



Key Features

- Tough, rugged camera, Marine-Grade finish as standard
- PoE 90W (802.3bt Midspan) Version available
- Adaptive White Light and IR (zoom-linked) operation
- VMS Integration, including Digifort
- Rugged Mounting Bracket Options
- Brushless Stepper Motors for Resilience and durability
- ONVIF Compliant (Profile G, T & M)
- SD Card recording option, up to 1TB.

X2 COMBAT Rugged PTZ Camera

The X2 COMBAT rugged PTZ camera is purpose-built for demanding outdoor surveillance environments. Engineered with robust construction techniques and cutting-edge technologies, the X2 COMBAT delivers reliable, high-performance CCTV monitoring with an advanced feature set. Its tough, die-cast aluminium housing is anodised and then powder coated, offering excellent resistance to environmental wear, vandalism, and physical attack.

Every aspect of the X2 COMBAT is designed for durability and longevity. From the high-efficiency, long-life silicone wiper to the precision-engineered motor mechanisms in the pan and tilt assembly, each component is built to perform over time. The high-resolution camera module with 30x optical zoom offers superior low-light performance, while the camera's balanced mechanical design reduces strain on components—supporting a Mean Time Between Failure (MTBF) rating of up to 7 years.

Operator-Centric Control

The X2 COMBAT provides intuitive and precise control for operators. It supports rapid pan and tilt speeds up to 180° per second, as well as ultra-slow movement below 0.1° per second for accurate target tracking. Integrated IR and white-light LED illumination ensures effective night-time operation with long operational life and low energy use.

Operators can take advantage of 3D positioning for seamless control—whether configuring the X2 COMBAT via its Web User Interface or tracking targets using mouse-click commands from compatible platforms. With ultra-low latency and no overshoot, the X2 COMBAT is responsive and accurate under manual or automated control.

Seamless VMS Integration – Including Digifort

The X2 COMBAT integrates easily with Digifort, an ONVIF-compliant video management system. Thanks to a deep SDK-level integration with Redvision cameras, users have direct access to camera-specific functions such as wiper control and white light activation, streamlining both setup and operation.

Intelligent auto-PTZ tracking

The X2 COMBAT includes intelligent auto-PTZ tracking capabilities. It can autonomously follow people or vehicles within the scene, dynamically adjusting zoom and focus to keep the subject clearly in view.

Effortless Installation, Minimal Maintenance

Designed with installer convenience in mind, the X2 COMBAT offers straightforward mounting and configuration. A wide range of brackets, cable extensions, and mounts support both upright and pendant installations, with custom RAL colour options available. Cantilever brackets enable direct downward viewing on poles or towers.

A tooled silicone wiper keeps the camera's flat, scratch-resistant window clean in harsh weather. The sprung steel, linkage-free wiper mechanism reduces wear, while a tough polycarbonate window option is available for enhanced durability. Wiper activation is accessible via preset commands or direct button control in supported VMS platforms, including the VMS1000.

Comprehensive Feature Set

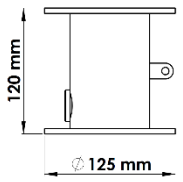
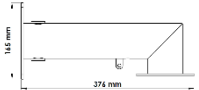
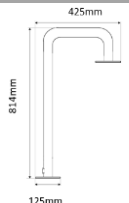
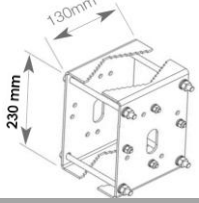
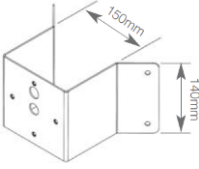
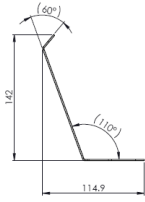
The X2 COMBAT is packed with advanced features, including support for up to three video streams for simultaneous recording, viewing, setup, and diagnostics. It supports H.265, H.264, and MJPEG compression formats, and offers edge storage options up to 1TB via SD card. The camera complies with ONVIF Profiles G, T, and M, and supports 400 presets, 12 tours, 12 scans, 6 auto-tracks, and up to 20 configurable privacy masks. Additional features include motion detection, intelligent analytics, alarm inputs, and support for operating temperatures between -40°C and +70°C. A 90W PoE model (802.3bt Midspan) allows for efficient connectivity via RJ45 over 100m of Cat5e cabling.

Exceptional Night Vision

The X2 COMBAT offers powerful infrared (IR) and white light illumination via long-life LEDs. With Osram adaptive illumination technology, the intensity of lighting automatically adjusts based on zoom level and scene conditions to ensure optimal exposure and clarity without overexposure.

