TRIAX

TRIAX Surveillance Solutions

Safety and Security of People and Assets

triax.com/surveillance

TRIAX® surveillance solutions
– help protect the safety and security of people and assets.

Image quality is one of the most important factors when installing a CCTV system.

Our CCTV cameras provide sharp and detailed HD video footage (up to Full HD 1080p). As well as monitoring activity, they can also be used as a visual deterrent where appropriate. Cameras are available with fixed or varifocal lenses in dome or bullet housings.

Advanced Functionality
Activity is recorded by connecting CCTV cameras with a Digital Recorder installed with a HDD for playback on a monitor or TV. They can be set for continuous or scheduled recording, motion detection or triggered alarm using the intuitive menus – the same menus are used across the TRIAX range enabling logical on-going installations. Our Digital Recorders are available with 4, 8 or 16 channels, allowing up to 16 cameras be connected to a system.
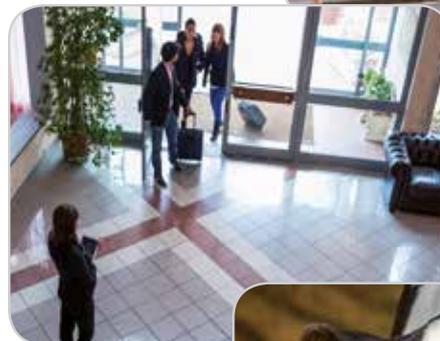
TRIAX App - Monitor Anywhere, Anytime
As well as a great range of HD cameras suitable for every budget, when connected to one of our Digital Recorders, all our cameras can be accessed remotely via the dedicated TRIAX App (TRIAX Mobile HD) on iOS or Android enabled devices. Using network connectivity, the App offers a quick and easy way for your clients to monitor their CCTV system anywhere, anytime. Set up is simple using QR codes and the latest P2P technology meaning complicated port forwarding is not required.

Where to Use...

- **Residential**

- **Pubs, Clubs + Restaurants**

- **Small hotels B+B's**

- **Farming**

· Retail

· Care Homes

· Housing Associations

· Factories + Warehouses

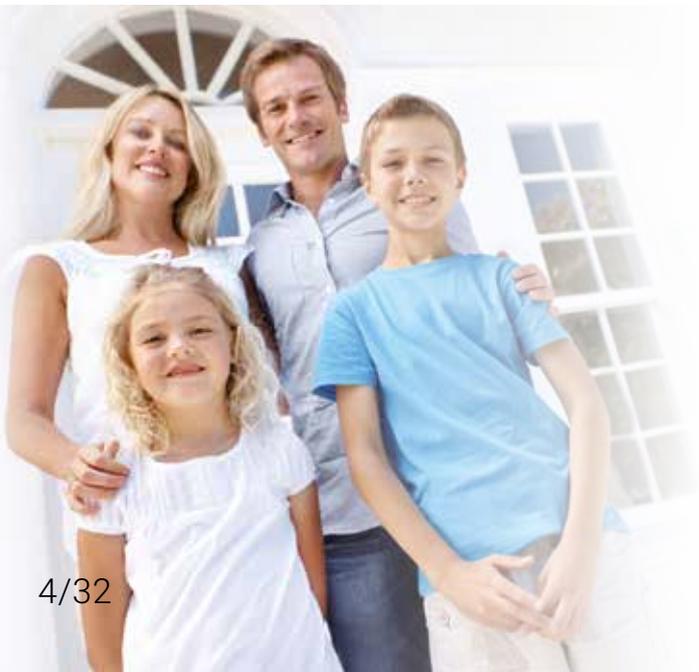| Contents		Page
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Technology

Our range uses the latest technology to provide HD CCTV footage for a wide range of installations and budgets.

HD-TVI

- **High Image Quality** - HD-TVI delivers reliable high definition surveillance (up to 1080p Full HD) without video quality loss.

- **Lower Cost** - Employs the same installation method, cable and connectors as traditional analogue CCTV.

- **No Latency** - Monitor live video without time lags.

- **Longer Transmission** - Transmit HD video up to 500m (150m locally powered) over RG59 cabling making it the ideal HD format for long distance cable runs.

- **Analogue + IP Compatible** - HD-TVI recorders are capable of recording video from analogue and IP cameras meaning systems can be upgraded as required.

- **Composite Video Output** – That can be modulated onto the local TV system.

IP (internet protocol)

- **Superior image quality** - HD and higher megapixel IP cameras deliver superior image quality. The clearer the image, the easier it is to identify faces, objects and other details filmed by the camera.

- **Flexible** - Just a single network cable is required. TRIAX IP cameras can operate over the network using Power over Ethernet (PoE). The NVR or power supply, power the cameras over the CAT infrastructure.

- **Auto Detect** – TRIAX range of IP cameras automatically connect to our NVR's eliminating complex network settings.

- **Advanced Functionality** – Our NVR's feature advanced benefits such as face and perimeter detection.

TRIAX

Selection

of

the best

HD - TVI

• **Fixed / Varifocal Dome**
720p and 1080p HD video with a 2.8mm or 3.6mm fixed lens or 2.8mm-12mm varifocal lens. White or grey housings.

• **Fixed / Varifocal Bullet**
720p and 1080p HD video with a 2.8mm or 3.6mm fixed lens or 2.8mm-12mm varifocal lens. White or grey housings.

• **DVR**
Digital Video Recorder capable of recording video from analogue, HD-TVI and IP cameras.

IP

• **Fixed / Varifocal Dome**
2MP and 4MP cameras featuring PoE. White housings.

• **Fixed / Varifocal Bullet**
2MP and 4MP cameras featuring PoE. White housings.

• **NVR**
Network Video Recorder for recording high quality IP camera footage with advanced features.

How do CCTV technologies compare?

We're often asked how different technologies within the CCTV sector compare?

Our team have chosen both HD-TVI and IP solutions for broadcast quality images suitable for a wide range of installations and budgets. We feel these technologies offer you and your clients the best solutions currently available.

HD-TVI offers the best overall performance and most flexibility with detailed HD images, greater transmission distances, hybrid capabilities and is easily configured. HD-TVI DVR's are also unique as they are compatible with all existing analogue and HD-TVI cameras, while supporting IP cameras up to 2MP on any channel in any configuration.

