

CCTV | IP PTZ

X4 COMMANDER STM

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 – 500m target range.
- Intelligent, Auto- PTZ Tracking
- VMS Integration, including Redvision VMS1000TM
- Rugged Mounting Bracket Options
- Brushless Stepper Motors for Resilience and Durability
- ONVIF Compliant
- SD Card recording option, up to 256GB.

X4 COMMANDER™ rugged ball PTZ

The X4 COMMANDER™ rugged, ball PTZ cameras are designed for tough, outdoor, surveillance applications. The X4 COMMANDER™ uses advanced production techniques and state-of-the-art technology to offer a world-class, rugged CCTV camera with a best-in-class, feature set. The die-cast aluminium body is pre-treated before being powder coated, making the camera environmentally tough and resistant to malicious attack or vandalism.

Everything about the X4 COMMANDER™ rugged, ball PTZ is of high quality. All moving parts are designed to last; from its long-life, silicone wiper through to the motor technology used in its pan and tilt mechanism and its 37x optical zoom camera module, with exceptional low-light performance. The camera is perfectly balanced, minimising component wear and giving a mean time before failure (MTBF) rating of 7 years.

Intuitive, operator control

The X4 COMMANDER™ has intuitive, operator control, from fast pan and tilt speeds of up to 180° / second to speeds of less than 0.1° / second, for when an operator is precisely tracking a target. The COMMANDER™ also features long-life, super-efficient, white-light and IR LED illumination technologies, for night-time operation.

3D positioning allows operators simple control of the X4 COMMANDER™ PTZ. Quick and simple setup directly from the COMMANDER™'s Web User Interface; or tracking targets by mouse click from a compatible control platform, latency and over run are no longer an issue.

Simple install, maintenance free

The X4 COMMANDER™ is designed for easy installation and configuration. A complete range of brackets, mounts and cable extensions allow upright or hanging installation in any environment, with a choice of RAL colour options to order. Cantilever arms enable the camera to view directly downwards on pole or tower mounts. The X4 COMMANDER™ mounting

bracket has a 4" PCD mount with M8 clearance holes.

The X4 COMMANDER™ utilises a tooled silicone wiper option to keep the camera's view through the flat, scratch-resistant window free of water and dirt. A linkage-free, sprung steel mechanism reduces wiper wear and a polycarbonate window gives an even tougher option. Wiper activation is by a button press on VMS systems, including the VMS1000™, or by pre-set.

Extensive features

The X4 COMMANDER™ has an extensive range of features including four video streams for recording, visualisation, set-up and servicing; H265, H264 and MJPEG compression; optional 256GB maximum SD card-based edge storage; ONVIF compliance to Profile S, G and T; 400 pre-sets, 12 tours, 12 scans, 6 tracks and 20 privacy masks; alarms, motion detection, intelligent analytics and tracking; and its operating temperature range is -40°C to 70°C. A 90W PoE version (802.3bt Midspan) offers quick and easy connectivity via RJ45 socket, operating over a full 100m Cat 5e span.

Night-time performance

The Redvision X4 COMMANDER™ rugged, ball PTZ cameras have infra-red (IR) and white light illumination options, using long-life, super-efficient LEDs. DORI (Detection, Observation, Recognition and Identification) tests show that the X4 COMMANDER™ performs up to 500m. Utilising the latest in sensor technology, the 1/1.8" CMOS Starlight sensor has exceptional low-light performance down to 0.005 Lux in colour, and 0.0005 Lux in monochrome.

The X4 COMMANDER™ has Osram adaptive illumination, automatically adjusting IR and white light intensity in proportion to zoom and scene content. This feature ensures scene images are well-lit, but not bleached by over-exposure.

White light can be switched on as a visual deterrent to intruders.

Intelligent auto-PTZ tracking

The X4 COMMANDER™ has intelligent, auto PTZ tracking where the camera will automatically follow people or vehicles moving within a scene, adjusting zoom and focus in real-time.










