

Catalog. 2015

All Models and Data at a Glance!





















CCTV Cameras, Communication Systems, Equipment and Accessories for Hazardous Areas.





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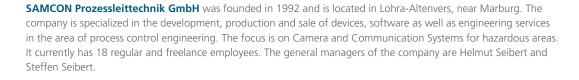
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The Company





Since 2008, the company has met the requirements for quality management specified by the Directive 94/9/EC (ATEX) and produces camera and communication systems for hazardous areas. In 2014, SAMCON extended their quality management system, now also comprising ISO 9001:2008 as well as IECEx QAR. Since 2007, SAMCON GmbH have been an Axis development partner and in 2013 this partnership was extended as both companies now jointly



cooperate as Technology Partners.

SAMCON cameras are certified by the TÜV, the German Technical Inspection Authority. Whether simple explosion proof camera-monitor systems are required or complex CCTV systems have to be implemented - SAMCON always strive to offer the best solution to our customers. Samcon's most important objectives are high quality planning,



well thought-out equipment technology, safety, and of course customer satisfaction.



In the area of automation technology, a tendency is noticeable that CCTV systems (Closed Circuit Television) extend and even replace classical sensor technology. With the digitalization of video streams the possibilities increase to effectively integrate them into existing process control systems and procedures. The requirement spectrum of CCTV systems in hazardous areas ranges from rather simple observations by the means of static passive video sources, to cameras disposing of a zoom function and intelligent evaluation units, to complex PTZ cameras such as dome camera systems.

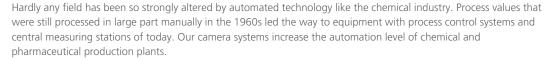
Due to the constantly increasing demands which explosion proof cameras have to fulfil as well as our effort to realize and implement our customers' requirements, our current scope comprises:

- Development, manufacturing and direct distribution of explosion proof camera systems and the applicable components
- Compilation of technical concepts to realize CCTV systems in hazardous areas
- Planning and project implementation of CCTV systems in hazardous areas
- Planning and development of analog and digital signal processing and analytical systems

Our Customers

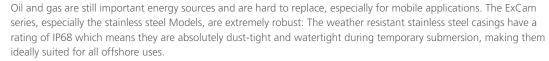


Chemical and Pharmaceutical Industry.





Explosion Proof Cameras - Onshore & Offshore.





Explosion Proof Cameras for Refineries and Fuel Depots.

In most large refineries and fuel depot sites, process and safety monitoring requirements fit together seamlessly. Operating procedures are often only controlled and coordinated from a central control room. If information about what is happening on site is important it is possible to transfer the applicable information via camera technology to the measuring station.



Cameras for Electronic and Mechanical Industries.

Cameras and optical sensors have long been an essential part of control systems in mechanical engineering. In general, two different fields of applications are distinguished: video surveillance and industrial image processing. In both types of application it is common to use cameras to confer at least some of the abilities of human sight on machines.





The ExCam Series consists of different video cameras that are approved for dust and gas explosion risk zones, as well as mining, in accordance with the EU Directive 94/9/EC (ATEX), the IECEx Schema and EAC-Ex.

The ExCam Series is the world's smallest explosion proof camera system in its class. The main advantage lies in the modular build up: various different housings and electronic parts make it easy to assemble explosion proof cameras that suit your particular needs. The ExCam Series consist of analogue cameras with varifocal lenses, motor-zoom cameras with infrared cut filter and digital network cameras with a resolution of more then 1920x1080 pixel (FullHD).



Explosion Protection







The ExCam Series has been designed for use in hazardous areas and it is certified according to European regulations (ATEX) as well as international ones (IECEx). Furthermore it is also certified according EAC-Ex to meet the the requirements of the custom union. The cameras certification comprises ATEX group I (mining) with a low risk of mechanical threat as well as ATEX group II for zone 1, 2 as well as 21 and 22 including the explosion groups IIC / IIIC with a high risk of mechanical threat. In accordance with the requirements of the impact and free-fall tests (DIN EN 60079: 0 2012), the housings are suitable for fix and portable applications!



Media Resistance and Sealings

Due to high-quality materials used for the ExCam IP135x it meets the requirements of a comprehensive media resistance list! It is also possible to freely select different stainless steel alloys to reflect the best execution for the application. Even a coating or powder coating of the housing is feasible to realize individual media resistance requirements. The particularly designed GYLON (PTFE) flat sealing does not only ensure the housing to be watertight (IP68) but also supports the resistance towards several chemicals. The extremely robust and scratch-proof as well as high-impact resistant borosilicate glass fits perfectly into the high-quality materials of the housing body.



Mining

As one of the first flameproof camera protection systems, the ExCam IP135x series meets all mining requirements (environments susceptible of fire damps) and is certified according to ATEX/IECEx for equipment group I M2 (Mb). If the housing series is used in in mining environments with a low risk of mechanical damages it is even not necessary to equip the housing with an additional device in order to protect the borosilicate glass! As a result, the ExCam Series allows for the first time a usage of stationary as well as portable surveillance systems underground.



Temperatures

Also with regard to the allowed ambient temperatures the ExCam Series sets new standards. The temperature limits with integrated heater or equipped with an active cooling systems are -60 $^\circ$ C and +75 $^\circ$ C Using active cooling, even high-end cameras can be used at high ambient temperatures!

ExCam Comparison Table



Cameras with an analog signal output

			(Ex)			*	4	5					
	Product	Model- Keys	Ex- Certification*1	Prot Level	Enclosure Material*2	T _{min} *3	Power Supply	Lens/ IR-Filter	MinIllu- mination	Angle of View	Signal *4	Video- comp. / Resolution*5	More Info
	ExCam vario	T03-VA T03-AL	ATEX: Dust & Gas	IP67	Alu- minum or Stainless Steel	-20° C +50° C	12 VDC to 30 VDC 5.5 W	Varifocal/ YES	0.15 lx	74.2° (wide)- 30° (tele)	CVBS	MJPEG H.264 720x576	
	ExCam mini- Zoom	T03-VA	ATEX: Dust & Gas	IP67	Stainless Steel	-20° C +50° C	12 VDC to 30 VDC 2.5 W	10 x Motor Zoom / NO	1.5 lx	46° (wide) - 4.6° (tele)	CVBS VISCA®	MJPEG H.264 720x576	
	ExCam nite- Zoom	T03-VA	ATEX: Dust & Gas	IP67	Stainless Steel	-20° C +50° C	12 VDC to 30 VDC 6.5 W	10 x Motor Zoom / YES	0.0004 lx	52° (wide) - 5.4° (tele)	CVBS VISCA®	MJPEG H.264 720x576	
	ExCam maxi- Zoom	T03-VA2	ATEX: Dust & Gas	IP67	Stainless Steel	-20° C +50° C	12 VDC to 30 VDC 2.7 W	18 x Motor Zoom / YES	0.01 lx	48° (wide) - 2.8° (tele)	CVBS VISCA®	MJPEG H.264 720x576	
	ExCam EDC3371	T08- TNXCD	ATEX, IECEx, EAC-Ex: Dust & Gas	IP68	Stainless Steel	-50°C +50°C	24VAC/DC 20 W	37 x Motor Zoom / YES	0.7 lx	49.2° (wide) 1.4° (tele)	CVBS PELCO®	1/4" CCD Sony ExView HAD CCD	
3S Signal	AmEx PTZ ²⁸	MPX-X	ATEX, IECEx, EAC-Ex: Dust & Gas	IP66	Stainless Steel	-40°C +60°C	230VAC, 24VAC, 120VAC, 120 W	28 x Motor Zoom / YES	0.16 lx	55.8° (wide) 2.1° (tele)	CVBS PELCO®	1/4" CCD Super HAD CCD II	
Analoge CVBS Signal	AmEx PTZ ³⁶	MPX-X	ATEX, IECEx, EAC-Ex: Dust & Gas	IP66	Stainless Steel	-40°C +60°C	230VAC, 24VAC, 120VAC, 120 W	36 x Motor Zoom / YES	0.1 lx	57.8° (wide) 1.7° (tele)	CVBS PELCO®	1/4" CCD ExView HAD CCD	

Cameras with a digital SDI signal output

			⟨Ex⟩			*	4	5					
	Product	Model- Keys	Ex- Certification*1	Prot Level	Enclosure Material*2	T _{min} *3		Lens/ IR-Filter	MinIllu- mination	Angle of View	Signal *4	Video- comp. / Resolution*5	More Info
	 ExCam miniSDI	coming soon											
Signal	ExCam midiSDI	coming soon											
Digitale SDI Sig	ExCam domeSDI	coming soon											

ExCam Comparison Table



TCP/IP Network cameras

			€x			*	4	5					
	Product	Model- Keys	Ex- Certification*1	Prot Level	Enclosure Material*2	T _{min} *3	Power Supply	Lens/ IR-Filter	MinIllu- mination	Angle of View	Signal *4	Video- comp. / Resolution*5	More Info
	ExCam IP	T03-VA T03-AL	ATEX: Dust & Gas	IP67	Alu- minum or Stainless Steel	-5° C +50° C	PoE, IEEE 802.3af Class 1 3,8 W	Fix / NO	1.0 lx	80° (ePTZ)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 1280x800	
	ExCam IP1354	T08-VA2.2	ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining	IP68	Stainless Steel	-60° C +40° C	PoE, IEEE 802.3af Class 3 7,2 W	Varifocal / YES	Color: 0.1 lx, F1.2 B/W: 0.02 lx, F1.2	100 ° (wide) - 34° (tele)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 1280x960	
	ExCam IP1355	T08-VA2.2	ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining	IP68	Stainless Steel	-60° C +40° C	PoE, IEEE 802.3af Class 3 7,1 W	Varifocal / YES	Color: 0.2 lx, F1.2 B/W: 0.04 lx, F1.2	109° (wide) - 39° (tele)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 1920x1080	
	ExCam IP1357	T08-VA2.2	ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining	IP68	Stainless Steel	-60° C +40° C	PoE, IEEE 802.3af Class 3 7,9 W	Varifocal / YES	Color: 0.2 lx, F1.2 B/W: 0.04 lx, F1.2	92° (wide) - 32° (tele)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 2592x1944	
	ExCam IPM 1144-L	T08-VA2.1	ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining	IP68	Stainless Steel	-60° C +40° C	PoE, IEEE 802.3af Klasse 2 5,9 W	Varifocal, Integrated IR-LEDs/ YES	Color: 0,6 lx, S/W: 0.08 lx LED=ON: 0 lx	87° (wide) 40° (tele)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 1280x960	
	ExCam IPM 1145	T08-VA2.1	ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining	IP68	Stainless Steel	-60° C +40° C	PoE, IEEE 802.3af Klasse 3 10,5 W	REMOTE ZOOM,& FOCUS/ YES	Color: 0,4 lx, B/W: 0.08 lx	95° (wide) 34° (tele)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 1920x1080	
	ExCam IPM 1145-L	T08-VA2.1	ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining	IP68	Stainless Steel	-60° C +40° C	PoE, IEEE 802.3af Klasse 3 10,5 W	REMOTE ZOOM & FOCUS, Ilntegra- ted IR-LEDs/ YES	Color: 0.4 lx, B/W: 0.08 lx LED=ON: 0 lx	95° (wide) 34° (tele)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 1920x1080	
rk cameras	ExCam IPQ1755	T08-VA2.2	ATEX: Dust, Gas & Mining IECEx: Dust, Gas & Mining	IP68	Stainless Steel	-60° C +40° C	PoE, IEEE 802.3af Class 3 11 W	10xMotor Zoom, 12x Digital / YES	Color: 2 lx at 30 IRE, F1.8 B/W: 0.02 lx, at 30 IRE, F1.8	48,1° (wide) - 5,1° (tele)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 1920x1080	
TCP/IP Net work cameras	ExCam IPQ 6045	T08- TNXCD	ATEX, IECEx, EAC-Ex: Dust & Gas	IP68	Stainless Steel	-50°C +50°C	PoE, IEEE 802.3at (PoE+) Max. 30 W	32xMotor Zoom, PTZ/ YES	Color: 0,3 lux B/W: 0.03 lx	62,8° (wide) 2,23° (tele)	TCP/IP RTSP HTTP VAPIX® ONVIF®	MJPEG H.264 1920x1080	

*1: Ex Certification (see Model Key):

ATEX Kennzeichnung & Zertifizierung:

Staub: Bergbau:

(I 2G Ex d IIC T6 Gb (I 2D Ex t IIIC T80°C Db IP68 (I M2 Ex d I T6 Mb

IECEx & EAC-Ex Karking & Certification:

Ex d IIC T6 Gb Ex t IIIC T80°C Db IP68 Mining: Ex d I T6 Mb

*2: Housing Materials:

Aluminum or Stainless Steel 1.4301 / 1.4401 / 1.4404 (AISI 316 / 316L)

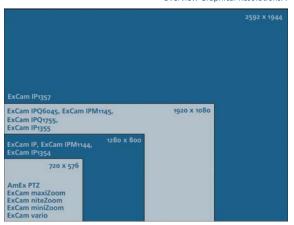
*3: Ambient Temperature:

Please see Model key.

*4:Video signal:

PAL CVBS/FBAS as standard NTSC Models on demand

Overview Graphical Resolutions: :



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ExCam vario in a stainless steel housing

ExCam vario

The **ExCam vario** is a camera approved for hazardous areas (gas and dust) in accordance with Directive 94/9/EC (ATEX).

The **ExCam vario** is the world's smallest explosion-proof varifocal camera of its class. Despite its very compact dimensions, it features DSP, automatic shutter control, minimal illumination of 0.15 Lux, AGC-Turbo, S/W, fast lens with F1.2/3.8-9.5 mm, automatic white balance and IR cut filter.

