

# Camera and Video systems

## Pan-tilt-zoom IP camera with video analytics



EC-941-V1C02T1MV00 Art. No. 289892



- PTZ camera with „dynamic masking“ for anonymisation and video analysis function for object tracking
- Full HD, low-light technology, ONVIF Q, S, T, electronic image stabilisation, and direct fibre optic connection
- Extremely fast rotating, extremely precise and up to 218 pre-sets
- Ambient temperature -40° ... +65 °C
- Certified for hazardous areas Zone 1, 2, 21, 22, according to ATEX, ATEX, IECEx, NEC / CEC, Lloyd's

MY R. STAHL EC941A



ONVIF 000



The EC-941 PTZ camera is a state-of-the-art camera for hazardous areas, featuring highly professional surveillance functions such as dynamic masking, object recognition and object tracking. Thanks to its low-light technology it produces clear images even in difficult light. The camera can be integrated into modern video surveillance systems worldwide with the aid of the ONVIF protocol (profile Q, S and T). It is seawater-proof, has degree of protection IP66 and can be operated in temperatures ranging from -40 °C to +60 °C, for example on drilling rigs, refineries or tankfarms, as well as for process monitoring in chemical and pharmaceutical production.

### Technical Data

#### Explosion Protection

Application range (zones)	1 2 21 22
IECEx gas certificate	ULD 16.0005X
IECEx gas explosion protection	Ex db IIC T6...T5 Gb
IECEx dust certificate	ULD 16.0005X
IECEx dust explosion protection	Ex tb IIIC 100 °C Db
ATEX gas certificate	16 ATEX 1674X
ATEX gas explosion protection	Ex II 2 G Ex db IIC T6...T5 Gb
ATEX dust certificate	16 ATEX 1674X
ATEX dust explosion protection	Ex II 2 D Ex tb IIIC 100 °C Db
Lloyd's Register categories	ENV1, ENV2, ENV3, ENV5
Ship certificates	LR
Notice certification	When using the camera in maritime areas, the power line filter EPCOS / TDK B84112G0000B060 (279754) must be used !

#### Electrical Data

Rated operational voltage AC	230 V
Rated operational voltage DC	
Rated operational current AC	0.5 A
Power consumption	120 W
Interfaces	SFP port & RJ45 socket
Connection	10/100Base-T, 100Base FX
I/O alarm	1x alarm input
I/O relay	2x relay output

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### Camera Data

Sensor	1/2.8" Exmor R CMOS
Lens	f = 4.3 (w) to 129 mm (t) From F1.6 to F14
Viewing angle	63.7° to 2.3° H, 38.5° to 1.3° V
Focus	Auto, manual, trigger
Zoom	30x (360x digital zoom)
Resolution	Full HD 1080p 1920x1080 pixels
Pixel	2.13 megapixels
Number of preset positions	Up to 250
Accuracy of preset positions	0.02 °
Minimum illumination B/W (ICR-ON)	0.0008 lx, 30 IRE
Minimum illumination color (ICR-OFF)	0.0013 lx 50 IRE
Horizontal speed (variable)	0,1°/s ... 100°/s
Vertical speed (variable)	0,1°/s ... 100°/s
Number of streams	3 independent video streams
Frame rate (fps)	1 to 60 frames per second
Back light compensation	On/Off
Compression	H.264, MJPEG, JPEG, MPEG4
No. of privacy maskings	24 (8 simultaneously)
De-fog	Off/Low/Mid/High
WDR (dynamic range)	120 dB
White balance	AWB, ATW, internal, external (Fixed, auto), sodium vapour lamp (Fixed, auto, external auto)
Wide Dynamik Range	On/Off Light level, selection of Brightness compensation Light compensation level
Motion detection	Yes
Web server	Yes

### Software

Network protocol	ONVIF profiles Q,S,T
Network Configuration	TCP/IPv4-IPv6, UDP/IPv4-IP6, HTTP, HTTPS, NTP, DHCP, WS-DISCOVERY, DSCP, IGMP (Multicast), SOAP, DNS, SNMP
Streaming	RTSP, RTCP, RTP/IPv4, HTTP Multicast
Video analysis technology	Video Analytics

### Ambient Conditions

Ambient temperature	-40 °C ... +60 °C
Cold start range (with heating)	-40°C up to -10°C