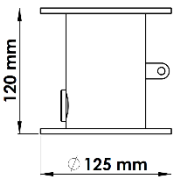

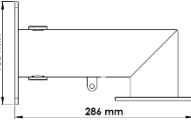

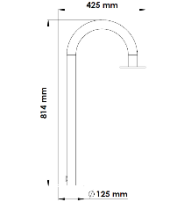
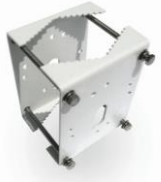
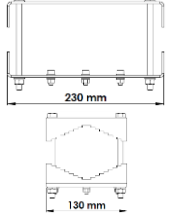

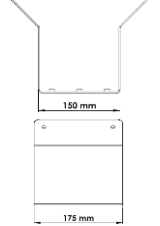


Image	Part Code and Description
	<p>RVX4S-G: 37:1 4MP Zoom Ball PTZ, WIPER - Light Grey</p> <p>RVX4S-POE-G: 37:1 4MP Zoom Ball PTZ, WIPER. High-PoE (802.3bt Midspan) 60W - Light Grey</p> <p>RVX4S-ALM-G: 37:1 4MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, WIPER - Light Grey</p>
	<p>RVX4S-B: 37:1 4MP Zoom Ball PTZ, WIPER - Black</p> <p>RVX4S-POE-B: 37:1 4MP Zoom Ball PTZ, WIPER. High-PoE (802.3bt Midspan) 60W - Black</p> <p>RVX4S-ALM-B: 37:1 4MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, WIPER - Black</p>
	<p>RVX4S-IR-G: 37:1 4MP Zoom Ball PTZ, IR, WIPER - Light Grey</p> <p>RVX4S-POE-IR-G: 37:1 4MP Zoom Ball PTZ, IR, WIPER. High-PoE (802.3bt Midspan) 90W - Light Grey</p> <p>RVX4S-ALM-IR-G: 37:1 4MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, IR, WIPER - Light Grey</p>
	<p>RVX4S-IR-B: 37:1 4MP Zoom Ball PTZ, IR, WIPER - Black</p> <p>RVX4S-POE-IR-B: 37:1 4MP Zoom Ball PTZ, IR, WIPER. High-PoE (802.3bt Midspan) 90W - Black</p> <p>RVX4S-ALM-IR-B: 37:1 4MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, IR, WIPER - Black</p>
	<p>RVX4S-IRX-G: 37:1 4MP Zoom Ball PTZ, Extra Long-Range IR up to 500m, WIPER - Light Grey</p> <p>RVX4S-POE-IRX-G: 37:1 4MP Zoom Ball PTZ, Extra Long-Range IR up to 500m, WIPER. High-PoE (802.3bt Midspan) 90W - Light Grey</p> <p>RVX4S-ALM-IRX-G: 37:1 4MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, Extra Long-Range IR up to 500m, WIPER - Light Grey</p>
	<p>RVX4S-IRX-B: 37:1 4MP Zoom Ball PTZ, Extra Long-Range IR up to 500m, WIPER - Black</p> <p>RVX4S-POE-IRX-B: 37:1 4MP Zoom Ball PTZ, Extra Long-Range IR up to 500m, WIPER. High-PoE (802.3bt Midspan) 90W - Black</p> <p>RVX4S-ALM-IRX-B: 37:1 4MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, Extra Long-Range IR up to 500m, WIPER - Black</p>
	<p>RVX4S-IRWL-G: 37:1 4MP Zoom Ball PTZ, IR/ White Light, WIPER - Light Grey</p> <p>RVX4S-POE-IRWL-G: 37:1 4MP Zoom Ball PTZ, IR/ White Light, WIPER. High-PoE (802.3bt Midspan) 90W - Light Grey</p> <p>RVX4S-ALM-IRWL-G: 37:1 4MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, IR/ White Light, WIPER - Light Grey</p>
	<p>RVX4S-IRWL-B: 37:1 4MP Zoom Ball PTZ, IR/ White Light, WIPER - Black</p> <p>RVX4S-POE-IRWL-B: 37:1 4MP Zoom Ball PTZ, IR/ White Light, WIPER. High-PoE (802.3bt Midspan) 90W - Black</p> <p>RVX4S-ALM-IRWL-B: 37:1 4MP Zoom Ball PTZ, 4 alarm inputs, 2 alarm outputs, IR/ White Light, WIPER - Black</p>