Group II (Gas & Dust)	ATEX				
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (Mining)	ATEX	
Category	Ma	Mb
Application	×	X

Product / Model		Description
ExCam vario T03-AL-C-005-X-L	(€x) IP67	Varifocal camera in an aluminum housing in accordance with Directive 94/9/EC (ATEX). Minimal illumination: 0.15 lx Angle: 74.2° (wide) to 30° (tele) Self adjusting DC iris Day/night function within IR cut filter Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Ambient temperature limit: -20° C < T _{amb} < 50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ExCam vario T03-VA-C-005-X-L	(€x) IP67 (** -20°C +50°C	Varifocal camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX). Minimal illumination: 0.15 lx Angle: 74.2° (wide) to 30° (tele) Self adjusting DC iris Day/night function within IR cut filter Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Ambient temperature limit: -20° C < T _{amb} < 50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ExCam vario "long range" T03-XX-C-XXX-X-L		Option "long range" (surcharge): Version with passive two-wire transmitter. Transmission range of up to 500 m. Attention: Can only be used in combination with a VZT-21B/TB two-wire receiver
ExCam vario "K2" T03-VA-C-XXX-X-L		Option "K2" (surcharge): Version with 90° angle flange for VA housing. The cable gland is laterally introduced into the flange.
ExCam vario "pin free" T03-VA-C-XXX-X-L		Option "pin free" (surcharge): Version with an even VA housing without pin attachment. Suitable for flange fixation as well as hose clips.
ExCam vario "more Power" T08-VA1.2.K1.BOR-C-XXX-X-X	IECEX Mining IP68 ** -60°C	You need an ExCam® vario with IECEx and/or EAC-Ex certification? With an approval for mining or with extended temperature range? We are currently working on an upgrade. Please contact us!





ExCam miniZoom in a stainless steel housing

ExCam miniZoom

The **ExCam miniZoom** is a zoom camera approved for dust and gas explosion risk zones in accordance with EU Directive 94/9/EC (ATEX).

The ExCam miniZoom is the **world's smallest explosion-proof zoom camera** of its class. Despite the camera's compact dimensions, it has a 10x motorised zoom lens, allowing it to be optimally adapted to the specific angle and lighting situation.

Group II (Gas & Dust)	ATEX				
Zone	0	1	2	21	22
Application	X	√	√	✓	✓

Group I (Mining)	ATEX	
Category	Ma	Mb
Application	X	X

Product / Model		Description	
ExCam miniZoom T03-VA-C-005-X-N	IP67	Camera with motor zoom in a stainless steel housing in accordance with Directive 94/9/EC (ATEX). Minimal illumination: 1.5 lx Interface: VISCA®@RS422 Explosion protection (gas): Ex II 2G Ex d IICT6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Ambient temperature limit: 0° C < T _{amb} < +50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019	
ExCam miniZoom T03-VA-C-XXX-X- <u>L</u>	₩	Option housing heating (surcharge): Equipped with a self regulating heater for housing. Ambient temperature limit: $-20^{\circ} \text{ C} < T_{amb} < 50^{\circ} \text{ C}$	
ExCam miniZoom "K2" T03-VA-C-XXX-X-X		Option "K2" (surcharge): Option with 90° angle flange. The cable gland is laterally introduced into the flange.	
ExCam miniZoom "pin free" T03-VA-C-XXX-X-X		Option "pin free" (surcharge): Version with an even VA housing without pin attachment. Suitable for flange fixation as well as hose clips.	





ExCam niteZoom in a stainless steel housing

ExCam niteZoom

The **ExCam niteZoom** is a zoom camera certified according to Directive 94/9/EG (ATEX). With its 1/3" Super HAD CCD II sensor and the IR cut filter it is one of the **most light sensitive cameras of its class**. As a result the **ExCam niteZoom** delivers high resolution pictures even at an illumination level of only 0.0004 lx. Despite its compact dimensions, it has a 10x motorized zoom lens, allowing it to be optimally adapted to a specific angle and lighting situation.

Group II (Gas & Dust)	ATEX				
Zone	0	1	2	21	22
Application	X	√	√	✓	√

Group I (Mining)	ATEX	
Category	Ma	Mb
Application	X	×

Product / Model		Description	
ExCam niteZoom T03-VA-C-005-X-N	IP67 ipage in the image is a second control of the image is a sec	Camera with motor zoom in a stainless steel housing in accordance with Directive 94/9/EC (ATEX). Minimal illumination: 1/4 s, 1/3 s mode & ICR on: 0.0004 lx Interface: VISCA@RS422 Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Ambient temperature limit: 0° C < T _{amb} < +50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019	
ExCam niteZoom T03-VA-C-XXX-X- <u>L</u>	₩	Option housing heating (surcharge): Equipped with a self regulating heater for housing. Ambient temperature limit: -20° C $< T_{amb} < +50^{\circ}$ C	
ExCam niteZoom "K2" T03-VA-C-XXX-X-X		Option "K2" (surcharge): Option with 90° angle flange. The cable gland is laterally introduced into the flange.	
ExCam niteZoom "pin free" T03-VA-C-XXX-X-X		Option "pin free" (surcharge): Version with an even VA housing without pin attachment. Suitable for flange fixation as well as hose clips.	
ExCam niteZoom "more Power" T08-VA1.2.K1.BOR-C-XXX-X-X	IECEX Mining IP68 -60°C	You need an ExCam® niteZoom with IECEx and/or EAC-Ex certification? With an approval for mining or with extended temperature range? We are currently working on an upgrade. Please contact us!	





ExCam IP in a stainless steel housing

ExCam IP

The **ExCam IP** is a network camera approved for dust and gas explosion risk zones in accordance with EU Directive 94/9/EC (ATEX). Video streams and control signals are directly available within the network and due to **Power over Ethernet (PoE)** it is possible to have only one cable for transmitting data as well as power! The ExCam IP delivers several different video streams at the same time and supports **MJPEG and H.264 in HD resolution** of 1280x800 pixels.

Group II (Gas & Dust)	ATEX				
Zone	0	1	2	21	22
Application	X	√	√	✓	√

Group I (Mining)	ATEX		
Category	Ma	Mb	
Application	×	X	

Product / Model		Description
ExCam IP T03- <u>AL</u> -C-005-X-N	## #\$9°C ## Onvif 720p	Network camera in an aluminum housing in accordance with Directive 94/9/EC (ATEX). Minimal illumination: 1.0 lx Horizontal angle: 80° Video compression: H.264, MJPEG Resolution: 1280 x 800 to 160 x 90 Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Ambient temperature limit: -5° C < T _{amb} < +50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ExCam IP T03- <u>VA</u> -C-005-X-N	Ex IP67	Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX). Minimal illumination: 1.0 lx Horizontal angle: 80° Video compression: H.264, MJPEG Resolution: 1280 x 800 to 160 x 90 Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Ambient temperature limit: -5° C < T _{amb} < +50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ExCam IP "K2" T03-VA-C-XXX-X-X		Option "K2" (surcharge): Option with 90° angle flange. The cable gland is laterally introduced into the flange.
ExCam IP "pin free" T03-VA-C-XXX-X-X		Option "pin free" (surcharge): Version with an even VA housing without pin attachment. Suitable for flange fixation as well as hose clips.





ExCam IP1354 in a stainless steel housing

ExCam IP135x series

The **ExCam IP135x** is a network camera series, approved according to Directive 94/9/EG (ATEX), IECEx, and EAC-Ex. Due to **Power over Ethernet (PoE)**, it is possible to have only one cable for transmitting data as well as power! The ExCam IP135x delivers several different video streams at the same time and supports **MJPEG and H.264 in HD resolution**. An additional feature is the option to freely select the lens and the extrem low temperature range.

Group II (Gas & Dust)	ATEX / IECEx/ EAC-Ex			Ex	
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (Mining)	ATEX / IECEx		
Category	Ma Mb		
Application	X	√	

Product / Model		Description	
Product / Model ExCam IP1354 T08-VA2.2.K1.BOR-C-005-X-N	IP68 IP68 IP68 IP68 IP69 IP69	Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX), IECEx, and EAC-Ex (CR TU) Power supply: PoE, IEEE 802.3af Class 3 (7.2 W) Minimal illumination: Color: 0.1 lx; black/white 0.02 lx, F1.2 Horizontal angle: 100° - 34° (for standard lens) Video compression: H.264 & Motion JPEG Resolution: 1280x960 (approx. 1.3 MP) to 160x90 Lens mount type: CS Mount Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68 Explosion protection (mining): Ex I M2 Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature limit: -10° C < T _{amb} < +40° C	
ExCam IP1355 T08-VA2.2.K1.BOR-C-005-X-N	IP68 IP68 Convie HD 1080p	Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX), IECEx, and EAC-Ex (CR TU) PoE, IEEE 802.3af Class 3 (7.1 W) Minimal illumination: Color: 0.2 lux, black/white: 0.04 lux, F1,2 Horizontal angle: 109° - 39° (HD, 16/9) Video compression: H.264 & Motion JPEG Resolution: 1920 x 1080 (approx. 2 MP) to 160 x 90 Lens mount type: CS Mount Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68 Explosion protection (mining): Ex I M2 Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature limit: -10° C < T _{amb} < +40° C www.samcon.eu, product group: A, tariff number: 8525 8019	
ExCam IP1357 T08-VA2.2.K1.BOR-C-005-X-N	IP68 Whining IP68 Whining Onvie HD 1080p	Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX), IECEx, and EAC-Ex (CR TU) Power supply: PoE, IEEE 802.3af Class 3 (7.9 W) Minimal illumination: Color: 0.2 lx, black/white: 0.04 lx, F1.2 Horizontal angle: 92° - 32° (HD, 16/9) Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Resolution: 2592 x 1944 (approx. 5 MP) to 160 x 90 Lens mount type: CS Mount Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68 Explosion protection (mining): Ex I M2 Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature limit: -10° C < T _{amb} < +40° C www.samcon.eu, product group: A, tariff number: 8525 8019	
ExCam IP135x T08-VA2.2.K1.BOR-C-XXX-X- <u>L</u> ExCam IP135x T08-VA2.2.K1.BOR-C-XXX-X- <u>LL</u>	\$\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Option: Housing heating (surcharge): Equipped with a self-regulating heater to meet low temperature ranges: Ambient temperature: -30° C $<$ T _{amb} $<$ +40° C Option: Housing heating for arctic temperatures (surcharge): Equipped with a self-regulating heater to meet extremely low tem-	
		perature ranges. Includes two cable glands certified for -60° C with integrated pressure barrier: Ambient temperature: $\underline{-60^{\circ}\text{ C}} < T_{amb} < +40^{\circ}\text{ C}$	





ExCam IPM1145-L in a stainless steel housing

ExCam IPM114x

The ExCam IPM114x is a network camera series, approved according to Directive 94/9/EG (ATEX), IECEx, and EAC-Ex. As interchangable lenses are not available for this series, this allows an extremly compact design and a cost-effective manufacturing! In addition, due to the fixed mounted lenses, functions such as Remote-Zoom and Remote-Focus are available: It is now possible to adjust the angle of view elctronically without the necessity to open the housing. Also, some models of the series offer integrated IR-LED illumination!

Group II (Gas & Dust)	ATEX / IECEx/ EAC-Ex				Ex
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (Mining)	ATEX / IECEx		
Category	Ma	Mb	
Application	X	√	

series

Product / Mode	el	Description	
ExCam IPM1144 T08-VA2.1.K1.B	I-L IECEV	Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX), IECEx, and EAC-Ex (CR TU) Power supply: PoE, IEEE 802.3af Class 3 (5.9 W) Color: 0.6 lux, F1.4, B/W: 0.08 lux, F1.4 Horizontal angle: 87° - 40° (HD, 16/9) Resolution: 1280x800 (ca. 1 megapixel) to 352x240 Functions: IR-LED, etc Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68 Explosion protection (mining): Ex I M2 Ex d I Mb Protection level: IP 68 (IEC / FN 60529)	
new!	/c \ IECEY	Power supply: PoE, IEEE 802.3af Class 3 (10.5 W) Color: 0.4 lux, F1.4, B/W: 0.08 lux, F1.4 Horizontal angle: 95° - 34° (HD, 16/9) Resolution: 1920x1080 (ca. 2 megapixel) to 160 x 90 Functions: Remote-Zoom, Remote-Focus, etc Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68 Explosion protection (mining): Ex I M2 Ex d I Mb Protection level: IP 68 (IEC / FN 60529)	
new! ExCam IPM1145 T08-VA2.1.K1.Bu	/C \ IFCEX	Poe IEEE 802 3af Class 3 (10.5 W)	
ExCam IPM114x T08-VA2.2.K1.Br		Option: Housing heating (surcharge): Equipped with a self-regulating heater to meet low temperature ranges: Ambient temperature: $-30^{\circ} \text{ C} < T_{amb} < +40^{\circ} \text{ C}$	
ExCam IPM114x T08-VA2.2.K1.B		Option: Housing heating for arctic temperatures (surcharge): Equipped with a self-regulating heater to meet extremely low temperature ranges. Includes two cable glands certified for -60° C with integrated pressure barrier:	





ExCam IPQ1755 in a stainless steel housing

ExCam IPQ1755

FullHD meets motor zoom! The **ExCam IPQ1755** is a network camera with motor zoom, approved according to Directive 94/9/EG (ATEX), IECEx, and EAC-Ex. Due to **Power over Ethernet (PoE)** is possible to have only one cable for transmitting data as well as power! The ExCam IPQ1755 delivers several different video streams at the same time and supports **MJPEG and H.264 in HD resolution** of 1920x1080 pixels.