	HD-TVI	Analogue
Resolution (TX5912)	720P / 1080P	960H (700TVL)
Coax Siamese Cable (TX5912)	300m	300m
Cat5.e Cabling	200m	100m
PTZ Functionality	Support over Coax	Extra Cabling (Twisted Pair)
720P Frame Rate	25 fps	Do not Support
1080P Frame Rate	15 fps	Do not Support
DVR Recording	Combination of 720P and 1080P	CIF/ D1/ WD1

	HD-TVI	HD-CVI
Coax Siamese Cable (TX5912)	300m	300m
Please note* 150m when powered remotely, 300m locally powered		
Cat5.e Cabling	200 meters	100 meters
720P Frame Rate	25	25
1080P Frame Rate	15	15
DVR combination using both 720P and 1080P Camera	YES	NO

	HD-TVI	HD-SDI
Resolution	720P / 1080P	720P / 1080P
Coax Siamese Cable (TX5912)	300m	150m
PTZ Functionality	Support Over Coax	Extra Cabling (Twisted Pair)
Cat5.e Cabling	Support 200m	Do not Support

	HD-TVI	IP
Coax Siamese Cable (TX5912)	300m	Not Compatible
Cat5.e Cabling	200m	100m
720P Frame Rate	25	25
1080P Frame Rate	15	25
DVR combination using both 720P and 1080P Camera	YES	YES
Image Delay	No Delay	Delay

TRIAX TVI Fixed Dome Camera

720p TVI Camera 1.3 MP 2.8mm

Features and Benefits

- 1/4 Inch CMOS progressive scan sensor 720p
- Supports TVI high definition transfer
- 720p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TDF 720-28   White Housing
  TDF 720-28G   Grey Housing

Technical specification

Type	TDF 720-28 - White	TDF 720-28G - Grey
Art. No.	301100	301101
Image device:	1/4" inch AR0141 720p	
Image System	PAL/NTSC	
Resolution	1280 (H)×720(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Number of IR Leds	24	
IR Distance	20 m	
Video Standard	HDTVI	
Frame Rate	1280×720@25 fps - 1280×720@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x24 pcs LED - Max IR View Distance 20m	
Lens	2.8 mm Fixed Lens	
Video Out	1Ch. BNC TVI output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Digital Noise Reduction	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	107mm(L) x 107mm(W) x 80mm(H)	
Weight (Kg)	0.4	
EAN	5702663011007	5702663011014

TRIAX TVI Fixed Dome Camera

720p TVI Camera 1.3 MP 3.6mm

Features and Benefits

- 1/4 Inch CMOS progressive scan sensor 720p
- Supports TVI high definition transfer
- 720p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TDF 720   White Housing
  TDF 720G   Grey Housing

Technical specification

Type	TDF 720 - White	TDF 720G - Grey
Art. No.	301027	301028
Image device:	1/4" inch AR0141 720p (TP2803B + AR0141 + V20)	
Image System	PAL/NTSC	
Resolution	1280 (H)×720(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Electronic Shutter	1/25s ~ 1/100,000s	
Video Standard	HDTVI	
Frame Rate	1280×720@25 fps - 1280×720@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x24 pcs LED - Max IR View Distance 20m	
Lens	3.6 mm Fixed Lens	
Video Out	1Ch. BNC TVI output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Advanced Function	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	107mm(L) x 107mm(W) x 80mm(H)	
Weight (Kg)	0.4	
EAN	5702663010277	5702663010284

TRIAX TVI Varifocal Dome Camera
720p TVI Camera 1.3 MP 2.8-12mm

Features and Benefits

- 1/4 Inch CMOS progressive scan sensor 720p
- Supports TVI high definition transfer
- 720p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TDV 720   White Housing
  TDV 720G   Grey Housing

Technical specification

Type	TDV 720 - White	TDV 720G - Grey
Art. No.	301018	301019
Image device:	1/4" inch AR0141 720p (TP2803B + AR0141 + V20)	
Image System	PAL/NTSC	
Resolution	1280 (H)×720(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Electronic Shutter	1/25s ~ 1/100,000s	
Video Standard	HDTVI	
Frame Rate	1280×720@25 fps - 1280×720@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x36 pcs LED - Max IR View Distance 30m	
Lens	2.8-12mm Varifocal Lens	
Video Out	1Ch. BNC TVI output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Advanced Function	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	145mm(L) x 145mm(W) x 103mm(H)	
Weight (Kg)	0.7	
EAN	5702663010185	5702663010192

TRIAX TVI Fixed Bullet Camera

720p TVI Camera 1.3 MP 2.8mm

Features and Benefits

- 1/4 Inch CMOS progressive scan sensor 720p
- Supports TVI high definition transfer
- 720p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TBV 720-28   White Housing
  TBV 720-28G   Grey Housing

Technical specification

Type	TBF 720-28 - White	TBF 720-28G - Grey
Art. No.	301102	301103
Image device:	1/4" inch AR0141 720p	
Image System	PAL/NTSC	
Resolution	1280 (H)×720(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Number of IR Leds	30	
IR Distance	20 m	
Video Standard	HDTVI	
Frame Rate	1280×720@25 fps - 1280×720@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x42 pcs LED - Max IR View Distance 30m	
Lens	2.8 mm Fixed Lens	
Video Out	1Ch. BNC TVI output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Digital Noise Reduction	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	158mm(L) x 60mm(W) x 60mm(H)	
Weight (Kg)	0.38	
EAN	5702663011021	570266301038

TRIAX TVI Fixed Bullet Camera

720p TVI Camera 1.3 MP 3.6mm

Features and Benefits

- 1/4 Inch CMOS progressive scan sensor 720p
- Supports TVI high definition transfer
- 720p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TBF 720   White Housing
  TBF 720G   Grey Housing

Technical specification

Type	TBF 720 - White	TBF 720G - Grey
Art. No.	301016	301017
Image device:	1/4" inch AR0141 720p (TP2803B + AR0141 + V20)	
Image System	PAL/NTSC	
Resolution	1280 (H)×720(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Electronic Shutter	1/25s ~ 1/100,000s	
Video Standard	HDTVI	
Frame Rate	1280×720@25 fps - 1280×720@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x30 pcs LED - Max IR View Distance 20m	
Lens	3.6 mm Fixed Lens	
Video Out	1Ch. BNC TVI output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Advanced Function	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	158mm(L) x 60mm(W) x 60mm(H)	
Weight (Kg)	0.38	
EAN	5702663010161	5702663010178

TRIAX TVI Varifocal Bullet Camera

720p TVI Camera 1.3 MP 2.8-12mm

Features and Benefits

- 1/4 Inch CMOS progressive scan sensor 720p
- Supports TVI high definition transfer
- 720p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TBV 720   White Housing
  TBV 720G   Grey Housing

Technical specification

Type	TBV 720 - White	TBV 720G - Grey
Art. No.	301014	301015
Image device:	1/4" inch AR0141 720p (TP2803B + AR0141 + V20)	
Image System	PAL/NTSC	
Resolution	1280 (H)×720(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Electronic Shutter	1/25s ~ 1/100,000s	
Video Standard	HDTVI	
Frame Rate	1280×720@25 fps - 1280×720@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x42 pcs LED - Max IR View Distance 30m	
Lens	2.8-12mm Varifocal Lens	
Video Out	1Ch. BNC TVI output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Advanced Function	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	252mm(L) x 75mm(W) x 75mm(H)	
Weight (Kg)	0.8	
EAN	5702663010147	5702663010154