Equipped with a high-sensitivity 1/2.8" CMOS sensor, the X2 COMBAT delivers superb low-light imaging down to 0.005 Lux in colour and 0.001 Lux in monochrome. Night-time performance tests indicate effective detection up to 300 metres. The white light can also be triggered manually or automatically as a visible deterrent to potential intruders.

Image	Part Code and Description
	RVX2P-G: 30:1 5MP Zoom Ball PTZ, WIPER - Light Grey
	RVX2P-POE-G: 30:1 5MP Zoom Ball PTZ, WIPER. High-PoE (802.3bt Midspan) 60W - Light Grey
	RVX2P-ALM-G: 30:1 5MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, WIPER - Light Grey
	RVX2P-B: 30:1 5MP Zoom Ball PTZ, WIPER - Black
	RVX2P-POE-B: 30:1 5MP Zoom Ball PTZ, WIPER. High-PoE (802.3bt Midspan) 60W - Black
	RVX2P-ALM-B: 30:1 5MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, WIPER - Black
	RVX2P-IR-G: 30:1 5MP Zoom Ball PTZ, IR, WIPER - Light Grey
	RVX2P-POE-IR-G: 30:1 5MP Zoom Ball PTZ, IR, WIPER. High-PoE (802.3bt Midspan) 90W - Light Grey
	RVX2P-ALM-IR-G: 30:1 5MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, IR, WIPER - Light Grey
	RVX2P-IR-B: 30:1 5MP Zoom Ball PTZ, IR, WIPER - Black
	RVX2P-POE-IR-B: 30:1 5MP Zoom Ball PTZ, IR, WIPER. High-PoE (802.3bt Midspan) 90W - Black
	RVX2P-ALM-IR-B: 30:1 5MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, IR, WIPER - Black
	RVX2P-IRWL-G: 30:1 5MP Zoom Ball PTZ, IR/ White Light, WIPER - Light Grey
	RVX2P-POE-IRWL-G: 30:1 5MP Zoom Ball PTZ, IR/ White Light, WIPER. High-PoE (802.3bt Midspan) 90W - Light Grey
	RVX2P-ALM-IRWL-G: 30:1 5MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, IR/ White Light, WIPER - Light Grey
	RVX2P-IRWL-B: 30:1 5MP Zoom Ball PTZ, IR/ White Light, WIPER - Black
	RVX2P-POE-IRWL-B: 30:1 5MP Zoom Ball PTZ, IR/ White Light, WIPER. High-PoE (802.3bt Midspan) 90W - Black
	RVX2P-ALM-IRWL-B: 30:1 5MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, IR/ White Light, WIPER - Black

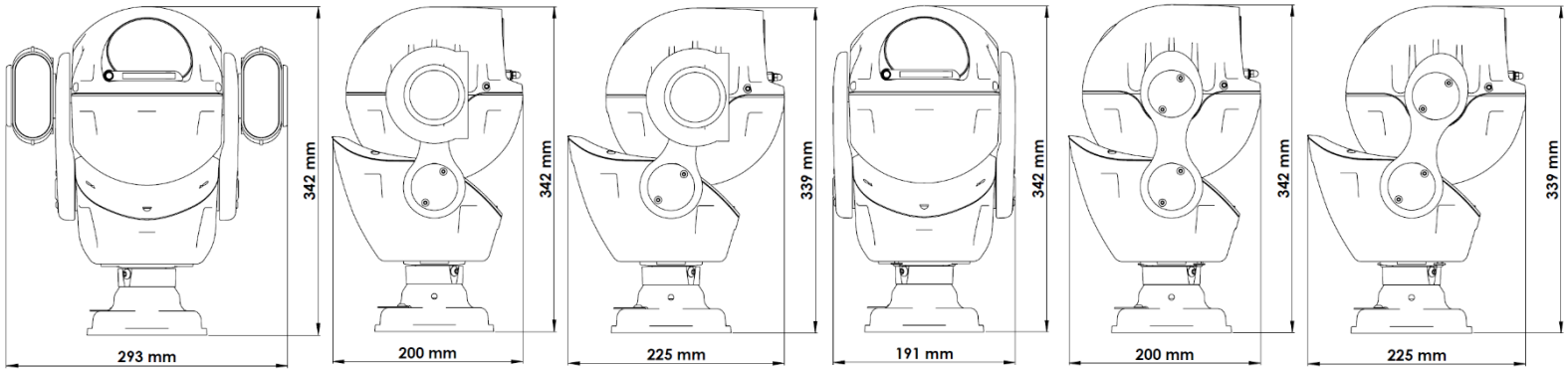
Image	Part Code and Description	Drawing
	RVX2-STANDOFF-G: 120 mm Standoff mount bracket - Light Grey RVX2-STANDOFF-B: 120 mm Standoff mount bracket - Black	
	RVX2-WALL-G: Wall mount bracket - Light Grey RVX2-WALL-B: Wall mount bracket - Black	
	RVX2-SWAN-G: Swan mount bracket - Light Grey RVX2-SWAN-B: Swan mount bracket - Black	
	RVX2-POLE-G: Pole mount adaptor 60-90mm for RVX2-WALL - Light Grey RVX2-POLE-B: Pole mount adaptor 60-90mm for RVX2-WALL - Black	
	RVX2-CNR-G: Corner Mount adapter for RVX2-WALL - Light Grey RVX2-CNR-B: Corner Mount adapter for RVX2-WALL - Black	
	RVX2-VISOR-G: Sun & rain Visor (only applies when camera is mounted in upright position) - Light Grey RVX2-VISOR-B: Sun & rain Visor (only applies when camera is mounted in upright position) - Black	
	RVX2-WASH: Washer nozzle kit – compatible with standard CCTV wash pumps	
	RVX2-PSU: 24V DC PSU for X2 non alarm and alarm ball PTZ	
Other	RVX2-SD, RVX2-PC4, RV-POE-INJ-90W	

Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Max Resolution	5 MP (2592 × 1944)
Shutter Speed	1/5 to 1/100,000s
Min Illumination	Colour: 0.005 Lux @ (F1.6, AGC ON), B/W: 0.001 Lux @ (F1.6, AGC ON)
Day & Night	Auto (ICR)
S/N Ratio	55 dB
Lens	
Focal Length	5.3 to 159 mm
Max. Aperture	F1.6 to F4.4
Field of View (FOV)	H: 56.8° to 2.6°, V: 42.7° to 2.0°
Optical Zoom	30x
Digital Zoom	16x
Iris	Auto / Manual
Focus Control	Auto / Manual / Semi-automatic
Intelligent Analytics	
AI Multi-Target Detection	Supports face, human, and vehicle detection with snapshot capture Supports human and vehicle attribute analysis Supports tracking display modes: Full Frame, Four-Corner Frame, and Mosaic
Attribute Analysis	Human Attributes: Gender, age, glasses, hat, bag, upper clothing colour & style, lower clothing colour & style, reflective vest. Vehicle Attributes: Type, colour, brand, orientation
Intelligent Analysis	Intrusion detection, smart motion detection, single line crossing, double line crossing, loitering, wrong-way detection, area people limit, perimeter detection, illegal parking, running detection, fall detection, fight detection. Supports alarm triggering based on specified target types (human/vehicle)
Intelligent Tracking	Supported
Smoke and Flame Detection	Supported
People Counting	Supported
Video & Audio	
Number of Streams	3 Streams
Resolution	Stream 1: 2592 × 1944, 2592 × 1520, 1920 × 1080, 1280 × 720 Stream 2: 1920 × 1080, 1280 × 720, D1, VGA, CIF Stream 3: VGA, CIF, QVGA
Frame Rate	Up to 25/30 fps
Bit Rate Control	CBR/VBR
Bit Rate	Stream 1: 200 Kbps to 12 Mbps Stream 2: 100 Kbps to 6 Mbps Stream 3: 100 Kbps to 3 Mbps
Smart Encoding	Supported
Region of Interest (ROI)	Supported
Audio Compression	G.711 A-law, G.711 μ-law, RAW_PCM
Audio Bit Rate	64 kbps (G.711), 128 kbps (RAW_PCM)

Image	
Image Adjustment	Brightness, Sharpness, Contrast, Saturation adjustable
Scene Mode	Indoor, Outdoor, Mirror
Exposure Mode	Auto, Manual, Shutter priority, Iris priority
White Balance	Auto, Tungsten, Fluorescent, Daylight, Shadow, Manual
Day/Night Setting	Auto, Day, Night, Timer
Noise Reduction	2D/3D DNR
Image Enhancement	HLC, BLC, Defog, WDR, Anti-shake
Wide Dynamic Range	True WDR (120 dB)
Privacy Masking	Up to 20 zones, mask colour configurable
Event	
Alarm Triggers	IVS, Motion detection, Alarm input, Network alarm, Disk alarm, Day/Night switch alarm, Abnormal sound detection
Event Actions	Alarm record, FTP upload, Email notification, Snapshot, Alarm output, Audible alarm output
Network	
Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/ RTCP/RTP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, ICMP, IGMP, SMTP, 802.1x, SNMP, Multicast
Application Programming Interface	ONVIF (Profile T/G/M), SDK, CGI
Max Concurrent Streams	10 channels
User/Host Level	32+ users, 3 user levels: Administrator, Operator, and Media User
Web Viewer	Chrome, Firefox, Microsoft Edge
Language	English, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English
Security	
OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware
User Authentication	Digest authentication, Brute-force attack protection
Network Authentication	IEEE 802.1X (EAP-TLS)
Secure Communication	HTTPS, WSS (WebSocket Secure), SRTP
Access Control	IP-based access control, Auto logout
Data Protect	Encryption credentials
Audit	Access, system, and event logs
Secure Storage	AES-256 encrypted SD card storage
Supply Chain Security	SBOM
Alarm	
Alarm I/O	4 in, 2 out (ALM variant)
Electrical and Physical	
Power Supply	24VDC (-15% to +20%) via PSU module; input 100~240VAC 50/60Hz.
Power Consumption	24VDC: 50W. PoE: 802.3BT Midspan 90W (LED models)
Dimensions	Non-LED models: H 340mm W 191mm LED models: H 340mm W 293mm
Weight	5.2kg without lamps, 5.8kg with lamps
Operating Temperature	-40°C ~ +70°C (Light colours only, Black: 50°C)