Group II (Gas & Dust)	ATE	X / IE	CEx		
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (Mining)	ATEX / IECEx		
Category	Ma Mb		
Application	×	√	

Product / Model		Description	
ExCam IPQ1755 T08-VA2.2.K1.BOR-C-005-X-N	IP68 ** Onvie	Network camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX), IECEx, and EAC-Ex (CR TU) Power supply: PoE, IEEE 802.3af Class 3 (11.0 W) Minimal illumination: Color: 0.2 lx, black/white: 0.04 lx, F1,2 Horizontal angle: 48.1° - 5.1° (HD, 16/9) (motor zoom) Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Resolution: 1920 x 1080 to 160 x 90 Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP68 Explosion protection (mining): Ex I M2 Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature limit: -10° C < T _{amb} < +40° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019	
ExCam IPQ1755 T08-VA2.2.K1.BOR-C-XXX-X- <u>L</u>	-30℃	Option: Housing heating (surcharge): Equipped with a self-regulating heater to meet low temperature ranges. Ambient temperature: $-30^{\circ}\text{ C} < T_{amb} < +40^{\circ}\text{ C}$	
ExCam IPQ1755 T08-VA2.2.K1.BOR-C-XXX-X- <u>LL</u>	₩	Option: Housing heating for arctic temperatures (surcharge): Equipped with a self-regulating heater to meet extremely low temperature ranges. Includes two cable glands certified for -60° C with integrated pressure barrier:	
ExCam IPQ1755 "K2" T08-VA2.2. <u>K2</u> .BOR-C-XXX-X-N		Option "K2" (surcharge): Option with 90° angle flange. The cable gland is laterally introduced into the flange. See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019	





ToughCam IP and IP1357 in a stainless steel housing (VA & VA2.2)

ToughCam Series

Our **ToughCam Series** comprises mechanically process as well as security cameras which are extremely robust. All **ToughCams** meet the same high quality standards as our ExCams and are therefore perfect for even the roughest industrial conditions. The stainless steel housing in combination with borosilicate glass and high-end sealings make our **ToughCams** resistant to nearly all media; withstanding even the highest mechanical demands.

Group II (Gas & Dust)	-				
Zone	0	1	2	21	22
Application	X	X	X	X	X

Group I (Mining)	-	
Category	Ma	Mb
Application	×	X

Product / Model		Description
ToughCam vario T10-AL-005-X-L	IP67	Varifocal camera in an aluminum housing (IP67). Minimal illumination: 0.15 lx Angle: 74.2° (wide) to 30° (tele) Self adjusting DC iris Day/night function within IR cut filter Ambient temperature limit: -20° C < T _{amb} < 50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ToughCam vario T10-VA-005-X-L	IP67	Varifocal camera in a stainless steel housing (IP67). Minimal illumination: 0.15 lx Angle: 74.2° (wide) to 30° (tele) Self adjusting DC iris Day/night function within IR cut filter Ambient temperature limit: -20° C < T _{amb} < 50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ToughCam miniZoom T10-VA-005-X-N	IP67	Camera with motor zoom in a stainless steel housing (IP67) Minimal illumination: 1.5 lx Interface: VISCA@RS232 or VISCA@RS422 Ambient temperature limit: 0° C < T _{amb} < 50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ToughCam niteZoom T10-VA-005-X-N	IP67	Camera with motor zoom in a stainless steel housing (IP67) Minimal illumination: 1/4 s, 1/3 s Mode & ICR on: 0.0004 lx Interface: VISCA@RS422 Ambient temperature limit: 0° C < T _{amb} < 50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ToughCam IP T10- <u>AL</u> -005-X-N	IP67	Network camera in an aluminum housing (IP67) Minimal illumination: 1.0 lx Horizontal angle: 80° Video compression: H.264, MJPEG Resolution: 1280 x 800 to 160 x 90 Ambient temperature limit: -5° C < T _{amb} < 50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019
ToughCam IP T10-VA-005-X-N	IP67 *** *** *** **5°°C **50°C **D Onvif 720p	Network camera in a stainless steel housing (IP67) Minimal illumination: 1.0 lx Horizontal angle: 80° Video compression: H.264, MJPEG Resolution: 1280 x 800 to 160 x 90 Ambient temperature limit: -5° C < T _{amb} < 50° C See data sheet for technical data - www.samcon.eu Product group: A, tariff number: 8525 8019



ToughCam Series

Product / Model		Description
ToughCam IP1354 T10-VA2.2.K1.BOR-005-X-N	IP68	Network camera in a stainless steel housing Power supply: PoE, IEEE 802.3af Class 3 (7.2 W) Minimal illumination: Color: 0.1 lx, black/white: 0.02 lx, F1.2 Horizontal angle: 100° - 34° (at standard lense) Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Resolution: 1280x960 (approx. 1.3 MP) to160x90 Lens mount type: CS Mount Protection level: IP 68 (IEC / EN 60529) Ambient temperature limit: -10° C < T _{amb} < +40° C Product group: A, tariff number: 8525 8019
ToughCam IP1355 T10-VA2.2.K1.BOR-005-X-N	IP68	Network camera in a stainless steel housing Power supply: PoE, IEEE 802.3af Class 3 (7.1 W) Minimal illumination: Color: 0.2 lx, black/white: 0,04 lx, F1.2 Horizontal angle: 109° - 39° (HD, 16/9) Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Resolution: 1920 x 1080 (ab. 2 Megapixel) to 160 x 90 Lens mount type: CS Mount Protection level: IP 68 (IEC / EN 60529) Ambient temperature limit: -10° C < T _{amb} < +40° C Product group: A, tariff number: 8525 8019
ToughCam IP1357 T10-VA2.2.K1.BOR-005-X-N	IP68	Network camera in a stainless steel housing Power supply: PoE, IEEE 802.3af Class 3 (7.9 W) Minimal illumination: Color: 0.2 lx, black/white: 0.04 lx, F1.2 Horizontal angle: 92° - 32° (HD, 16/9) Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Resolution: 2592 x 1944 (approx. 5 MP) to 160 x 90 Lens mount type: CS Mount Protection level: IP 68 (IEC / EN 60529) Ambient temperature limit: -10° C < T _{amb} < +40° C Product group: A, tariff number: 8525 8019
ToughCam IPQ1755 T10-VA2.2.K1.BOR-005-X-N	IP68	Network camera in a stainless steel housing Power supply: PoE, IEEE 802.3af Class 3 (11.0 W) Minimal illumination: Color: 0.2 lux, black/white: 0.04 lux, F1.2 Horizontal angle: 48.1° - 5.1° (HD, 16/9) (motor zoom) Video compression: H.264 (MPEG-4 Part 10/AVC), Motion JPEG Resolution: 1920 x 1080 to 160 x 90 Protection level: IP 68 (IEC / EN 60529) Ambient temperature limit: -10° C < T _{amb} < +40° C Product group: A, tariff number: 8525 8019

Some ToughCam Options

Product / Model		Description	
Option heating for housing (Only available for certain Models!)	₩	Option: Housing heating (surcharge): Equipped with a self-regulating heater to meet low temperature ranges: Ambient temperature:	
Option heating for housing (Only available for certain Models!)	₩	Option: Housing heating for arctic temperatures (surcharge): Equipped with a self-regulating heater to meet for extremely low temperature ranges:	
Option "K2" (Only available for certain Models!)		Option "K2" (surcharge): Option with 90° angle flange. The cable gland is laterally introduced into the flange.	
Option "pin free" (Only available for certain Models!)		Option "pin free" (surcharge): Version with an even VA housing without pin attachment. Suitable for flange fixation as well as hose clips	





ExCam EDC3371 in a stainless steel housing

ExCam EDC3371

The ExCam EDC3371 is a dome camera with an analog signal output, approved according to Directive 94/9/EG (ATEX), IECEx, and EAC-Ex. The scratch and heat resistant Lexan™ dome guarantees a perfect picture quality despite the tough requirements of explosion protection. The camera's heating concept is unique: If necessary, the integrated and electronically controlled heating panel generates heat which via a radial and an axial flow fan is transported to the dome - even at -50°C.

Group II (Gas & Dust)	ATEX / IECEx/ EAC-Ex				Ξx
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (mining)	ATEX / IECEx		
Category	Ma	Mb	
Application	×	×	



Product / Model		Description	
	IECEX IP68 IP68 IP68 IP68 IP68 IP68 IP68 IP68	Analog dome camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX), IECEx, and EAC-Ex (CR TU) Power supply: 24V AC/DC, 20 W Minimum illumination: Color: 0.7 lux, B/W: 0.01 lux Horizontal angle: 49.2° - 1.4° Zoom: 37x optical zoom Pan: 360° continuously, 380°/s, Tilt: 180°, 380°/s Functions: Preset positions, guard tours etc Protocol: PELCO® Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80°C Db IP68 Protection level: IP 68 (IEC / EN 60529) Ambient temperature: 0°C < T _{amb} < +50°C www.samcon.eu, product group: A, tariff number: 8525 8019	
	₩	Option: Housing heating (surcharge): Equipped with a self-regulating heater to meet low temperature ranges. Umgebungstemperatur: $-30^{\circ}\text{C} < T_{amb} < +50^{\circ}\text{C}$	
	₩	Option: Housing heating for arctic temperatures (surcharge): Equipped with a self-regulating heater to meet extremely low temperature ranges. Includes two cable glands certified for -60° C with integrated pressure barrier. Ambient temperature:50°C < T_amb < +50°C	





ExCam IPQ6045 in a stainless steel housing

ExCam IPQ6045

The ExCam IPQ6045 network dome camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX), IECEx, and EAC-Ex. It combines outstanding optical, electronical and mechanical features. The scratch and heat resistant Lexan™ dome guarantees a perfect picture quality despite the tough requirements of explosion protection. The camera's heating concept is unique: If necessary, the integrated and electronically controlled heating panel generates heat which via a radial and an axial flow fan is transported to the dome - even at -50°C.

Group II (Gas & Dust)	ATEX / IECEx/ EAC-Ex				
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (mining)	ATEX / IECEx		
Category	Ma	Mb	
Application	X	X	



Product / Model		Description	
ExCam IPQ6045 T08-TNXCD-C-005-X-N	IP68 IP68	Network dome camera in a stainless steel housing in accordance with Directive 94/9/EC (ATEX), IECEx, and EAC-Ex (CR TU) PoE, IEEE 802.3at (30 W) Minimum illumination: Color: 0.3 lux, B/W: 0.03 lux Horizontal angle: 62.8° - 2.23° (HD, 16/9) Zoom: 32x optical zoom, 12x digital zoom Pan: 360° continuously, 0.05° - 450°/s Tilt: 180°, 0.05° - 450°/s Resolution: 1920 x 1080 bis 160 x 90 Functions: Preset positions, guard tours, sharpness, contrast, etc Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80°C Db IP68 Protection level: IP 68 (IEC / EN 60529) Ambient temperature: 0°C < T _{amb} < +50°C www.samcon.eu, product group: A, tariff number: 8525 8019	
ExCam IPQ6045 T08-TNXCD-C-XXX-X- <u>L</u>	.30°€	Option: Housing heating (surcharge): Equipped with a self-regulating heater to meet low temperature ranges. Ambient temperature: -30°C < T _{amb} < +50°C	
ExCam IPQ6045 T08-TNXCD-C-XXX-X- <u>LL</u>	₩	Option: Housing heating for arctic temperatures (surcharge): Equipped with a self-regulating heater to meet extremely low temperature ranges. Includes two cable glands certified for -60° C with integrated pressure barrier. Ambient temperature:	





AmEx PTZ System in stainless steel

AmEx PTZ System

The AMEX PTZ system is an explosion protected stainless steel PTZ positioning system. It is certified and particularly designed and developed to meet the strict requirements of equipment, used in explosion risk areas at which flammable gases and powders can be present. The system offers an extraordinary performance for the observation of critical processes in explosion risk zones and is therefore the perfect choice for a video surveillance in the chemical as well as in the oil and gas industry.

Group II (Gas & Dust)	ATE	X / IE	CEx		
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (Mining)	ATEX / IECEx		
Category	Ma	Mb	
Application	X	×	

Product / Model		Description
AMEX PTZ MPX-X-PVW000A-005-X	IP66 WHO THE	PTZ camera in a stainless steel housing according to Directive 94/9/EC (ATEX) and IECEX Explosion protection (gas): Ex d IIC T6 Ta -40° C to 60° C Gb Explosion protection (dust): Ex tb IIIC T85° C Ta -40° C to 60° C Db Protection level: IP 66 (IEC / EN 60529) Material: Electropolished stainless steel AISI 316L Pan/Tilt speed: 0.1°-100°/s Tilt: -90° / +90° Day / night function Analog zoom factor: 36x Control protocol: Pelco-D@485 and others (q.v. data sheet) All required cable glands are included. See data sheet for technical data - www.samcon.eu Product group: A
AmEx PTZ MPX-T2-PAW0000A-005-X	IP66 IP66 IP66 IP60°C	PTZ camera a stainless steel housing with analog and IR camera according to Directive 94/9/EG (ATEX) and IECEX Explosion protection (gas): Ex d IIC T6 Ta -40° C to 60° C Gb Explosion protection (dust): Ex tb IIIC T85° C Ta -40° C to 60° C Db Protection level: IP 66 (IEC / EN 60529) Material: Electropolished stainless steel AISI 316L Pan/Tilt speed: 0.1° - 100° / s Tilt: -90° / +90° Day / night function Analog zoom factor: 36x Control protocol: Pelco-D@485 and others (q.v. data sheet) All required cable glands are included. See data sheet for technical data - www.samcon.eu Product group: A
Further Models upon request		Further Models upon request
AmEx - MPXWBA		Wall Mount Bracket Electropolished AISI 316L stainless steel Load rating: 40 kg To be combined with the following modules: - AmEx - MPXCW - AmEx - MPXCOL Product group: A
AmEx - MPXWBTA		Mounting attachment for rails and ceilings Electropolished AISI 316L stainless steel Load rating: 40 kg Dimensions: Ø 238 mm Product group: A
AmEx - MPXCOL		Pole mount adapter Electropolished AISI 316L stainless steel Suitable for pole diameters of 110 -150 mm Load capacity: 50 kg Suitable for AmEx - MPXWBA wall mount bracket Product group: A



AmEx PTZ System

Product / Model		Description	
AmEx - MPXCW		Corner mount adapter-Adapter Electropolished AISI 316L stainless steel Load capacity: 50 kg Suitable for AmEx - MPXWBA wall mount bracket Product group: A	
AmEx - WASEX	(Ex)	Washer pump with explosion-proof solenoid valve Enclosure made of stainless steel AISI 316L Delivery height: Up to 20 m Different loading modes Power supply: 24 VAC/DC Maximum power intake: 20 W Explosion protection (gas): Ex d IIC T4 Gb Explosion protection (dust): Ex tb IIIC T130° C Db Product group: A	
Further Models and accessories upon request		Further Models upon request	





AXIS Q6045-S 50HZ in stainless steel housing

Dome camera systems

The **AXIS Q6o45-S** is a high-speed surveillance camera in a pressurized, seawater resistant stainless steel housing. The robust camera offers 360° pan as well as 90° tilt possibility and due to HDTV 1080p and a 20 x optical zoom with auto focus it delivers extremely detailed zoom views.

