 4x Optical Zoom, F2.0 (W) - F4.9 (T)
Macro Capability	Super Macro (0.1m to 0.3m), Microscope Mode (0.01m - 0.30m)
One Push Tele-converter	x2 (P, A, Movie mode), x2/x4 (Microscope mode)
Image Stabilization	Sensor Shift Image Stabilization
ISO Sensitivity	100 - 12,800
Shutter Speed	1/2 - 1/2000 sec. (A mode: up to 4 sec.)
Still Photo Recording	JPEG, RAW (12-bit lossless compression), JPEG+RAW
Resolution	RAW: 4000 x 3000, JPEG: 4000 x 3000 ~ 1280 x 960

Display & User Interface

Parameter	Details
Monitor	3.0" LCD, approx. 1,037k dots (3:2)
Creative Modes	Live Composite, Art Filters, HDR, Underwater Modes, Macro Modes, Construction Mode

Video & Shooting Capabilities

Parameter	Details
Video Recording	3840×2160 (4K) 30p, 25p / IPB (approx. 102Mbps) 1920 x 1080 (FHD) / 60p, 50p, 30p, 25p / IPB (approx. 52Mbps, approx. 30Mbps, approx. 18Mbps) 1280 x 720 (HD) / 30p, 25p / IPB (approx. 26Mbps, approx. 14Mbps, approx. 10Mbps) *Frame rates may drop when particular Art Filters and Movie Effects are used.
Sequential Shooting	High-speed: 20 fps (10/20 fps selectable), Low-speed: 5 fps, Pro Capture: 10 fps
Interval Shooting	Time-lapse movie creation (up to 299 frames)

Durability & Environmental Resistance

Parameter	Details
Waterproof	15m depth (IPX8)
Dustproof	IP6X
Freezeproof	-10°C
Shockproof	2.1m drop-resistant
Crushproof	100kgf (220 lbf)
Anti-Fog	Dual-pane lens cover glass

Sensors & Connectivity

Parameter	Details
GPS & Sensors	GPS (GLONASS, Galileo, QZSS), Compass, Manometer, Temperature & Acceleration Sensors
Connectivity	USB Type-C, Micro HDMI (Type D), Wi-Fi (802.11b/g/n), Bluetooth 4.2 (BLE)

Power & Physical Attributes

Parameter	Details
Battery	LI-92B Li-ion battery
Dimensions	113.9 mm x 65.8 mm x 32.7 mm (4.48" x 2.59" x 1.28")
Weight	Approx. 249g (with battery & memory card)



(1) Unit Assessment Certificate
Type Examination Certificate

(2) Equipment, components and protective systems intended for use in potentially explosive atmospheres.
Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014.

(3) Type examination certificate No: **ECM 25 ATEX-B DT03**

(4) Firm: SHARPEAGLE TECHNOLOGY LTD
UK Office: Suite 512, The Atrium Harefield Road, Uxbridge, Middlesex, United Kingdom UB8 1HB
Version manufactured for SharpEagle at Shanghai Better Safety Equipment Co, Zhujiajiao Town, Qingpu Dist P.R. China
Phone No +44 20 3747 6777 / Web: www.sharpeagle.com

(5) SharpEagle Ex-Proof Digital Camera
Description: Explosion Proof Camera
Item No: SE-02-023 EDC
Type of Explosion Proof Camera, Ex Cam 1201s
Battery Supply: Rechargeable battery 3.7VDC / 950mAh

(6) ECM, Notified Body No. 1282 in accordance with Article. 17 of Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment or protective system was tested according to the procedure set out in Annex III, Module B, complies with the essential health and safety requirements for the project and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II of the Directive. The examination and test results are recorded in confidential report no. PRD-2025-DT03.

(7) The essential health and safety requirements are assured by compliance with applied **Standard:**

EN IEC 60079-0:2018+A11:2024,

EN IEC 60079-11:2024.

(8) his EU-type examination certificate relates only to the design, examination and tests specified equipment in accordance with Directive 2014/34/EU. Further requirements of the Directive shall be applied to the manufacturing process and supply condition: these requirements are not covered by this certificate.

(9) The marking of the equipment, component or protective system must include the following:



II 2G Ex ib IIC T4 Gb



(10) If the sign "X" is placed after the certificate number, it indicates that the product concerned is subject to special conditions for safe use specified in the schedule to this certificate.

Signed for and on behalf of

[Signature]

SHARPEAGLE TECHNOLOGY LTD



[Signature]

SAFE EX GLOBAL TECHNOLOGY LTD

THIS DECLARATION IS NOT A WARRANTY OF ATTRIBUTES WITHIN THE MEANING OF THE LAW CONCERNING PRODUCT LIABILITY. THE SAFETY INSTRUCTIONS GIVEN IN THE INSTALLATION MANUAL MUST BE OBSERVED. THE APPARATUS SHALL ONLY BE OPERATED UNDER THE CONDITIONS DESCRIBED IN THE USER MANUAL.

