

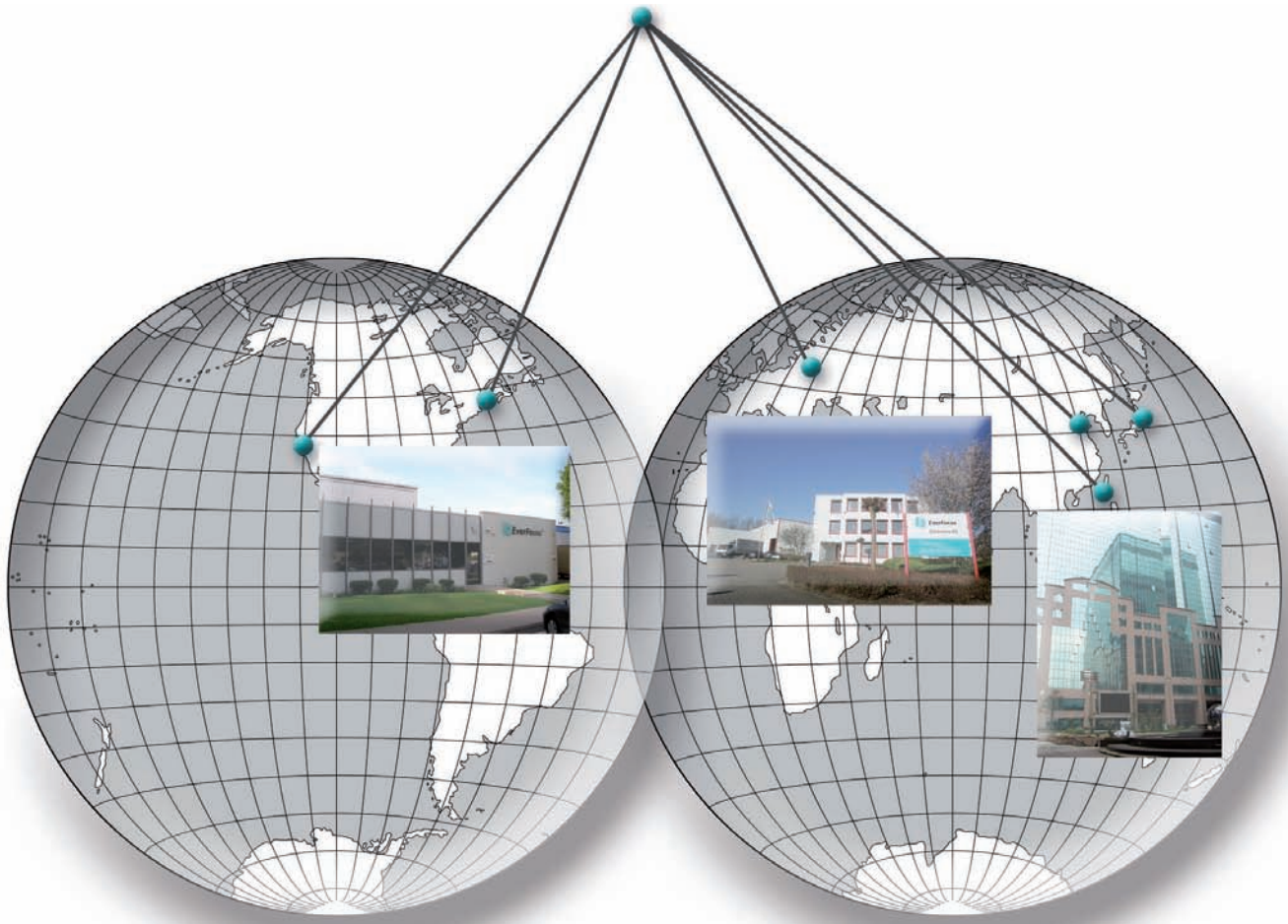


Product Catalogue | edition 10



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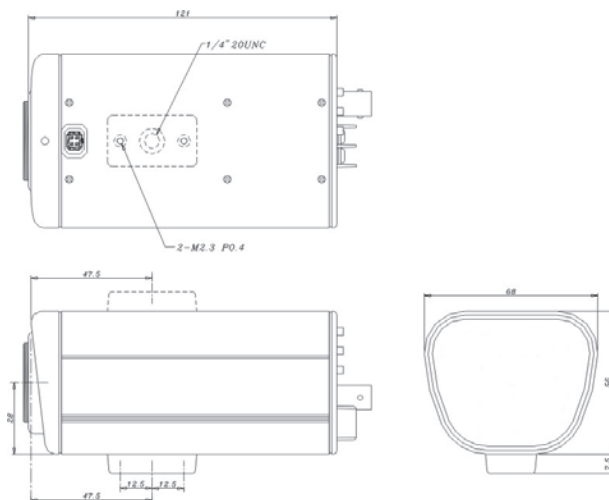


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Colour Cameras



EQ 550 T - 1/3" day / night camera, high resolution, automatic IR cut filter

Specifications

Sensor: 1/3" SONY IT Colour CCD
Picture element: 752 (H) x 582 (V)
Horizontal resolution: 530 TV lines
Sensitivity: 0,002 lux (sens-up x128), 0,25 lux / F=1.2
S/N ratio: > 50 dB (AGC off)
Gamma correction: 0,45
OSD: yes
Day/night control EQ 550 T: automatically swiveling IR cut filter and enhanced b/w sensitivity

Day/night control EQ 550 D: automatic colour - b/w switching, 2 sensitivity levels / OFF

IR cut filter automatic swivel control (only EQ 550 T): high lux / low lux / OFF switchable by internal / external light sensor

External light sensor (only EQ 550 T): optional (3,5mm jack)

Lens selection: direct drive (DC) / manual

Shutter selection: automatic / manual / flickerless

Back light compensation: off / low / middle / high

Colour temperature BIAS: adjustable

White balance: ATW (2500~8300°K) / AWC / manual

AGC: off / low / middle / high

DNR (Dynamic Noise Reduction): off / low / middle / high

EQ 550 D - 1/3" day / night camera, high resolution, static IR cut filter

Digital slow shutter: off / auto: x2 ~ x128 selectable
Camera ID: on / off
Privacy zones: on / off (4 zones, position/size/zone)
Sharpness: on / off (adjustable level)
Horizontal mirror: on / off
Video output: BNC VBS, 1,0 Vp-p, 75 Ohm
Sync. mode: internal / line lock
Audio: microphone output 500 mV max. / 47 kOhm, cinch
Serial interface: RS-485 (Protocols: EverFocus / Pelco-D)

Power source: EQ 550 T A/P: 12 V DC / 24 V AC

EQ 550 T/P: 100 ~ 240 V AC

EQ 550 D A/P: 12 V DC / 24 V AC

EQ 550 D/P: 100 ~ 240 V AC

Power consumption: EQ 550 T A/P: 7 W

EQ 550 T/P: 11 W

EQ 550 D A/P: 7 W

EQ 550 D/P: 11 W

Ambient temperature: 0°C ~ +50°C

Dimensions: 68 (W) x 56 (H) x 101 (D) mm

Weight: 600 g

Features

- ✓ super-high resolution technology (530 TV lines)
- ✓ built-in DNR (dynamic noise reduction)
- ✓ day/night function with automatically swiveling IR cut filter (EQ 550 T)
- ✓ optimized for correction of focus shift with IR illumination (EQ 550 T)
- ✓ static IR cut filter, optimized for applications without IR lamps (EQ 550 D)
- ✓ advanced 16-bit digital signal processor (DSP)
- ✓ on-screen programming
- ✓ 4 adjustable privacy zones
- ✓ high infrared sensitivity (EQ 550 T)
- ✓ support of both C-mount and CS-mount lenses



EQ 2700 - 1/4" day / night camera with 27x motorzoom lens, high resolution

Specifications

Signal system: PAL
Scanning system: 2:1 interlaced
Scanning frequency (H): 15.625 KHz
Scanning frequency (V): 50 Hz
Sensor: 1/4" CCD
Total pixels no: 795 (H) x 596 (V), 470K
Effective pixels no: 752 (H) x 582 (V), 440K
S/N ratio: over 48dB
Horizontal resolution: more than 450 TV lines
Lens: aspherical 27 x zoom f = 3,25 ~ 88,0 mm,
F 1.5 (W), F 3.8 (T) Video AF

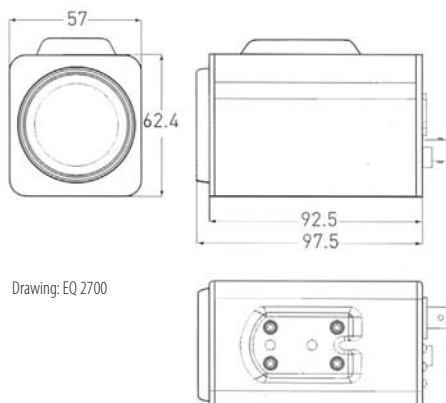
Minimum autofocus distance: WIDE 0,01 m, TELE 1,0 m
Minimum illumination: 1 lux (30IRE), AGC on,
0,01 lux with DSS Digital Slow Shutter, 0,05 lux night mode

Digital zoom: 10 x (total zoom ratio x270)
Synchronisation: internal
Electronic shutter: 1:50 ~ 1:10.000
Video output: 1 Vp-p composite PAL, BNC
S-video mini DIN

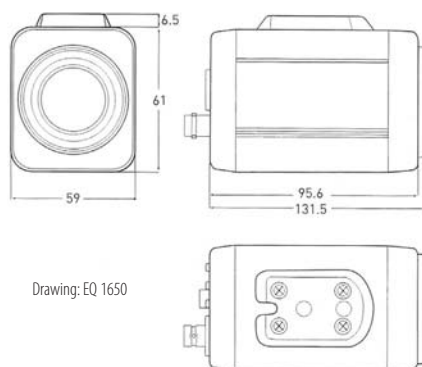
Camera control: local, DC control, RS-232, remote key
Zoom speed: 3 sec.
Zoom/focus preset: 64
Zoom mode: manual, push auto, auto
Power source: 9 ~ 15 V DC
Power consumption: 5,3 W max.
Ambient temperature: 0°C ~ +45°C
Operating humidity: 0% RH ~ 60% RH
Dimensions: 57 (W) x 62,4 (H) x 97,5 (D) mm
Weight: 330 g

Features

- ✓ 27 x optical and 10 x digital zoom
- ✓ automatic IR-Cut filter
- ✓ high IR sensitivity
- ✓ aspherical zoom lens
- ✓ integrated motion detection
- ✓ WDR - Wide Dynamic Range
- ✓ DSS - enhanced light sensitivity with Digital Slow Shutter function
- ✓ remote control with RS-232 interface and DC lens remote control



Drawing: EQ 2700



Drawing: EQ 1650

EQ 1650 - 1/4" colour camera with 16x motorzoom lens, high resolution

Specifications

Signal system: PAL
Scanning system: 2:1 interlaced
Scanning frequency (H): 15.625 KHz
Scanning frequency (V): 50 Hz
Sensor: 1/4" CCD
Total pixels no: 795 (H) x 596 (V), 470K
Effective pixels no: 752 (H) x 582 (V), 440K
S/N ratio: over 48 dB
Horizontal resolution: more than 450 TV lines
Lens: 16 x zoom, F1.6, f=3,9mm ~ 63mm, video AF
Minimum AF distance: WIDE 0,01 m, TELE 1,0m
Minimum illumination: 1 lux (30IRE), AGC on
Digital zoom: 8 x (total zoom ratio x128)
Synchronisation: internal
Electronic shutter: 1:50 ~ 1:10.000
Video output: 1 Vp-p composite PAL BNC
S-video mini DIN

Camera control: local, DC control, remote key
Zoom speed: 3 sec.
Zoom mode: manual, push auto, auto
Power source: 9 ~ 15 V DC
Power consumption: 4,7 W max.
Ambient temperature: 0°C ~ +45°C
Operating humidity: 0% RH ~ 60% RH
Dimensions: 59 (W) x 61 (H) x 101 (D) mm
Weight: 345 g

Features

- ✓ 16 x optical and 8 x digital zoom
- ✓ aspherical zoom lens
- ✓ OSD setup
- ✓ DC lens remote control
- ✓ pin-compatible to phase-out model EQ-1600
- ✓ 6 different white balance modes



Colour Cameras

520
TVL



EQ 350 HQ - 1/3" digital colour camera, high resolution

Specifications

Sensor: 1/3" SONY CCD
Picture element: 752 (H) x 582 (V)
Horizontal resolution: 520 TV lines
Sensitivity: 0,5 lux / F = 1.2
Video output: 1 Vp-p composite PAL, BNC
Audio: microphone output 500 mV max. / 47 kOhm, cinch
S/N ratio: over 48 dB
Gamma correction: > 0,45
White balance: automatic
Back light compensation: on / off
AGC: on / off
Synchronisation: internal or line lock with V-setup
Electronic shutter: on / off, 1:50 ~ 1:100.000
Flickerless function: on / off
Lens control: VD / DD switchable
Lens mount: C/CS mount, full range backfocus mechanism

Power source:
EQ 350 HQ A / P: 12 V DC / 24 V AC
EQ 350 HQ / P: 90 ~ 260 V AC

Power consumption:
EQ 350 HQ A / P: 5 W max.
EQ 350 HQ / P: 9 W max.