TRIAX TVI Fixed Dome Camera

1080p TVI Camera 2.0 MP 3.6mm

Features and Benefits

- 1/3 Inch Sony CMOS progressive scan sensor 1080p
- Supports TVI high definition transfer
- 1080p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TDF 1080   White Housing
  TDF 1080G Grey Housing

Technical specification

Type	TDF 1080 - White	TDF 1080G - Grey
Art. No.	301043	301044
Image device:	1/3" inch Sony sensor 1080p (FH8531 + IMX322 + TP2801B)	
Image System	PAL/NTSC	
Resolution	1920 (H)×1080(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Electronic Shutter	1/50s ~ 1/3.000s	
Video Standard	HDTVI	
Frame Rate	1920×1080@25 fps - 1920×1080@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x24 pcs LED - Max IR View Distance 20m	
Lens	3.6 mm Fixed Lens	
Video Out	1Ch. BNC TVI output, Support Switch to Analogue output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Advanced Function	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	107mm(L) x 107mm(W) x 80mm(H)	
Weight (Kg)	0.4	
EAN	5702663010437	5702663010444

* Switch between HD-TVI and CVBS mode, push the OSD button "UP" and hold for 5 seconds.

TRIAX TVI Varifocal Dome Camera

1080p TVI Camera 2.0 MP 2.8-12mm

Features and Benefits

- 1/3 Inch Sony CMOS progressive scan sensor 1080p
- Supports TVI high definition transfer
- 1080p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TDV 1080   White Housing
  TDV 1080G Grey Housing

Technical specification

Type	TDV 1080 - White	TDV 1080G - Grey
Art. No.	301036	301037
Image device:	1/3" inch Sony sensor 1080p (FH8531 + IMX322 + TP2801B)	
Image System	PAL/NTSC	
Resolution	1920 (H)×1080(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Electronic Shutter	1/50s ~ 1/3.000s	
Video Standard	HDTVI	
Frame Rate	1920×1080@25 fps - 1920×1080@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x36 pcs LED - Max IR View Distance 30m	
Lens	2.8-12mm Varifocal Lens	
Video Out	1Ch. BNC TVI output, Support Switch to Analogue output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Advanced Function	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	145mm(L) x 145mm(W) x 103mm(H)	
Weight (Kg)	0.7	
EAN	5702663010369	5702663010376

* Switch between HD-TVI and CVBS mode, push the OSD button "UP" and hold for 5 seconds.

TRIAX TVI Fixed Bullet Camera

1080p TVI Camera 2.0 MP 3.6mm

Features and Benefits

- 1/3 Inch Sony CMOS progressive scan sensor 1080p
- Supports TVI high definition transfer
- 1080p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TBF 1080   White Housing
  TBF 1080G Grey Housing

Technical specification

Type	TBF 1080 - White	TBF 1080G - Grey
Art. No.	301034	301035
Image device:	1/3" inch Sony sensor 1080p (FH8531 + IMX322 + TP2801B)	
Image System	PAL/NTSC	
Resolution	1920 (H)×1080(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Electronic Shutter	1/50s ~ 1/3.000s	
Video Standard	HDTVI	
Frame Rate	1920×1080@25 fps - 1920×1080@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x30 pcs LED - Max IR View Distance 20m	
Lens	3.6 mm Fixed Lens	
Video Out	1Ch. BNC TVI output, Support Switch to Analogue output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Advanced Function	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	158mm(L) x 60mm(W) x 60mm(H)	
Weight (Kg)	0.38	
EAN	5702663010345	5702663010352

* Switch between HD-TVI and CVBS mode, push the OSD button "UP" and hold for 5 seconds.

TRIAX TVI Varifocal Bullet Camera

1080p TVI Camera 2.0 MP 2.8-12mm

Features and Benefits

- 1/3 Inch Sony CMOS progressive scan sensor 1080p
- Supports TVI high definition transfer
- 1080p @ 25/30 FPS TVI output
- Long Distance, No delay
- Single DC 12V supply, suitable for various applications
- TRIAX P2P mobile App
- TBV 1080   White Housing
  TBV 1080G Grey Housing

Technical specification

Type	TBV 1080 - White	TBV 1080G - Grey
Art. No.	301029	301033
Image device:	1/3" inch Sony sensor 1080p (FH8531 + IMX322 + TP2801B)	
Image System	PAL/NTSC	
Resolution	1920 (H)×1080(V)	
Min.illumination	0.01Lux @ (F1.2 AGC ON) 0 Lux with IR	
Electronic Shutter	1/50s ~ 1/3.000s	
Video Standard	HDTVI	
Frame Rate	1920×1080@25 fps - 1920×1080@30 fps	
D/N	ICR	
LED & IR Distance	Ø 5x42 pcs LED - Max IR View Distance 30m	
Lens	2.8-12mm Varifocal Lens	
Video Out	1Ch. BNC TVI output, Support Switch to Analogue output	
SNR	39.1 dB	
White Balance	AWB	
DR	66.2 dB	
Advanced Function	2D DNR	
Power supply	12 VDC ±/-15%,	
Working Environment	-10°C ~ +60°C, Humidity 95%	
Storage temperature	-20°C to +60°C, RH 90% Max	
Size	252mm(L) x 75mm(W) x 75mm(H)	
Weight (Kg)	0.8	
EAN	5702663010291	5702663010338

* Switch between HD-TVI and CVBS mode, push the OSD button "UP" and hold for 5 seconds.

Notes

- for your personal notes

TRIAX THDR Digital Video Recorder

4, 8 or 16 Channel HD-TVI

Features and Benefits

- Compact tribrid Analogue, TVI, IP DVR
- H.264 720p real-time recording
- TRIAX P2P mobile App
- Support Coaxitron 500m control
- 1080p 15 fps recording
- TRIAX common menu structure
- Coax or CAT5e cabling supported
- Live view, Motion detection and Alarm activation
- Pre-installed HDD for convenience

Download the mobile surveillance app

Technical specification

Type	THDR 4	THDR 8	THDR 16
Art. No.	301045	301090	301091
Operating System	Embedded LINUX		
Pentaplex Function	Live monitoring, recording, playback, back up & remote access		
Control Mode	Front panel, USB mouse, IR remote control, network		
Video			
CVBS / TVI Input (1080p)	4Ch BNC (1.0Vp-p, 75 Ω)	8Ch BNC (1.0Vp-p, 75 Ω)	16Ch BNC (1.0Vp-p, 75 Ω)
TVI Coaxitron control	Support	Support	Support
Video CVBS output	1 x CVBS, BNC (1.0Vp-p, 75 Ω)		
Video HDMI output	1 x HDMI 1920 x 1080p Resolution		
Video VGA output	1 x VGA, 1920 x 1080, 1280 x 1024, 1366 x 768, 1024 x 768 Resolution		
Audio			
Input	1CH, RCA (Line in 2Vpp @1kΩ)		
Output	1 x RCA (Line in 2Vpp @300Ω)		
Two-way	1st. Channel reuse		
Display			
Resolution	1080p(25fps), 720p (25fps), 960H		
Tour Display	Support		
Privacy Masking	For zone for privacy masking for each channel		
Recording			
Video Compression	H.264 Main Profile @ level 4.1	H.264 Main Profile @ level 5.0	H.264 HP4
Analogue TVI Video input	4Ch	8Ch	16Ch
IP Input	Yes	Yes	Yes
Audio Compression	G.711A	G.711A	G.711A
Image Encoding	Adjustable encoding quality, variable code stream / fixed code stream		
Dual Stream	Support		
Max. Compression	4Ch. 1080p @15fps / 720p @25fps	8Ch. 1080p @15fps / 720p @25fps	16Ch. 1080p @15fps / 720p @25fps
Recording Mode	Manual, auto, motion detection, stop		