Image	Part Code and Description	Drawing
	<p>RVX4-STANDOFF-G: 120 mm Standoff mount bracket - Light Grey</p> <p>RVX4-STANDOFF-B: 120 mm Standoff mount bracket - Black</p>	
	<p>RVX4-WALL-G: Wall mount bracket - Light Grey</p> <p>RVX4-WALL-B: Wall mount bracket - Black</p>	
	<p>RVX4-SWAN-G: Swan mount bracket - Light Grey</p> <p>RVX4-SWAN-B: Swan mount bracket - Black</p>	
	<p>RVX4-POLE-G: Pole mount adaptor 60-90mm for Wall Bracket - Light Grey</p> <p>RVX4-POLE-B: Pole mount adaptor 60-90mm for Wall Bracket - Black</p>	
	<p>RVX4-CNR-G: Corner Mount adapter for Wall Bracket - Light Grey</p> <p>RVX4-CNR-B: Corner Mount adapter for Wall Bracket - Black</p>	
	<p>RVX4-BIRD-SPIKE: Multiple Anti-Perch Bird Spike Attachment</p>	
	<p>RVX2-PSU: 24V DC PSU for X2/X3/X4 non alarm and alarm ball PTZ</p>	
<p>Other</p>	<p>RVX4-SD, RVX4-PC4, RV-POE-INJ-90W, RVX2-WASH</p>	

Camera Specification

Camera module	37x optical zoom, 16x digital zoom, 4MP, 1/1.8" CMOS Starlight sensor, True-ICR
Lens	6.8mm ~ 251mm FOV: 60.7° (Wide) ~ 2.33° (Tele)
Sensitivity	Colour: 0.005Lux @ F1.5 Monochrome: 0.0005Lux @ F1.5 (AGC ON)
Shutter Speed	Auto/Manual, 1/5 ~ 1/20,000s
Iris	Auto/ Manual
Noise Reduction	2d Digital, 3D Digital
Image Enhancement	dWDR, BLC, HLC, Defog
Digital Image Stabilisation	Yes
P/T Range	Pan: 360° continuous Tilt: 150° (Cantilever function gives 180° view range)
P/T Speed	Pan: 180°/sec Tilt: 90°/sec
Privacy	20 Masks, individual colour choice
Preset Positions	400
Preset Tours	12
Autopan Scans	12
Mimic Patterns	6
P/T Coordinates	Yes, OSD Display

Video Streaming

Video Compression	H.265, H.264, MJPEG
Streams	3 + SVC Stream
Resolutions	Stream1: 2592x1520, 2560x1440, 2304x1296, 1920x1080, 1280x720 @ 25/30fps Stream2: 1920x1080, 1280x720, D1, VGA, 640x360, CIF, QVGA @ 25/30fps Stream3: VGA, CIF, QVGA @ 25/30fps
RTSP Video	RFC2326, Supports VLC & QuickTime
FPS	30fps max.
Bitrate	Stream 1: 200kbps ~ 12Mbps Stream 2: 100kbps ~ 6Mbps Stream 3: 100kbps ~ 3Mbps
ROI	Yes

Network Interface

Interface	Ethernet RJ45, 10-100 Base-T connection
Supported Protocols	IPv4/IPv6, 802.1x, HTTP, HTTPS, TCP/IP, UDP/IP, RTSP, DHCP, NTP, RTP/RTCP, PPPoE, SMTP, DNS, UPnP, FTP, ARP, SNMP, TLS/SSL
Languages (Web interface)	English, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian. Default: English
ONVIF	Profile S, G, T
Edge Storage (optional)	Up to 256GB
Security	Base-64 authentication, HTTPS (SSL), 802.1x, IP Address Filtering