Ambient temperature: 0°C ~ +50°C
Dimensions: 57 (W) x 51 (H) x 140 (L) mm
Weight: 600 g (EQ 350 HQ), 500 g (EQ 350 HQ A)



EQ 250 HQ - 1/3" digital colour camera, standard resolution

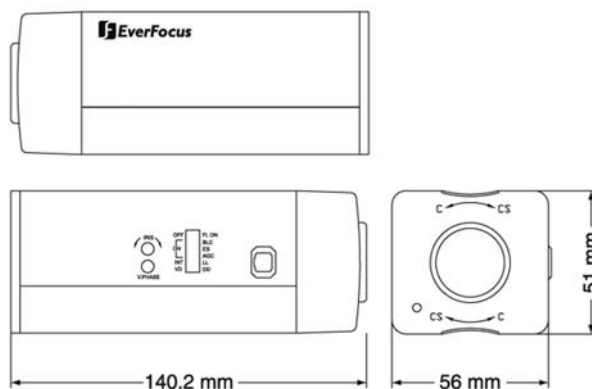
Specifications

Sensor: 1/3" SONY CCD
Picture element: 500 (H) x 582 (V)
Horizontal resolution: 380 TV lines
Sensitivity: 0,3 lux / F = 1.2
Video output: 1 Vp-p composite PAL, BNC
Audio: microphone output 500 mV max. / 47 kOhm, cinch
S/N ratio: over 48 dB
Gamma correction: > 0,45
White balance: digital auto tracing
Back light compensation: on / off
AGC: on / off
Synchronisation: internal or line lock with V-setup
Electronic shutter: on / off, 1:50 ~ 1:100.000
Flickerless function: on / off
Lens control: VD / DD switchable
Lens mount: C/CS mount, full range backfocus mechanism

Power source:
EQ 250 HQ A / P: 12 V DC / 24 V AC
EQ 250 HQ / P: 90 ~ 260 V AC

Power consumption:
EQ 250 HQ A / P: 5 W max.
EQ 250 HQ / P: 9 W max.

Ambient temperature: 0°C ~ +50°C
Dimensions: 57 (W) x 51 (H) x 140 (L) mm
Weight: 600 g (EQ 250 HQ), 500 g (EQ 250 HQ A)



520
mini TVL



EQ 300 E - 1/3" digital colour camera, high resolution

Specifications

Sensor: 1/3" SONY Super HAD CCD
Picture element: 752 (H) x 582 (V)
Horizontal resolution: 520 TV lines
Sensitivity: 0,4 lux / F = 1.2
Video output: 1 Vp-p composite PAL, BNC
S/N ratio: 48 dB
Gamma correction: > 0,45
White balance: automatic
Back light compensation: on / off
AGC: on / off
Synchronisation: internal
Electronic shutter: 1:50 ~ 1:100.000
Flickerless function: on / off
B/w mode: on / off switch for b/w mode under low light condition
Lens control: VD / DD switchable
Lens mount: C/CS mount

Power source:

EQ 300 E A / P: 12 V DC / 24 V AC
EQ 300 E / P: 100 ~ 240 V AC

Power consumption:

EQ 300 E A / P: 2,2 W max.
EQ 300 E / P: 1,6 W max.

Ambient temperature: 0°C ~ +50°C

Dimensions: 58 (W) x 54,5 (H) x 108 (L) mm

Weight: 250 g



EQ 200 E - 1/3" digital colour camera, standard resolution

Specifications

Sensor: 1/3" SONY Super HAD CCD
Picture element: 752 (H) x 582 (V)
Horizontal resolution: 380 TV lines
Sensitivity: 0,3 lux / F = 1.2
Video output: 1 Vp-p composite PAL, BNC
S/N ratio: 48 dB
Gamma correction: > 0,45
White balance: automatic
Back light compensation: on / off
AGC: on / off
Synchronisation: internal
Electronic shutter: 1:50 ~ 1:100.000
Flickerless function: on / off
B/w mode: on / off switch for b/w mode under low light condition
Lens control: VD / DD switchable
Lens mount: C/CS mount

Power source:

EQ 200 E A / P: 12 V DC / 24 V AC
EQ 200 E / P: 100 ~ 240 V AC

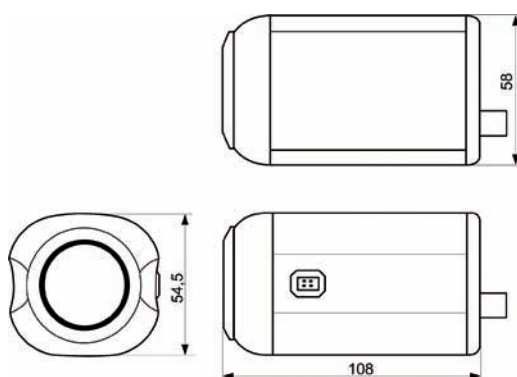
Power consumption:

EQ 200 E A / P: 2,2 W max.
EQ 200 E / P: 1,6 W max.

Ambient temperature: 0°C ~ +50°C

Dimensions: 58 (W) x 54,5 (H) x 108 (L) mm

Weight: 250 g





Colour Cameras



520
TVC



520
TVC



EHD 650 WD - 1/3" Wide Dynamic day / night rugged dome camera, high resolution

Specifications

Sensor: 1/3" Digital Pixel System (DPS) Wide Dynamic Range Sensor
Picture element: 720 x 540 (digital)
Horizontal resolution: 480 TV lines (analog)
Sensitivity: 1,0 lux / F = 1.2 colour (day mode)
0,08 lux / F = 1.2 b/w (night mode / Slow Shutter ON)

Slow Shutter: up to 32x (2, 4, 8, 16, 32)
S/N Ratio: over 48 dB
Auto exposure: yes
Auto white balance: yes, 2500 ~ 9500°K (adjustable)
Back light compensation: yes
Auto Iris: yes
Video output: BNC, 1 Vp-p / 75 Ohm
Auto gain control: yes (max. 38 dB)
Wide Dynamic range: 95 dB typical, 120 dB max.
Synchronization: line lock / internal (AC input required)
Image flip: yes (horizontal reverse)
On-screen display: yes
Lens: f = 2.9 ~ 10mm

Power source: 24 V AC
Power consumption: 6 W max. (20,5 W with activated heater)

Ambient temperature: -40°C ~ +50°C
Dimensions: 130 (W) x 130 (H) x 99 (D) mm
Weight: 1,7 kg

EHD 525 EX - 1/3" day / night rugged dome camera, high resolution

Specifications

Sensor: 1/3" SONY Exview™ CCD
Picture element: 752 x 582 (PAL)
Horizontal resolution: 520 TV lines
Sensitivity: 0,5 lux / F = 1.2 colour (day mode)
0,1 lux / F = 1.2 b/w (night mode)

Day/night control: automatic swiveling IR cut filter
Video output: 1 Vp-p composite PAL
S/N Ratio: over 48 dB
Gamma correction: 0,45
Synchronisation: internal / line-lock (only 24 V AC)
Line lock (24 V AC): on / off
Back light compensation: on / off
Auto white balance: yes
AGC: on / off
Electronic shutter: 1:50 ~ 1:100.000
Tamper contact: micro switch
Lens: DC varifocal lens, f=3,6 ~ 9 mm
Heater: 12 W thermostat controlled
Heater activating temperature: +10°C
Casing: zinc diecasted, dome polycarbonate, clear
Weatherproof rating: IP 66

Power source: 12 V DC +/- 10%, 24 V AC +/- 10%
Power consumption: 5 W max. (15 W with activated heater)

Ambient temperature: -40°C ~ +50°C
Dimensions: 130 (W) x 130 (H) x 99 (D) mm
Weight: 1,7 kg

EHD 350 HQ - 1/3" colour rugged dome camera, high resolution

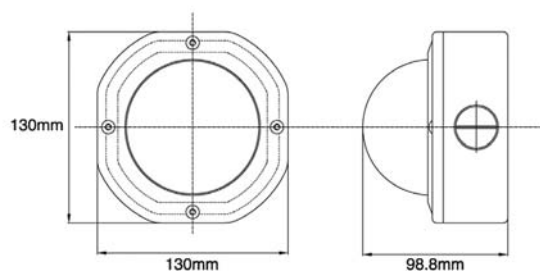
Specifications

Sensor: 1/3" SONY CCD
Picture element: 752 x 582 (PAL)
Horizontal resolution: 520 TV lines
Sensitivity: 0,5 lux / F = 1.2
Video output: 1 Vp-p composite PAL
S/N Ratio: over 48 dB
Gamma correction: 0,45
Synchronisation: internal / line-lock (only 24 V AC)
Line lock (24 V AC): on / off
Back light compensation: on / off
Auto white balance: yes
AGC: on / off
Electronic shutter: 1:50 ~ 1:100.000
Tamper contact: micro switch
Lens: DC varifocal lens, f=3,8 ~ 9,5 mm (IR-corrected)

Heater: 12 W thermostat controlled
Heater activating temperature: +10°C
Casing: zinc diecasted, dome polycarbonate, clear
Weatherproof rating: IP 66

Power source: 12 V DC +/- 10%, 24 V AC +/- 10%
Power consumption: 5 W max. (15 W with activated heater)

Ambient temperature: -40°C ~ +50°C
Dimensions: 130 (W) x 130 (H) x 99 (D) mm
Weight: 1,7 kg



520
TVL



► EHD 300 E - 1/3" colour rugged dome camera

Specifications

Sensor: 1/3" SONY CCD
Picture element: 752 x 582 (PAL)
Horizontal resolution: 520 TV lines
Sensitivity: 1,0 lux / F = 1.2
Video output: 1 Vp-p composite PAL
S/N Ratio: over 48 dB
Gamma correction: 0,45
Synchronisation: internal
Back light compensation: on / off
Auto white balance: yes
AGC: on / off
Electronic shutter: 1:50 ~ 1:100.000
Tamper contact: micro switch
Lens: DC varifocal lens, f=4 ~ 9 mm
Alignment: 3-axis adjustment of camera module
Casing: aluminium, dome polycarbonate, clear
Weatherproof rating: IP 66

Power source: 12 V DC +/- 10%, 24 V AC +/- 10%
Power consumption: 5 W max.

Ambient temperature: -10°C ~ +50°C
Dimensions: 130 (W) x 130 (H) x 99 (D) mm
Weight: 1,0 kg



► EHD WMA - wall mount bracket

Material: aluminium
Dimensions: 150 (W) x 110 (H) x 170 (D) mm
Weight: 600 g
Max. load: 4 kg
Application: with EHD camera series

520
TVL



► EZ 350 HQ - 1/3" weatherproof colour camera, high resolution

Specifications

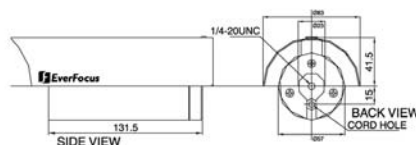
Sensor: 1/3" SONY CCD
Picture element: 752 (H) x 582 (V)
Horizontal resolution: 520 TV lines
Sensitivity: 0,5 lux / F = 1.2
S/N ratio: over 48 dB
Video output: 1 Vp-p composite PAL
Gamma correction: >0,45
White balance: automatic
Back light compensation: on / off
AGC: on / off
Synchronisation: internal or line-lock with V-setup (24 V AC)
Electronic shutter: on / off, 1:50 ~ 1:100.000
Flickerless function: on / off
Lens: DC varifocal lens 3,8 ~ 9,5mm (IR-corrected)
Heater: 12W thermostat controlled
Heater activating temperature: +10°C
Weatherproof rating: IP 66

Power source: 12 V DC / 24 V AC
Power consumption: 5W max., 12W with activated heater

Ambient temperature: -35°C ~ +50°C (at 12 V DC)
-40°C ~ +50°C (at 24 V AC)

Dimensions: 83 (W) x 70 (H) x 172 (D) mm (with sunshield),
57 (W) x 57 (H) x 132 (D) mm (without sunshield)

Bracket: zinc diecasted, silver colour, included
Weight: 1,1 kg



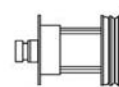
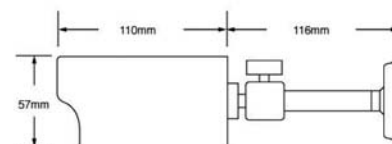
► EZ 200 E - 1/3" weatherproof colour camera, standard resolution

Specifications

Sensor: 1/3" SONY CCD
Picture element: 500 x 582 (PAL)
Horizontal resolution: 340 TV lines
Sensitivity: 0,3 lux / F = 1.2
S/N ratio: over 48 dB
Video output: 1 Vp-p composite PAL
Gamma correction: >0,45
Synchronisation: internal
Back light compensation: yes
Auto white balance: yes
AGC: yes
Electronic shutter: 1:50 ~ 1:100.000
Lens: f=4,3 mm*
Lens mount: M12 x P 0,5
Weatherproof rating: IP 66

Power source: 12 V DC +/- 10%, 200 mA

Ambient temperature: -10°C ~ +50°C
Dimensions: 57 (D) x 110 (L) mm
Bracket: zinc diecasted, silver colour, included
Weight: 385 g



* Further lenses see table page 26



Colour Cameras



ED WMA - wall mount bracket

Material: aluminium
Dimensions: 150 (W) x 110 (H) x 170 (D) mm
Weight: 600 g
Max. load: 4 kg
Application: with ED 550 T and EDN 800

ED 550 T - 1/3" vandal-proof day/night camera, high resolution, automatic IR cut filter

Specifications

Sensor: 1/3" SONY IT colour CCD
Picture element: 752 (H) x 582 (V)
Horizontal resolution: colour: 530 TV lines
 b/w: 560 TV lines

Sensitivity: 0,002 lux (sens-up x128), 0,25 lux / F = 1.2
S/N Ratio: > 50 dB (AGC off)
Gamma correction: 0,45

OSD: yes
Day/night control: automatically swiveling IR cut filter
 and enhanced b/w sensitivity