Download on the **App Store**

Download for **Android**

Technical specification - continued

Type	THDR 4	THDR 8	THDR 16
Video Detection & Alarm			
Trigger Events	Recording, PTZ, Tour, Email		
Motion Detection	396 (22x18) detection zone, variable sensitivity levels		
Capture	JPEG capture		
Alarm Input	4Ch	8Ch	16Ch
Alarm output	1Ch	4Ch	4Ch
Playback Resolution			
Synchronous Playback	4Ch 960H, 720p@25fps, 4Ch 1080p@15fps	8Ch 960H, 720p@25fps, 8Ch 1080p@15fps	16Ch 960H, 720p@25fps, 16Ch 1080p@15fps
Backup mode	USB, HDD, Network Backup		
Network			
Ethernet	1 x RJ45 socket (10m/100m)	1 x RJ45 socket (10m/100m/1000m)	
Network Protocol	TCP/IP, UDP, HTTP, RTTP/RTSP		
Network Functions	DHCP, PPOE, DDNS, SMTP, SNTP, FTP, UPnP, P2P		
Remote Operations	Monitoring, PTZ control, playback, system setting, file download, log information		
Smart Phone	iPhone, iPad, Android		
SATA	1	1	2
Capacity	1TB installed (6TB max)	2TB installed (6TB max per SATA)	4TB installed (6TB max per SATA)
HDD Management	Hard disk hibernation technology, HDD faulty alarm		
CVBS / TVI Input (1080p)	4Ch BNC (1.0Vp-p, 75 Ω)	8Ch BNC (1.0Vp-p, 75 Ω)	16Ch BNC (1.0Vp-p, 75 Ω)
External Interface			
USB Interface	2 USB 2.0 ports		
RS 485	Standard RS 485, half duplex. PTZ control		
Environment			
Power Supply	12 VDC 1.5A	12 VDC 2A	12 VDC 4A
Consumption	8W (without HDD)	10W (without HDD)	20W (without HDD)
Working Temperature	0°C ~ +55°C		
Working Humidity	10 ~ 90% RH		
Dimensions (mm)	1U:50(H) x 320 (W) x245 (D)	1U:50(H) x 320 (W) x245 (D)	1U:48(H) x 360 (W) x260 (D)
Weight (Kg)	2.0 (without HDD)	2.0 (without HDD)	2.0 (without HDD)
EAN	5702663010451	5702663010901	5702663010918

TRIAX IP Fixed Turret Camera
2.0 MP and 4.0 MP

Features and Benefits

ONVIF

TTF 2IP
- 1/2.8" 2.0 Mega progressive scan
- H.264 960p Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Long Distance, No delay
- Support PoE, Support reset Button IR Array
- Support ONVIF
- Support intrusion detection
- Dual-Stream
- IP66
- TRIAX P2P mobile App

TTF 4IP
- 1/3" 4.0 Mega progressive scan CMOS
- H.264 H.265 4.0 Mega Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Long Distance, No delay
- Support PoE, Support reset Button IR Array
- Support ONVIF
- Support intrusion detection
- Triple-Stream
- IP66
- TRIAX P2P mobile App

Technical specification

Type	TTF 2IP - White	TTF 4IP - White
Art. No.	301094	301095
Sensor	1/2.8" 2.0 Mega progressive scan CMOS	1/3" 4.0 Mega progressive scan CMOS
Lens	3.6mm M12 lens	3.6mm M12 lens
IR distance	1PC IR Array, 30m	1PC IR Array, 30m
Electronic shutter	Auto (1/10s ~ 1/10000s Adjustable)	Auto (1/10s ~ 1/10000s Adjustable)
Day/Night	Auto/Colour/B&W (IR_CUT)	Auto/Colour/B&W (IR_CUT)
Noise Reduction	2D/3D Digital Noise Reduction	2D/3D Digital Noise Reduction
WDR	Digital WDR	Digital WDR, Real WDR
Image Adjustment	Sharpness, Brightness, Saturation, Contrast Adjustable	Sharpness, Brightness, Saturation, Contrast Adjustable
Video Encoding	H.264	H.264, H.265
Encoding Type	High Profile/Main Profile/BaseLine Profile	H.264 High Profile/Main Profile/BaseLine Profile - H.265 High Profile
Record Resolution	Main Stream : 1920*1080@25/30fps Sub Stream : 704*576@25/30fps	Main Stream: 2560*1440@20 Sub Stream: 704*576@20
Video Bitrate Control	Support VBR/CBR	Support VBR/CBR
Video Bitrate Range	192Kbps ~ 12Mbps	32Kbps ~ 8Mbps
Reset Button	Front set reset button	
Network Interface	RJ45 10M/100M adaptive Ethernet interface	
Motion Detection	Multiple detection zones, variable sensitivity levels	
Privacy Masking	Four zones for privacy masking	
Snapshot	JPEG capture, capture resolution is the max coding resolution	
Security Features	Support password protection, watermarking features	
Text Overlay	Support (Channel name and time title)	
Alarm	Support network anomaly, mask alarm and etc.	
Intelligent Function	Support line-crossing detection	
Mobile APP.	IOS, Android	
Network Function	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTSP, DNS, DDNS, FTP, NTP, PPPOE, UPNP, SMTP, SNMP	
Protocol	Support ONVIF and CGI protocol	
Protection Grade	IP66	
PoE	Yes	
Power	DC 12V	
Operation Temperature	-10°C ~ +60°C	
Operation humidity	10 ... 90%	
Power supply	3W max	
Size	122 x 93 (mm)	122 x 93 (mm)
Weight (Kg)	0.390	0.390
EAN	5702663010949	5702663010956

TRIAX IP Varifocal Dome Camera
2.0 MP and 4.0 MP

Features and Benefits

ONVIF

TDV 2IP

- 1/2.8" 2.0 Mega progressive scan
- H.264 1080p Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Support PoE, Support reset Button
- Support ONVIF
- Support intrusion detection
- Dual-Stream
- IP66
- TRIAX P2P mobile App

TDV 4IP

- 1/3" 4.0 Mega progressive scan CMOS
- H.264 H.265 4.0 Mega Real time recording
- 2D/3D DNR, DWDR, Anti-fog, IR Cut, ROI
- Support PoE, Support reset button, IR Array, TF Card
- Support ONVIF
- Support intrusion detection
- Triple-Stream
- IP66
- TRIAX P2P mobile App