Group II (Gas & Dust)	ATE	X / IE	CEx		
Zone	0	1	2	21	22
Application	X	X	X	X	X

Group I (Mining)	ATEX / IECEx		
Category	Ma	Mb	
Application	X	X	

Product / Model		Description		
AXIS Q6045-S 50HZ	IP66 IP67 IP69K IP69K IP60 IP60 IP60 IP67 IP60 IP60 IP60 IP67	seawater resistant st Resolution: System: Image sensor: Video compression: Resolution max.: Frame rate: IR cut filter: Sensitivity: Lens: Slewing range: Speed: Alarm input: Internal storage: Mounting options: Power supply: Tamb:	s a high-speed surveillance camera in a pressurized, tainless steel housing for safe areas. HD 1080p True Day&Night 1/3" Progressive Scan CMOS-Sensor H.264, M-JPEG 1920x1080 25 fps Switchable 0.6 Lux Zoom 360° 450°/Sec. 2 SD card, SDHC card, SDXC card Wall mount, ceiling mount 12VDC -30° C to +50° C IP66, IP67, IP69K CE, MIL-STD-810G 509.5 C	
Further Models upon request		Further Models, e.g.	. for indoor applications, upon request.	
AXIS T91C61		Wall mounting arm Including AXIS T94S Material: Stainless s Product group: C		
AXIS T91C67		AXIS T91C67 Mast Material: Stainless s Product group: C	mounting arm for AXIS T91C61 teel	
Further accessories upon request		Further accessories upon request		





AmNEX PTZ in Stainless Steel

AmNEx PTZ system

The AmNEX PTZ system is very robust against extreme environmental conditions, it is very low maintenance and resistant to corrosion.

This precision is reached due the maximum care during the manufacturing processes as well as to the quality of the passivated and electropolished AISI 316L stainless steel. Included in the delivery scope is a wiper.

Group II (Gas & Dust)	ATE	X / IE	CEx		
Zone	0	1	2	21	22
Application	X	X	X	X	X

Group I (Mining)	ATEX / IECEx		
Category	Ma	Mb	
Application	×	×	

Product / Model		Description
Amnex Ptz NXPtz-X-PVW000A-005-X	IP66	PTZ camera in a stainless steel housing for safe areas Material: electropolished stainless steel AISI 316L Pan/Tilt speed: 0.1°/s - 100°/s Tilt: -90° / +90° Day / night function Analog zoom factor: 36x Protocol: Pelco-D@485 and others (q.v. data sheet) All required cable connections included. See data sheet for technical data - www.samcon.eu Protection level: IP66 True Progressive Scan High resolution: Up to 550 TV lines Image stabilizer of the latest generation (mode stable zoom) Day/Night (Auto ICR: Automatic removal of the IR filter) Pre installed wiper Operating temperature: -40° C / +60° C Product group: C
Further Models upon request		Further Models upon request
AmNEx - MPXWBA		Wall Mount Bracket Electropolished AISI 316L stainless steel Load rating: 40 kg To be combined with the following modules: - AmNEx - MPXCW - AmEx - MPXCOL Product group: A
AmNEx - MPXWBTA		Mounting attachment for rails and ceilings Electropolished AISI 316L stainless steel Load rating: 40 kg Dimensions: Ø 238 mm Product group: A
AmNEx - MPXCOL		Pole mount adapter Electropolished AISI 316L stainless steel Suitable for pole diameters of 110 - 150 mm Load capacity: 50 kg Suitable for AmNEx - MPXWBA wall mount bracket Product group: A
AmEx - MPXCW		Corner mount adapter-Adapter Electropolished AISI 316L stainless steel Load capacity: 50 kg Suitable for AmNEx - MPXWBA wall mount bracket Product group: A





To7 Housing series

with size comparison

Camera Housing (Ex)

The **To7 housing series** is an extremely powerful camera housing concept suitable for hazardous areas and is certified according to European regulations (ATEX) as well as international ones (IECEx). The housings' certification comprises ATEX group I (mining) and die ATEX group II (gas & dust). In accordance with the requirements of the impact and free-fall tests (DIN EN 60079: 0 2012), the housings are suitable for fix and mobile (portable) applications!

Group II (Gas & Dust)	ATE	Χ			
Zone	0	1	2	21	22
Application	X	√	✓	✓	√

Group I (Mining)	ATEX	
Category	Ma	Mb
Application	X	√

Product / Model		Description	
T07-VA1.1.K1.BOR	IP68 Wining IP68 Wining IP68	Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification) Dimensions (without pin): 79x79x128 mm, weight: 2000 g, Void volume: 360 cm³ Explosion protection (gas): Ex d IIC Gb Explosion protection (dust): Ex t IIIC Db IP68 Explosion protection (mining): Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature: -60° C < T _{amb} < +85° C Product group: A	
T07-VA1.1.K2.BOR	IP68 Wining IP68 Whining IP68	Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification) Dimensions (without pin): 79x79x141 mm, weight: 2500 g, Void volume: 360 cm³ Explosion protection (gas): Ex d IIC Gb Explosion protection (dust): Ex t IIIC Db IP68 Explosion protection (mining): Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature: -60° C < T _{amb} < +85° C Product group: A	
T07-VA1.2.K1.BOR	IP68 Wining IP68 Wining IP68	Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification) Dimensions (without pin): 79x79x157 mm, weight: 2200 g, Void volume: 480 cm³ Explosion protection (gas): Ex d IIC Gb Explosion protection (dust): Ex t IIIC Db IP68 Explosion protection (mining): Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature: -60° C < T _{amb} < +85° C Product group: A	
T07-VA1.2.K2.BOR	IECEX IECEX IP68 IP68	Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification) Dimensions (without pin): 79x79x171 mm, weight: 2700 g, Void volume: 480 cm³ Explosion protection (gas): Ex d IIC Gb Explosion protection (dust): Ex t IIIC Db IP68 Explosion protection (mining): Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature: -60° C < T _{amb} < +85° C Product group: A	



To7 Enclosure Series

Product / Model		Description
T07-VA2.1.K1.BOR	IP68 Wining IP68 Wining IP68	Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification) Dimensions (without pin): 113x113x210 mm, weight: 4200 g, Void volume: 1520 cm³ Explosion protection (gas): Ex d IIC Gb Explosion protection (dust): Ex t IIIC Db IP68 Explosion protection (mining): Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature: -60° C < T _{amb} < +85° C Product group: A
T07-VA2.1.K2.BOR	IP68 Wining IP68 State of the control of the con	Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification) Dimensions (without pin): 113x113x226 mm, weight: 5500 g, Void volume: 1520 cm³ Explosion protection (gas): Ex d IIC Gb Explosion protection (dust): Ex t IIIC Db IP68 Explosion protection (mining): Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature: -60° C < T _{amb} < +85° C Product group: A
T07-VA2.2.K1.BOR	IP68 Wining IP68 Wining IP68	Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification) Dimensions (without pin): 113x113x261 mm, weight: 5100 g, Void volume: 1960 cm³ Explosion protection (gas): Ex d IIC Gb Explosion protection (dust): Ex t IIIC Db IP68 Explosion protection (mining): Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature: -60° C < T _{amb} < +85° C Product group: A
T07-VA2.2.K2.BOR	IP68 Mining IP68 Accord +85°C	Explosion proof camera housing in stainless steel according to Directive 94/9/EC (ATEX) and IECEx (component certification) Dimensions (without pin): 113x113x277 mm, weight: 6400 g, Void volume: 1960 cm³ Explosion protection (gas): Ex d IIC Gb Explosion protection (dust): Ex t IIIC Db IP68 Explosion protection (mining): Ex d I Mb Protection level: IP 68 (IEC / EN 60529) Ambient temperature: -60° C < T _{amb} < +85° C Product group: A
		Accessories and mounting adapter



(Ex) Lighting Systems

Process and object lighting are obligatory in explosion risk zones and hazardous areas.

The right combination of lighting equipment and the usage of fast camera lenses is essential to get crisp and sharp images. The following lighting systems are the perfect match for the ExCam series; using the same pressure-proof housings. Almost all lighting systems are available for non-explosion risk zones also.

Process illumination & illumination for small spaces

Product / Model		Description
ChemLux FHEL d LED-S K1 sp	[P67]	Lighting for explosion risk zones 230-240 VAC, 7 W, Ta -20° C to +40° C Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Includes 5 m cable 3 x 1.5 mm² Product group: C, tariff number: 9405 4000
ChemLux FKEL 20 dH	(€x) IP67 (\$\display (\$\display\$) (\$\disp	Lighting for explosion risk zones 24 V AC/DC, 20 W , T _{amb} : -20° C to +40° C Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Includes 5 m cable 3 x 1.5 mm² Product group: C, tariff number: 9405 4000
ChemLux FKEL 50 dH	[P67] ₩ +40°C	Lighting for explosion risk zones 24V AC/DC, 50W, T _{amb} : -20° C to +40° C Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Includes 5 m cable 3 x 1.5 mm² Product group: C, tariff number: 9405 4000
ChemLux R100 deH	[P67] ₩ ₩ + 40°C	Lighting for explosion risk zones 24V AC/DC, 100 W, T _{amb} : -20° C to +40° C Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Includes 5 m cable 3 x 1.5 mm² Product group: C, tariff number: 9405 4000
EdelEx 20 dH K1	(€ x) IP67 (♣) (+40°C)	Lighting for explosion risk zones 24V AC/DC, 20 W, T _{amb} : -20° C to +40° C Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Includes 5 m cable 3 x 1.5 mm² Product group: C, tariff number: 9405 4000
EdelEx 50 dH K1 (T4)	(€x) IP67 (\$\display (\$\display\$) (\$\disp	Lighting for explosion risk zones 24V AC/DC, 50W, T _{amb} : -20° C to +40° C Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Includes 5 m cable 3 x 1.5 mm² Product group: C, tariff number: 9405 4000
EdelEx 50 dH K1 (T3)	IP67	Lighting for explosion risk zones 24V AC/DC, 50W, T _{amb} : -20° C to +60° C Explosion protection (gas): Ex II 2G Ex d IIC T6 Gb Explosion protection (dust): Ex II 2D Ex t IIIC T80° C Db IP67 Protection level: IP 67 (IEC / EN 60529) Includes 5 m cable 3 x 1.5 mm² Product group: C, tariff number: 9405 4000



Room Illumination (White Light)

Product / Model		Description	
SPX-FL12-W-8030	IP67 WHATE -50°C IECEX -55°C	LED White Light Illuminator 30 W (80° x 30°) Angle: 80° x 30°, Operating voltage: 110-254 VAC Power: 30 W Luminous flux 2000 lm, dimensions: 192x206x163 mm Explosion protection (gas): Ex em IIC T4 Gb Explosion protection (dust): Ex tb IIIC T82° C Db T _{amb} : -50° C to + 55° C, Protection level: IP66 (IEC / EN 60529) 12 ultra-durable LED, CoolExtrude ™ Temperature Management More angles, light-range and temperature classes on request. Product group: C	
SPX-FL24-W-8030	IP67 ** -so°C +55°C	LED White Light Illuminator 60 W (80° x 30°) Angle: 80° x 30°, Operating voltage: 110-254 VAC Power: 60 W Luminous flux 4000 lm, Dimensions: 291x247x150 mm Explosion protection (gas): Ex em IIC T4 Gb Explosion protection (dust): Ex tb IIIC T82 ° C Db T _{amb} : -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529) 24 ultra-durable LED, CoolExtrude ™ Temperature Management More angles, light-range and temperature classes on request. Product group: C	
SPX-FL48-W-8030	IP67 WHATER STATES OF THE STA	LED White Light Illuminator 120 W (80° x 30°) Angle: 80° x 30°, Operating voltage: 110-254 VAC Power: 120 W, luminous flux 8000 lm, Dimensions: 291x438x151 mm Explosion protection (gas): Ex em IIC T4 Gb Explosion protection (dust): Ex tb IIIC T82 ° C Db Tamb: -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529) 48 ultra-durable LED, CoolExtrude ™ Temperature Management More angles, light-range and temperature classes on request. Product group: C	

Room Illumination (Infrared)

Product / Model		Description	
SPX-FL12-I-8030	IP67 ** ** ** ** ** ** ** ** ** ** ** ** *	LED Infrared Illuminator 30 W (80° x 30°) Viewing angle: 80° x 30°, lighting range: 40 m Operating voltage: 110-254 VAC Power: 30 W, 850 nm wavelength, dimensions: 192x206x163 mm Explosion protection (gas): Ex em IIC T4 Gb Explosion protection (dust): Ex tb IIIC T82 ° C Db T _{amb} : -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529) 12 ultra-durable LED, CoolExtrude ™ Temperature Management More angles, light-range and temperature classes on request. Product group: C	
SPX-FL24-I-8030	IP67 ** -50°C ** -55°C	LED Infrared Illuminator 60 W (80° x 30°) Viewing angle: 80° x 30°, Illumination range: 58 m Operating voltage: 110-254 VAC Power: 60 W, 850 nm wavelength, dimensions: 291x247x150 mm Explosion protection (gas): Ex em IIC T4 Gb Explosion protection (dust): Ex tb IIIC T82 ° C Db T _{amb} : -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529) 24 ultra-durable LED, CoolExtrude ™ Temperature Management More angles, light-range and temperature classes on request. Product group: C	
SPX-FL48-I-8030	IP67 ** -50°C ** -50°C	LED Infrared Illuminator 120 W (80° x 30°) Viewing angle: 80° x 30°, Illumination range: 80 m Operating voltage: 110-254 VAC Power: 120 W, wavelength 850 nm, dimensions: 291x438x151 mm Explosion protection (gas): Ex em IIC T4 Gb Explosion protection (dust): Ex tb IIIC T82 ° C Db T _{amb} : -50° C to + 55 ° C, Protection level: IP66 (IEC / EN 60529) 48 ultra-durable LED, CoolExtrude ™ Temperature Management More angles, light-range and temperature classes on request. Product Group: C	



Accessories

All accessories have been thoroughly tested with regard to their use in industrial zones, reflecting the highest quality standards. Accessories for explosion risk zones are in accordance with the current norms; DIN EN 60079-0,-14, regulation 94/9/EG as well as the norms for the applicable explosion protection.