IR cut filter: automatic by internal sensor
Lens: 2,9 ~ 10mm direct drive (DC), IR-corrected, ED-glass, auto IR cut filter
Shutter selection: automatic / manual / flickerless
Back light compensation: off / low / middle / high
Colour temperature BIAS: adjustable
White balance: ATW (2500~8300°K) / AWC / manual
AGC: off / low / middle / high
DNR (Dynamic Noise Reduction): off / low / middle / high

Digital Slow Shutter: off / auto: x2 ~ x128 selectable
Camera ID: on / off
Privacy zones: on / off (4 zones, position / size / tone)
Sharpness: on / off (adjustable level)
Horizontal mirror: on / off
Video output: BNC VBX, 1,0 Vp-p, 75 Ohm
Sync. mode: internal

Power source: 12 V DC / 24 V AC
Power consumption: 310 mA at 12 V DC, 300 mA at 24 V AC

Ambient temperature: -10°C ~ +50°C
Dimensions: 118 (diam.) x 100 (H) mm
Weight: 650 g

Features

- ✓ vandal-proof indoor housing
- ✓ super-high resolution technology (530 / 560 TV lines)
- ✓ built-in DNR (dynamic noise reduction)
- ✓ day/night function with automatically swiveling IR cut filter
- ✓ advanced 16-bit digital signal processor (DSP)
- ✓ on-screen programming
- ✓ 4 adjustable privacy zones
- ✓ high infrared sensitivity
- ✓ optional wall bracket

520
TVL



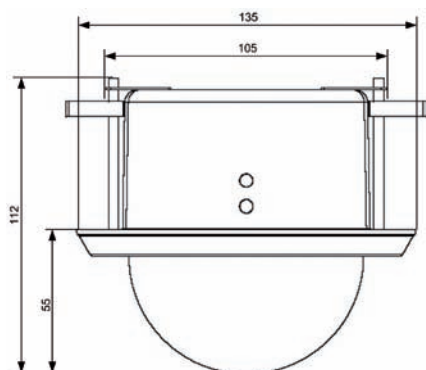
► EFD 300 E - 1/3" colour flush dome camera, high resolution

Specifications

Sensor: 1/3" SONY CCD
Picture element: 752 x 582 (PAL)
Horizontal resolution: 520 TV lines
Sensitivity: 0,4 lux / F = 1.2
Video output: 1 Vp-p composite PAL, BNC
Monitor output pin: 1 Vp-p / 75 Ohm, test point pin
S/N ratio: over 48 dB (AGC off)
Gamma correction: >0,45
Synchronisation: internal
Back light compensation: on / off
Auto white balance: yes
AGC: on / off
Flickerless function: on / off
Electronic shutter: 1:50 ~ 1:100.000
Lens: DC varifocal lens f= 4~9 mm, F=1.4~1.8
Colour: black base, smoked cover

Power source:
12 V DC +/- 10%, 300 mA / 24 V AC, 200 mA

Ambient temperature: 0°C ~ +50°C
Dimensions: 135 (D) x 112 (H) mm
Ceiling cutout: 110 mm (diameter)
Weight: 460 g



520
TVL



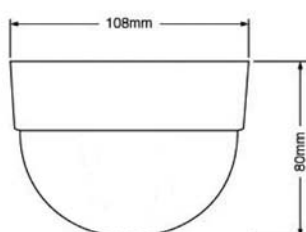
► ED 300 E - 1/3" colour mini dome camera, high resolution

Specifications

Sensor: 1/3" SONY CCD
Picture element: 752 x 582 (PAL)
Horizontal resolution: 520 TV lines
Sensitivity: 1,0 lux / F = 1.2
Video output: 1 Vp-p composite PAL, BNC
S/N ratio: over 48 dB
Gamma correction: >0,45
Synchronisation: internal
Back light compensation: on / off
Auto white balance: yes
AGC: on / off
Electronic shutter: 1:50 ~ 1:100.000
Lens: DC varifocal lens f=2,6~6,0mm, F=1.4~1.8
Colour: black or white base

Power source:
12 V DC +/- 10%, 300 mA / 24 V AC, 200 mA

Ambient temperature: 0°C ~ +50°C
Dimensions: 108 (D) x 80 (H) mm
Weight: 460 g



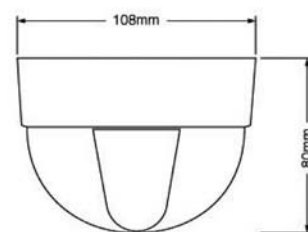
► ED 200 E - 1/3" colour mini dome camera, standard resolution

Specifications

Sensor: 1/3" SONY CCD
Picture element: 500 x 582 (PAL)
Horizontal resolution: 340 TV lines
Sensitivity: 0,3 lux / F = 1.2
Video output: 1 Vp-p composite PAL, BNC
S/N ratio: over 48 dB
Gamma correction: >0,45
Synchronisation: internal
Auto white balance: yes
AGC: yes
Electronic shutter: 1:50 ~ 1:100.000
Lens: f=3,6 mm*
Lens mount: M12 x P0,5
Colour: black or white base

Power source: 12 V DC +/- 10%, 200 mA

Ambient temperature: 0°C ~ +50°C
Dimensions: 108 (D) x 80 (H) mm
Weight: 420 g



* Further lenses see table page 26



Colour Cameras

520
TVL



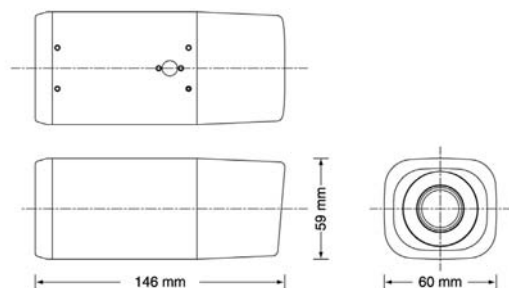
► EI 300 E - 1/3" lens integrated colour camera, high resolution

Specifications

Sensor: 1/3" SONY CCD
Picture element: 752 x 582 (PAL)
Horizontal resolution: 520 TV lines
Sensitivity: 1,0 lux / F = 1.2
Video output: 1 Vp-p composite PAL
S/N Ratio: over 48 dB
Gamma correction: 0,45
Synchronisation: internal
Back light compensation: on / off
Auto white balance: yes
AGC: on / off
Electronic shutter: 1:50 ~ 1:100.000
Lens: DC varifocal lens, f=3,8 ~ 9,5 mm (IR-corrected),
F= 1,4 ~ 1,8

Power source: 12 V DC +/- 10%, 300 mA

Ambient temperature: 0°C ~ +50°C
Dimensions: 66 (W) x 59 (H) x 146 (L) mm
Weight: 650 g
Bracket: zinc, 155 (H) x 45 (D) mm, included



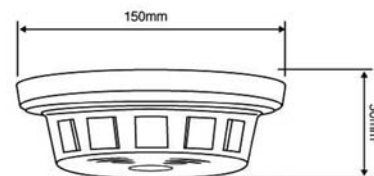
► ESD 200 E - 1/3" colour smoke detector camera

Specifications

Sensor: 1/3" SONY CCD
Picture element: 500 x 582 (PAL)
Horizontal resolution: 340 TV lines
Sensitivity: 0,3 lux / F = 1.2
Video output: 1 Vp-p composite PAL, BNC
S/N ratio: over 48 dB
Gamma correction: >0,45
Synchronisation: internal
Back light compensation: yes
Auto white balance: yes
AGC: yes
Electronic shutter: 1:50 ~ 1:100.000
Number of cameras: 1
Lens: f=4,3mm*
Lens mount: M12 x P 0,5

Power source: 12 V DC +/- 10%, 200 mA

Ambient temperature: 0°C ~ +50°C
Dimensions: 150 (D) x 50 (H) mm
Weight: 135 g



* Further lenses see table page 26



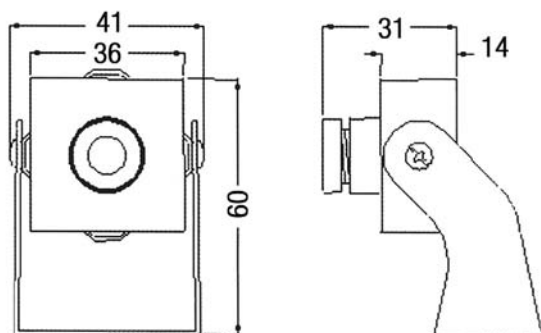
► EM 200 E - 1/3" colour metal case camera

Specifications

Sensor: 1/3" SONY CCD
 Picture element: 500 x 582 (PAL)
 Horizontal resolution: 340 TV lines
 Sensitivity: 0,3 lux / F = 1,2
 Video output: 1 Vp-p composite PAL, BNC
 S/N ratio: over 48 dB
 Gamma correction: >0,45
 Synchronisation: internal
 Back light compensation: yes
 Auto white balance: yes
 AGC: yes
 Electronic shutter: 1:50 ~ 1:100.000
 Lens: f=3,6mm, Pinhole lens f=3,7mm*
 Lens mount: M12 x P0,5

Power source: 12 V DC +/- 10%, 200 mA

Ambient temperature: 0°C ~ +50°C
 Dimensions: 41 (W) x 60 (H) x 31 (D) mm
 Weight: 180 g



Drawing: EM 200 E with 3,6mm lens



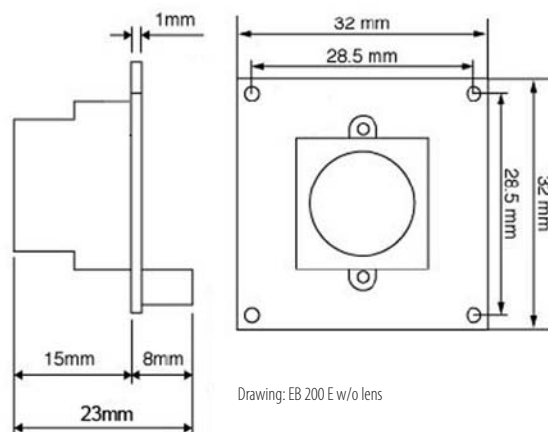
► EB 200 E - 1/3" colour PCB camera

Specifications

Sensor: 1/3" SONY CCD
 Picture element: 500 x 582 (PAL)
 Horizontal resolution: 340 TV lines
 Sensitivity: 0,3 lux / F = 1,2
 Video output: 1 Vp-p composite PAL, BNC
 S/N ratio: over 48 dB
 Gamma correction: >0,45
 Synchronisation: internal
 Back light compensation: yes
 Auto white balance: yes
 AGC: yes
 Electronic shutter: 1:50 ~ 1:100.000
 Lens: f=3,6mm*
 Lens mount: M12 x P0,5

Power source: 12 V DC +/- 10%, 200 mA

Ambient temperature: 0°C ~ +50°C
 Dimensions: 32 (W) x 32 (H) x 23 (D) mm
 Weight: 30 g



Drawing: EB 200 E w/o lens

* Further lenses see table page 26



Colour IR Cameras



Illustration: EZ 550 with additional IR illuminator kit EIR 100

► EZ 550 - 1/3" outdoor long range IR camera with motorised lens 6~50 mm

Specifications

Pickup device: 1/3" SONY super HAD interlaced CCD

Effective pixel: 752 x 582 (PAL)

Sensitivity: IR LED OFF: 0,2 lux / F = 1.2

IR LED ON: 0 lux

Lens: motorised DC varifocal lens 6~50 mm, F=1.6

Video output: BNC socket, composite 1 Vp-p / 75 Ohm

Video output resolution: colour mode: 530 TV lines / b/w mode: 560 TV lines

IR distance: max. 30 ~ 50 m (depending on reflection in scenery)

max. 40 ~ 70 m with additional IR illuminator kit EIR 100

IR wavelength: 850 nm

Motion detection: built-in motion detection, 4 zones

RS-485: RS-485 interface half-duplex (1: RS-485+, 2: RS-485-)

Protocol: EverFocus, Pelco-D (auto-detection)

Power supply: EZ 550 / P: AC 100 V ~ 240 V, 50/60 Hz

EZ 550 A/P: 24 V AC

Power consumption: 15 W max. (IR LED ON), 32 W max. with EIR 100

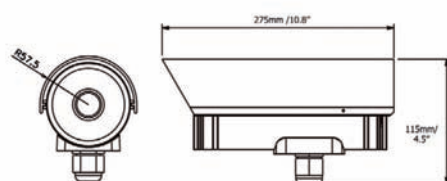
Power output: DC 12 V / 1,5 A for external IR illuminator

Ambient temperature: -40°C ~ +50°C

Humidity: 20 ~ 85%

Dimensions: 115 (H) x 275 (L) mm

Weight: 1,6 kg



520
TVL



► EZ 430 - 1/3" outdoor bullet IR camera with motorised varifocal lens

Specifications

Pickup device: 1/3" SONY super HAD colour CCD

Picture element: 752 x 582 (PAL)

Horizontal resolution: 520 TV lines

Sensitivity: IR LED OFF: 0,4 lux / F = 1.2

IR LED ON: 0 lux

Lens: EZ 430 V1 - motorised DC varifocal lens 2,9~10 mm, F=1.2

EZ 430 V2 - motorised DC varifocal lens 9~22 mm, F = 1.2

Video output: BNC VBS, 1 Vp-p / 75 Ohm

Video output resolution: colour mode: 530 TV lines / b/w mode: 560 TV lines

IR distance: max. 15 ~ 30 m (depending on reflection in scenery)

IR wavelength: 850 nm

S/N ratio: over 48 dB (AGC OFF)

Gamma correction: 0,45

Back light compensation: yes

White balance: yes (2500 ~ 9000°K)

AGC: yes

Synchronisation: internal

Weatherproof rating: IP 66

Power source: 12 V DC / 24 V AC

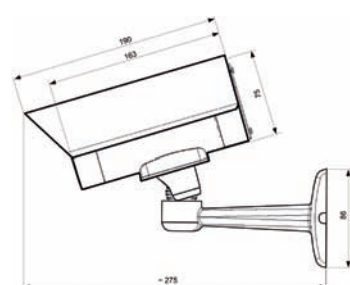
Power consumption: 12 W max. (IR LED ON)

Ambient temperature: -10°C ~ +50°C

Humidity: 20 ~ 85%

Dimensions: 75 (diam.) x 163 (L) mm

Weight: 1, 1 kg





Colour IR Cameras



EBD 330 A - 1/3" day / night camera with IR-LED, high resolution

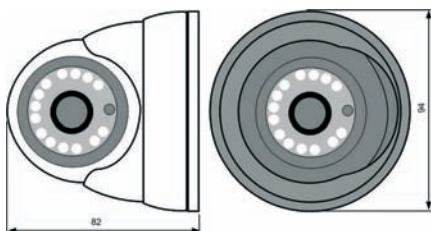
Specifications

Sensor: 1/3" SONY CCD
Picture element: 752 x 582 (PAL)
Horizontal resolution: 480 TV lines
Sensitivity: 0,5 lux / F = 1.2 (IR-LED off)
IR-LED: 20 x, controlled by internal twilight switch, splitted front glass for low internal IR reflection

IR-LED lifetime: up to 50.000 h
IR range: 5~20 m*
Video output: 1 Vp-p composite PAL
S/N Ratio: over 48 dB
Gamma correction: 0,45
Synchronisation: internal
Back light compensation: yes
Auto white balance: yes
AGC: yes
Electronic shutter: 1:50 ~ 1:100.000
Lens: 3,6mm / F2, M12 x P0,5
Mounting: ceiling or wall mounting, 3-axis adjustment of camera module
Casing: aluminium
Weatherproof rating: IP 66

Power source: 12 V DC +/- 10%
Power consumption: 6 W max.