Technical specification

Type	TDV 2IP - White	TDV 4IP - White
Art. No.	301098	301099
Sensor	1/2.8" 2.0 MP progressive scan CMOS	1/3" 4.0 Mega progressive scan CMOS
Lens	2.8~12mm varifocal lens	3.3~10.5mm varifocal lens
IR distance	30 PCs, 30m	30 PCs, 30m
Electronic shutter	Auto (1/10s ~ 1/10000s Adjustable)	Auto (1/10s ~ 1/10000s Adjustable)
Day/Night	Auto/Colour/B&W (IR_CUT)	Auto/Colour/B&W (IR_CUT)
Noise Reduction	2D/3D Digital Noise Reduction	2D/3D Digital Noise Reduction
WDR	Digital WDR	Digital WDR
Image Adjustment	Sharpness, Brightness, Saturation, Contrast Adjustable	Sharpness, Brightness, Saturation, Contrast Adjustable
Video Encoding	H.264	H.264, H.265
Encoding Type	High Profile/Main Profile/ BaseLine Profile	H.264 High Profile/Main Profile/ BaseLine Profile - H.265 High Profile
Record Resolution	1920*1080, 1280*960, 1280*720, 704*576, 352*288@25/30fps	Main Stream: 2560*1440@20 Sub Stream: 704*576@20
Video Bitrate Control	Support VBR/CBR	Support VBR/CBR
Video Bitrate Range	192Kbps ~ 8Mbps	32Kbps ~ 8Mbps
Reset Button	Front set reset button	
Network Interface	RJ45 10M/100M adaptive Ethernet interface	
Motion Detection	Multiple detection zones, variable sensitivity levels	
Privacy Masking	Four zones for privacy masking	
Snapshot	JPEG capture, capture resolution is the max coding resolution	
Security Features	Support password protection, watermarking features	
Text Overlay	Support (Channel name and time title)	
Alarm	Support network anomaly, mask alarm and etc.	
Intelligent Function	Support line-crossing detection	
Mobile APP.	IOS, Android	
Network Function	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTSP, DNS, DDNS, FTP, NTP, PPPOE, UPNP, SMTP, SNMP	
Protocol	Support ONVIF and CGI protocol	
Protection Grade	IP66	IP66, IK10
PoE	Yes	
Power	DC 12V	
Operation Temperature	-10°C ~ +60°C	
Operation humidity	10 ... 90%	
Power supply	6.5W max	8.0W max
Size	126.7 x 140 (mm)	154.3 x 120.8 (mm)
Weight (Kg)	0.975	1.150
EAN	5702663010987	5702663010994

TRIAX IP Fixed Bullet Camera
2.0 MP and 4.0 MP

Features and Benefits

ONVIF

TBF 2IP

- 1/2.8" 2.0 Mega progressive scan CMOS
- H.264 1080p Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Long Distance, No delay
- Support PoE
- Support reset Button IR Array
- Support ONVIF
- Support intrusion detection
- Dual-Stream
- IP66
- TRIAX P2P mobile App

TBF 4IP

- 1/3" 4.0 Mega progressive scan CMOS
- H.264 H.265 4.0 Mega Real time recording
- 2D/3D DNR, DWDR, Anti-fog
- Long Distance, No delay
- Support PoE
- Support reset Button IR Array
- Support ONVIF
- Support intrusion detection
- Dual-Stream
- IP66
- TRIAX P2P mobile App

Technical specification

Type	TBF 2IP - White	TBF 4IP - White
Art. No.	301092	301093
Sensor	1/2.8" 2.0 Mega progressive scan CMOS	1/3" 4.0 Mega progressive scan CMOS
Min. illumination	-	Colour: 0.05 Lux/ F1.2;0 Lux / F1.2 (IR ON)
Lens	3.6mm M12 lens	3.6mm M12 lens
IR distance	30PCs, 30m	30PCs, 30m
Electronic shutter	Auto (1/10s ~ 1/10000s Adjustable)	Auto (1/10s ~ 1/10000s Adjustable)
Day/Night	Auto/Colour/B&W (IR_CUT)	Auto/Colour/B&W (IR_CUT)
Noise Reduction	2D/3D Digital Noise Reduction	2D/3D Digital Noise Reduction
WDR	Digital WDR	Digital WDR, Real WDR
Image Adjustment	Sharpness, Brightness, Saturation, Contrast Adjustable	Sharpness, Brightness, Saturation, Contrast Adjustable
Video Encoding	H.264	H.264, H.265
Encoding Type	High Profile/Main Profile/BaseLine Profile	H.264 High Profile/Main Profile/ BaseLine Profile - H.265 High Profile
Record Resolution	Main Stream : 1920*1080, 1280*960, 1280*720, 704*576, 352*288@25/30fps	Main Stream : 2560*1440@20fps; Sub Stream 704*576@20fps, Third Stream 1280*720@15fps
Video Bitrate Control	Support VBR/CBR	Support VBR/CBR
Video Bitrate Range	32Kbps ~ 12Mbps	32Kbps ~ 8Mbps
Reset Button	Front set reset button	
Network Interface	RJ45 10M/100M adaptive Ethernet interface	
Motion Detection	Multiple detection zones, variable sensitivity levels	
Privacy Masking	Four zones for privacy masking	
Snapshot	JPEG capture, capture resolution is the max coding resolution	
Security Features	Support password protection, watermarking features	
Text Overlay	Support (Channel name and time title)	
Alarm	Support network anomaly, mask alarm and etc.	
Intelligent Function	Support line-crossing detection	
Mobile APP.	IOS, Android	
Network Function	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTSP, DNS, DDNS, FTP, NTP, PPPOE, UPNP, SMTP, SNMP	
Protocol	Support ONVIF and CGI protocol	
Protection Grade	IP66	
PoE	Yes	
Power	DC 12V	
Operation Temperature	-10°C ~ +60°C	
Operation humidity	10 … 90%	
Power supply	5.5W max	
Size	69 x 69 x 155 (mm)	69 x 69 x 155 (mm)
Weight (Kg)	0.530	0.390
EAN	5702663010925	5702663010932

TRIAX IP Varifocal Bullet Camera
2.0 MP and 4.0 MP

Features and Benefits

ONVIF

TBV 2IP

- 1/2.8" 2.0 Mega progressive scan CMOS
- H.264, H.265 1080p Real time recording
- 2D/3D, DNR, DWDR, Anti-fog
- Support PoE
- Support reset Button IR Array, TF Card
- Support ONVIF
- Support intrusion detection
- Triple-Stream
- IP66
- TRIAX P2P mobile App

TBV 4IP

- 1/3" 4.0 Mega progressive scan CMOS
- H.264, H.265 4.0 Mega Real time recording
- 2D/3D, DNR, DWDR, Anti-fog , ROI
- Long Distance, No delay
- Support PoE
- Support reset Button IR Array, TF Card
- Support ONVIF
- Support intrusion detection
- Triple-Stream
- IP66
- TRIAX P2P mobile App

