

AI · PANORAMIC MINI BULLET · 180° · IP NETWORK CAMERA

5 and 8 MP **AI 180° panoramic** Mini Bullet camera

BS-M2221C-LVE1-W 5 MP · WHITE
BS-M2221D-LVE1-W 8 MP · WHITE

Panoramic camera with a 180° horizontal view from a single sensor — no stitching, so there are no seams and no people split in half. One camera covers a whole corridor, entrance or car park instead of two conventional ones. Available in 5 MP or 8 MP in the same housing, 120 dB Super WDR, Smart IR up to 15 m with two angled LEDs and full AI VCA 2.0 analytics including people counting and heat maps. Fully compatible with BYSEC NVR and BYSEC Cloud — your recordings never leave the EU.



5 / 8 MP 180° PANORAMIC 120DB WDR SMART IR 15 M
IP67 / IK10 POE 802.3AF MICROPHONE AI VCA 2.0
PEOPLE COUNTING

Key features

- 180° from a single sensor** — no stitching of two images, so there are no seams and nobody is cut in half; one camera replaces two conventional ones and saves a port and a cable run.
- 120 dB Super WDR** — readable image against the light — entrances, barriers, underpasses and garage exits where it is dark in front of the camera and bright behind it.
- AI VCA 2.0** — line crossing, region entrance and exiting, loitering, advanced motion detection, object left and removed, tamper detection.
- People counting and heat map** — line and regional counting in up to 4 areas, a heat map of the busiest spots and crowd management — data for operations, not only for security.
- 5 or 8 MP, same housing** — 2592×1944 at 30 fps or 3840×2160 at 25 fps — same dimensions, same brackets, same installation; only the required detail decides.
- Smart IR up to 15 m · two LEDs** — illumination is split into two angled diodes, so at night the whole 180° view is lit, not just its centre.
- People and vehicle attributes** — up to 50 targets at once — upper and lower clothing colour, hat, and vehicle type (bicycle, car, motorcycle, bus, truck, e-scooter).
- IP67 + IK10 · built-in microphone** — vandal-proof metal housing weighing 630 g, operation from -40 °C to +60 °C, powered by a single PoE cable.

FIELD OF VIEW
180°
horizontal · 95° / 86° vertical

RESOLUTION
8 MP
3840×2160 @ 25 fps H.265+

IR RANGE
15 m
Smart IR, two angled LEDs

WEIGHT
630 g
158.5 × 95.8 × 74 mm

Technical specifications

		BS-M2221C · 5 MP		BS-M2221D · 8 MP	
CAMERA	Image sensor	1/2.8" Progressive Scan CMOS			
	Max. resolution	2592×1944		3840×2160	
	Min. illumination	0.008 Lux @ F2.0 · B/W: 0 Lux with IR ON		0.012 Lux @ F2.0 · B/W: 0 Lux with IR ON	
	WDR	120 dB Super WDR (sensor-based)			
	Lens	Fixed 1.68 mm @ F2.0, M12 mount			
	Field of view (FoV)	H 180° · V 95°		H 180° · V 86°	
	DORI	D 37.5 m · O 15 m · R 7.5 m · I 3.5 m		D 56.5 m · O 22 m · R 11 m · I 5.5 m	
	Shutter time · S/N	1/100,000 s — 1 s · S/N > 55 dB			
	IR range	up to 15 m, Smart IR · two angled LEDs			
VIDEO	Day/Night mode	Auto / Manual / Schedule, ICR			
	Primary stream	30 fps @ (2560×1440, 1920×1080, 1280×720)		25 fps @ (3840×2160, 3440×1936, 2560×1440, 1920×1080)	
	Secondary / tertiary	30 fps @ (704×576, 640×480, 640×360) · 30 fps @ (2048×1536 ... 320×240)		25 fps @ (704×576, 640×480, 640×360) · 25 fps @ (1280×720 ... 640×360)	
	Compression / Bit-rate	H.265+ / H.265 / H.264+ / H.264 / MJPEG · 16 Kbps – 16 Mbps (CBR/VBR)			
IMAGE	Privacy Masking / ROI	up to 8 areas (mask / mosaic) · ROI up to 8 areas			
	Image adjustment	Brightness / Contrast / Saturation / Sharpness			
	Image enhancement	BLC, HLC, 2D DNR, 3D DNR, AGC, Defog, AWB, Deblur, Anti-flicker, Corridor Mode			
NETWORK	Ethernet	1× RJ45, 10 / 100 Mbps			
	Audio	built-in microphone · G.711 / AAC / G.722 / G.726 · 8 – 48 kHz · 16 – 256 kbps			
	Network storage	NAS (NFS, SMB/CIFS), ANR · BYSEC Cloud (EU)			
	Protocols	IPv4/IPv6, ARP, TCP, UDP, RTCP, RTP, RTSP, RTMP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP, SNMP, UPnP, Bonjour, LLDP, SIP, VPN, PPPoE, VLAN, 802.1x, QoS, IGMP, ICMP, SSL, TLS 1.2			
AI ANALYTICS	VCA 2.0	line crossing, region entrance and exiting, loitering, advanced motion detection, object left and removed, tamper detection			
	Attributes	up to 50 targets at once · upper and lower clothing colour, hat, vehicle type (bicycle, car, motorcycle, bus, truck, e-scooter)			
	Counting and statistics	line and regional people counting (up to 4 areas), heat map, crowd management			
EVENTS	Trigger	motion detection, tamper detection, audio alarm			
	Exceptions	network disconnection, IP conflict, record failed, SD full / uninitialized / error / no SD			
	Actions	FTP / SMTP upload, SD card record, snapshot, SIP phone, HTTP notification			
SYSTEM	Local storage	microSD / SDHC / SDXC up to 1 TB			
	Compatibility	ONVIF Profile G & M & S & T, BYSEC API			
GENERAL	Operating temperature / humidity	-40 °C to +60 °C · 0 – 95 % (non-condensing)			
	Power supply	PoE (802.3af) / DC 12V ±10 %			
	Power consumption	3.1 W typical · max. 7.7 W (PoE)		4.0 W typical · max. 8.4 W (PoE)	
	Housing	Vandal-proof IK10 metal housing, IP67			
	Dimensions / weight	158.5 × 95.8 × 74 mm · approx. 630 g			
	Warranty	5 years			