Product / Model	Description	
Wall bracket	Wall bracket short (stainless steel)	
WMB-S*	Manual pan angle: 360°, manual tilt angle: 90°	
	Includes hinge and mounting accessories in accordance with housing	
0.3	identity code:	
	WMB-S-AL: for T03-AL, WMB-S-VA: for T03-VA	
	WMB-S-VA2: for T03-VA2, WMB-S-VAx.x: for T08-VAx.x	
"S = Short Picture shows WMB-S-VA	Product group: A, tariff number: 8529 9092	
Wall bracket	Wall bracket long (stainless steel)	
WMB-L*	Manual pan angle: 360°, manual tilt angle: 90°	
VVIVID-L	Includes hinge and mounting accessories in accordance with housing	
	identity code:	
07	WMB-L-AL: for T03-AL, WMB-L-VA: for T03-VA	
	WMB-L-VA2: for T03-VA2, WMB-L-VAx.x: for T08-VAx.x	
	Product group: A, tariff number: 8529 9092	
*L = Long Picture shows WMB-S-VA	Froduct group. A, tariii number. 8329 9092	
Wall bracket	Wall bracket for cameras of the T08-TNXCD Series (stainless steel)	
WMB-TNXCD	The wall mount bracket has a two-part design. The main part consists	
	of a massive stainless steel welding construction and the 5 mm profile	
3	disposes of a universal hole pattern which allows a suspended installation	
· ian	(ExCam T08-TNXCD) as well as an upright installation (AmEx PTZ). In case	
4.	of a suspended installation, a protective hood for the wall mount bracket	
_	is included in the delivery scope in order to protect the cable glands	
_	according to 60079-14 and to prevent that they are exposed to direct	
_	splash water.	
	Load rating: 45 kg	
	Dimensions: 140 x 460 mm	
	Product group: A, tariff number: 8529 9092	
T : A ! .		
Twin-Adapter	Twin Adapter (stainless steel)	
WMB-x*TA	Manual pan angle: 360°, manual tilt angle: 90°	
	Includes hinge and mounting accessories for left and right side in accord-	
	ance with housing identity code.(without wall bracket):	
	Example:	
	WMB-XTA-VA-VA: Left and right for housing "VA"	
	Product group: A, tariff number: 8529 9092	
*x = S (Short) or L (Long) Picture shows WMB-STA-VA-VA		
Hood	Hood (stainless steel)	
WPR-AL & WPR-VA	Includes hinge and mounting accessories for housing:	
	WPR-AL: for T03-AL, WPR-VA: for T03-VA	
	WPR-VA2: for T03-VA2, WPR-VA2.2: for T08-VA2.2	
	Product group: A, tariff number: 8529 9092	
100		
Hood	Hood (stainless steel)	
WPR-VA2.x & WPR-VA1.x	The weather protection hoods for the ExCam T08 series dispose of fixing	
THE VALLACE VIEW VALLACE	bores with a spacing of 5 mm in order to allow adjusting the hood's posi-	
	tion to perfectly meet the selected angle of view.	
	Includes hinge and mounting accessories for housing:	
	WPR-VA1.x: for T08-VA1.x, WPR-VA2.x: for T08-VA2.x	
	Product group: A, tariff number: 8529 9092	
	Troduct group. A, tarii flumber. 0023 3032	



Accessories

Product / Model	Description	
Hinge attachment SCH	Hinge attachment "SCH" Easy mounting on round sight glasses. In accordance with DIN 28120/28121 (or similar). Includes mounting accessories for housing: SCH-AL: for T03-AL, SCH-VA: for T03-VA SCH-VA2: for T03-VA2, SCH-VA1.x: for T08-VA1.x SCH-VA2.x: for T08-VA2.x Product group: A, tariff number: 8529 9092	
Thermo Isolator THERM-VA	Thermo isolator for flanging the T03-VA and T08-VA1.xseries onto hot sight glasses or to avoid incidences of extraneous light. Temperature range: -45° C to +100° C Durability: Weatherproof, ozone proof, non-ageing, acid resistant, alkali resistant Characteristics: extremely flame resistant, abrasion and impact resistant. Electrically puncture-proof Product group: A, tariff number: 8529 9092	



Installation Equipment

All accessories have been thoroughly tested with regard to their use in industrial zones, reflecting the highest quality standards.

Accessories for explosion risk zones are in accordance with the current norms; DIN EN 60079-0,-14, regulation 94/9/EC as well as the norms for the applicable explosion protection.

Terminal Boxes in Ex-e

Product / Model	Description	Price/€
Ex-e Terminal Box ExTB-2	IP66 ** -40 °C +55°C	Terminal box for analog and digital ExCam systems Gas – Explosion proof: Ex II 2 G Ex e II T6 Dust – Explosion proof: Ex II 2 D Ex tD A21 IP66 Material: Polyester resin, dimensions: 115 x 115 x 64 mm Protection level: IP 66, Ambient temperature limit: - 40° C to + 55° C Max. power supply: 690 V, max. diameter: 2.5 mm² 10 pcs. terminal clamp UT 2.5, Marking: 1-10, 2 pcs. conductor terminal USLKG 5 1 pc. TS35 carrier rail TS35 100 mm 2 pcs. 8161/5-M20-9 screw connection M20x1.5 sw Product group: C
Ex-e Terminal Box ExTB-4	IP66 ** -40 °C -55°C	Terminal box for analog as well as digital ExCam systems Gas - Explosion proof: Ex II 2 G Ex e II T6 Dust - Explosion proof: Ex II 2 D Ex tD A21 IP66 Material: polyester resin, Dimensions: 115 x 115 x 64 mm Protection level: IP 66, Ambient temperature limit: - 40° C to + 55° C Maximum power supply: 690 V, Maximum diameter: 2.5 mm² 10 pcs. terminal clamp UT 2.5, Marking: 1-10, 2 pcs. conductor terminal USLKG 5, 1 pc. TS35 carrier rail TS35 100 mm 4 pcs. 8161/5-M20-9 screw connection M20x1.5 sw Product group: C
Ex-e Terminal Box (BTO) ExTB -(BTO)		We have a large selection of junction boxes in Ex-e or Ex-d. Different materials, sizes and cable entries can be freely combined. Please ask us!

Power Supply

Product / Model	Description	
Dehner DUE DUE 15WCP-24V	Universal power supply with interchangeable plug adapter (thus can be used internationally). Device in accordance with EN 60601, can be used in medical applications as well. Short circuit protection as well as overload protection, automatic restart. Cable length: 1.8 m. CE-, TUEV, cUL. EN 60601- certified for medical applications. Product group: C	
PULS ML15.241	Top hat rail power supply. Power supply (in): 85 VAC - 264 VAC Power supply (out): 24 VDC Power: 15 W Adjustable power supply (out). Product group: C	
More power supply units	We have power supply units for critical ambient temperatures, different performance classes, diode-modules and redundancies. Please ask us!	



Cable & Wiring

Product / Model	Description	
SKA02	System cable analog Special wiring in accordance with DIN EN 60079-14 Outer diameter: 9.4 mm, bending radius: min. 150 mm Video: 1x75 OHM Coax AWG 24, Cu shielded Data (physic.): 2x2x0.25 mm² closed Cu shielded Data (protocol): RS232, RS422, RS485 full duplex Power supply heating: 2x0.75 mm² See data sheet for technical data - www.samcon.eu Product group: A	
SKAD01	System cable digital Special explosion proof wiring in accordance with DIN EN 60079-14 Outer diameter: 14.50±0.30 mm Maximum bending radius: 150 mm Material outer cable sheath: PUR – flame retardant in accordance with IEC 60322-1-2 1KW flame Color outer cable sheath: RAL 9005 matt Coax 750HM, 4x0.75 mm², 5x1.5 mm², 6x2x0.25 mm² See data sheet for technical data - www.samcon.eu Product group: A	
ASKA02	Reineforced system cabel analog Special explosion proof wiring in accordance with DIN EN 60079-14 Outer diameter: 9.4 mm, bending radius: min. 150 mm Video: 1x75 OHM Koax AWG 24, Cu shielded Date (physic.): 2x2x0.25 mm² closed Cu shielded Data (protocol): RS232, RS422, RS485 full duplex Power supply camera: 2x0.75 mm² Power supply heating: 2x0.75 mm² See data sheet for technical data - www.samcon.eu Product group: A	
SKD01	System cable digital Special explosion proof wiring in accordance with DIN EN 60079-14. Outer diameter: Ø 8.7 ±0.3 mm Max bending radius: 10 mm Material outer cable sheath: PUR – flame retardant in accordance with IEC 60322-1-2 1KW flame Composition: 4 x 2 x AWG22/1 shielded Perfect for PoE cameras and cameras with normal power supply. See data sheet for technical data - www.samcon.eu Product group: A	
	more cables upon request	

Twisted Pair Transmitter/Receiver

Product / Model	Description	
Passive twisted pair transmitter VZT-21B/TB	Passive twisted pair transmitter or receiver for ExCam systems The device can be either directly connected to a video server or to an analog monitor. It converts the symmetrical CVBS signal of the camera into an asymmetrical one. CVBS input / output, BNC terminal block Product group: C	
Further transmitters		



Network Components

High-performance CCTV networks require high performance components.

Except for some special applications, IP-based camera networks will, in the long run, prevail over analog networks. The main reasons are as follows:

- 1. When installing an IP-based network system, parts, components and cameras from all manufactures can be used
- 2. All ethernet means (copper, fiber, wireless) can be used.
- 3. In IP-based networks, all video images cannot only be viewed on work stations in the control room but also on standard PCs, notebooks, tablet PCs and smartphones as well! This means that no special hardware, such as controllers or analog monitors, have to be purchased
- 4. Software solutions allow a very high degree of customizing. Just one example: Camera views can be embedded either in maps or in flow diagrams
- 5. Unlike with analog networks, IP-based networks can be fully integrated into the PCS
- 6. IP-based camera systems can be accessed worldwide (for example via a secure VPN tunnel). This means that cameras can be controlled and viewed from anywhere in the world and not only from one control room. In addition, the camera history can be sent directly to your desktop

All components, such as the ExCam Series, (Ex)Connection Rails or video servers, are perfectly suitable for our CCTV-networks. Whether you plan a small test or a large industrial network.