Technical specification

Type	TBV 2IP - White	TBV 4IP - White
Art. No.	301096	301097
Sensor	1/2.8" 2.0 Mega progressive scan CMOS	1/3" 4.0 Mega progressive scan CMOS
Min. illumination	Colour: 0.01 Lux/ F1.2; 0 Lux / F1.2 (IR ON)	Colour: 0.01 Lux/ F1.2; 0 Lux / F1.2 (IR ON)
Lens	2.8~12mm varifocal lens	3.3~10.5mm varifocal lens
IR distance	6PCs, 50m	6PCs, 50m
Electronic shutter	Auto (1-25s ~ 1/10000s Adjustable)	Auto (1-25s ~ 1/10000s Adjustable)
Day/Night	Auto/Colour/B&W (IR_CUT)	Auto/Colour/B&W (IR_CUT)
Noise Reduction	2D/3D Digital Noise Reduction	2D/3D Digital Noise Reduction
WDR	Digital WDR	Digital WDR
Image Adjustment	Sharpness, Brightness, Saturation, Contrast Adjustable	Sharpness, Brightness, Saturation, Contrast Adjustable
Video Encoding	H.264, H.265	H.264, H.265
Encoding Type	H.264 High Profile/Main Profile/ BaseLine Profile - H.265 High Profile	H.264 High Profile/Main Profile/ BaseLine Profile - H.265 High Profile
Record Resolution	Main Stream: 1280*720@25fps	Main Stream : 2560*1440@20fps; Sub Stream 704*576@20fps, Third Stream 1280*720@15fps
Video Bitrate Control	Support VBR/CBR	Support VBR/CBR
Video Bitrate Range	32Kbps ~ 8Mbps	32Kbps ~ 8Mbps
Reset Button	Built-in reset button	Built-in reset button
Network Interface	RJ45 10M/100M adaptive Ethernet interface	
Motion Detection	Multiple detection zones, variable sensitivity levels	
Privacy Masking	Four zones for privacy masking	
Snapshot	JPEG capture, capture resolution is the max coding resolution	
Security Features	Support password protection, watermarking features	
Text Overlay	Support (Channel name and time title)	
Alarm	Support network anomaly, mask alarm and etc.	
Intelligent Function	Support line-crossing detection	
Mobile APP.	IOS, Android	
Network Function	TCP/IP, UDP, HTTP, IGMP, ICMP, DHCP, RTP/RTSP, DNS, DDNS, FTP, NTP, PPPOE, UPNP, SMTP, SNMP	
Protocol	Support ONVIF and CGI protocol	
Protection Grade	IP66	
PoE	Yes	
Power	DC 12V	
Operation Temperature	-10°C ~ +60°C	
Operation humidity	10 ... 90%	
Power supply	10.0W max	
Size	98 x 96 x 265 (mm)	98 x 96 x 265 (mm)
Weight (Kg)	1.200	1.200
EAN	5702663010963	5702663010970

TRIAX NVR Digital Network Video Recorder

4, 8 or 16 Channel IP

Features and Benefits

- Compact IP NVR
- H.264 720p real-time recording
- TRIAX P2P mobile App
- Support ONVIF
- Compatible with High Resolution 4MP cameras
- TRIAX common menu structure
- CAT5e cabling 90m
- Live view, Motion detection and Alarm activation
- Choice of HDD

Download the mobile
surveillance app

Technical specification

Type	NVR 4	NVR 8	NVR 16
Art. No.	301046	301047	301048
Operating System	Embedded LINUX		
Pentaplex Function	Live monitoring, recording, playback, back up & remote access		
Control Mode	Front panel, USB mouse, IR remote control, network		
Video			
IP Camera Input	4Ch. (40Mbps)	8Ch. (80Mbps)	16Ch. (160Mbps)
Decoding Capability	4Ch.D1@25fps 4Ch. 720p@25fps 4Ch. 1080p@25fps	8Ch.D1@25fps 8Ch. 720p@25fps 6Ch. 1080p@25fps	16Ch.D1@25fps 13Ch. 720p@25fps 6Ch. 1080p@25fps
Support Protocol	ONVIF	ONVIF	ONVIF
Standard	PAL (625 lines, 50f/s Hz), NTSC (525 lines, 60 f/s 60Hz)		
Output	1 CVB, BNC (1.0Vp-p, 75Ω) 1 x HDMI, 1.3a support 1920 x 1080 Resolution 1 x VGA, 1920 x 1080, 1440 x 900, 1280 x 1024, 1024 x 768, 800 x 600 Resolution		
Audio			
Output	1 x BNC (2.0Vpp @300Ω)		
Two-way	1st. Channel reuse		
Display			
IP Resolution	5MP/3MP/1080p/UXGA/720p/VGA/4CIF/DCF/2CIF/CIF/QCIF		
Frame	1 ~ 30fps		
Tour Display	Support		
Privacy Masking	For zone for privacy masking for each channel		
Recording			
Video Compression	MPEG 4 / H.264 Main Profile @ level 4.2		
Audio Compression	G.711A		
Image Encoding	Adjustable encoding quality, variable code stream / fixed code stream		
Dual Stream	Support		
Recording Mode	Manual, auto, motion detection, stop		
Time bar	Support		

Technical specification - continued

Type	NVR 4	NVR 8	NVR 16
Video Detection & Alarm			
Trigger Events	Recording, PTZ, Tour, Email		
Motion Detection	396 (22x18) detection zone, variable sensitivity levels		
Capture	JPEG capture		
Playback Resolution			
Max Playback	1/2/4 Ch.	1/2/4/8 Ch.	1/2/4/8/16 Ch.
Backup mode	USB, HDD, Network Backup		
Network			
Ethernet	1 x RJ45 socket (10M/100M/1000M)		
Network Protocol	TCP/IP, UDP, HTTP, RTTP/RTSP		
Network Functions	DHCP, PPOE, DDNS, SMTP, SNTP, FTP, UPnP, P2P, 3G		
Remote Operations	Monitoring, PTZ control, playback, system setting, file download, log information		
Smart Phone	iPhone, iPad, Android		
SATA	1	2	2
Capacity	6TB Max per SATA	6TB Max per SATA	6TB Max per SATA
HDD Management	Hard disk hibernation technology, HDD faulty alarm		
External Interface			
USB Interface	2 USB 2.0 ports		
RS 485	Standard RS 485, half duplex. PTZ control		
PoE Function	4Ch.	8Ch.	8Ch.
		IEEE 802.3af	
		RJ45 (10M/100M)	
Environment			
Power Supply	48 VDC 1.35A (PoE)		
Consumption	6W (without HDD & PoE)	7W (without HDD & PoE)	8W (without HDD & PoE)
Working Temperature	0°C ~ +55°C		
Working Humidity	10 ~ 90% RH		
Dimensions (mm)	45(H) x 215 (W) x235 (D)	1U: 48(H) x 360 (W) x260 (D)	1U: 48(H) x 360 (W) x260 (D)
Weight (Kg)	0.9 (without HDD)	2.0 (without HDD)	2.0 (without HDD)
EAN	5702663010468	5702663010475	5702663010482

TRIAX Accessories
WD Purple™ Surveillance Hard Drives (use with NVR / THDR)

Features and Benefits

- Built for 24/7 always on high temperature surveillance systems
- Improved performance
- Built for compatibility with industry leading chassis and chip set manufacturers for seamless integration
- Optimised to support up to 32 high definition surveillance cameras
- Lower power consumption, crucial in high temperature always on surveillance

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Western Digital Technologies Inc. in the U.S and other countries.