Why BYSEC



Recordings stay in the EU — every video stream is processed by BYSEC Cloud exclusively in data centres within the European Union. No third parties, no transfer to the US or China.



Our own application — BYSEC mobile and desktop apps with end-to-end encryption and our own key management. No vendor-cloud lock-in.



Local 24/7 service — SLA with response from 1 hour, monthly availability reports, a single point of contact for the entire installation.



Full GDPR compliance — privacy masking, audit trail of access to recordings, exportable logs for data protection officers.



EU DECLARATION OF CONFORMITY

EU Declaration of **Conformity**

BySec, s.r.o. hereby declares that the product identified below is in conformity with the directives and regulations of the European Union and meets the requirements of the relevant harmonised technical standards.

Product identification

MANUFACTURER	BySec, s.r.o., Slovak Republic
PRODUCT	AI 180° panoramic Mini Bullet IP camera, 5 MP and 8 MP
TYPE DESIGNATION	BS-M2221C-LVE1-W (5 MP) · BS-M2221D-LVE1-W (8 MP)
SERIAL NUMBERS	N/A
DECLARATION NO.	DOC-BYSEC-2026/01/16
DATE OF ISSUE	29. 09. 2026

Applied EU directives



2014/30/EU – EMC
Electromagnetic compatibility



2014/35/EU – LVD
Low voltage equipment



2011/65/EU – RoHS
Restriction of hazardous substances (incl. 2015/863)



2012/19/EU – WEEE
Waste electrical and electronic equipment

Harmonised standards and test reports

STANDARD	SUBJECT	REPORT NO.
EN 55032 : 2015 + A11	EMC – emission	XMDN230130-04396E-01A1
EN 55035 : 2017 + A11	EMC – immunity	XMDN230130-04396E-01A1
EN IEC 61000-3-2 : 2019	Harmonic currents	XMDN230130-04396E-01A1
EN 61000-3-3 : 2013 + A2	Voltage fluctuations	XMDN230130-04396E-01A1
EN 62368-1 : 2014 + A11	Safety of AV/IT equipment	XMDN230130-04396E-SF-A1
EN IEC 62368-3 : 2020	Power transfer over communication cables (PoE)	XMDN230130-04397E-SF-A1
EN IEC 62321-1 to -12 : 2013-2023	RoHS – test methods for restricted substances	—

We declare under our sole responsibility that the product described above, to which this declaration relates, is in conformity with the requirements of the directives and standards listed. The technical documentation is kept by the manufacturer for 10 years after the end of production.

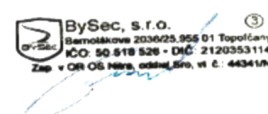
PLACE AND DATE

Topoľčany · 29.09.2026

NAME AND POSITION

Ing. Ivan Minárik, MBA
MANAGING DIRECTOR

SIGNATURE


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