Ambient temperature: -10°C ~ +50°C
Dimensions: 94 (diam.) x 82 (H) mm
Weight: 450 g



ECZ 330 - 1/3" day / night camera with IR-LED, high resolution

Specifications

Sensor: 1/3" SONY CCD
Picture element: 752 x 582 (PAL)
Horizontal resolution: 480 TV lines
Sensitivity: 0,5 lux / F = 1.2 (IR-LED off)
IR-LED: 14 x, controlled by intelligent light sensor
IR-LED lifetime: up to 50.000 h
IR range: 5~20 m*
Video output: 1 Vp-p composite PAL
S/N Ratio: over 48 dB
Gamma correction: 0,45
Synchronisation: internal
Back light compensation: yes
Auto white balance: yes
AGC: yes
Electronic shutter: auto 1:50 ~ 1:100.000
Lens: 4,3mm / F2, M12 x P0,5
Mounting: 1/4" mounting hole at lower and upper side for camera bracket (included)
Casing: aluminium
Weatherproof rating: IP 66

Power source: 12 V DC +/- 10%
Power consumption: 6 W max.

Ambient temperature: -10°C ~ +50°C
Dimensions: 55 (diam.) x 72 (D) mm (without sunshield)
62 (W) x 58,5 (H) x 82 (D) mm (with sunshield)

Weight: 245 g



ECZ 230 - 1/3" day / night camera with IR-LED

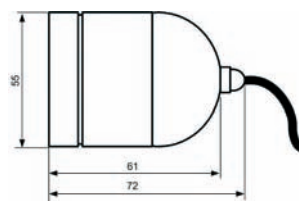
Specifications

Sensor: 1/3" SONY CCD
Picture element: 500 x 582 (PAL)
Horizontal resolution: 380 TV lines
Sensitivity: 0,3 lux / F = 1.2 (IR-LED off)
IR-LED: 14 x, controlled by intelligent light sensor
IR-LED lifetime: up to 50.000 h
IR range: 5~20 m*
Video output: 1 Vp-p composite PAL
S/N Ratio: over 48 dB
Gamma correction: 0,45
Synchronisation: internal
Back light compensation: yes
Auto white balance: yes
AGC: yes
Electronic shutter: auto 1:50 ~ 1:100.000
Lens: 4,3mm / F2, M12 x P0,5
Mounting: 1/4" mounting hole at lower and upper side for camera bracket (included)
Casing: aluminium
Weatherproof rating: IP 66

Power source: 12 V DC +/- 10%
Power consumption: 6 W max.

Ambient temperature: -10°C ~ +50°C
Dimensions: 55 (diam.) x 72 (D) mm (without sunshield)
62 (W) x 58,5 (H) x 82 (D) mm (with sunshield)

Weight: 245 g



* The IR illumination range depends on the location, particularly with regard to the reflections of the installation's surroundings.
Locating the device near to highly absorbent surfaces can result in a significantly reduced range.

b/w Cameras



EQ 150 - 1/3" b/w DSP camera, high resolution

Specifications

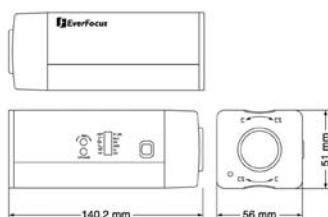
Sensor: 1/3" SONY CCD
 Picture element: 752 (H) x 582 (V)
 Horizontal resolution: 560 TV lines
 Sensitivity: 0,04 lux / F = 1.2
 Video output: 1 Vp-p CCIR, BNC
 Audio: microphone output 500 mV / 47 kOhm, cinch
 S/N ratio: over 48 dB
 Gamma correction: >0,45
 Back light compensation: on / off switch
 AGC: on / off switch
 Synchronisation: 1. line-locked with LL on,
 2. internal with LL off

 Electronic shutter: 1:50 ~ 1:100.000
 Lens control: VD / DD switchable
 Lens mount: C/CS mount, full range backfocus mechanism

 Power source: EQ 150: 90 ~ 260 V AC
 EQ 150 A: 12 V DC / 24 V AC

 Power consumption: EQ 150: 9 W max.
 EQ 150 A: 5 W max.

 Ambient temperature: 0°C ~ +50°C
 Dimensions: 51 (W) x 57 (H) x 140 (L) mm
 Weight: 600 g (EQ 150), 500 g (EQ 150 A)



EHD 150 - 1/3" b/w rugged dome DSP camera, high resolution

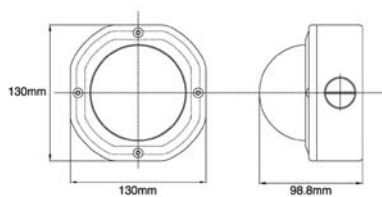
Specifications

Sensor: 1/3" SONY CCD
 Picture element: 752 x 582 (CCIR)
 Horizontal resolution: 560 TV lines
 Sensitivity: 0,06 lux / F = 1.6
 Video output: 1 Vp-p CCIR
 S/N ratio: over 48 dB
 Gamma correction: 0,45
 Synchronisation: internal / line lock (only 24 V AC)
 Line lock (24 V AC): on / off
 Back light compensation: on / off
 AGC: on / off
 Electronic shutter: 1:50 ~ 1:100.000
 Tamper contact: micro switch
 Lens: DC varifocal lens f=3,6~9 mm

 Heater: 12 W thermostat controlled
 Heater activating temperature: +10°C
 Casing: zinc diecasted, dome polycarbonate, clear
 Weatherproof rating: IP 66

 Power source: 12 V DC / 24 V AC
 Power consumption: 5 W max. (15 W with activated heater)

 Ambient temperature: -46°C ~ +50°C
 Dimensions: 130 (W) x 130 (H) x 99 (D) mm
 Weight: 1,7 kg



EZ 180 - 1/3" b/w weatherproof DSP camera, high resolution

Specifications

Sensor: 1/3" SONY CCD
 Picture element: 752 (H) x 582 (V)
 Horizontal resolution: 560 TV lines
 Sensitivity: 0,1 lux / F = 1.2
 Video output: 1 Vp-p CCIR, BNC
 S/N ratio: over 48 dB
 Gamma correction: > 0,45
 Back light compensation: on / off
 AGC: on / off
 Synchronisation: internal or line-lock with V-setup (24 V AC)
 Electronic shutter: on / off, 1:50 ~ 1:100.000
 Flickerless function: on / off
 Lens: DC varifocal lens f=3,5 ~ 8 mm

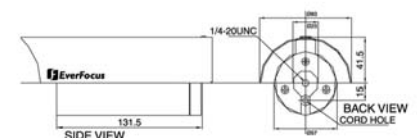
 Heater: 12 W thermostat controlled
 Heater activating temperature: +10°C
 Weatherproof rating: IP 66

 Power source: 12 V DC / 24 V AC
 Power consumption: 3 W max., 12 W with activated heater

 Ambient temperature: -35°C ~ +50°C (at 12 V DC)
 -45°C ~ +50°C (at 24 V AC)

 Dimensions:
 83 (W) x 70 (H) x 172 (D) mm (with sunshield)
 57 (W) x 57 (H) x 132 (D) mm (without sunshield)

Bracket: zinc diecasted, silver colour, included
 Weight: 1,1 kg





Speed Dome System



EPTZ 3600 - 1/4" day / night outdoor speed dome camera

Specifications

Camera

Sensor: 1/4" CCD SONY Exview HAD
Effective pixels: 440.000
Horizontal resolution: 530 TV lines (colour mode) / 570 TV lines (b/w mode)
Sensitivity: 1,4 lux (F 1.6, 50 IRE - colour mode) / 0,1 lux (F 1.6, 50 IRE - b/w mode)
Video output: 1 Vp-p (sync. negative), BNC
S/N ratio: over 50 dB
Sync. system: internal
Electronic shutter: 1/50 ~ 1/10.000 sec., 7 steps
DSS digital slow shutter: on / off, 50 x max.
White balance: auto / indoor / outdoor / one-push / manual
Back light compensation: on / off
Gain: auto
Exposure control: automatic
Flicker cancel: on / off
WDR Wide Dynamic Range: on / off

Lens

Zoom ratio: 36x optical zoom (+ 12x digital zoom, max. 432x)
Focus length: f=3,4 (wide) ~ 122,4 (tele) mm
Aperture: F 1.6 (wide) ~ F 4.5 (tele)
Viewing angle: 57,8° (wide end) to 1,7° (tele end)
Minimum object distance: 320mm (wide end) to 1500mm (tele end)
Focusing method: auto, one-push AF, manual

Housing

Weatherproof rating: IP 66 (only outdoor model EPTZ 3600)
Power source: 24 V AC
Power consumption: 14 W max.
Fan: thermostat-controlled
Ambient temperature: -40°C ~ +40°C
Humidity: ~ 90%
Dimensions: 250 (H) x 210 (D) mm (outdoor model EPTZ 3600 with sunshield)
220 (H) x 160 (D) mm (indoor model EPTZ 3600 I)

Weight: 5,2 kg (outdoor model EPTZ 3600 with sunshield)
3,0 kg (indoor model EPTZ 3600 I)



EPTZ 3600 I - 1/4" day / night indoor speed dome camera

Functions

Communication: RS-485
Built-in protocols: Pelco-P / Pelco-D / EverFocus / ED 2200 / ED 2250 / Panasonic
Communication speed: 1200 / 2400 / 4800 / 9600 bps
Address editable through DIP switch: yes
Speed dome address range: 1 ~ 255
Horizontal rotation speed: 0,1° / sec. ~ 360° / sec.
Horizontal rotation range: 360° unlimited rotation
Tilt rotation range: 180° pendulum motion with electronic auto flip
Day/night switching: manual / automatic / by external contact (via alarm in)
Auto zoom speed control: auto-adjustment of PT control speed according to zoom position
Auto pan, 2 points scanning: adjustable speeds, adjustable end stops
Auto pan speed: 1 ~ 255 steps
Dwell time (2 points): 1 ~ 99 sec.
Preset positions: 192
Running to position speed: up to 360°/sec.
Pattern: 4x, 1 minute max. each
Auto resume: after inactivity 0,5 ~ 60 min. or after power up
Auto resume actions: home position, tour 1, pattern 1, autopan, previous mode
Manual pan speed: 0,1° ~ 120° / sec.
Manual tilt speed: 0,1° ~ 60° / sec.
Dwell time at preset position: 1 ~ 60 sec.
Tours: 16
Presets per tour: 16 preset positions
Position accuracy: +/- 0,1°
Alarm: 4 inputs, 2 outputs, with tour / position auto triggering
Proportional pan speed: yes
Privacy zones: 8, free adjustable, 10 colours / mosaic
Built-in menu for functions: yes, multiline OSD



EPTZ 2700 - 1/4" day / night outdoor speed dome camera

Specifications

Camera

Sensor: 1/4" CCD SONY Exview HAD
 Effective pixels: 440.000
 Horizontal resolution: 480 TV lines
 Sensitivity: 1 lux (F 1.6, 50 IRE - colour mode) / 0,1 lux (F 1.6, 50 IRE - b/w mode)
 Video output: 1 Vp-p (sync. negative), BNC
 S/N ratio: over 50 dB
 Sync. system: internal
 Electronic shutter: 1/50 ~ 1/10.000 sec., 7 steps
 DSS digital slow shutter: on / off, 32 x max.
 White balance: auto / indoor / outdoor
 Back light compensation: on / off
 Gain: auto
 Flicker cancel: on / off

Lens

Zoom ratio: 27x optical zoom (+ 10x digital zoom, max. 270x)
 Focus length: f=3,25 (wide) ~ 88 (tele) mm
 Aperture: F 1.5 (wide) ~ F 3.6 (tele)
 Viewing angle: 58° (wide end) to 2,3° (tele end)
 Minimum object distance: 100mm (wide end) to 1000mm (tele end)
 Focusing method: auto, one-push AF, manual