### Mechanical Data

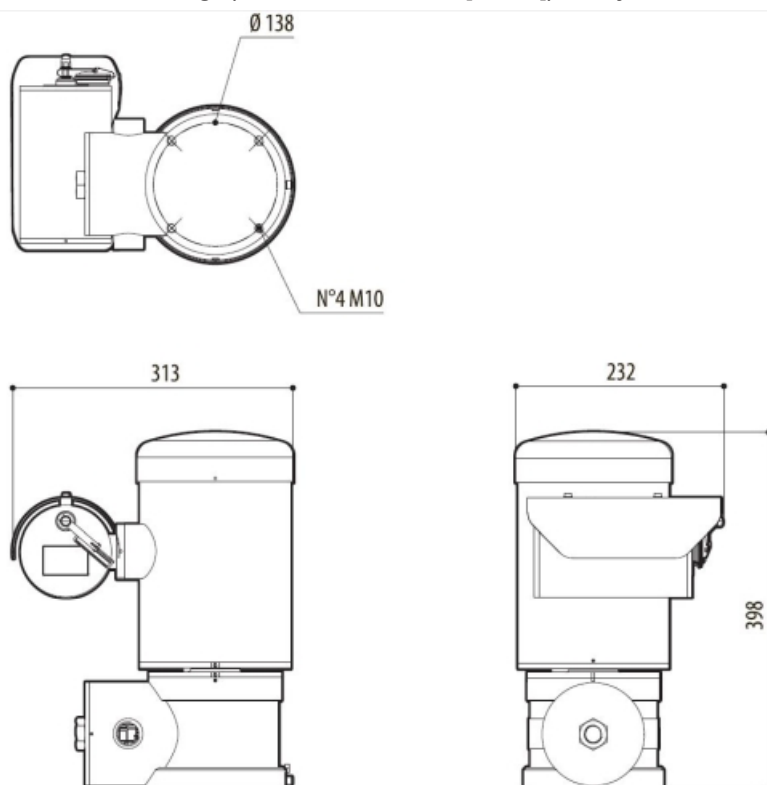
Version	Low-light technology Video analytics & autotracking
Degree of protection (IP)	IP66, 67, 68, 69
Enclosure material	Stainless steel 316L
Surface treatment	Shotblasted + electropolished
Cable length	0 m
Opening for cable gland	2 x 3/4" NPT
Slewing range	360° continuous
Tilt range	-90° ... +90°
Integrated wiper	Yes

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### Mechanical Data

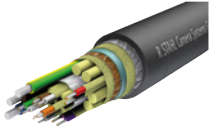
Feature	Dynamic position control Advanced image stabilisation
Package weight	29 kg
Package dimensions	500 x 420 x 260 mm
Weight	26.5 kg
Weight	58.42 lb

### Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations





### Accessories

#### Camera multi-cable armoured


	<p><b>VB-CAM-MULTI-Ethernet-ARM</b></p> <ul style="list-style-type: none"> <li>1 x Ethernet cable</li> <li>3 x power supplies 2.5 mm<sup>2</sup></li> <li>7 x data cable 0.34 mm<sup>2</sup></li> <li>-60 °C ... +80 °C</li> <li>19.2 ±0.5 mm outer diameter</li> <li>IEC 60332-1 flame-resistant</li> <li>IEC 60754-2 halogen-free</li> <li>DIN 60811-404 oil-resistant</li> <li>NEK 606 mud-resistant</li> <li>Price per metre</li> </ul>	<p><b>Art. No.</b></p> <p>252571</p>
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Ex e Terminal box

	Art. No.
 <p><b>JCT-8146-Ethernet+Analog 5xcable glands</b> Terminal box, polyester resin Version for ethernet Tx or analog cameras Dimensions without cable glands (HxWxD): 340.5 mm x 340.5 mm x 91 mm Ingress protection: IP66 equipped with: 5 x cable glands: 2 x CMP-25SC2KVAR KLE MsNi M25x1.5 1 x 8161/7-M25-1707 with red stopping plug 2 x 8161/7-M20-1304 with red stopping plug usable for: EC-750, EC-910-AFZ, EC-940S-AFZ (ATEX, IECEx) EC-840S-TIC (ATEX, IECEx), EC-94x-PTZ, Water tank</p>	265668
 <p><b>JCT-8146-22P-FO-BOX-4xM20-1xM25-R1.1</b> Terminal box, polyester resin Version for ethernet Tx and Fx, IP cameras Dimensions (HxWxD): 340.5 mm x 340.5 mm x 91 mm screwed lid Protection class: IP 66 Including TAG label (Formica) equipped with: 01x Telegärtner mounting rail distributor (6x SC Duplex) 20x Phoenix terminal block UT 2.5 02x Phoenix protective conductor terminal USLKG5 Cable entries: 01x brass plate 01x CMP 20sA2F M20, MsNi 01x CMP 20s16A2F M20, MsNi 02x M20 sealing plugs, nickel-plated brass (enclosed) 02x CMP 20sC2K M20, MsNi 01x CMP 25SC2KVAR M25, MsNi usable for: EC-941-PTZ</p>	286343