Technical specification

Type	1TB WD10PURX WD Purple™	2TB WD20PURX WD Purple™	4TB WD40PURX WD Purple™
Art. No.	301057	301058	301059
Interface	SATA - 6GB/S		
Form Factor	3.5 inch		

Power Extension DC Cable

Technical specification

Type	DC1x5 Split Power Extension DC Cable	DC1x8 Split Power Extension DC Cable
Art. No.	301071	301072
Connectors	1 x Female - 5 x Male	1 x Female - 8 x Male
Remarks	Splits DC voltage upto 5 cameras	Splits DC voltage upto 8 cameras

TRIAX Accessories
- for a professional installation

TX 5912 - RG59 + 12VDC Cable

- Enables video and voltage to be delivered to a CCTV camera through a twin cable

Technical specification

Type	TX 5912 100m Twin Cable	TX 5912 200m Twin Cable
Art. No.	370783	370784
Cabletype	RG59 + 12VDC	RG59 + 12VDC
Cable colour	Black	Black
Remarks		

BNC tools

Technical specification

Type	CBT 1 BNC Compression Tool
Art. No.	301086
Connectors	BNC C1 Compression
Remarks	Professional compression tool for use with BNC C1 connector 301075

TRIAX Accessories
- for a professional installation

Connectors for TX5912 Cable

Technical specification

Type	MPP 1 Male Power Plug	FPP 1 Female Power Plug
Art. No.	301073	301074
Connectors	1 x DC - male 2 x Screw terminal	1 x DC - female 2 x Screw terminal
Remarks	Plugs into CCTV camera to deliver power from source	Plugs into your power source to deliver power to your CCTV camera

BNC Connectors for TX5912 Cable

Technical specification

Type	BNC C1 Connector [Compression]
Art. No.	301075
Connectors	1 x Female
Remarks	Professional connector to deliver video from your CCTV camera to your DVR

TRIAX Accessories
- for a professional installation

Converters

Technical specification

Type	VTC C1 Converter Video RG59 > CAT5 Converter Pair	VAP B1 Converter Video Audio Power RG59 > CAT5 Balun Pair
Art. No.	301077	301078
Connectors	BNC (on 30mm fly lead), RJ-45, screw audio terminals	BNC, Phono, DC (Male), RJ-45 / BNC (on 80mm fly lead), Phono, DC (Female), RJ-45
Remarks	Enables CAT cable to be used between CCTV camera and DVR for video	Enables CAT cable to be used between CCTV camera and DVR for video, audio and power

POWER SUPPLIES

Technical specification

Type	PSU 1218/12 12VDC - 12A PTC Protection	PSU 249/8 24VAC - 8A
Art. No.	301081	301082
Ports for connecting cameras	18 *)	9 x PTZ *)
DC	12 VDC	24 VAC
Amp	12	9
Remarks	Connects upto18 CCTV cameras	Connects upto 9 PTZ CCTV cameras

* Depending on camera power requirements.

Technical specification

Type	PSU 125 12VDC - 5A Single O/Put
Art. No.	301087
Ports for connecting cameras	
DC	12
Amp	5
Remarks	Use with DC 1x4 Split (part code 301071) and DC 1x8 Split (part code 301072) to provide power for CCTV cameras up to 5 amps.

What we mean by...
Surveillance Solutions

Addressing
Addressing provides a means of identifying individual items that are located on a network.

AGC
Automatic Gain Control. A circuit that provides a method of keeping a signal at a constant level. Cameras use AGC to keep the video signal level high under low light conditions.

ALC
Automatic Level Control. This is found on auto iris lenses and is a means of 'fine tuning' the sensitivity of the lens. If set to 'peak', bright areas can show more detail and if set to 'average' dark areas will show more detail. The default setting is halfway on most lenses and will suit the majority of installations.

Angle of View
The maximum width of view available from a CCD imager, regardless of the lens fitted. The bigger the CCD imager format, the wider the angle of view.

Aperture
A means of adjusting the amount of light passing through a lens. In the CCTV environment the lens iris is the aperture control method.

Auto Iris
A facility built into lenses to control the amount of light allowed through the lens. The auto iris compensates for differing light levels, allowing the camera picture to be consistent under varying light conditions.

Auto White Balance
This is a facility provided on most colour cameras to adjust while levels relative to other colours.

Back Focus
The position of the imaging device in relation to the focal point of the lens, it is sometimes referred to a "rack focus". When setting up a zoom lens the back focus must be set to allow correct tracking of focus throughout the zoom range.

Bandwidth
The frequency response capability of a device or communications medium. The greater the bandwidth, the larger the capacity of the system i.e. the more information carrying ability the CCTV or network system has.

BLC
Back Light Compensation. A feature found on some cameras that allows it to deal with different lighting levels in the scene of view, such as looking from a dark room into a doorway. BLC enables detail to be seen in otherwise dark or shadowed areas where silhouetting would otherwise occur.

BNC
Used for terminating coaxial cables, the main connector in the CCTV industry.

CCD
Charge Coupled Device. A light sensitive imaging device for almost all cameras. Typical sizes for CCTV cameras: 1/2", 1/3"& 1/4"

CCTV
Closed Circuit Television

CMOS (Complementary Metal Oxide Semiconductor) Unlike CCDs, CMOS sensors have circuitry at the pixel level.
This means that every pixel on the sensor is read and transmitted simultaneously, preparing voltage for the chip. The chip then uses additional technology, such as amplifiers, noise correction, and digitisation to convert the voltage to digital data. This means CMOS sensors do not require a separate image processor.

Cloud Storage
Triax DVR's now have the functionality of CLOUD STORAGE. If you have this function, you can upload Snapshots and recorded footage to the cloud.

Composite Video
A complete video signal, in which the Luminance (brightness) and Chrominance (colour)

Compression

Compression techniques are used in digital CCTV to reduce the file sizes of recorded video images. Typical compression formats used for video are: MJPEG, MPEG-4 & H.264.

Day/Night Camera

A type of camera that can capture video during the day or night. In low light conditions, the sensor may switch from colour to black & white in order to enhance the picture quality.