Housing

Weatherproof rating: IP 66 (only outdoor model EPTZ 2700)
 Power source: 24 V AC
 Power consumption: 14 W max.
 Fan: thermostat-controlled
 Ambient temperature: -40°C ~ +40°C
 Humidity: ~ 90%
 Dimensions: 250 (H) x 210 (D) mm (outdoor model EPTZ 2700 with sunshield)
 220 (H) x 160 (D) mm (indoor model EPTZ 2700 I)

Weight: 5,2 kg (outdoor model EPTZ 2700 with sunshield)
 3,0 kg (indoor model EPTZ 2700 I)



EPTZ 2700 I - 1/4" day / night indoor speed dome camera

Functions

Communication: RS-485
 Built-in protocols: Pelco-P / Pelco-D / EverFocus / ED 2200 / ED 2250 / Panasonic
 Communication speed: 1200 / 2400 / 4800 / 9600 bps
 Address editable through DIP switch: yes
 Speed dome address range: 1 ~ 255
 Horizontal rotation speed: 0,1° / sec. ~ 360° / sec.
 Horizontal rotation range: 360° unlimited rotation
 Tilt rotation range: 180° pendulum motion with electronic auto flip
 Day/night switching: manual / automatic / by external contact (via alarm in)
 Auto zoom speed control: auto-adjustment of PT control speed according to zoom position
 Auto pan, 2 points scanning: adjustable speeds, adjustable end stops
 Auto pan speed: 1 ~ 255 steps
 Dwell time (2 points): 1 ~ 99 sec.
 Preset positions: 192
 Running to position speed: up to 360°/sec.
 Pattern: 4x, 1 minute max. each
 Auto resume: after inactivity 0,5 ~ 60 min. or after power up
 Auto resume actions: home position, tour 1, pattern 1, autopan, previous mode
 Manual pan speed: 0,1° ~ 120° / sec.
 Manual tilt speed: 0,1° ~ 60° / sec.
 Dwell time at preset position: 1 ~ 60 sec.
 Tours: 16
 Presets per tour: 16 preset positions
 Position accuracy: +/- 0,1°
 Alarm: 4 inputs, 2 outputs, with tour / position auto triggering
 Proportional pan speed: yes
 Built-in menu for functions: yes, multiline OSD



Speed Dome System



EPTZ 3000 - 1/4" day / night outdoor speed dome camera

Specifications

Camera

Sensor: 1/4" CCD SONY Exview HAD
 Effective pixels: 440.000
 Horizontal resolution: 520 TV lines (colour mode) / 570 TV lines (b/w mode)
 Sensitivity: 0,3 lux (F 1.6, 50 IRE - colour mode) / 0,05 lux (F 1.6, 50 IRE - b/w mode)
 Video output: 1 Vp-p (sync. negative)
 S/N ratio: over 50 dB
 Sync. system: internal
 Electronic shutter: 1/1 ~ 1/10.000 sec., 22 steps
 White balance: auto / indoor / outdoor / manual
 Back light compensation: on / off
 Gain: auto
 Exposure control: automatic
 Flicker cancel: automatic
 WDR Wide Dynamic Range: 52 dB max.

Lens

Zoom ratio: 30x optical zoom (+ 8x digital zoom, max. 240x)
 Focus length: f=3,3 (wide) ~ 99 (tele) mm
 Aperture: F 1.6 (wide) ~ F 3.2 (tele)
 Viewing angle: 56,0° (wide end) to 2,1° (tele end)
 Minimum object distance: 35mm (wide end) to 800mm (tele end)
 Focusing method: auto, one-push AF, manual

Housing

Weatherproof rating: IP 66
 Power source: 24 V AC, via included power supply 230 V AC
 Power consumption: 18 W without heater, 70 W with heater
 Fan / heater: thermostat-controlled
 Ambient temperature: -40°C ~ +40°C
 Humidity: ~ 90%
 Dimensions: 310 (H) x 220 (D) mm
 Weight: 5,6 kg

Delivery scope: speed dome camera, outdoor housing, wall mount bracket, indoor power supply

Functions

Communication: RS-485
 Built-in protocols: Pelco-P / Pelco-D / EverFocus / ED 2200 / ED 2250
 Communication speed: 1200 / 2400 / 4800 / 9600 bps
 Address editable through DIP switch: yes
 Speed dome address range: 1 ~ 255
 Horizontal rotation speed: 0,1° / sec. ~ 360° / sec.
 Horizontal rotation range: 360° unlimited rotation
 Tilt rotation range: 180° pendulum motion with electronic auto flip
 Day/night switching: manual / automatic / by external contact (via alarm in)
 Auto zoom speed control: auto-adjustment of PT control speed according to zoom position
 Auto pan, 2 points scanning: adjustable speeds, adjustable end stops
 Auto pan speed: 1 ~ 239 steps
 Dwell time (2 points): 1 ~ 127 sec.
 Preset positions: 192
 Running to position speed: up to 360°/sec.
 Manual pan speed: 0,1° ~ 120° / sec.
 Manual tilt speed: 0,1° ~ 60° / sec.
 Dwell time at preset position: 1 ~ 239 sec.
 Tours: 16
 Presets per tour: 16 preset positions
 Position accuracy: +/- 0,1°
 Alarm: 4 inputs, 1 output, with tour / position auto triggering
 Proportional pan speed: yes
 Privacy zones: 1, free adjustable
 Built-in menu for functions: yes, OSD
 Video output: BNC

► EPTZ 1000 - 1/4" outdoor colour speed dome camera

Specifications

Camera

Sensor: 1/4" CCD SONY Exview HAD
 Effective pixels: 440.000
 Horizontal resolution: 470 TV lines
 Sensitivity: 0,7 lux (F 1.4, 50 IRE)
 Video output: 1 Vp-p (sync. negative)
 S/N ratio: over 50 dB
 Sync. system: internal
 Electronic shutter: 1/1 ~ 1/10.000 sec., 22 steps
 White balance: auto / indoor / outdoor / manual
 Back light compensation: on / off
 Gain: auto / -3 ~ 28 dB
 Exposure control: automatic
 Flicker cancel: automatic

Lens

Focus length: f=4,1 (wide) ~ 73,8 (tele) mm (18x zoom) + 12x digital
 Aperture: F 1.4 (wide) ~ F 3.0 (tele)
 Viewing angle: 48,0° (wide end) to 2,8° (tele end)
 Minimum object distance: 35mm (wide end) to 800mm (tele end)
 Focusing method: auto, one-push AF, manual

Housing

Weatherproof rating: IP 66
 Power source: 24 V AC, via included power supply 230 V AC
 Power consumption: 18 W without heater, 70 W with heater
 Fan / heater: thermostat-controlled
 Ambient temperature: -40°C ~ +40°C
 Humidity: ~ 90%
 Dimensions: 310 (H) x 220 (D) mm
 Weight: 5,6 kg



Functions

Communication: RS-485
 Built-in protocols: Pelco-P / Pelco-D / EverFocus / ED 2200 / ED 2250
 Communication speed: 1200 / 2400 / 4800 / 9600 bps
 Address editable through DIP switch: yes
 Speed dome address range: 1 ~ 255
 Horizontal rotation speed: 0,1° / sec. ~ 360° / sec.
 Horizontal rotation range: 360° unlimited rotation
 Tilt rotation range: 90°
 Auto flip: 180° rotation when camera tilts to vertical position
 Auto zoom speed control: auto-adjustment of PT control speed according to zoom position
 Auto pan, 2 points scanning: adjustable speeds, adjustable end stops
 Auto pan speed: 1 ~ 128 steps
 Dwell time (2 points): 1 ~ 60 sec.
 Preset positions: 192
 Running to position speed: up to 360°/sec.
 Manual pan speed: 0,1° ~ 120° / sec.
 Manual tilt speed: 0,1° ~ 60° / sec.
 Dwell time at preset position: 1 ~ 60 sec.
 Tours: 16
 Presets per tour: 16 preset positions
 Position accuracy: +/- 0,1°
 Alarm: 4 inputs, 1 output, with tour / position auto triggering
 Proportional pan speed: yes
 Built-in menu for functions: yes, OSD
 Video output: BNC

Delivery scope: speed dome camera, outdoor housing, wall mount bracket, indoor power supply



Speed Dome System

▶ EPTZ 500 - 1/4" indoor colour speed dome camera

Specifications

Camera

Sensor: 1/4" CCD SONY Exview HAD
 Effective pixels: 440,000
 Horizontal resolution: 470 TV lines
 Sensitivity: 0,7 lux (F 1.4, 50 IRE)
 Video output: 1 Vp-p (sync. negative)
 S/N ratio: over 50 dB
 Sync. system: internal
 Electronic shutter: 1/1 ~ 1/10.000 sec., 22 steps
 White balance: auto / indoor / outdoor / manual
 Back light compensation: on / off
 Gain: auto / -3 ~ 28 dB
 Exposure control: automatic
 Flicker cancel: automatic

Lens

Focus length: f=4,1 (wide) ~ 73,8 (tele) mm (18x zoom) + 12x digital
 Aperture: F 1.4 (wide) ~ F 3.0 (tele)
 Viewing angle: 48,0° (wide end) to 2,8° (tele end)
 Minimum object distance: 35mm (wide end) to 800mm (tele end)
 Focusing method: auto, one-push AF, manual

Housing

Power source: 24 V AC, via included power supply 230 V AC
 Power consumption: 18 W
 Ambient temperature: 0°C ~ +40°C
 Humidity: ~ 90%
 Dimensions: 220 (H) x 210 (D) mm
 Weight: 3,2 kg



Functions

Communication: RS-485
 Built-in protocols: Pelco-P / Pelco-D / EverFocus / ED 2200 / ED 2250
 Communication speed: 1200 / 2400 / 4800 / 9600 bps
 Address editable through DIP switch: yes
 Speed dome address range: 1 ~ 255
 Horizontal rotation speed: 0,1° / sec. ~ 360° / sec.
 Horizontal rotation range: 360° unlimited rotation
 Tilt rotation range: 90°
 Auto flip: 180° rotation when camera tilts to vertical position
 Auto zoom speed control: auto-adjustment of PT control speed according to zoom position
 Auto pan, 2 points scanning: adjustable speeds, adjustable end stops
 Auto pan speed: 1 ~ 128 steps
 Dwell time (2 points): 1 ~ 60 sec.
 Preset positions: 192
 Running to position speed: up to 360°/sec.
 Manual pan speed: 0,1° ~ 120° / sec.
 Manual tilt speed: 0,1° ~ 60° / sec.
 Dwell time at preset position: 1 ~ 60 sec.
 Tours: 16
 Presets per tour: 16 preset positions
 Position accuracy: +/- 0,1°
 Alarm: 4 inputs, 1 output, with tour / position auto triggering
 Proportional pan speed: yes
 Built-in menu for functions: yes, OSD
 Video output: BNC

Delivery scope: speed dome camera, indoor housing, indoor power supply



► EKB 500 - multi-function keyboard

Specifications

Keys: 48

Joystick: 3D PTZ function control

Jog/Shuttle: DVR control

Display: LCD 2 lines with 20 characters each

Baud rate: 1.200 ~ 38.400

Serial interfaces: RS-232 (service) / 2 x RS-485

Protocols: Pelco-P / Pelco-D / EverFocus / ED 2200 / ED 2250

Devices: control of speed dome and DVR

Cascading: up to 8 keyboards addressable

Wiring box: yes

Supported DVR models:

EDR 1640 / 1610 / 920 / 910

EDR 810 H / 810 M / 410 H / 410 M

EDSR 1600 / 900 / 600 / 400 H / 400 M / 100 H / 100 M

Power source: 12 V DC, via included power supply 230 V AC

Power consumption: 10 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 360 (W) x 110 (H) x 200 (D) mm

Weight: 1,5 kg

Features

- ✓ use of EEPbus for simultaneous control of DVRs and speed domes on one single RS-485 bus
- ✓ capable of controlling speed dome cameras and DVR
- ✓ 3D joystick control of PTZ function
- ✓ jog/shuttle DVR control
- ✓ matrix control (EverFocus DVR series' products)
- ✓ LCD display (20 x 2 lines), illuminated
- ✓ multi-protocol support (EverFocus, Pelco-P/D, ED 2200, ED 2250)
- ✓ password protection
- ✓ ergonomic buttons placement with sound indication for easy usage
- ✓ OSD access to connected devices
- ✓ two independent RS-485 communication ports with selectable baud rate
- ✓ camera / monitor mapping for easy reorganization
- ✓ housing allows countersunk installation



► EKB 200 - USB 3D joystick controller

Specifications

Keys: 16, programmable through software

PTZ function keys: 4 keys, Iris+, Iris-, Focus+, Focus-

Joystick: 3D PTZ function control

Interface: USB 1.1

Default protocol: USB HID class

Mounting method: desktop, wall, panel

Support software: Key Mapper (for Microsoft® Windows XP, 2000, Vista)

Power source: USB bus power / 80 mA max., no external power supply required

Ambient temperature: 0°C ~ +40°C

Dimensions: 197 (W) x 197 (L) x 108 (H) mm

USB cable length: 1,8 m

USB cable colour: black

Weight: 750 g



► ECS 7710 C / ECS 7710 T - 10,4" TFT touchscreen control panel with DVR / PTZ control

For specifications, please refer to page 66



Speed Dome System



EPTZ PBOX - connector box with power supply for speed dome

Specifications

Power source: 100~240 V AC, 60 Hz or 220~230 V AC, 50 Hz (set by internal switch), 120 VA max.

Power output: 24 V AC, 3,5 A max.

