

EX-BC820v2H3 PTZ series

Explosion-proof full-HD PTZ camera station

- ✓ ATEX and IECEx certified for gas and dust
- ✓ 360° Continuous rotation
- ✓ Variable pan and tilt speed
- ✓ 30x optical and 10x digital zoom
- ✓ Single integrated flexible conduit tail
- ✓ Corrosion protected 316L stainless steel
- ✓ 3 Megapixel IP camera, 60 frames per second
- ✓ Integrated wiper and heater
- ✓ Optional: Direct Ethernet over Fiber or over Coax
- ✓ ONVIF profile S compliant



Description

The EX-BC820v2H3 PTZ is a 3 Megapixel HD IP camera built in a PTZ camera station designed for use in hazardous areas in onshore, offshore, marine and heavy industrial environments. The camera housing is constructed from electro-polished 316L stainless steel for maximum corrosion protection and is fitted as standard with sunshield, thermostatically controlled heater element and wiper. Optionally the camera can be connected direct to optical fiber.

ATEX and IECEx certified

The EX-BC820v2H3 PTZ is an Ex d (flame proof) housing suited to be used in hazardous areas, zone 1, 2 for gas and zone 21 and 22 for dust environments.

Integrated HD box camera

Fitted as standard, the EX-BC820v2H3 PTZ is equipped with a 30x optical zoom 3 Megapixel (2048x1536), IP day/ night camera. The 30x zoom realizes the optimum field of view in any situation. The camera is ONVIF Profile S compliant and supports the open standard (OSA) HTTP API for ease of integration.

Multi-stream high-definition

The integrated HD camera has quad-stream capability for simultaneous streaming of H.264/H.264 or H.264/MJPEG. Multiple combinations of resolution and frame rate can be configured to satisfy different live viewing and recording scenarios.

Image enhancement

The camera provides automatic day/night functionality for use in low light situations. Backlight compensation enhances the image in difficult lighting situations. The WDR-2 dual exposure mode brings out details in dark areas and details in the bright areas by combining the best of two exposures.

Security Solution

In combination with Sense, TKH Security Solutions Video Management System, the Ex cameras create a versatile CCTV solution for hazardous areas. Compatibility with other video management systems is realized by the camera's ONVIF Profile S compliance.

Washer/Wiper option

The EX- PTZ camera is standard equipped with wiper and prepared for installing a washer hose and nozzle. A pressurized 10 litre washer tank, including hose and nozzle is sold separately.

Conduit choices

To simplify installation in hazardous areas the Ex-PTZ is standard fitted with a 3m conduit, including wiring. TKH Security Solutions offers an 316L Ex e termination box for easy, but safe and secure installation. The conduit is available in 3, 5, or 10 m.

Direct to fiber or Coax

As an option the camera can be fitted with a 100FX optical fiber connection (2SM). The duplex single mode fiber is preconfigured with dual LC connectors. With an optional EoC converter more than 1000m coax can be spanned.

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Camera housing

Certification	ATEX, IECEx II 2 G Ex d op pr IIC T6 II 2 D Ex tb IIIC T85°C Db IP66/67
Ingress protection rating	IP66/ IP67
Body material	Electro-polished 316L stainless steel
Rotation	360° Continuous rotation
Tilt angle	+90° to -90°
Variable speed	up to 40°/sec pan and 20°/sec tilt (peak)
Max Torque	80 Nm pan, 107 Nm tilt
Backlash	<0.1°
Preset accuracy	0.04°
Conduit	25 mm low fire hazard, liquid tight conduit Galvanised steel core. Zero halogen
Glands	2x M25 Brass flameproof barrier glands, pre-assembled
Length	3, 5, or 10 m
Sunshield	Standard
Internal demister/heater	Standard
Wiper	Standard
Washer system	Optional (EX-WP10 Ex e 24 or EX-WP10 Ex d 24)
Operating temperature	-20 °C to +60 °C
“Dry heat” test	+75 °C, 2 days
Weight	47 kg

Electrical

Supply voltage	24 V~ 50/60 Hz; Optional 115 V~ 50/60 Hz; 230 V~ 50/60 Hz
Power consumption	95 W maximum
Electrical connections	3 wire power cable from the conduit, 0.75 mm ²