Digital Noise Reduction

The chip inside your camera is constantly picking up noise from interference and by-products produced by other circuits and electronic components within it. These noise artefacts can translate into images and video as fine static, snow or fuzzy images.
Digital Noise Reduction (DNR) is a method by which the camera's imager digitally removes noise from the image. 3D DNR is an advancement of this technology which enables noise to be filtered even more effectively from the image, even in low light conditions.

Digital Zoom

A facility provided on some video multiplexers and CCTV cameras, which allows the image to be 'zoomed into', the higher the zoom ration the more 'blocky' the image can become.

DSP

Digital Signal Processing. A system supported by some CCTV cameras, which allows intelligent manipulation of the video signal in the camera for features such as backlight compensation.

Dwell

The time period in which a switcher will remain on one camera input before switching to the next in the sequence. It can also refer to the time spent by a device at a preset position when in tour mode.

EI

Electronic Iris. This is a system within CCTV cameras where an electronic shutter is built into the camera. It allows a normal fixed iris lens to be fitted in a wider range of applications. It should not be assumed that EI would negate the need for an auto iris lens.

Ethernet

Ethernet is the most widely utilised network technology. Specified in a standard, IEE 802.3, Ethernet was originally developed by Xerox and then developed further by Xerox, DEC, and Intel. It is now a popular means of distributing data and/or video.

Field

A field is one half of a complete TV picture and can comprise of all odd lines or all even lines.

Focal Length

This is a distance from the centre of the lens to a point at which images come into focus. The CCD imager is usually set at this point to ensure image clarity. This value is what denotes the angle of view and size of the target image.

Frame

A complete TV picture comprising of two fields, one odd and one even.

Frame Rate

The quality of a Digital Surveillance Systems is often determined by the Total Frame Rate it can record at. The higher the Frame Rate, the higher the quality of recording and the more Real Time your CCTV recording will be - Real Time recording for 1 camera is 25 Frames Per Second (PAL)

F-Stop

In photography, this is a term used to indicate the speed of a lens in terms of exposure. It directly relates to the iris setting of the lens and thus the amount of light allowed through. The smaller the f-stop setting, the more light is allowed through.

H.264

A video codec standard which can achieve high quality video in relatively low bitrates. The Triax Range of DVR's and NVR's use the latest H.264 Compression technology saving valuable space on your HDD during Recording.

What we mean by...
Surveillance Solutions

HD TVI
HD TVI High Definition Transmit Video Interface - This technology enables a high efficiency of real time HD Transmissions over long distance using standard RG 59 coaxial cable. The technology supports two HD video formats 720p and 1080p.

Infrared
Frequency range within the spectrum of light that is invisible to the human eye. CCTV Illumination is usually designed around the infrared range of 730 – 815 nanometres.

IP rating
A system of rating a piece of equipment against dust and water ingress.

IR LED
Infra-red light emitting diode. Emits infra-red light not visible to the naked eye to provide illumination in low light.

LAN
Local area network, usually within the same building or series of buildings.

Luminance
The brightness element of a video signal.

LUX
Measurement used to express light intensity.

Motion Detection
Recording method for digital surveillance systems. When a
subject walks in front of a camera, the pixels change and the DVR defines this as motion. The surveillance system will record these images to the hard disk. This is a popular recording setup since motion recording reduces or eliminates unnecessary recording of unoccupied spaces

MPEG
Motion Picture Experts Group. Standard user for conditional refresh capture and transition of digital video images.

ONVIF
Open Network Video Interface Forum development of a Global Standard for interfacing IP - based physical security products

P2P Technology
P2P network service allows you to remotely connect to your DVR without the need to carry out any complicated network setup.

PAL
Phase Alternating Line. The colour TV system used in the UK, Europe and some other parts Of the world, 625 lines, 50 fields per sec.

Pan
Camera movement on the horizontal plane.

Pixel
Term used for a single picture element. A monitor or TV has a display That comprises millions of pixels; each pixel is illuminated with varying intensity to create the picture display.

Presets
Functionally that is supported by some telemetry equipment.
Position related feedback is provided by the zoom lens and pan/tilt head. Either the telemetry receiver or matrix stores this feedback whenever a position is stored as a preset. The system operator can recall preset positions very quickly with the minimum of key presses.

Privacy zone
A feature present on some CCTV equipment to comply with the data protection act. The feature allows sensitive areas of a PTZ cameras view to be blanked out so that they cannot be viewed.

Protocol
A set of rules that govern how elements of a system inter-communicate.

Quad

Either a 4 way video processing unit or the 4 way screen generated by a video multiplexer.

Resolution

A measurement of the ability of a piece of CCTV equipment or system to display Detail. Measured in TV lines.

RS485

2 wire balanced, party line multi-drop data transmission presentation, used in many telemetry and matrix switcher networks. Can run in simplex or half-duplex mode.

Shutter Speed

Electronic circuit found in many CCD cameras which allows the light gathering period of the camera to manually altered.

Surveillance

The object must fill at least 5% of the frame in order to be distinguishable from other objects. One must be able to distinguish between a person or an object/ overview image of what is happening in an area.

TCP/IP

Transmission control protocol/Internet protocol. Title given to suite of protocols that are used on computer networks, without which the Internet signal would be not possible.

Telemetry

A system that provides camera control via coding. The coding is either sent with the video signal or is transmitted as data via a network.

Terabyte

1024 Gigabytes = 1 Terabyte.

Termination

A method of matching electrical signals to the transmission medium. In the CCTV environment termination is important for the video signals and also any data networks using RS485 or RS422.

Tour/Cruise

Facility provided by some CCTV control systems where a PTZ camera or dome can be programmed to tour between a specified series of presets. It is usually possible to program a dwell time to stay at each preset and also a speed value at which the camera will travel between presents.

Twisted pair

Refers to a generic cable type, originally from the telecommunications industry where internal cable pairs are twisted together equally for the entire cable length. This type of cable is ideal for balanced data transmission.

Varifocal lens

A CCTV camera lens whose focal length / viewing angle can be manually adjusted to suit the camera view required.
Typical Vari-Focal lens lengths are: 2.5mm-10mm, 2.8mm- 12mm, 3.5mm-8mm, 5mm-50mm.

WDR

Wide Dynamic Range allows Analogue Security Cameras to treat different areas in the image individually and apply separate brightness modifications within the same view giving a more balanced lighting effect.

White Balance

White balance basically means colour balance. It is a function which gives the camera a reference to "true white" — it tells the camera what the colour white looks like, so the camera will record it correctly. Since white light is the sum of all other colours, the camera will then display all colours correctly.

Notes

- for your personal notes

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TRIAX
connecting the future

Headquartered in Denmark, TRIAX is an international supplier of innovative, high-tech solutions for the reception and distribution of video, audio and data signals. The company's products and solutions are used by broadcasters, cable operators, local closed networks and domestic dwelling.

TRIAX has 9 sales subsidiaries generating a turnover of approx. €90M and operates in more than 60 distributor countries. The TRIAX team consists of 350 employees and is owned Polaris Private Equity.

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