Wall bracket

	Art. No.
 <p><b>WB-EC- 940-PTZ/EC-941</b> Wall bracket for EC-940-PTZ and EC-941 Material: 316L (1.4404) stainless steel, electropolished Load capacity: max. 40 kg Length: 400 mm</p>	251364


Pole mounting

	Art. No.
 <p><b>PMA-EC-940-PTZ/EC-941</b> Pole mount adaptor for EC-940-PTZ and EC-941 Material: 316L (1.4404) stainless steel, electropolished For pole diameter 110 ... 150 mm Load capacity: max. 50 kg Only together with wall bracket WB-EC-940-PTZ/EC-941</p>	251362

EC-941-V1C02T1MV00 Art. No. 289892


Corner adapter module

Art. No.

	<p><b>CMA-EC-940-PTZ/EC-941</b> Corner adapter module EC-940-PTZ and EC-941 Material: 316L (1.4404) stainless steel, electropolished Capacity: max. 50 kg WxH: 335 x 186 mm Only together with wall bracket WB-EC-940-PTZ/EC-941</p>	<p>251363</p>
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Parapet mounting bracket

Art. No.

	<p><b>PB-EC-940-PTZ/EC-941</b> Parapet mounting bracket for EC-940-PTZ and EC-941 Material: 316L (1.4404) stainless steel, electropolished Load capacity: max. 40 kg Diameter: 238 mm</p>	<p>251365</p>
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Power line filter

Art. No.

	<p><b>EMC filter TDK, 1phase, 250VAC, 6A</b> EPCOS / TDK B84112G0000B060 Mandatory for use of cameras in maritime applications Filter Type: EMC Power Line Filter Voltage Rating: 250 V Current Rating: 6 A Mounting Style: Chassis Mount Termination Style: Tab Connector Leakage Current: 0.369 mA Operating Frequency: 50 Hz / 60 Hz Construction 2-line filter Metal case Polyurethane potting (UL 94 V-0) ENEC, UL and cUL approval</p>	<p>279754</p>
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Water tank

Art. No.

	<p><b>WaterTank 10-PV-A</b> 316L (1.4404) stainless-steel enclosure, electropolished Capacity 10 litres Pressure generation by manual pumping or with compressed air Pressure: max 6 bar 24 V AC/DC, max 20 W Temp. range -40 °C to +60 °C (depending on freezing point of liquid used) ATEX certified Zone 1, 2 Suitable for EC-94x-PTZ and EC-940S-AFZ</p>	<p>251366</p>
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Cable glands

Art. No.

	<p><b>CMP-20s16PXSS2K-REX KLE MsNi 3/4" OR</b> Metal cable gland explosion protected for unarmoured cable Clamping range: 3.1 ... 8.6 mm Potting compound 250599 CMP-RAPIDEX30 is additionally required</p>	<p>282717</p>
	<p><b>CMP-20sPXSS2K-REX KLE MsNi 3/4" OR</b> Metal cable gland explosion protected for unarmoured cable Clamping range: 6.1 ... 11.7 mm Potting compound 250599 CMP-RAPIDEX30 is additionally required</p>	<p>282687</p>

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	<p><b>CMP-25sPX2K-REX KLE MsNi NPT 3/4"</b>            Metal cable gland            explosion protected            for armoured cable (usable for cable 252571 VB-CAM-MULTI-Ethernet-ARM)            Clamping range: 14 ... 22 mm            Potting compound 250599 CMP-RAPIDEX30 is additionally required</p>	<p>251734</p>
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SFP Module	Art. No.	
	<p><b>SFP Moxa SFP-1FEMLC-T</b>            Can be used in camera EC-941            Transmission: multi-mode            Power consumption: max. 1 W            Bandwidth: 100Base-FX / 100MBit/s            Wavelength: 1310 nm            Connector: LC duplex            Distance: 2 km / 4 km            Temperature range: -40 ° C ... + 85 ° C</p>	<p>282714</p>
	<p><b>SFP Barox AC-SFP-FXMME 100MB MM T</b>            Can be used in Barox Switch in safe areas, not useable in camera EC-941            Transmission: multi-mode            Bandwidth: 100Base-FX / 100MBit/s            Wavelength: 1310 nm            Connector: LC duplex            Distance: 2 km            Temperature range: -40 ° C ... + 85 ° C</p>	<p>276421</p>

### Spare Parts

Potting compound	Art. No.
<p><b>CMP-RAPIDEX30</b>            Potting compound for cable glands</p>	<p>250599</p>

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