Connectors:

Power in: 3 x screwless terminal

Power out: 5,5mm power plug

Molex connector for 12 V DC converter

RS-485 / alarm: 2 x 10 pin screwless terminal, looped

Ambient temperature: -20°C ~ +40°C

Dimensions:

216,2 (W) x 216,2 (H) x 80,5 (D) mm (w/o cable gland / hinge / flanges)

270 (W) x 245 (H) x 80,5 (D) mm (with cable gland / hinge / flanges)

Universal mounting plate: 120 x 77 mm

Weight: 4,1 kg

Accessories

EPTZ PB-A - mounting adaptor for EPTZ PMA or EPTZ CMA

EPTZ PB-P12 - converter 110/230 V AC to 12 V DC / 500 mA

Features

- ✓ vandal-proof metal housing
- ✓ dual power input 100~120 V AC / 220~230 V AC
- ✓ designed for direct speed dome mount (EPTZ series with wall mount bracket)
- ✓ separate installation possible (blind cover for cable hole in package)
- ✓ universal mounting adaptor for additional equipment (video server, twisted pair transmitter, fiber optic transmitter)
- ✓ optional 110/230 V AC to 12 V DC converter for additional equipment
- ✓ mounting option (optional adaptor) to pole mount and corner mount adaptor

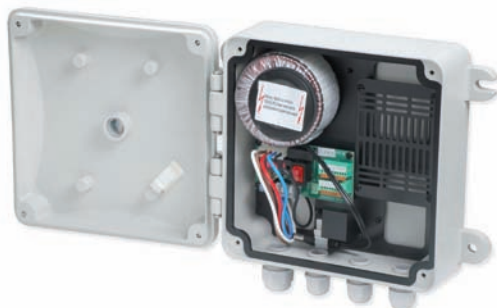


Illustration: EPTZ PBOX with speed dome EPTZ 3000

▶ EPTZ CMA - corner mount adaptor

Specifications

Material: stainless steel
Height: 170 mm
Width mounting plate: 115 mm
Width side plate: 80 mm
Weight: 1,4 kg



▶ EPTZ PMA - pole mount adaptor

Specifications

Material: stainless steel
Diameter pole: 90 mm min., 155 mm max.
Dimensions: 166 (W) x 205 (H) x 47 (D) mm
Weight: 1,4 kg



▶ EPTZ CPMA - ceiling pendent mount adaptor

Specifications

Material: steel, powder-coated
Length tube: 340 mm
Diameter ceiling adaptor: 108 mm
Diameter tube: 32 mm
Weight: 1,5 kg (incl. tube)



▶ AP24A302E1 - indoor power supply

Specifications

Input voltage: 230 V AC
Output voltage: 24 V AC
Max. output current: 3 A
Power consumption: 100 VA max.
Dimensions: 79 (W) x 68 (H) x 101 (D) mm
Weight: 1,2 kg



▶ EPTZ WMB - wall mount bracket

Specifications

Material: diecast aluminium, powder-coated
Length: 270 mm
Max. loads: 15 kg
Application: with EPTZ speed dome cameras



▶ EPTZ ICMB - embedded ceiling mount adaptor kit

Specifications

Material: steel
Cutout diameter: 200 mm
Dimensions: 130 (H) x 220 (D) mm
Weight: 1,1 kg



▶ EPTZ SSM - sunshield

Specifications

Material: aluminium, powder-coated
Dimensions: 170 (H) x 210 (D) mm
Weight: 850 g
Application: with EPTZ 3600 and EPTZ 2700



Lenses



Varifocal / Board Lenses



▶ EFV 550 / EFV 550 DC



▶ EFV 416 / EFV 416 DC



▶ EFV 358 / EFV 358 DC



▶ EFV 3010 DC



▶ EFV 2810 / EFV 2810 DC

Varifocal lenses

Item code	Sensor format	Focal length (f)	Aperture (F)	Mount	Horiz. viewing angle at 1/3"	Operation		Weight (g)
						IRIS	Focus	
EFV 550	1/3"	5 ~ 50	1,7 ~ C	CS	51°-5,5°	manual	manual	130,0
EFV 550 DC	1/3"	5 ~ 50	1,7 ~ 360	CS	51°-5,5°	DC	manual	140,0
EFV 416	1/3"	4 ~ 16	1,4 ~ C	CS	65,4°-17,8°	manual	manual	67,0
EFV 416 DC	1/3"	4 ~ 16	1,4 ~ 360	CS	65,4°-17,8°	DC	manual	67,0
EFV 358	1/3"	3,5 ~ 8	1,4 ~ C	CS	69°-33°	manual	manual	44,0
EFV 358 DC	1/3"	3,5 ~ 8	1,4 ~ 360	CS	69°-33°	DC	manual	57,0
EFV 3010 DC	1/3"	3 ~ 8	1,0 ~ 360	CS	91°-67°	DC	manual	47,0
EFV 2810	1/3"	2,8 ~ 10	1,4 ~ C	CS	81°-27°	manual	manual	51,0
EFV 2810 DC	1/3"	2,8 ~ 10	1,4 ~ 360	CS	81°-27°	DC	manual	61,0



▶ EFL 3620



▶ EFL 4320



▶ EFL 6020



▶ EFL 8020

Board lenses for camera series EB / EM / ED

Item code	Sensor format	Focal length (f)	Aperture (F)	Mount	Horiz. viewing angle at 1/3"	Operation		Weight (g)
						IRIS	Focus	
EFL 3620	1/3"	3,6	2,0	-	67°	fix	manual	5,5
EFL 4320	1/3"	4,3	2,0	-	58°	fix	manual	6,0
EFL 6020	1/3"	6,0	2,0	-	43°	fix	manual	5,0
EFL 8020	1/3"	8,0	2,0	-	33°	fix	manual	6,0

For Megapixel camera lenses, please refer to page 54

CCTV Lenses

F - Aperture ratio:

In lenses with adjustable irises, the range of iris opening is expressed as a ratio (focal length of the lens) / (maximum diameter of aperture).

f - Focal length:

The distance between the optical centre of a lens and the second principal convergent focus point.

W/H: Object height, object width

L: Object distance

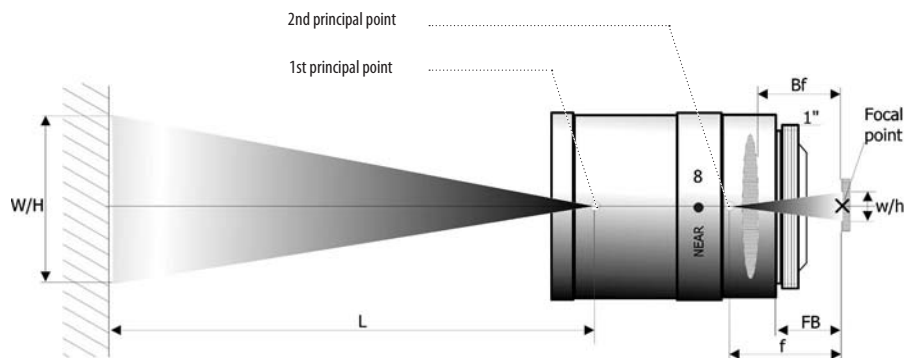
f: Focal length

FB: Flange back

Bf: Back focus length

w/h: Image height / image width at CCD sensor

$$\frac{w}{W} = \frac{h}{H} = \frac{f}{L}$$



C-mount:

Standard for CCTV lens screw mounting. It is defined with the thread of 1" (25,4mm) in diameter and 32 threads/inch, and the back flange-to-CCD distance of 17,526mm (0,69").

The C-mount description applies to both lenses and cameras. C-mount lenses can be put on both C-mount and CS-mount cameras, an adaptor is required for the latter version only.

CS-mount:

Newer standard for lens mounting. It uses the same physical thread as the C-mount, but the back flange-to-CCD distance is reduced to 12,5mm

in order to have the lenses made smaller, more compact and less expensive. CS-mount lenses can only be used on CS-mount cameras.

CS-to-C-mount adaptor:

An adaptor used to convert a CS-mount camera to C-mount to accommodate a C-mount lens.

The newer EQ 150 / 250 / 350 cameras are equipped with a wide range backfocal mechanism, the adaptor ring is not required.

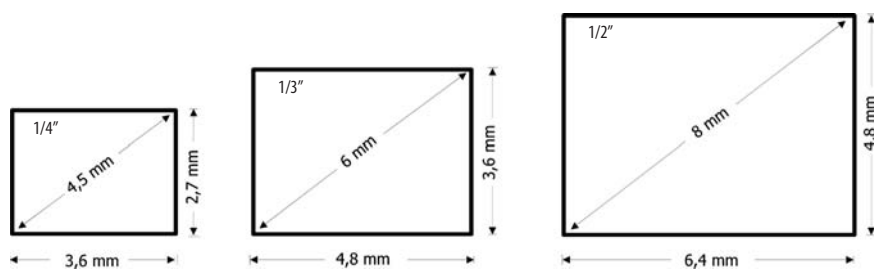
DC iris control:

The lens iris mechanism is controlled by a DC voltage, which is generated depending on the video signal level in the camera.

All EverFocus cameras with C/CS mount support lenses with DC iris control

Sensor format:

Physical size of the camera CCD chip. The most common chip sizes in CCTV industry are 1/3" and 1/4". The specified value at the lenses defines the maximum possible chip size for lens application. So, a 1/3" lens may be used for 1/3" and 1/4" cameras, but not for 1/2" cameras.



Horizontal field of view for 1/3" cameras

f (mm)	Hor. angle of view (°)	Horizontal field of view (m)			
		Object distance (m)			
		2	5	10	20
2,8	81	3,4	8,6	17,1	34,3
3,5	69	2,7	6,9	13,7	27,4
3,6	67	2,7	6,7	13,3	26,7
4,3	58	2,2	5,6	11,2	22,3
5	51	1,9	4,8	9,6	19,2
8	33	1,2	3,0	6,0	12,0
10	27	1,0	2,4	4,8	9,6
15	18	0,6	1,6	3,2	6,4
50	5,5	0,2	0,5	1,0	1,9



Camera Housings



► FH 7154 H - outdoor housing HEM with sunshield and heater

Specifications

Outer dimensions: 105 (W) x 95 (H) x 355 (L) mm
Inner dimensions: 70 (W) x 65 (H) x 300 (L) mm
Dimensions sunshield: 113 (W) x 71 (H) x 410 (L) mm
Material: extruded and die-cast aluminium
Colour: powder-coated RAL 9002
Weatherproof rating: IP 66
Ambient temperature: -20°C ~ +50°C
Heater: thermostat controlled, 115 ~ 240 V AC, 40 W
Weight: 1,9 kg



► FH 7156 H/B - outdoor housing HEB with sunshield, heater and cable channel

Specifications

Outer dimensions: 138 (W) x 128 (H) x 410 (L) mm
Inner dimensions: 90 (W) x 85 (H) x 320 (L) mm
Dimensions sunshield: 144 (W) x 90 (H) x 470 (L) mm
Material: extruded and die-cast aluminium
Colour: powder-coated RAL 9002
Weatherproof rating: IP 66
Ambient temperature: -20°C ~ +50°C
Heater: thermostat controlled, 115 ~ 240 V AC, 40 W
Weight: 2,2 kg



► FH 7160 - dustproof housing HEM

Specifications

Outer dimensions: 105 (W) x 95 (H) x 355 (L) mm
Inner dimensions: 70 (W) x 65 (H) x 300 (L) mm
Material: extruded and die-cast aluminium
Colour: powder-coated RAL 9002
Ambient temperature: 0°C ~ +50°C
Weight: 1,4 kg



► FH 7161 / B - dustproof housing HEB with cable channel

Specifications

Outer dimensions: 138 (W) x 128 (H) x 410 (L) mm
Inner dimensions: 90 (W) x 85 (H) x 320 (L) mm
Material: extruded and die-cast aluminium
Colour: powder-coated RAL 9002
Ambient temperature: 0°C ~ +50°C
Weight: 1,8 kg



► **FH 7153 H - outdoor housing HOV with sunshield and heater, side opening**

Specifications

Outer dimensions: 163 (W) x 115 (H) x 412 (L) mm
 Inner dimensions: 100 (W) x 70 (H) x 250 (L) mm
 Dimensions sunshield: 176 (W) x 98 (H) x 514 (L) mm
 Material: extruded and die-cast aluminium
 Colour: powder-coated RAL 9002

Weatherproof rating: IP 66
 Ambient temperature: -20°C ~ +50°C
 Heater: thermostat controlled, 115 ~ 240 V AC, 40 W
 Weight: 3,0 kg



► **FH 7165 - sunshield HEM**

Specifications

Dimensions: 113 (W) x 71 (H) x 410 (D) mm
 Weight: 0,5 kg
 Material: extruded aluminium
 Colour: powder-coated RAL 9002



► **FH 7101 H - thermostat heater HEM / HEB**

Specifications

Power supply input: 12 V DC / 24 V AC
 Consumption: 20 W



► **FH 7167 - power supply HEM**

Specifications

Power supply input: 230 V AC
 Power supply output: 12 V DC / 400 mA, stabilized

► **FH 7166 / B - sunshield HEB**

Specifications

Dimensions: 144 (W) x 90 (H) x 470 (D) mm
 Weight: 0,9 kg
 Material: extruded aluminium
 Colour: powder-coated RAL 9002