Desktop Switches

Product / Model	Description	
Netgear GS108	GigE 8-Port Gigabit-Copper-Switch 8 Autosensing-Gigabit-Copper-Ports with 10/100/1000 MBit/s Auto Uplink, Unmanaged, compact, sturdy metal housing LED displays, external power supply Plug-and-Play-Installation Silent operation (no fan) Product group: C, tariff number: 8517 6200	
Netgear GS108P	GigE 8-Port Gigabit-Copper-Switch 8 Autosensing-Gigabit-Copper-Ports with 10/100/1000 MBit/s 4 POE Ports Auto Uplink, Unmanaged, compact, sturdy metal housing LED displays, external power supply Plug-and-Play-Installation Silent operation (no fan) Product group: C, tariff number: 8517 6200	

Industrial Fast Ethernet Switches

Product / Model	Description
MOXA Ethernet Switch EDS-308	8 Port Ethernet Switch with metal housing TX Ports: 8x10/100BaseT(X) thereof: PoE Ports: 0 FX Ports: 0 Temperature: 0 - 60° C Compact and sturdy housing, ideal for industrial usage. Mounting on DIN-rails (35 mm), 5 year warranty, alarm-function (triggered on power or network shortage), redundant power supply Product group: C
MOXA Ethernet Switch EDS-P308	8 Port Ethernet Switch with metal housing TX Ports: 8x10/100BaseT(X) thereof: PoE Ports: 4 FX Ports: 0 Temperature: 0 - 60° C Compact and sturdy housing, ideal for industrial usage. Mounting on DIN-rails (35 mm), 5 year warranty, alarm-function (triggered on power or network shortage) Connection for 2 redundant power supplies 24 VDC Product group: C



Industrial Gigabit Ethernet Switches, Media Converter and Firewall

Product / Model	Description	
MOXA Ethernet Switch EDS-G308-SFP	8 Port Ethernet Switch with metal housing TX Ports: 8x10/100BaseT(X) thereof: PoE Ports: 0 FX Ports: up to 2 Temperature: 0 - 60° C Compact and sturdy housing, ideal for industrial usage. Mounting on DIN-rails (35 mm), 5 year warranty, alarm-function (triggered on power or network shortage) Connection for 2 redundant power supplies 24 VDC Product group: C	
MOXA Ethernet Switch EDS-G205A-4PoE -1GSFP	5 Port Ethernet Switch with metal housing TX Ports: 5x10/100BaseT(X) thereof PoE Ports: 4 FX Ports: 1 Temperature: 0 - 60° C Compact and sturdy housing, ideal for industrial usage. Mounting on DIN-rails (35 mm), 5 year warranty, alarm-function (triggered on power or network shortage) Connection for 2 redundant power supplies 24 VDC Product group: C	
MOXA Gigabit SFP Module SFP-1GSXLC	SFP module for Gigabit Ethernet Multimode FOC transmission In accordance with IEEE 802.3z Differential LVPECL-inlets and out lets TTL signal display Hot pluggable Product of laser class 1, corresponds with EN60825-1 Product group: C	
MOXA Access Point AWK-3121-EU	WLAN Access Point Wireless 802.11 a/b/g, AP/Bridge/Client - 64-bit and 128-bit WEP (Wired Equivalent Privacy) - Enable/disable SSID broadcasts - WPAWPA2 (Wi-Fi Protected Access) support - IEEE802.1X/RADIUS support - Powerful IP packet filters Product group: C	
MOXA Secure Router EDR-G903 3-port	Moxa Gigabit Ethernet Firewall Router/Firewall/VPN* All-in-One-solution High-performance Gigabit-combi-port (for copper /fiber optic cable) WAN redundancy function with 2 WAN interfaces and 1 LAN interface NAT functions (N-to-1 NAT, 1-to-1 NAT and port forwarding) Intelligente PolicyCheck and SettingCheck Tools Product group: C	
MOXA RK-4U	19-inch-35mm-mounting rain adapter This rack offers the best solution for industrial BTO switches. In combination with redundantly executed power supplies, if applicable, it is possible to install all Moxa switches. Product group: C	





Quad Video Server Axis Q7404

Video Server

Video servers convert video, audio, and binary signals into Ethernet-network streams, making them available over long distances. Without the applicable protective housing, video servers which are not ATEX certified must not be installed in explosion risk areas (q.v. ExConnection Rail Series).

All SAMCON video servers are 100% compatible with all analog cameras of the ExCam® Series, as well as with our video management system SAMCONtrol.

Group II (Gas & Dust)	-				
Zone	0	1	2	21	22
Application	X	X	X	X	X

Group I (Mining)	-	
Category	Ma	Mb
Application	X	×

Dradust / Madal	Description	
Product / Model Axis M7001	Description 1-Channel Ethernet video server Video compression: MJPEG and H.264 Maximum transmission rate: 25fps@4CIF DI: 0, DO: 0 Interfaces: 1xRS422/485	
	Internal recording archive: No, audio: No Required IP addresses: 1 Power supply: PoE (IEEE 802.3af), class 2 See data sheet for technical data - www.samcon.eu Product group: C, tariff number: 8517 62000	
Axis M7001-BTO	1-Channel Ethernet video server - BTO This BTO version comprises the following scope: Connection of the equipment, installation of the applicable PTZ driver, execution and logging of a function as well as quality check. Video compression: MJPEG and H.264 Maximum transmission rate: 25fps@4CIF DI: 0, DO: 0 Interfaces: 1xRS422/485 Internal recording archive: No, audio: No Required IP addresses: 1 Power supply: PoE (IEEE 802.3af), class 2 Product group: B, tariff number: 8517 62000	
Axis Q7401	1-Channel Ethernet video server Video compression: MJPEG and H.264 Maximum transmission rate: 25fps@4CIF Digital In/Outputs: 4 (configurable as DI or DO) Interfaces: 1xRS422/485 Internal recording archive: via SD Slot Audio: Full duplex Required IP addresses: 1 Power supply: 9-20 VDC or PoE class 2 See data sheet for technical data - www.samcon.eu Product group: C, tariff number: 8525 5000	
Axis Q7401 - BTO	1-Channel Ethernet video server - BTO This BTO version comprises the following scope: Connection of the equipment, installation of the applicable PTZ driver, execution and logging of a function as well as quality check. Video compression: MJPEG and H.264 Maximum transmission rate: 25fps@4CIF Digital In/Outputs: 4 (configurable as DI or DO) Interfaces: 1xRS422/485 Internal recording archive: via SD Slot Audio: Full duplex Required IP addresses: 1 Power supply: 9-20 VDC or PoE class 2 Product group: B, tariff number: 8525 5000	



Quad Port Video Server for up to four Analog Cameras

Product / Model	Description	
Axis	4-Channel Ethernet video server	
P7214	Video compression: MJPEG and H.264	
	Maximum transmission rate per channel: 25fps@4CIF	
	Digital In/Outputs: 4 (configurable as DI or DO)	
	Interfaces: 1xRS422/485 (BUS or DAISY CHAIN!)	
	Internal recording archive: 1 x microSDHC	
A A A	Audio: External microphone, in or line in line level output, audio streams,	
Sale ne ne ne	recording (AU) and uploaded (WAV, AU), play clips	
	Required IP addresses: 1	
	Power supply: 8-20 VDC or PoE class 3	
	See data sheet for technical data - www.samcon.eu	
	Product group: C, tariff number: 8517 6990	
Axis	4-Channel Ethernet video server - BTO	
P7214 - BTO	This BTO version comprises the following scope:	
	Connection of the equipment, installation of the applicable PTZ driver,	
	pre-wiring of the interfaces via DAISY CHAIN, execution and logging of a	
	function as well as quality check.	
	Video compression: MJPEG and H.264	
	Maximum transmission rate per channel: 25fps@4CIF	
A A A	Digital In/Outputs: 4 (configurable as DI or DO)	
The Control of the Co	Interfaces: 1xRS422/485 (BUS or DAISY CHAIN!)	
	Internal recording archive: 1 x microSDHC	
	Audio: External microphone, in or line in line level output, audio streams,	
	recording (AU) and uploaded (WAV, AU), play clips	
	Required IP addresses: 1	
	Power supply: 8-20 VDC or PoE class 3	
	Product group: B, tariff number: 8517 6990	
Axis	4-Channel Ethernet video server	
Q7404	Video compression: MJPEG and MPEG4	
	Maximum transmission rate per channel: 25fps@4CIF	
	digital in/out per channel: 4 (configurable as DI or DO) Interfaces: 1xRS422/485 per channel	
	Internal recording archive: no	
	Audio: Half duplex on channel 1	
Section 1	Required IP addresses: 4	
	Power supply: 8-20 VDC	
	It is possible to install different PTZ drivers on each channel	
	See data sheet for technical data - www.samcon.eu	
	Product group: C, tariff number: 8525 5000	
Axis	4-Channel Ethernet video server - BTO	
Q7404 - BTO	This BTO version comprises the following scope:	
Z. 131 213	Connection of the equipment, installation of the applicable PTZ driver,	
	pre-wiring of the interfaces via DAISY CHAIN, execution and logging of a	
	function as well as quality check.	
	Video compression: MJPEG and MPEG4	
	Maximum transmission rate per channel: 25fps@4CIF	
A 100 0	Digital in/out per channel: 4 (configurable as DI or DO)	
	Interfaces: 1xRS422/485 per channel	
	Internal recording archive: no	
	Audio: Half duplex on channel 1	
	Required IP addresses: 4	
	Power supply: 8-20 VDC	
	It is possible to install different PTZ drivers on each channel	
	Product group: B, tariff number: 8525 5000	



Quad Port Video Server for up to four Analog Cameras

Product / Model	Description	
Axis Q7424-R	4-Channel Ethernet video server Video compression: MJPEG and MPEG4 Maximum transmission rate per channel:15-25fps@4CIF Digital in/out per channel: 4 (as DI or DO configurable) Interfaces: 1xRS422/485 Ethernet: Copper PoE and SFP Slot Internal recording archive: Yes (SD Card) Audio: Full duplex, Required IP addresses: 1 Power supply: 8-28 VDC, max. 10 W, 20-24 VAC, max. 15.6 W Power over Ethernet IEEE 802.3af Class 3 See data sheet for technical data - www.samcon.eu Product group: C, tariff number: 8525 5000	
Axis Q7424-R -BTO	4-Channel Ethernet video server - BTO This BTO version comprises the following scope: Connection of the equipment, installation of the applicable PTZ driver, pre-wiring of the interfaces via DAISY CHAIN, execution and logging of a function as well as quality check. Video compression: MJPEG and MPEG4 Maximum transmission rate per channel:15-25fps@4CIF Digital in/out per channel: 4 (configurable as DI or DO) Interfaces: 1xRS422/485 Ethernet: Copper PoE and SFP Slot Internal recording archive: Yes (SD Card) Audio: Full duplex, Required IP addresses: 1 Power supply: 8-28 VDC, max. 10 W, 20-24 VAC, max. 15.6 W; Power over Ethernet IEEE 802.3af Class 3 Product group: B, tariff number: 8525 5000	
More Video Server	You didn't't found anything in our video server range? You need other types of construction, or have already decided on alternative manufacturers? You already have video server racks and are looking for compatible cameras and drivers? All this is not a problem for us. Contact us!	





The **Connection Rail Series** converts video audio and I/O signals into Ethernet network streams and therefore makes them available across long distances regardless of media.

As part of the **Connection Rail series**, both ATEX-certified devices for use in explosion risk zones and non-ATEX devices for cabinet rooms are available. Thanks to the diversity of the interfaces, our Connection Rails can solve any digitalization task. Cameras from all the renowned manufacturers can be controlled based on the network using an RS232/RS422 or RS485 interface. Network integrations can be implemented via fibre optic cables, copper-bonded Ethernet or WLAN.

Analogue Cameras – Digital Networks.

Camera and communication systems can be established in analogue or digitally. We speak of **analogue camera systems** when the image signal is transferred in analogue. We speak of **digital camera systems** when the image information and, if necessary, sound information is transferred using the TCP/IP protocol (Video over IP, Voice over IP). Even when planning camera and communication systems in explosion risk zones, it is often impossible to do without the benefits of both systems **(analogue camera systems AND digital networks)**. In the field, analogue camera systems often have benefits compared with digital, so called IP cameras. It is therefore possible, for instance, for supply cables to analogue cameras, such as the ExCam miniZoom, to easily be up to 200 metres long, even in EMC-critical zones. Network cables to IP cameras should not exceed a length of 100 metres. Furthermore, analogue cameras can be built in a much more compact manner than IP cameras. This saves pressure-resistant encapsulated space and makes analogue camera systems more efficient, too.

Nevertheless, the future lies in digital networks. **IP-based camera networks** will establish themselves, apart from a few special applications, in the long term compared with analogue camera networks. Only by **incorporating video and audio signals in the Ethernet** are these available to other network participants. Installation distances play no role when it comes to digital camera networks – information can, if necessary, be transferred all over the world via the Internet. Conventional Ethernet PCs can be used to visualise the camera images. Software solutions are becoming important tools and replace expensive additional hardware. Real integration in process control systems can be implemented.

FOC, Copper or WLAN Ethernet.

Ethernet signals can be transferred via copper line (Cat5), fibre optic cable or radio (WLAN). These transfer media may vary in any way in the case of our Connection Rails. For long installation paths to the next active network participant, it is advisable to use fibre optic cables. An industrial access point, which supports all common operating types, such as Bridge or WDS, is used as a WLAN unit.

A Connection Rail with WLAN turns analogue cameras into WLAN cameras. And it can do this in an explosion risk zone, if necessary.





Connection Rail - S with stainless steel housing

Connection Rail - S

The **ConnectionRail Series** converts video, audio and binary signals in ethernet-network streams, making them available over long distances. Interface diversity makes our ConnectionRails solve every digitalization task. Cameras of renowned manufacturers can be controlled via RS232/RS422 or RS485 interface network-based.

Group II (Gas & Dust)	-				
Zone	0	1	2	21	22
Application	X	X	X	X	X

Group I (Mining)	-	
Category	Ma	Mb
Application	X	X

Product / Model	Description	
Connection Rail - S T05-S-001	Plug & Play connection and digitalization unit for four analog cameras. Compact cabinet in stainless steel 1.4301, for wall mounting. Including two Axis Q7404 video server, lever lockers, power supply and Ethernet terminal point. The system comes with cable glands and is completely pre-wired. One set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol is included. The ExCam® driver pre-installed and tested. See data sheet for technical data - www.samcon.eu Product group: B, tariff number: 8525 6000	
Connection Rail "FOC" T05-X-X <u>1</u> 1	Option accessory (surcharge): "FOC" Same as Model T05-S-001 but with FOC media converter to connect to Ethernet FX Product group: B, tariff number: 8525 6000	
Connection Rail "WLAN" T05-X- <u>1</u> X1	Option accessory (surcharge): "WLAN" Same as Model T05-S-001. Furthermore, the device contains one WLAN access point.	
Connection Rail "I/O" T05-X-XXX	Option "I/O" surcharge per relay package: Four binary contacts as couple relay pre-wired. The binary contacts can either be interconnected as digital inputs or digital outputs. The "I/O" package allows establishing a simple but effective communication with external devices or systems. For example, in case of a motion detection, the binary outputs allow connecting lights or security gates. By the means of the binary inputs, it is possible to transmit external commands, such as recordings, to the video system DO: Maximum specific values: 250V / 6A DI: Potential free contact	
Connetction Rail - BTO	Build-to-Order-Versions on request	





Connection Rail - Q with stainless steel housing

Connection Rail - Q/Q²

The **ConnectionRail Series** converts video, audio and binary signals in ethernet-network streams, making them available over long distances. Interface diversity makes our ConnectionRails solve every digitalization task. Cameras of renowned manufacturers can be controlled via RS232/RS422 or RS485 interface network-based.

