



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)
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)