Camera

Image sensor	1/2.8” Progressive scan CMOS
Effective pixels	2048 (H) x 1536 (V)
Shutter speed	1 - 1/10000 s
Minimum scene illumination	0.04 lux (colour), 0.002 lux (b/w), F/1.6
Dynamic range (WDR)	120 dB (in WDR-2: dual exposure mode)
Lens	30x Optical zoom, F/1.6 (W), F5 (T); 10x digital zoom
Lens focal length	4.3 mm (W) - 129 mm (T)
Horizontal field of view	67.4° (W) - 2.6° (T)
Features	Back light compensation, auto/manual white balance, (3D/2D) noise, IR light compensation
Exposure	Auto (iris or shutter priority) / Manual
Day/Night (IR-cut filter)	Auto/night/day/smart (with adjustable threshold levels)

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Video				
Compression algorithm(s)	H.264 (baseline / main / high profile); MJPEG			
Supported resolutions	2048x1536; 1920x1080 (1080p); 1280x1024; 1280x720 (720p); 1024x768; 800x600; 720x576 (D1); 640x480; 352x288 (CIF)			
Quad streaming:	Stream 1	Stream 2	Stream 3	Stream 4
H.264 instances in 50/60 fps (best resolution setting at 50/60 fps; higher resolution at lower frame rate possible)	1920x1080 1920x1080 1920x1080	- 720x576 640x480 (30fps)	- - 342x288 (30fps)	- - -
H.264 instances in 25/30 fps (best resolution setting at 25/30 fps; higher resolution at lower frame rate possible)	2048x1536 1920x1080 2048x1536 2048x1536 2048x1536 1920x1080	- 1920x1080 1280x1024 1280x1024 1280x720 1280x1024	- - - 352x288 720x576 1280x720	- - - - 352x288 352x288
H.264 instances in 25/30 fps in WDR-2 (best resolution setting at 25/30 fps; higher resolution at lower frame rate possible)	1920x1080 1920x1080 2048x1536 1920x1080	- 1920x1080 352x240 1280x720	- - - 720x480	- - - -
MJPEG	One of the above resolution formats in each instances can be MJPEG instead of H.264 if the resolution is lower than or equal to 1920x1080			
Compression bit rate control	Constant bit rate (CBR), variable bit rate (VBR)			
Output bit rate (per H.264 stream)	Up to 20480 kbit/s			
Number of video output streams	Up to 20 (RTSP)			
Total output data rate (max)	50000 kbit/s			
Video frame rate	1 to 60 fps / 1 to 50 fps			
Network				
Interface(s)	10/100 Mb Ethernet (4-wires 0.5 mm ² from conduit)			
2SM option	100FX fiber (2SM, duplex single mode fiber with dual LC from conduit)			
EoC option	Up to 1000 m Coax, XSNNet 3100EoC needed as 'receiver' (plain Coax cable from conduit)			
Protocols	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, IEEE 802.1x, QoS, ONVIF			
Password levels	User and Administrator			
Supported browsers	Internet Explorer (6.0+), Chrome, Firefox, Safari			
User accounts	20			
Order information				
EX-BC820v2H3 PTZ 24 3C	Ex 316L PTZ IP 3MP, 30x 24Vac 3m conduit 25 mm M25			
EX-BC820v2H3 PTZ 24 2SM 3C	Ex 316L PTZ IP 3MP, 30x 24Vac, 2SM 3m conduit 25 mm M25			
EX-BC820v2H3 PTZ 24 EoC 3C	Ex 316L PTZ IP 3MP, 30x 24Vac, EoC 3m conduit 25 mm M25			
<i>For 115 Vac or 230 Vac option</i>	<i>Replace 24 with 115 or 230 respectively</i>			
<i>For 5 or 10 meter conduit</i>	<i>Replace 3C with 5C or 10C respectively</i>			

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Accessories

EX wall mounting bracket PTZ

316L wall mounting bracket for EX PTZ camera housings



EX-WP10 Ex d 24
(EX-WP10 Ex e 24)