Group II (Gas & Dust)	-				
Zone	0	1	2	21	22
Application	X	X	X	X	X

Group I (Mining)	-	
Category	Ma	Mb
Application	X	X

Product / Model	Description	
Connection Rail - Q T05-Q-001	Plug & Play connection and digitalization unit for four analog cameras. Compact cabinet in stainless steel 1.4301, for wall mounting. Including an Axis Q7404 video server, lever lockers, power supply and Ethernet terminal point. The system comes with cable glands and is completely pre-wired. One set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol is included. The ExCam® driver pre-installed and tested. See data sheet for technical data - www.samcon.eu Product group: B, tariff number: 8525 6000	
Connection Rail - Q ² T05-Q2-001	Plug & Play connection and digitalization unit for four analog cameras. Compact cabinet in stainless steel 1.4301, for wall mounting. Including two Axis Q7404 video servers, lever lockers, power supply and Ethernet terminal point. The system comes with cable glands and is completely pre-wired. One set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol is included. The ExCam® driver pre-installed and tested. See data sheet for technical data - www.samcon.eu Product group: B, tariff number: 8525 6000	
Connection Rail "FOC" T05-X-X <u>1</u> 1	Option accessory (surcharge): "FOC" Same as Model T05-Q-001 but with FOC media converter to connect to Ethernet FX Product group: B, tariff number: 8525 6000	
Connection Rail "WLAN" T05-X- <u>1</u> X1	Option accessory (surcharge): "WLAN" Same as Model T05-Q-001. Furthermore, the device contains one WLAN access point.	
Connection Rail "I/O" T05-X-XXX	Option "I/O" surcharge per relay package: Four binary contacts as couple relay pre-wired. The binary contacts can either be interconnected as digital inputs or digital outputs. The "I/O" package allows establishing a simple but effective communication with external devices or systems. For example, in case of a motion detection, the binary outputs allow connecting lights or security gates. By the means of the binary inputs, it is possible to transmit external commands, such as recordings, to the video system DO: Maximum specific values: 250V / 6A DI: Potential free contact	
Connetction Rail - BTO	Build to Order Version	





Connection Rack - Q² in 4U 19-Inch-Rack

Connection Rack - Q/Q²/Q³

The **Connection Rack** series converts video, audio and I/O signals into ethernet network streams, making them available over long distances. Interface diversity makes our Connection Racks solve every digitalization task. Cameras from renowned manufacturers can be controlled via RS232/RS422 or RS485 interface network-based.

Group II (Gas & Dust)	-				
Zone	0	1	2	21	22
Application	X	X	X	X	X

Group I (Mining)	-	
Category	Ma	Mb
Application	×	×

Product / Model	Description	Price/€
Connection Rack - Q T05-Q-001	Plug & Play connection and digitalization unit for four analog cameras. The device includes a 4U 19" Rack with one Axis Q7404 video server, lever lockers, power supply and ethernet terminal point. The system is completely pre-wired. It comes with one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® driver pre-installed and tested. On the rear side, the slot is wired with terminals. See data sheet for technical data - www.samcon.eu Product group: B, tariff number: 8525 6000	
Connection Rack - Q ² T05-Q2-001	Plug & Play connection and digitalization unit for eight analog cameras. The device includes a 4U 19" Rack with two Axis Q7404 video servers, lever lockers, power supply and ethernet switch. The system is completely pre-wired. It comes with one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® driver pre-installed and tested. On the rear side, the slot is wired with terminals. See data sheet for technical data - www.samcon.eu Product group: B, tariff number: 8525 6000	
Connection Rack - Q ³ T05-Q3-001	Plug & Play connection and digitalization unit for twelve analog cameras. The device includes a 4U 19" Rack with three Axis Q7404 video server, lever lockers, power supply and ethernet switch. The system is completely pre-wired. It comes with one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® driver pre-installed and tested. On the rear side, the slot is wired with terminals. See data sheet for technical data - www.samcon.eu Product group: B, tariff number: 8525 6000	
Connection Rack - "FOC" T05-QX-X <u>1</u> 1	Option accessory FOC (surcharge): "FOC" Same as Model T05-Q-001 but with FOC media converter to connect to Ethernet FX. Product group: B, tariff number: 8525 6000	
Connection Rack - "I/O" T05-QX-XXX	Option "I/O" surcharge per relay package Four binary contacts as couple relay pre-wired. The binary contacts can either be interconnected as digital inputs or digital outputs. DO: Maximum specific values: 250V / 6A DI: Potential free contact	
Connection Rack (BTO)	Build-to-Order versions on request	





ExConnection Rail - Q in an Ex-de Enclosure

ExConnection Rail - S/Q/Q^x

The **ExConnectionRail Series** converts video, audio and binary signals in Ethernet-network streams and makes them available over long distances. Interface diversity makes our ExConnectionRails solve every digitalization task. Cameras from renowned manufacturers can be controlled via RS232/RS422 or RS485 interface network-based.

Group II (Gas & Dust)	ATE	Χ			
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (Mining)	ATEX	
Category	Ma	Mb
Application	×	X

Product / Model		Description	
ExConnection Rail - S T04-D-S-001	Ex IP66 ★ -20°C +40°C	Explosion proof connection and digitalization unit for one analog camera. Explosion proof Ex-d housing for wall mounting includes double-sided mounting plate with one Axis video server, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested. Ex. Protection (gas): Ex II 2 G Ex d IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail - Q T04-D-Q-001	Ex IP66 ★ -20°C +40°C	Explosion proof connection and digitalization unit for up to four analog cameras. Explosion proof Ex-d housing for wall mounting includes double-sided mounting plate with one Axis video server, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested. Ex. Protection (gas): Ex II 2 G Ex d IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail - Q T04-DE-Q-001	(Ex) IP66	Explosion proof connection and digitalization unit for up to four analog cameras. Explosion proof housing Ex-e for wall mounting includes double-sided mounting plate with one Axis video server, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested. Ex. Protection (gas): Ex II 2 G Ex de IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C Product group: B, tariff number: 8525 6000	



ExConnection Rail - S/Q/Q2/Q3 for analog cameras

Product / Model		Description	
		Description	
ExConnection Rail - Q ² T04-DE-Q2-XX1	IP66	Explosion proof connection and digitalization unit for up to eight analog cameras. Explosion proof housing Ex-e for wall mounting includes double-sided mounting plate with two Axis video servers, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested. Ex. Protection (gas): Ex II 2 G Ex de IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C Ex II 2 G Ex de IIC T6 Ex II 2 D Ex td A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail - Q ³ T04-DE-Q3-XX1	Ex IP66 ★ -20°C +40°C	Explosion proof connection and digitalization unit for up to twelve analog cameras. Explosion proof housing Ex-e for wall mounting includes double-sided mounting plate with three Axis video servers, lever lockers, power supply and ethernet switch. The system includes all cable glands and is completely pre wired. Includes one set of documentation, consisting of circuit diagrams, equipment documentation and Axis parameterizing protocol. ExCam® drivers pre-installed and tested. Ex. Protection (gas): Ex II 2 G Ex de IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C Ex II 2 G Ex de IIC T6 Ex II 2 D Ex td A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail "FOC" T04-DE-QX-X <u>1</u> X		Optional accessory (surcharge): "FOC" Ethernet ST patch field, intrinsically safe fibre optics transmission. Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6 Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C	
EXConnection Rail "WLAN" T04-DE-XX-1XX		Optional accessory (surcharge): "WLAN" W-LAN Access Point allowing wireless transmission of video and/or I/O signals. Ex. Protection (gas): Ex II 2 G Ex dx mb [ia/ib] IIC T6 Ex. Protection (dust): Ex II 2 D Ex td [ia/ib] A21 IP66 T80° C	
ExConnection Rail "Plug" T04-DX-XXX		Optional accessory (surcharge): "WLAN" All connectors are pluggable. Different ATEX/IECEx- Plugs are available: Ex-de-Plugs, as well as inline-versions, for analog, digital or hybrid cameras. Even FOC/Copper plug combinations are available. Ex. Protection (gas): Ex II 2 G Ex dx IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C	
ExConnection Rail "mobile" T04-DX-XXX		Optional accessory (surcharge): "mobile" The system is mounted on a portable stainless steel frame. Ex. Protection (gas): Ex II 2 G Ex dx IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C	
ExConnection Rail (BTO)		Build-to-Order versions on request	





ExConnection Rail - PoE in an Ex-de Enclosure

ExConnection Rail - PoE

High performance PoE switches for hazardous areas. The ExConnection Rail - PoE is designed to connect our **digital PoE cameras**. The ExConnection Rail - PoE's centerpieces are high performance GigE network switches. As an option, the **FX ports can also be executed to reflect the ignition protection category [op is]**. The ExConnection Rail - PoE allows the connection of up to 16 PoE cameras. The connection of the GBit/s FX ports is possible over very large distances.

Group II (Gas & Dust)	ATE	Χ			
Zone	0	1	2	21	22
Application	X	√	√	√	√

Group I (Mining)	ATEX	
Category	Ma	Mb
Application	×	×

Product / Model		Description	
ExConnection Rail - PoE T04-D-PoE-1TX-1TX	(€x) IP66 (**) ••••••••••••••••••••••••••••••••••	High performance PoE-Switch for hazardous areas. Explosion proof (Ex-d) housing for wall mounting. Inclusive Cable Glands with internal pressure barrier (IIC <2L). 1 x Power input: 230 VAC 1 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field) 1 x TX Port (10/100BASE-TX) (Output-Cabinet Room) Ex. Protection (gas): Ex II 2 G Ex d IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail - PoE T04-D-PoE-4TX-1FX	(€x) IP66 (**) (High performance PoE-Switch for hazardous areas. Explosion proof (Ex-d) housing for wall mounting. Inclusive Cable Glands with internal pressure barrier (IIC <2L). 1 x Power input: 230 VAC 4 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field) 1 x FX Port (100BaseFX MM-ST) (Output-Cabinet Room) Ex. Protection (gas): Ex II 2 G Ex d [op pr] IIC T6 Ex. Protection (dust): Ex II 2 D Ex td [op pr] A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail - PoE T04-DE-PoE-4TX-1FX	(€x) IP66 P66	High performance PoE-Switch for hazardous areas. Explosion proof (Ex-de) housing for wall mounting. Interfaces in the Ex-e terminal box: 1 x Power input on 3xUT6 Terminals: 230 VAC 4 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field) 1 x FX Port (1000BaseFX MM-ST) (Output-Cabinet Room) All Ethernet Connectors are setup via terminals. Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6 Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail - PoE T04-DE-PoE-8TX-1FX	(€x) IP66 (**) (High performance PoE-Switch for hazardous areas. Explosion proof (Ex-de) housing for wall mounting. Interfaces in the Ex-e terminal box: 1 x Power input on 3xUT6 Terminals: 230 VAC 8 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field) 1 x FX Port (1000BaseFX MM-ST) (Output-Cabinet Room) All Ethernet Connectors are setup via terminals. Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6 Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C Product group: B, tariff number: 8525 6000	



ExConnection Rail - PoE for TCP/IP Camera Systems

Dradust / Madal		Description	
Product / Model		Description	
ExConnection Rail - PoE T04-DE-PoE-12TX-1FX	Ex IP66	High performance PoE-Switch for hazardous areas. Explosion proof (Ex-de) housing for wall mounting. Interfaces in the Ex-e terminal box: 1 x Power input on 3xUT6 Terminals: 230 VAC 12 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field) 1 x FX Port (1000BaseFX MM-ST) (Output-Cabinet Room) All Ethernet Connectors are setup via terminals. Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6 Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail - PoE T04-DE-PoE-16TX-1FX	Ex IP66 ★ •-20°C •-40°C	High performance PoE-Switch for hazardous areas. Explosion proof (Ex-de) housing for wall mounting. Interfaces in the Ex-e terminal box: 1 x Power input on 3xUT6 Terminals: 230 VAC 16 x TX Ports (10/100BASE-TX PoE IEEE802.3af) (Input - Field) 1 x FX Port (1000BaseFX MM-ST) (Output-Cabinet Room) All Ethernet Connectors are setup via terminals. Ex. Protection (gas): Ex II 2 G Ex de [op is] IIC T6 Ex. Protection (dust): Ex II 2 D Ex td [op is] A21 IP66 T80° C Product group: B, tariff number: 8525 6000	
ExConnection Rail - PoE "WLAN" T04-DX-PoE-XXX-XXX "WLAN"		Optional accessory (surcharge): "WLAN" W-LAN Access Point allowing wireless transmission of video and/or I/O signals. Ex. Protection (gas): Ex II 2 G Ex dx mb [ia/ib] IIC T6 Ex. Protection (dust): Ex II 2 D Ex td [ia/ib] A21 IP66 T80° C	
ExConnection Rail - PoE "Plug" T04-DX-PoE-XXX-XXX-"Plug"		Optional accessory (surcharge): "WLAN" All connectors are pluggable. Different ATEX/IECEx- Plugs are available: Ex-de-Plugs, as well as inline-versions, for analog, digital or hybrid cameras. Even FOC/Copper plug combinations are available. Ex. Protection (gas): Ex II 2 G Ex dx IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C	
ExConnection Rail - X "mobile" T04-DX-PoE-XXX-XXX "mobile"		Optional accessory (surcharge): "mobile" The system is mounted on a portable stainless steel frame. Ex. Protection (gas): Ex II 2 G Ex dx IIC T6 Ex. Protection (dust): Ex II 2 D Ex td A21 IP66 T80° C	
ExConnection Rail - PoE (BTO)		Build-to-Order versions on request	



Display & Control (HMI)

Many times, displays, control panels and computers reflect customer specific requirements and wishes. This in turn leads to the necessity to design so called Build-to-Order (BTO) versions. Hence, the components below only show a small variety of commonly used equipment and merely serve to give an idea on the different implementation possibilities in this area. Please do not hesitate to contact us if you have specific requirements - we are more than happy to advise you on additional possibilities or to detail a concept that suits your needs and requirements best.