► **FH 7168 / B - power supply HEB**

Specifications

Power supply input: 230 V AC
 Power supply output: 12 V DC / 400 mA, stabilized



PTZ Control



FH PTH 311 - pan tilt head

Specifications

Maximum load: 12 kg balanced
 Horizontal speed: 6° / s
 Vertical speed: 3° / s
 Horizontal torque: 6 Nm
 Vertical torque: 6 Nm
 Autopan: contact controlled with delayed inversion
 Power source: 24 V AC / 50 Hz
 Power consumption: 7 W max.
 Weatherproof rating: IP 66
 Ambient temperature: - 20°C ~ +50°C
 Material housing: aluminium
 Colour: grey RAL9002
 Dimensions: 279 (W) x 180 (H) x 161 (D) mm
 Weight: 3,4 kg
 Recommended housings:
 FH 7154 H, FH 7156 H/B, FH 7160, FH 7161 / B

Mounting: wall mounting with BA- PTAC,
 pole mounting with BA PTAC+ BA 15



BA PTAC - wall mount bracket for FH PTH 311

Specifications

Material: aluminium
 Colour: grey, RAL 9002
 Length: 445 mm
 Max. load: 50 kg



KS DTMRX224 - telemetry receiver

Specifications

Functions: 12: pan left/right, tilt up/down, zoom in/out,
 focus near/far, iris open/close, autopan, aux
 Interface: RS-485, RS-232, coax telemetry
 Protocol types: Videotec macro / standard / coaxial,
 Pelco-D
 Address range: 1 ~ 99
 Power source: 24 V AC / 50 Hz
 Power consumption: 10 W max. (w/o connected PT head)
 PT control outputs: relay contacts 24 V AC / 50 Hz,
 100 W max.
 Lens control outputs: 6 V DC ~ 16 V DC adjustable,
 80 mA max.
 Aux output: clean N.O. contact max. 230 VAC / 1A
 Housing: ABS, IP-56
 Colour: grey
 Dimensions: 150 (W) x 195 (H) x 70 (D) mm
 Weight: 900 g



EL CBZ 220 - 230 V AC telemetry keyboard

Specifications

Functions:
 Pan left/right
 Tilt up/down
 Autopan on/off
 Zoom in/out
 Iris open/close
 Focus near/far
 Power source: 230 V AC / 50/60 Hz
 Power consumption: 4 W max.
 Max. switching power: 45 W
 Protection fuses: F1 50 mA F 250 V;
 F2 (motors protection) 630 mA T 250 V
 P&T control voltage: 230 V AC / 50 Hz
 Material: extruded aluminium body, membrane keyboard
 Colour: anthracite
 Dimensions: 120 (W) x 60 (H) x 185 (D) mm
 Weight: 1,1 kg

EL CBZ 24 - 24 V AC telemetry keyboard

Specifications

Functions: see EL CBZ 220
 Power source: 24 V AC / 50/60 Hz
 Power consumption: 4 W max.
 Max. switching power: 45 W
 Protection fuses: F1 500 mA F 250 V;
 F2 (motors protection) 1,6 A T 250 V
 P&T control voltage: 24 V AC / 50 Hz
 Material: extruded aluminium body, membrane keyboard
 Colour: anthracite
 Dimensions: 120 (W) x 60 (H) x 185 (D) mm
 Weight: 1 kg

Brackets



BA 17 - bracket

Material: steel / aluminium, grey metallic
Length: 150 mm
Max. load: 3 kg



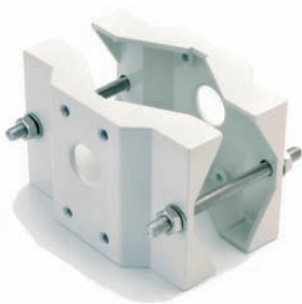
BA 14 / BA 11 - bracket

Material: zink diecasted, silver colour
Length: BA 14: 165 mm / BA 11: 95 mm
Max. load: 3 kg



BA 01 / BA 01 L - bracket

Material: zink diecasted, powder-coated beige
 mounting plate plastic
Length: BA 01: 95 mm, BA 01 L: 150 mm
Max. load: 3 kg



**BA 15 - pole mount
adaptor WSFP**

Pole diameter: 65 ~ 110 mm
Material: cast aluminium, stainless steel
Application: with BA 09, BA 12, BA PTAC



**BA 12 - bracket
WBOV**

Material: aluminium, RAL 9002
Length: 226 mm
Max. load: 25 kg
Application: with FH 7153 H, 7156 H/B and FH 7161 / B



**BA 09 - bracket
WBM**

Material: aluminium, RAL 9002
Length: 226 mm
Max. load: 25 kg
Application: with FH 7154 H, FH 7156 H/B, FH 7160 and FH 7161 / B

Twisted Pair Transmission



EL TTM 102 - active mini video twisted pair transmitter

Specifications

Video input: 1 Vp-p, FBAS, 75 Ohm BNC-plug
Twisted pair output: 2 x 2 Vp-p max. at 120 Ohm
Bandwidth: 30 Hz ~ 5 MHz (-0,5 dB)
Surge / overvoltage protection: Class 4 15/8 KV
 Class 3 3015-6, ESD 8/25 µs: 25 A

Max. recommended cable length: 1500 m with active receiver

Power source: 9 ~ 20 VDC, 20 mA max.
Ambient temperature: -10°C ~ +60°C
Dimensions: 17,5 (Diameter) x 44 (Depth) mm
Weight: 25 g



EL TR 102 - active video twisted pair receiver

Specifications

Twisted pair video input: 0,12 - 2 Vp-p
Video output: 1 Vp-p max. FBAS at 75 Ohm termination
Input impedance: 45 ~ 75 Ohm
Bandwidth: 50 Hz ~ 5 MHz (3 dB)
Disturbance reduction: > 70 dB, 50 Hz
Signal-noise ratio: -50dB at +40dB gain adj.)
 -47dB at +60dB gain adj.

Gain adjustment: +6 dB ~ +60 dB at 5 MHz
Power source: 12 VDC, 150 mA max., with included power supply 230 VAC

Ambient temperature: 0°C ~ +40°C
Dimensions: 138 (W) x 28 (H) x 86 (D) mm
Weight: 125 g



EL TT 102 - active video twisted pair transmitter

Specifications

Video input: 1 Vp-p, FBAS, 75 Ohm termination
Twisted pair output: 2 x 2 Vp-p max. at 120 Ohm
Bandwidth: 30 Hz ~ 5 MHz (-0,5 dB)
Max. recommended cable length: 1200 m with active receiver

Power source: 12 VDC, 40 mA max., with included power supply 230 VAC

Ambient temperature: 0°C ~ +40°C
Dimensions: 42 (W) x 46 (H) x 73 (D) mm
Weight: 65 g



EL TRR 102 - active video twisted pair receiver, rack mount card version

Specifications

Twisted pair video input: 0,12 Vp-p ~ 2 Vp-p
Input impedance: 45 ~ 75 Ohm
Video output: 1 Vp-p max. FBAS at 75 Ohm termination
Bandwidth: 50 Hz ~ 5 MHz (-3dB)
Disturbance reduction: > 70 dB, 50 Hz
Signal-noise ratio: -50dB at +40dB gain adj.)
 -47dB at +60dB gain adj.

Gain adjustment: +6dB ~ +60dB at 5 MHz

Power source: 12 VDC, max. 150 mA
Ambient temperature: 0°C ~ +40°C
Dimensions: 138 (W) x 28 (H) x 139 (D) mm
Weight: 125 g



EL TT 103 - passive video twisted pair transmitter

Specifications

Video input: 1 Vp-p, FBAS, 75 Ohm termination, BNC
Twisted pair output: 2 x 2 Vp-p max. at 120 Ohm, screw terminal

Bandwidth: 40 Hz ~ 5 MHz (-1 dB)

Max. recommended cable length: 200 m with active receiver

Ambient temperature: 0°C ~ +50°C
Dimensions: 15 (W) x 19 (H) x 60 (L) mm
Weight: 60 g



EL TR Rack 2 - 19" rack for twisted pair video receiver EL TRR 102

Specifications

Receiver card slots: 15, with 15 metal slot covers for unused slots
Material: steel, black

Power supply: 230 VAC, 80 VA max.
 internal: 15 x 12 VDC, 150 mA max.

Ambient temperature: 0°C ~ +50°C
Dimensions: 19" 3U, 482 (W) x 133 (H) x 205 (D) mm
Weight: 6,5 kg

Video Distribution



► EP TD 108 - video signal distributor 1 x 8

Specifications

Video input: 1 x 0,8 ~ 1,2 Vp-p Composite, BNC, 75 Ohm terminated

Video output: 8 x 1 Vp-p Composite to 75 Ohm, BNC

Distribution: 1 in : 8 out

Video bandwidth: 10 Hz ~ 10 MHz

Power source: 12 VDC, 500 mA max.

Ambient temperature: 0°C ~ +50°C

Dimensions: 150 (W) x 44 (H) x 133 (D) mm

Weight: 750 g



► EP TD 408 A - video signal distributor 4 x 8

Specifications

Video input: 4 x 0,8 ~ 1,2 Vp-p Composite, BNC, 75 Ohm terminated

Video output: 8 x 1 Vp-p Composite to 75 Ohm, adjustable, BNC

Distribution: 4 x 1 in : 2 out

Video bandwidth: 10 Hz ~ 10 MHz

Power source: 12 VDC, 500 mA max.

Ambient temperature: 0°C ~ +50°C

Dimensions: 150 (W) x 44 (H) x 133 (D) mm

Weight: 750 g



► EP TD 816 A - video signal distributor 8 x 16

Specifications

Video input: 8 x 0,8 ~ 1,2 Vp-p Composite, BNC, 75 Ohm terminated

Video output: 16 x 1 Vp-p Composite to 75 Ohm, adjustable, BNC

Distribution: 8 x 1 in : 2 out

Video bandwidth: 10 Hz ~ 10 MHz

Power source: 12 VDC, 500 mA max.

Ambient temperature: 0°C ~ +50°C

Dimensions: 10", 1U, 482 (W) x 44 (H) x 170 (D) mm

Weight: 2,6 kg



► EP TD 816 PRO - programmable video signal distributor 8 x 16

Specifications

Video input: 8 x 0,8 ~ 1,2 Vp-p Composite, BNC, 75 Ohm terminated

Video output: 16 x 1 Vp-p Composite to 75 Ohm, BNC, 1 output with programmable sequence

Distribution: free input / output assignment

Video bandwidth: 10 Hz ~ 10 MHz

Display: 2 x 7 segment LED displays

Setup: 4 front keys with lock function

Power source: 12 VDC, 500 mA max.

Ambient temperature: 0°C ~ +50°C

Dimensions: 10", 1U, 482 (W) x 44 (H) x 170 (D) mm

Weight: 2,6 kg



Quads



► EP 4BQ - 4-channel b/w quad Processor

Specifications

Video format: CCIR

Video input: 4 inputs with loop-through
1 VCR input, 1 Vp-p, 75 Ohm

Video output: 1 monitor output
1 quad output for VCR, 1 Vp-p at 75 Ohm

Refresh rate: 15-30 fields / sec.

VCR playback: yes

Alarm input: 4 alarm inputs

Alarm output: 1x NO/NC relay output

Power source: 24 V AC, 230 V AC via included power supply

Power consumption: max. 5 W

Ambient temperature: 0°C ~ +50°C

Dimensions: 239 (W) x 55 (H) x 166 (D) mm

Weight: 2,0 kg



► EP 4CQ - 4-channel colour quad processor

Specifications

Video format: PAL

Video input: 4 inputs, 1 Vp-p, 75 Ohm
1 VCR input, 1 Vp-p, 75 Ohm

Video output: 2 video outputs, 1 Vp-p at 75 Ohm

Title: 6-characters title generator for each camera

Timer: built-in real time clock

Alarm input: 4 alarm inputs

Alarm output: 1 NO/NC relay output

Power source: 12 V DC / 24 V AC,
230 V AC via included power supply

Power consumption: 17 W max.

Ambient temperature: 0°C ~ +50°C

Dimensions: 239 (W) x 55 (H) x 166 (D) mm

Weight: 2,4 kg

Video Sensors

► EP DMD-4 - digital 4-channel indoor / outdoor video sensor

Specifications

Video input: 4 x FBAS 1 Vp-p, 75 Ohm, BNC

Video output: 4 loop-through outputs BNC

Serial interfaces: 1 x RS-232, 1 x RS-422/RS-485 (galvanic isolated)

Network interface: Ethernet 10/100 MB

Switch inputs: 6 x switch input (4 alarm), N.O., N.C.