Impact Rating	Meets IK10 standards (with Polycarbonate window fitted)
Corrosion Testing	BS EN ISO 9227:2022 1000 Hours Salt Spray
Ingress Protection	Meets IP68 standards
Relative Humidity	≤95%, non-condensing
Vibration Testing	See technical standards
EMC	See technical standards
Camera Body	Marine finish as standard, Aluminium, die-cast alloy, with anodised, powder coated finish
Wiper Blade	Tooled silicone
Colour	RAL 7035 Light-Grey or RAL 9005 Black. Custom RAL made to order.

Lighting & OODPCVS (EN 62676-4)	
Illumination Range	IR (850nm) to 300m White Light to 250m
Overview	128m to 3,862m
Outline	64.4m to 1931m
Discern	32.2m to 965m
Perceive	20.6m to 618m
Characterise	10.3m to 309m
Validate	5.15m to 154.5m
Scrutinise	1.72m to 51.5m



Environmental	
Cold Test	EN 60068-2-1:2007 Test Ae -40°C
Dry Heat Test	EN 60068-2-2:2007 Test Be +70°C
Damp Heat Test, Cyclic Test	EN 60068-2-30:2005 Test Db
Vibration Test	EN 50556:2018 Section 6.3.2 & Table 4 Class AL & Section 6.3.1.5 & EN 60068-2-64:2008 Test Fh
IPX8	IEC 60529:1989+A1:1999+A2:2013+COR1:2019
IP6X	IEC 60529:1989+A1:1999+A2:2013+COR1:2019
Salt Spray	BS EN ISO 9227:2022 1000 Hours Salt Spray

EMC Emission	
Conducted Emissions at Mains Power Port (150kHz-30MHz)	EN 55032:2015+A11:2020+A1:2020
Asymmetric Mode Conducted Emissions (150kHz-30MHz)	EN 55032:2015+A11:2020+A1:2020
Radiated Emissions (30MHz – 1GHz)	EN 55032:2015+A11:2020+A1:2020
Radiated Emissions (Above 1Ghz)	EN 55032:2015+A11:2020+A1:2020
Harmonic Current Emission	EN IEC 61000-3-2:2019+A1:2021
Voltage Fluctuations and Flicker	EN 61000-3-3:2013+A1:2019+A2:2021

EMC Immunity	
Electrostatic Discharge	EN 55035:2017+A11:2020 & EN 50130-4:2011+A1:2014
Radiated Immunity (80MHz-1GHz, 1800MHz, 2600MHz, 3500MHz, 5000Mhz)	EN 55035:2017+A11:2020
Radiated Immunity (80MHz-2.7GHz)	EN 50130-4:2011+A1:2014
Electrical Fast Transients & Burst at AC Power Port	EN 55035:2017+A11:2020 & EN 50130-4:2011+A1:2014
Electrical Fast Transients & Bursts at Signal Port	EN 55035:2017+A11:2020 & EN 50130-4:2011+A1:2014
Surge at AC Power Port	EN 55035:2017+A11:2020 & EN 50130-4:2011+A1:2014
Surge at Signal Port	EN 55035:2017+A11:2020 & EN 50130-4:2011+A1:2014
Conducted Immunity at AC Power Port (150kHz-80MHz)	EN 55035:2017+A11:2020 & EN 50130-4:2011+A1:2014
Conducted Immunity at Signal Port (150kHz-80MHz)	EN 55035:2017+A11:2020 & EN 50130-4:2011+A1:2014
Voltage Dips and Interruptions	EN 55035:2017+A11:2020 & EN 50130-4:2011+A1:2014
Mains Supply Voltage Variations	EN 50130-4:2011+A1:2014