10 litre pressurised washer tank, 316L cabinet, Ex d (or Ex e) solenoid

Ex e termination box

316L Ex e termination box for fixed and PTZ cameras



Maintenance & replacement kits

EX/SA-MK Wiper

Maintenance kit for the wiper: Rubber blade and support

EX/SA-Wiper

Replacement for Stainless steel wiper (complete assembly)

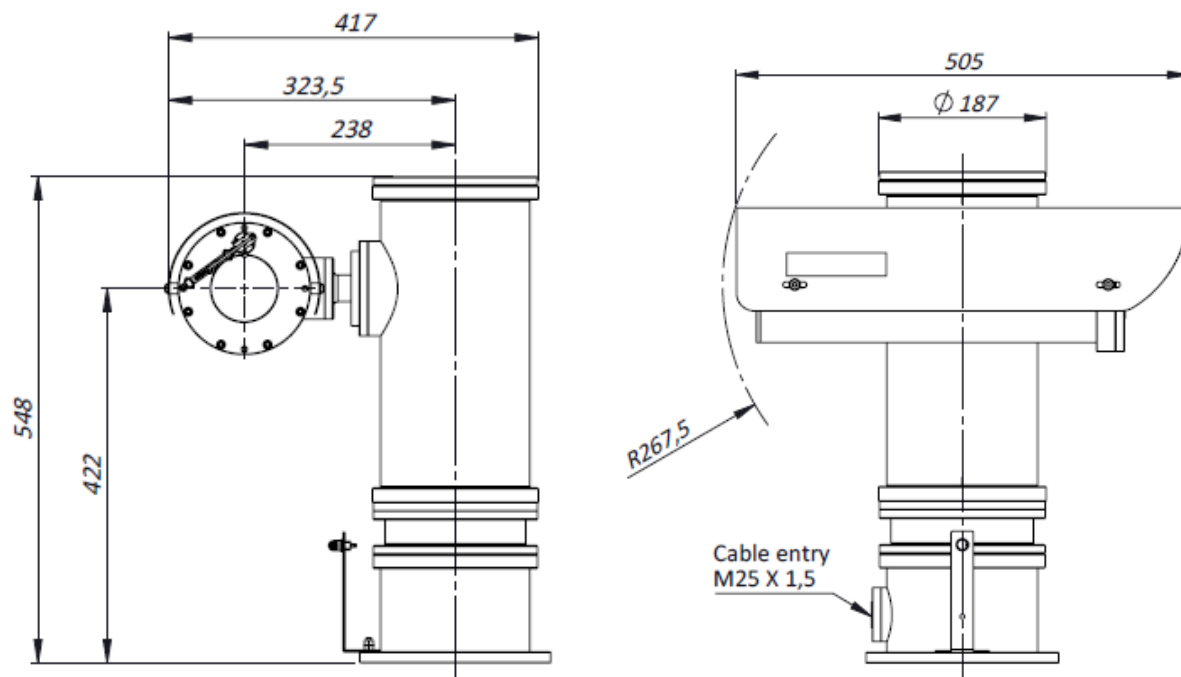
EX-MK PTZ

Maintenance kit EX PTZ camera: O-Ring, screws, desiccant bags

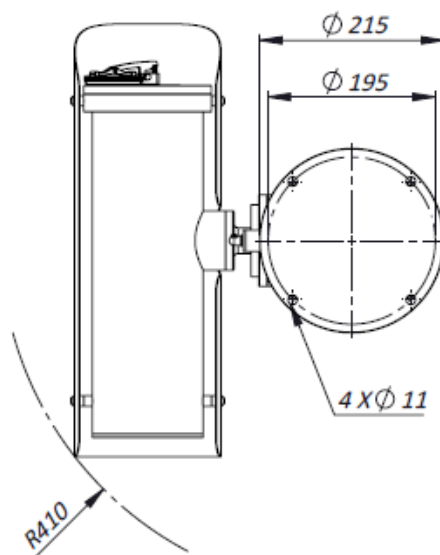
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Dimensions



Mounting pattern:



All dimensions in mm



The quality management system used in the development, production, sales, and support of this product is ISO 9001 certified by LRQA.

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