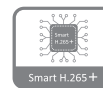# DH-ECA2A1400-HN

4MP Starlight IR Explosion-proof Camera

- 4-MP 1/2.8" CMOS.
- Starlight technology.
- Max.25/30 fps@1080p.
- IR distance up to 30 m.
- H.265 encoding.
- 304 stainless steel housing.
- IP68. ATEX and IECEx certification.

| WDR | Starlight | Smart H.265+ | Day/Night | IP68 |

System Overview

With its explosion-proof structure, this series ensures that safety and performance are delivered with each camera and its accessories. Its stainless steel design and ATEX and IECEx certification promise durability and protection for the surrounding area. It is applicable to Class I/II/III, Divisions 1 and 2, Zones 1, 2, 21, 22, and Groups IIC and IIIC, and is ideal for use in a wide variety of scenarios such as chemical plants, coal mines, fuel oil plants, and flour mills.

Functions

Protection (IP68, TVS 6000 V)

IP68, TVS 6000 V lightning proof, surge protection, and voltage transient protection.

IVS

With advanced video algorithm, Dahua IVS technology supports intelligent functions, such as tripwire and intrusion.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Pixel	4 MP
Max. Resolution	2560 (H) × 1440 (V)
ROM	128 MB
RAM	128 MB
Electronic Shutter Speed	1/1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 lux@F1.8 B/W: 0.0005 lux@F1.8
Illumination Distance	30 m (98.43 ft) (IR)
Illuminator On/Off Control	Manual; Smart IR; Off
Illuminator Number	1 (IR)

Lens

Focal Length	6 mm; 4 mm
Max. Aperture	F1.8
Field of View	H: 49°; V: 37°; D: 61°;H: 81°; V: 59°; D: 106°
Optical Zoom	1
Close Focus Distance	0.2 m (0.66 ft); 0.6 m (1.97 ft);
Iris Control	Auto; semi-auto; manual
Iris Control	Fixed

Smart Event

IVS	Tripwire; intrusion
Human Detection	Yes
SMD	Yes

Video

Video Compression	H.264B; Smart H.265+; H.264; H.265; MJPEG (Sub Stream); Smart H.264+
Streaming Capability	2 streams
Resolution	4M (2560 × 1440); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576); CIF (352 × 288)
Video Frame Rate	Main stream: 4M/1080p/1.3M/720p@(1–25/30 fps) Sub stream: D1/CIF@(1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps–8192 kbps H.265: 32 kbps–8192 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
WDR	Yes
HLC	Yes
White Balance	Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Auto; manual
Noise Reduction	2D NR; 3D NR
Motion Detection	Yes
Image Rotation	180°
S/N Ratio	≥ 55 dB

Network

Network Port	RJ-45 (10/100 Base-T)
Network Protocol	UDP;TCP;FTP;RTMP;IPv6;IPv4;IP Filter;DNS;RTCP;HTTP;NTP;SSL;DHCP;RTP;SMTP;HTTPS;TCP/IP;RTSP;DDNS;ARP
Interoperability	CGI; ONVIF
Streaming Method	Unicast/Multicast
User/Host	20
Storage	FTP; Micro SD card (512 GB)
Browser	IE 7 and later versions Chrome 42 and earlier versions Firefox 52 and earlier versions Safari
Management Software	Player;Smart Player ;Imou;DMSS;ConfigTool;NVR;Smart PSS
Mobile Client	iPhone;Windows Phone;iPad;iOS;Android

Certification

Certifications	FCC: 47 CFR FCC Part15, Subpart B, ClassA CE: EN 55032/EN IEC 61000-3-2/EN 61000-3-3/EN 55024/EN 55035/EN 50130-4/EN 62368-1 ATEX: EN 60079-0/EN 60079-1/EN60079-31 IECE: IEC 60079-0/IEC 60079-1/IEC 60079-31

Port

Alarm Linkage	Capture; recordings; send emails
Alarm Event	Motion/tampering detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection

Power

Power Supply	12 VDC/1.5 A ± 10% PoE (802.3af)
Power Consumption	Basic: 2 W Max.: 3.5 W (illuminator)

Environment

Operating Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Operating Humidity	≤95%
Protection	IP68 (2 m/2 h), TVS 6000V lightning proof; surge protection; voltage transient protection

Structure

Casing Material	Stainless steel
Product Dimensions	173.3 mm × 144 mm × 126.5 mm (6.82" × 5.67" × 4.98")
Net Weight	2.3 kg (5.07 lb)
Gross Weight	3 kg (6.61 lb)

Ordering Information

Type	Part Number	Description
4MP Starlight IR EXPLOSION-PROOF CAMERA	DH-ECA2A1400-HN	4MP Starlight IR Explosion-proof Camera (4mm)
	DH-ECA2A1400-HN	4MP Starlight IR Explosion-proof Camera (6mm)
Accessories (Optional)	DH-EXB109	Wall mount bracket
	CZ300	Junction Box (ATEX/IECEx)
	ZAEX02	Connector (ATEX/IECEx)
	ZANXG-1.5	Flexible Tube (ATEX/IECEx)

Accessories

Optional:

DH-EXB109
Wall mount
bracket

CZ300
Junction Box
(ATEX/IECEx)

ZAEX02
Connector
(ATEX/IECEx)

ZANXG-1.5
Flexible Tube
(ATEX/IECEx)

Dimensions (mm[inch])

Wall Mount	Plane Mount
DH-EXB109	