VISCA® Control Boards

Product / Model	Description	
VISCA® Control Board	Control your ExCam® without a PC by using the VISCA® Control Board.	
VCB-XX	Board functions: Zoom, Focus, Iris day/night to control one camera.	
	Further commands are available on request	
1. 18.	VCB-01 = For one camera	
000 242	VCB-02 = For two cameras (surcharge 100€)	
HOR L	VCB-03 = For three cameras (surcharge 150€)	
	VCB-04 = For four cameras (surcharge 200€)	
	Product group: C	
	further control boards on request	

Desktop CCTV Monitors

Product / Model	Description	
19" Monitor	19" Monitor LED desktop monitor with energy-efficient LED backlight technology, improved ergonomics and advanced connectivity options. Resolution: 1280 x 1024 Product group: C	
	further monitors on request	

Desktop PC Monitors

Product / Model	Description	
24" Monitor	24" Monitor LED desktop monitor with energy-efficient LED backlight technology, improved ergonomics and advanced connectivity options. Resolution: 1920 x 1200 Product group: C	
	further monitors on request	

Industrial CCTV Monitors

Product / Model	Description	
19" Monitor	ADM TFT Desktop Monitor IP67 Stainless Steel enclosure Display sizes: 10.1", 15", 17", 19" and 24" Interfaces in IP67 Line / IP67 True Flat Line: 1x VGA, 1x CVBS, 1x Power Supply Unit in IP65 Line: 1x VGA, 1x DVI, 1x Power Supply Power input: 12 VDC Ambient Temperature Range: 0° C ~ +50° C Product group: Cfurther monitors on request	



Industrial PC Monitors

Product / Model	Description	
24" Monitor	24" Industrial-LCD-Monitor 250cd/m² (Full HD), 1x VGA, 1x1x HDMI, 1x Display Port, 9-36 VDC-in, Projected capacitive Multi-Touch (USB), Aluminum-Front-Panel, black, Dimensions: 382 x 600 x 49.4 mm Product group: C	
	further monitors on request.	

Ex CCTV Monitors

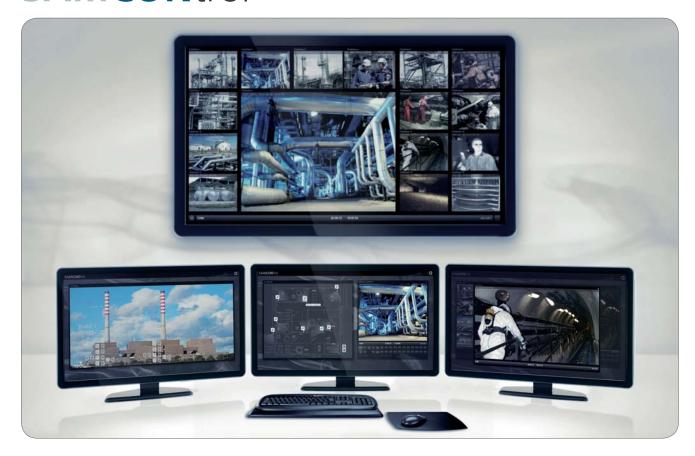
Product / Model	Description	
22" Monitor	22" Monitor (for ATEX-Zone 2) Resolution: 1680 x 1050, SOG-Glas with antireflection coating Certifications: Class I/Div 2, Class II/Div 2, ATEX Zone 2. Video Interfaces: NTSC on BNC Plug Product group: C	
19" Monitor	19" Monitor (for ATEX-Zone 1) Ex-Protection (gas): EEx eq [ib] IIC T4 Resolution: SXGA (1280x1024) The device has an integrated CVBS Input (Ex-e). Power supply: 110-230 VAC (integrated Ex-e terminal) Inclusive Ex i-Remote Control to set up the Unit - connected to M12 Ex-i Plug on the button of the Unit. Product group: C	
	further monitors on request.	

Ex PC Monitors

Product / Model	Description	
19" Remote HMI	Remote HMI Zone 1, 21, 2, 22 TFT Color 48 cm (19"), 1280 x 1024 Pixel TFT Display 350 cd/m² 100BaseFX OS: Remote Firmware Touch: Analog resistive Keys: 8 F-Keys Interfaces: 1 x RS232/422/485 Product group: C	
KVM Extender	Digital KVM-Box for 19" Remote HMI Remote HMI-Connector: 10BASE-T, 100BASE-TX Ethernet Product group: C	
Stainless Steel Enclosure	Stainless Steel Enclosure (SS304) Fits for 19" Remote HMI Front door direct wall mounting Product group: C	
	further monitors on request.	



SAMCONtrol[®]



SAMCONtrol is the world's first purely browser-based video management system. This means there is no need to install additional software or hardware other than a standard web browser in order to operate a video network. Expensive software updates or complex configurations are replaced by plug & play and simple drag & drop. Video signals can be displayed anywhere in the world, and on any device, whether a PC, Tablet or Smartphone.

SAMCONtrol supports all current IP transmission technologies from Ethernet, DSL, GPRS to UMTS or VPN, ISDN or RDT. This means that SAMCONtrol can not only be used in new video networks but it can also be integrated easily into existing systems.





Video management systems are at the heart of every video network. Unfortunately, most video management systems are still based on obsolete technology. In order to configure cameras or receive signals, software has to be installed on every workstation, or every PC that is used as an image source. This is not only time-consuming but expensive, since each installation usually incurs a royalty.

SAMCONtrol breaks new ground: video signals and camera configurations are stored on a video server. They are then accessed using a normal web browser. That means no additional software is required to create a video network. With SAMCONtrol videos can be retrieved using any device - whether a PC already connected to the PCS, an explosion-proof laptop in the field or by a service technician accessing the network from the other side of the country using a Tablet or even a Smartphone.

Best of all, the video network can also be configured on each terminal. A field technician can quickly and easily click on a particular display - for example to deal with an urgent matter. What this means is that video signals are 100% available anywhere.



The Technology

Instead of managing cameras by using software that has to be installed on a PC, all processes are mapped in a conventional web browser. This means visualization of digital camera images can be done using open web technologies such as Java, Flash and HTML scripts. With the help of standardized components such as, for example, a zoom bar, site plans or pre-configured views, individual visualisation pages can be clicked together like an Internet Homepage. This removes the need for costly programming, software updates or releases from camera manufacturers. Only the standard system web browser of the system is required. SAMCONtrol is therefore not only compatible with the complete range of SAMCON cameras, but with all cameras from AXIS, market leader of network and surveillance cameras.

The Network: Intranet and Internet security

With SAMCONtrol, a standard web browser such as Microsoft's Internet Explorer, Firefox or Chrome can be used as the client. The web browser is connected to the video server to which the cameras are also connected. An operator is therefore able to configure cameras or merge to a single display. In this way, cameras can be assigned to points on a geographical map, site plan or flow chart. The operator can save this view and will receive a unique link (URL). This link can then be accessed via the Intranet or Internet - always password-protected. Access to the network can also be restricted via the IP range or firewall. This ensures that video footage can only be retrieved by authorised persons. Because it is browser-based, the video management system offers unlimited multi-user access and can therefore also be used in international control centres which are responsible for multiple sites. The intuitive configuration tool allows users to quickly configure complete systems. Instead of a multiplicity of proprietary software, the complete system is only addressed via a video management system. This reduces training costs and the risk of operating errors.

Views: split screen mode, site plans, flow charts or maps

The playback module is user-friendly and offers various modes for playback, navigation and display of video recordings. One can switch between different videos in the playlist or history. All images from the connected cameras can not only be shown in real time, but also controlled (PTZ). Standard monitoring functions such as video sequencing and display in split-screen modes are also available. Operators of the equipment are supported in their task by the fact that cameras can be located and displayed on a map or flow chart, or on a site plan. The map view (street plans or maps) offers a bird's-eye aerial view, which is especially suitable for installations spread over a wide area. Site plans allow cameras mounted on several floors or in different locations of a site to be found and displayed quickly. Operators in the control room no longer have to memorize camera designations to find a camera again, but can navigate easily through the installation site plan. The possibility of customizing the system allows operators to set priorities and adjust the system for the most effective control.





SAMCONtrol[®] Software

SAMCONtrol is a browser based video management system which provides a common surface in order to configure, administer, and operate cameras.

SAMCONtrol does not require a video client which means that each browser allowing Adobe® Flash can be used as a video client. The reproduction module is designed in an operator friendly way and offers various modes in order to play, search, and display video recordings. Within the play list or history, it is possible to switch between different videos. It is not only possible to display all pictures of the connected cameras in real time but also to control them (PTZ).

Standard monitoring functions such as video sequencing and the display of different split screen modes are feasible. It supports the plant's operating personnel since the cameras can be integrated into and displayed on a map, a flow chart or a floor plan. The map view (road map or topographic map) allows a top view in aerial perspective which is particularly suitable for facilities which are wildly spread. Floor plans, on the other hand, allow an easy and quick access of cameras that are positioned on various levels or places of a facility. As a result, operators in a control center do not have to memorize camera names anymore in order to find the correct ones. Instead, they can comfortably navigate via the floor plan. Due to the high level of personalization, it is even possible for every operator to set his or her own priorities and to adapt the system to reflect their highest degree of control effectiveness.

Product / Model	Description	
SAMCONtrol 3.0 4Sources	Browser-based video-management-system MJGEG and H.264 Support up to FullHD. SAMCONtrol Server& Source Configurator for up to 4 sources. SAMCONtrol FullHD Viewscriptbox including: - Fieldview editor - Controlview editor with MAP, ARCHIV, OVERVIEW, LIST and THUMB View Templates - Wall editor with NxN and RING Templates - Operator Web archive Product group: A	
SAMCONtrol 3.0 10Sources	Browser-based video-management-system MJGEG and H.264 Support up to FullHD. SAMCONtrol Server& Source Configurator for up to 10 sources. SAMCONtrol FullHD Viewscriptbox including: - Fieldview editor - Controlview editor with MAP, ARCHIV, OVERVIEW, LIST and THUMB View Templates - Wall editor with NxN and RING Templates - Operator Web archive Product group: A	
SAMCONtrol 3.0 Enterprise	Browser-based video-management-system MJGEG and H.264 Support up to FullHD. SAMCONtrol Server& Source Configurator for unlimited number of sources. SAMCONtrol FullHD Viewscriptbox including: - Fieldview editor - Controlview editor with MAP, ARCHIV, OVERVIEW, LIST and THUMB View Templates - Wall editor with NxN and RING Templates - Operator Web archive Product group: A	



SAMCONtrol[®] Hardware

Hardware components often reflect customer requirements and desires. Often so-called Build-to-Order (BTO) Variants will be necessary. The components listed below therefore represent only a small selection of commonly used devices. We are happy to advise you on the different options and/or assist you in designing your hardware concept!.

SAMCONtrol Server

Product / Model	Description	
SAMCONtrol Server (Hardware)	SAMCONtrol Server (Hardware) TERRA SERVER 4330 E3 - 1220v2/3U/SA (BTO) 19" Rack Unit Chenbro RM31408B / 3HE / SRM SAMCONtrol pre Installed. Product group: C	

SAMCONtrol Workstations

Product / Model	Description	
SAMCONtrol Workstation Desktop	SAMCONtrol Workstation Desktop Optimized for continuous operation: 24 hours a day, 7 days a week, 365 days a year. Equipped with special hardware that has been developed for continuous use, devices in this series help to minimize costly downtime. CPU: Intel core i7 Ram DDR3 16GB / PC1333 DVD±RW/±R [Sata] and DVD Unit Product group: C	
SAMCONtrol Workstation 19"	SAMCONtrol Workstation 19" Optimized for continuous operation: 24 hours a day, 7 days a week, 365 days a year. Equipped with special hardware that has been developed for continuous use, devices in this series help to minimize costly downtime. CPU: Intel core i7 Ram DDR3 16GB / PC1333 DVD±RW/±R [Sata] and DVD Burner without Software Product group: C	
SAMCONtrol PowerBox	Spectra PowerBox 1280 Mini-PC Highend-hybrid-cooled-mini-PC, optimized for continuous operation in full-power-mode CPU: Intel core i7 8 GB DDR3-RAM, 120GB mSATA, 1x VGA, 1x DVI-D, 1x HDMI,2x GLAN, USB 2.0 and 3.0 Dimensions: 220 x 110 x 250mm Product group: C	
SAMCONtrol Panel PC IP65	Spectra Panel IP65 Housing made of powder-coated aluminum, Protection Level: IP65 - 12" to 24" Display - Fan less Version - Resistive Touchscreen - VESA-mount - Individual Interfaces - Microsoft® Windows® 7 Pro Product group: C	
SAMCONtrol Panel PC IP67	ADM Panel PC IP67 Housing made of brushed stainless steel with TRUE FLAT front - Display: 15", 17", 19" and 24" - Protection Level: IP67 - Intel® Core ™ i3 Processor - fan less version - Power input: 12 VDC - VESA mount (75 / 100) Product group: C	



Our Customers













































more references at WWW.SAMCON.EU



Our Certificates





















Our Type Examinations





















Our Team





























Contact Info at WWW.SAMCON.EU



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