Ver. 11 ATEX-AIL III Rev. 1
- 06/03/2017



防爆合格证

CERTIFICATE OF CONFORMITY
No. CJEx23.0025X

Client Shanghai Better Safety Equipment Co., Ltd.
(Room 267, Area C, Floor 2, Building 1, No.32, Lane 951, Kangye Road, Zhujiajiao Town, Qingpu District)

Manufacturer Shanghai Better Safety Equipment Co., Ltd. Songjiang Branch
(Room 306, Building 9, No.185, Jiangnan East Road, Songjiang District, Shanghai)

Name of Product Explosion-proof digital camera

Type of Product Excam1201s DC3.7V

Marking Ex ib IIC T4 Gb
Ex ib IIIC T130°C Db

Product Standard Q/BTRCAM-12-02-2022

Drawing No. BTR-Z-07

After examination of product drawings and technical documents and testing of sample, the product is in accordance with the following standards:
GB/T 3836.1-2021 Explosive atmospheres. Part 1: Equipment. General requirements
GB/T 3836.4-2021 Explosive atmospheres. Part 4: Equipment protection by intrinsic safety

Explanation 1. "X" indicates that see the instruction manual for special conditions of use.
2. Change camera type, certificate changed.

Valid Date January 2nd, 2028

Approved by

[Signature]

National Quality Supervision & Inspection Centre of Hoisting and Metallurgical & Explosion-proof Electric Machine
Machine-Building Industry Quality Supervision & Testing
Centre of Explosion-Proof Electrical Apparatus
Jiamusi Explosion-proof Motor Research Institute Co., Ltd.
November 27th, 2023



佳木斯防爆电机研究所有限公司

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注: 本证书仅对与认可文件和样品一致的产品有效。登录网站或扫描二维码查询真伪。



Certificato di esame UE del tipo

EU-type examination certificate
n. **ECM 25 ATEX-B DT03**

Rilasciato ai sensi della direttiva 2014/34/UE - Allegato III - Modulo B
Issued according to 2014/34/EU Directive - Annex III - Module B



Richiedente Shanghai Better Safety Equipment Co., Ltd.
Applicant Shanghai Better Safety Equipment Co., Ltd.
Ragione Sociale Company Name
Indirizzo Room 267, Area C, Floor 2, Building 1, No.32, Lane 951, Kangye Road, Zhujiajiao Town, Qingpu District, P.R. China
Fabbricante Shanghai Better Safety Equipment Co., Ltd. Songjiang Branch
Manufacturer Room 306, Building 9, Jiangnan Road 185, Songjiang District, Shanghai City, China
Apparecchiatura Explosion-proof camera
Equipment
Logo BTR
Modello(i) Excam1201s, Excam1204, ZHS2580, ZHS2400, ZHS2620, ZHS800, YRH250, Exdv1301, Exdv1501

Questa apparecchiatura o sistema di protezione e le sue eventuali varianti accettate sono descritte nel presente Certificato e, se necessario, nell'allegato dello stesso. This equipment or protective system and any acceptable variation variants accepted are described in this Certificate and its Annex.

L'ECM, Organismo Notificato n° 1282, in conformità dell'Art. 17 della Direttiva 2014/34/UE del Parlamento Europeo e del Consiglio del 26 febbraio 2014, certifica che questa apparecchiatura o sistema di protezione verificata secondo la procedura di cui all'allegato III, Modulo B, è conforme ai requisiti essenziali di sicurezza e salute per il progetto e la costruzione di apparecchiature e sistemi di protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive, definiti nell'allegato II della Direttiva. Le verifiche ed i risultati di prova sono registrati nel rapporto a carattere riservato n° PRD-2025-DT03. The essential health and safety requirements are assured by compliance with applied Standard: EN IEC 60079-0:2018+A11:2024, EN IEC 60079-11:2024. This EU-type examination certificate relates only to the design, project, and tests specified equipment in accordance with the procedure set out in Annex III, Module B, complies with the essential health and safety requirements for the project and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II of the Directive. The examination and test results are recorded in confidential report no. PRD-2025-DT03.

I requisiti essenziali di sicurezza e salute sono assicurati dalla conformità con applicate: EN IEC 60079-0:2018+A11:2024, EN IEC 60079-11:2024. The essential health and safety requirements are assured by compliance with applied Standard: EN IEC 60079-0:2018+A11:2024, EN IEC 60079-11:2024.

Questo Certificato di esame UE del tipo è relativo soltanto al progetto, all'esame ed alle prove dell'apparecchiatura o sistema di protezione specificato in accordo con la Direttiva 2014/34/UE. Ulteriori requisiti di questa Direttiva si applicano al processo di produzione e fornitura dell'apparecchiatura o sistema di protezione: questi requisiti non sono oggetto del presente certificato. This EU-type examination certificate relates only to the design, project, and tests specified equipment in accordance with the procedure set out in Annex III, Module B, complies with the essential health and safety requirements of the Directive shall be applied to the manufacturing process and supply condition: these requirements are not covered by this certificate.

L'apparecchiatura o il sistema di protezione deve riportare i seguenti contrassegni:
The equipment shall be marked with the following symbols:

II 2G Ex ib IIC T4 Gb

Valsamoggia (BO)
Data - Date 28/04/2025

Timbro

Scadenza - Expiry date 27/04/2030

Test Report / Technical Construction File no. XDIX3925543011501FAR

Questo certificato, incluso l'allegato, può essere riprodotto solo integralmente e senza alcuna variazione. This certificate, annex included, can only be reproduced in its entirety and without any change.

Ver. 11 ATEX-AIL III Rev. 1 - 06/03/2017

Ente Certificazione Macchine srl

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