

# Camera and Video systems

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



EC-941-V2C02T1MV00 Art. No. 289893



- 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 Q S T



Our modern EC-941 PTZ range of cameras comes with a great deal of state-of-the-art functionalities:

All cameras come with the „dynamic masking“ feature to anonymise video data of faces so that they are no longer identifiable according to relevant privacy regulations. Additionally, there are camera variants with video analytics function for detection and tracking of moving objects and unauthorised persons on the plant premises.

### 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	24 V
Rated operational voltage DC	
Rated operational current AC	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 °C	-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

### Technical Drawings – Subject to Alterations

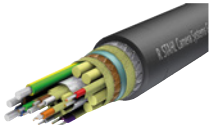
Type code		EC	-	941	-	Vx	xxx	xx	xxxx	xxxxx
<b>Code</b>	<b>Description</b>									
EC	Explosion protected camera									
-	Hyphen									
941	PTZ stainless steel camera									
-	Hyphen									
<b>Vx</b>	<b>Power supply</b>									
V1	Supply voltage 230 VAC									
V2	Supply voltage 24 VAC									
V3	Supply voltage 120 VAC									
<b>xxx</b>	<b>Visible light camera</b>									
C02	SONY FCB-EV7520 camera Super Low-Light day / night Full HD, 30x zoom									
<b>xx</b>	<b>Temperature class and ambient temperature range</b>									
T0	T6...T5, -40° C ≤ Ta ≤ +60° C or +70° C									
<b>xxxx</b>	<b>Model / version</b>									
M000	Actual model version									
<b>xxxxx</b>	<b>Cable connection</b>									
	Without cable gland									
P0400	Multiarm cable 4 m, cable gland (only for ATEX / IECEx)									
P0404	Multiarm cable 4 m, cable gland, SFP module, FO cable 4 m (only for ATEX / IECEx)									

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

## Accessories



### Camera multi-cable armored

Art. No.


	<p><b>VB-CAM-MULTI-Ethernet-ARM</b></p> <p>1 x Ethernet cable            3 x power supplies 2.5 mm<sup>2</sup> / AWG14            7 x data cable 0.34 mm<sup>2</sup> / AWG22            -60 °C ... +80 °C [-76 °F ... +176 °F]            19.2 ±0.5 mm [0.76 ±0.02 inches] outer diameter            IEC 60332-1 flame-resistant            IEC 60754-2 halogen-free            DIN 60811-404 oil-resistant            NEK 606 mud-resistant            Suitable for EC-910-AFZ, EC-940-PTZ-HDI and -HFI, EC-940-AFZ-HDI-O4H and -O5H, EC-940S-AFZ-Hxx, EC-840S-TIC-19I            Price per meter</p>	<p>252571</p>
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EC-941-V2C02T1MV00 Art. No. 289893


### 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 [88.18 lb] Length: 400 mm [15.75 inches]</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 [4.33 ... 5.9 inches] Load capacity: max. 50 kg [110.23 lb] Only together with wall bracket WB-EC-940-PTZ/EC-941</p>	251362

EC-941-V2C02T1MV00 Art. No. 289893

**Corner adapter module**

**Art. No.**



**CMA-EC-940-PTZ/EC-941**

Corner adapter module EC-940-PTZ and EC-941  
Material: 316L (1.4404) stainless steel, electropolished  
Capacity: max. 50 kg [110.23 lb]  
WxH: 335 x 186 mm [13.19 x 7.32 inches]  
Only together with wall bracket WB-EC-940-PTZ/EC-941

251363

**Parapet mounting bracket**

**Art. No.**



**PB-EC-940-PTZ/EC-941**

Parapet mounting bracket for EC-940-PTZ and EC-941  
Material: 316L (1.4404) stainless steel, electropolished  
Load capacity: max. 40 kg [88.18 lb]  
Diameter: 238 mm [9.37 inches]

251365

**Power line filter**

**Art. No.**



**EMC filter TDK, 1phase, 250VAC, 6A**

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

279754

**Water tank**

**Art. No.**



**WaterTank 10-PV-A**

316L (1.4404) stainless-steel enclosure, electropolished  
Capacity 10 litres  
Pressure generation by manual pumping or with compressed air  
Pressure: max 4 bar  
24 V AC/DC, max 20 W  
Temp. range -40 °C to +60 °C / [-40 °F to +140 °F] (depending on freezing point of liquid used)  
ATEX certified Zone 1, 2  
Suitable for EC-94x-PTZ and EC-940S-AFZ



251366


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Cable glands		Art. No.
	<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	282717
	<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	282687
	<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	251734

SFP Module		Art. No.
	<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	282714
	<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	276421

## Spare Parts

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

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.