Events

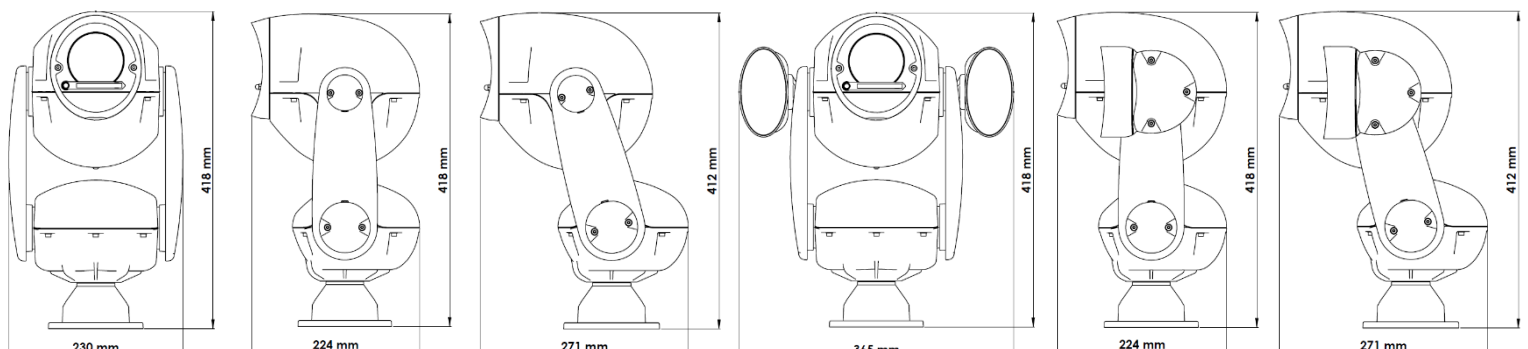
Alarm I/O	4 in, 2 out
Intelligent Motion Tracking	Yes
Event Notifications/Actions	Email (5 recipients), FTP Upload, SD Event recording, alarm output, live stream display, mobile app push notification.
Intelligent Analytics	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong way, Illegal Parking
Motion Detection	Detection grid, scheduling
System Events	SD, Network issue, ICR Switch

Electrical & Physical

Power Supply	24VDC via RVX2 PSU module; input 100~240VAC 50/60Hz. PoE Version: RJ45 socket, takes power & data (90W)
Power Consumption	24VDC: 50W. PoE: 802.3bt Midspan 90W (LED models)
Dimensions	Non-LED models: H 418mm W 230mm LED models: H 418mm W 365mm
Weight	8kg without lamps, 10kg with lamps
Operating Temperature	-40°C ~ +70°C
Impact rating	(Light colours only, Black: 50°C)
Corrosion Testing	Meets IK10 standards (with Polycarbonate window fitted)
Ingress protection	BS EN ISO 9227:2022 1000 Hours Salt Spray
Vibration testing	Meets IP68 standards
EMC	TEN 50556:2011, clauses 6.3.2 & 11 (Table 3, Class AL2) EN 60068-2-64-2008 Test Fh
Camera body	BS EN 55032:2015+A11:2020, Class A BS EN 50130-4:2011+A1:2014
Wiper Blade	Marine finish as standard, Aluminium, die-cast alloy, with E-Coat, powder-coated finish
Colour	Tooled silicone RAL 7035 Light-Grey or RAL 9005 Black. Custom RAL made to order.

Lighting & DORI

Illumination Range	IR (850nm) to 500m White Light to 300m
DORI Category	Distance covered
Detection	IR Light: 500m White Light: 300m
Observation	IR Light: 275m White Light: 225m
Recognition	IR Light: 175m White Light: 175m
Identify	IR Light: 90m White Light: 90m



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 Conudcted 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
Conudcted 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