Relay outputs: 6 x NO/NC

Display: 6 x status LED

Colour: RAL 7035, powder-coated

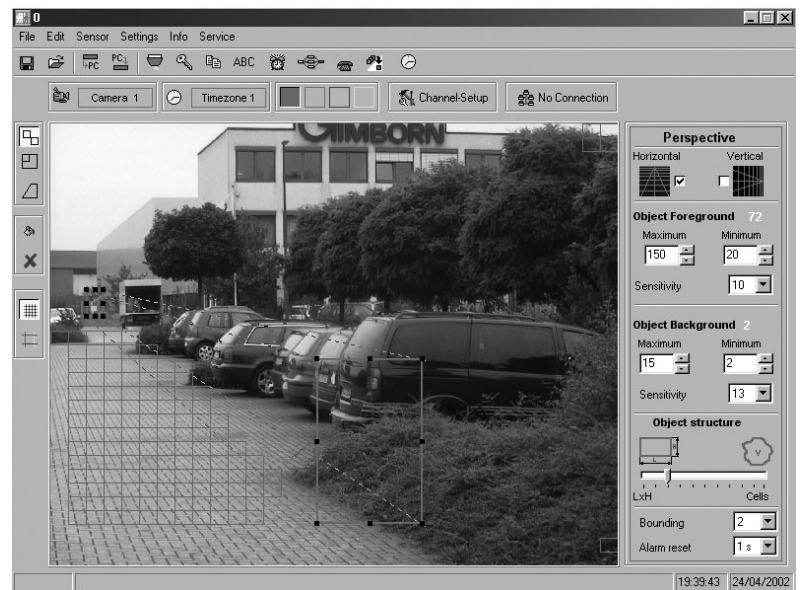
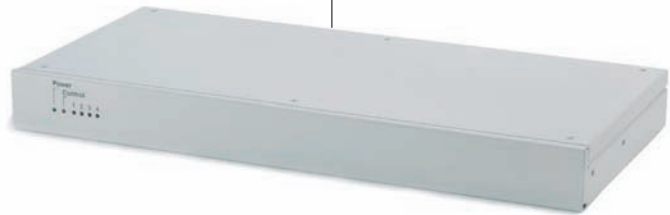
Power source: 9 V DC, 230 V AC via included power supply

Dimensions: 19", 1 HU, 200 (D) mm

Weight: 4,6 kg

Features

- ✓ PC setup via network with live video, saving of parameters, parameter up- / download, password protection
- ✓ integration of several sensors in network
- ✓ 4 sensor areas per camera with each up to 6480 fields
- ✓ tracking detection of up to 16 objects per channel
- ✓ max. 8 scans / second of all sensor fields
- ✓ automatic speed dome tracking via preset
- ✓ speed dome telemetry control
- ✓ camera perspective analysis
- ✓ various filter functions for motion detection to avoid false alarms
- ✓ logical link between sensor fields, alarm inputs and timer
- ✓ sabotage detection (analysis of signal characteristic)
- ✓ integrated timer with automatic daylight saving time adjustment, calendar function
- ✓ 4 time zones, day / night switch
- ✓ four week timers with 96 possible switches for each day
- ✓ date and time display
- ✓ release of one relay contact per channel and individual programming of serial command sequences per field
- ✓ text / field indication with up to 24 x 12 characters per channel
- ✓ German / English menu



Tracking function for speed dome control!





Ecor Series



ECOR-4 - 4-channel MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format: full screen, quad screen, sequence

Video input: 4 video inputs 1 Vp-p composite PAL, BNC, automatic 75 Ohm termination

Video output: 4 loop-through outputs 1 Vp-p at 75 Ohm, BNC
1 main monitor output, 1 Vp-p at 75 Ohm, BNC
optional: 1 main monitor output, VGA 800 x 600, 15-pin Sub-D

Video compression: MPEG-4

Display resolution: 800 x 600

Harddisk storage: 1 x internal 3.5" SATA HDD

Recording resolution: 704 x 576, 704 x 288, 352 x 288

Recording rate: 1 ~ 100 IPS (352 x 288) total

1 ~ 100 IPS (704 x 288) total

1 ~ 50 IPS (704 x 576) total

1 ~ 25 IPS individual setup per channel for normal and event recording
(remaining rate to be distributed among remaining channels)

Recording modes: continuous, schedule or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area and sensitivity

Event log: 10,000 log entries

Pre-alarm: no pre-alarm function

Audio: no audio function

Alarm input: 4 alarm inputs

Alarm output: 1 relay output N.O. / N.C.

Setup: on-screen display with graphic user interface (GUI)

Control: USB mouse control, front panel control,
optional: IR remote control, network, RS-485 keyboard EKB 500

Timer: built-in real time clock

Title: 16-characters title generator for each camera

Archive: USB 2.0 interface

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D (service)

RS-485: 2x RJ45 connector for PTZ

Password protection: 2 level

Power source: 12 V DC, via external power supply 100 ~ 240 V AC

Power consumption: 40 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 320 (W) x 50 (H) x 210 (D) mm

Features

- ✓ user-friendly graphic user interface (GUI) with easy mouse or front panel operation
- ✓ latest MPEG-4 compression technology with improved picture quality
- ✓ individual recording and schedule settings for each channel
- ✓ data archiving via USB 2.0 port
- ✓ programmable motion detection area for each channel
- ✓ PTZ control
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through Internet Explorer (ActiveX application)
- ✓ network operation independent from local operation
- ✓ optional RS-485 remote control (EKB 500)

MPEG-4 Series



Delivery includes IR remote control EDA 966!



EDR 1640 - 16-channel duplex MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format:

1, 4, 7, 9, 10, 13, 16x multiscreen, 2x2 zoom, PiP (live mode)
1, 4, 7, 9, 10, 13, 16x multiscreen, 2x2 zoom (playback mode)

Video input: 16 video inputs 1 Vp-p composite PAL, BNC,
automatic 75 Ohm termination
1 cascade input, 1 Vp-p composite PAL, BNC

Video output:

16 loop-through outputs 1 Vp-p at 75 Ohm, BNC
1 main monitor output, 1 Vp-p at 75 Ohm, BNC
1 S-video output mini DIN, for main monitor
1 call monitor output, 1 Vp-p at 75 Ohm, BNC
4 matrix monitor outputs, 1 Vp-p at 75 Ohm, BNC
1 cascade output, 1 Vp-p at 75 Ohm, BNC

Video compression: MPEG-4

Display resolution: 720 x 576

Harddisk storage: 2 x 3,5" IDE HDD

SCSI controller for external storage via disk array EDA 800 s

Recording resolution: Full D1 size: 720 x 576

Half D1 size: 720 x 288

CIF size: 360 x 288

Recording rate: 1 ~ 400 IPS (360 x 288)

1 ~ 200 IPS (720 x 288)

1 ~ 100 IPS (720 x 576)

Recording modes: continuous, timer, schedule
or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area
(30x24) and sensitivity

Event log: yes (10240 entries per HD)

Alarm input: 16 alarm inputs

Alarm output: 4 alarm outputs

Audio input: 4 mono (line) inputs

Audio output: 1 mono (line) output

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control
optional: mouse control, network, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time
synchronisation via global NTP server through Internet

Title: 12-characters title generator for each camera

Archive: USB 2.0 interface

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: 2 x RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan,
HDD temperature and HDD activity

Password protection: 3 level

Power source: 100 ~ 240 V AC

Power consumption: 185 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 19", 2 HU, 430 (W) x 88 (H) x 300 (D) mm

Weight: 6,24 kg

Features

- ✓ built-in MPEG-4 compression / decompression with configurable quality
- ✓ variable recording speeds up to 400 IPS
- ✓ duplex operation for simultaneous recording and playback
- ✓ data archiving via USB 2.0 port
- ✓ programmable motion detection area (30 x 24) for each channel
- ✓ colour, brightness and contrast setting per channel
- ✓ two removable hard disks for internal storage
- ✓ extended recording capacity via max. 6 optional hard disk arrays EDA 800 s
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ real time audio recording at any video recording speed
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ cascading of EDRs in remote keyboard applications
- ✓ network operation independent from local operation
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service:
DDNS account registration directly from DVR setup



Delivery includes IR remote control EDA 966!



EDR 920 - 9-channel duplex MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format:

1, 4, 7, 9x multiscreen, 2x2 zoom, PiP (live mode)

1, 4, 7, 9x multiscreen, 2x2 zoom (playback mode)

Video input: 9 video inputs 1 Vp-p composite PAL, BNC, automatic 75 Ohm termination

1 cascading input, 1 Vp-p composite PAL, BNC

Video output:

9 loop-through outputs 1 Vp-p at 75 Ohm, BNC

1 main monitor output, 1 Vp-p at 75 Ohm, BNC

1 S-video output mini DIN, for main monitor

1 call monitor output, 1 Vp-p at 75 Ohm, BNC

4 matrix monitor outputs, 1 Vp-p at 75 Ohm, BNC

1 cascading output, 1 Vp-p at 75 Ohm, BNC

Video compression: MPEG-4

Display resolution: 720 x 576

Harddisk storage: 2 x 3,5" IDE HDD

SCSI controller for external storage via disk array EDA 800 s

Recording resolution: Full D1 size: 720 x 576

Half D1 size: 720 x 288

Clf size: 360 x 288

Recording rate: 1 ~ 200 IPS (360 x 288)

1 ~ 100 IPS (720 x 288)

1 ~ 50 IPS (720 x 576)

Recording modes: continuous, timer, schedule or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area (30x24) and sensitivity

Event log: yes (10240 entries per HD)

Alarm input: 9 alarm inputs

Alarm output: 4 alarm outputs

Audio input: 4 mono (line) inputs

Audio output: 1 mono (line) output

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control optional: mouse control, network, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time synchronisation via global NTP server through Internet

Title: 12-characters title generator for each camera

Archive: USB 2.0 interface

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: 2x RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan, HDD temperature and HDD activity

Password protection: 3 level

Power source: 100 ~ 240 V AC

Power consumption: 185 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 19", 2 HU, 430 (W) x 88 (H) x 300 (D) mm

Weight: 6,24 kg

Features

- ✓ built-in MPEG-4 compression / decompression with configurable quality
- ✓ variable recording speeds up to 200 IPS
- ✓ duplex operation for simultaneous recording and playback
- ✓ data archiving via USB 2.0 port
- ✓ programmable motion detection area (30 x 24) for each channel
- ✓ colour, brightness and contrast setting per channel
- ✓ two removable hard disks for internal storage
- ✓ extended recording capacity via max. 6 optional hard disk arrays EDA 800 s
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ real time audio recording at any video recording speed
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ cascading of EDR's in remote keyboard applications
- ✓ network operation independent from local operation
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service:
DDNS account registration directly from DVR setup

MPEG-4 "Ease" Series



Delivery includes IR remote control EDA 966!



EDR 1610 x2A - 16-channel duplex MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format: 1, 4, 7, 9, 10, 13, 16x multiscreeen, PiP, 2x2 zoom

Video input: 16 video inputs, 1 Vp-p composite PAL, BNC, automatic 75 Ohm termination

Video output: 16 loop-through outputs, 1 Vp-p at 75 Ohm
1 main monitor output, 1 Vp-p at 75 Ohm, BNC
1 call monitor output, 1 Vp-p at 75 Ohm, BNC
1 monitor output VGA

Video compression: MPEG-4

Display resolution: 720 x 576 or 720 x 288 or 360 x 288

Harddisk storage: 1 x internal 3,5" IDE HDD

Recording resolution: Full D1 size: 720 x 576
Half D1 size: 720 x 288
CIF size: 360 x 288

Recording rate: 1 ~ 200 IPS (360 x 288)
1 ~ 100 IPS (720 x 288)
1 ~ 50 IPS (720 x 576)

Recording modes: continuous, timer, schedule or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area (30x24) and 6 sensitivity levels

Event log: yes (10240 entries)

Alarm input: 16 alarm inputs

Alarm output: 1 alarm output

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control
optional: keyboard control, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time synchronisation via global NTP server through Internet

Title: 12-characters title generator for each camera

Archive: USB 2.0 interface (for USB stick or EPR200 DVD-RW drive), internal DVD-RW drive (EDR 1610 D only)

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: 2x RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan, HDD temperature and HDD activity

Password protection: for menu and record function

Remote control: optional

Media: DVD+RW media, UDF formatted

Power source: 100 ~ 240 V AC

Power consumption: 90 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 430 (W) x 83 (H) x 385 (D) mm

Weight: 6,0 kg (EDR 1610 A), 6,4 kg (EDR 1610 D)

Features:

- ✓ built-in MPEG-4 compression/decompression with configurable quality
- ✓ variable recording speeds up to 200 IPS
- ✓ data archiving via USB 2.0 port
- ✓ internal DVD-RW drive for easy video export (EDR 1610 D)
- ✓ programmable motion detection area (30x24) for each channel
- ✓ one internal hard disk for data storage
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ Ethernet interface for remote network viewing and controlling (ActiveX application) or optional PowerCon 4.0 software
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ network operation independent from local operation mode
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service:
DDNS account registration directly from DVR setup

EDR 1610 x2D - 16-channel duplex MPEG-4 digital video recorder with DVD-RW drive





Delivery includes IR remote control EDA 966!



► EDR 910 x2A - 9-channel duplex MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format: 1, 4, 7, 9, x multiscreen, PiP, 2x2 zoom

Video input: 9 video inputs, 1 Vp-p composite PAL, BNC, automatic 75 Ohm termination

Video output: 9 loop-through outputs, 1 Vp-p at 75 Ohm
1 main monitor output, 1 Vp-p at 75 Ohm, BNC
1 call monitor output, 1 Vp-p at 75 Ohm, BNC
1 monitor output VGA

Video compression: MPEG-4

Display resolution: 720 x 576 or 720 x 288 or 360 x 288

Harddisk storage: 1 x internal 3,5" IDE HDD

Recording resolution: Full D1 size: 720 x 576

Half D1 size: 720 x 288

Clf size: 360 x 288

Recording rate: 1 ~ 200 IPS (360 x 288)

1 ~ 100 IPS (720 x 288)

1 ~ 50 IPS (720 x 576)

Recording modes: continuous, timer, schedule
or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area (30x24)
and 6 sensitivity levels

Event log: yes (10240 entries)

Alarm input: 9 alarm inputs

Alarm output: 1 alarm output

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control
optional: keyboard control, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time
synchronisation via global NTP server through Internet

Title: 12-characters title generator for each camera

Archive: USB 2.0 interface (for USB stick or EPR200 DVD-RW drive),
internal DVD-RW drive (EDR 910 D only)

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: 2x RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan,
HDD temperature and HDD activity

Password protection: for menu and record function

Remote control: optional

Media: DVD+RW media, UDF formatted

Power source: 100 ~ 240 V AC

Power consumption: 90 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 430 (W) x 83 (H) x 385 (D) mm

Weight: 6,0 kg (EDR 910 A), 6,4 kg (EDR 910 D)

Features

- ✓ built-in MPEG-4 compression/decompression with configurable quality
- ✓ variable recording speeds up to 200 IPS
- ✓ data archiving via USB 2.0 port
- ✓ internal DVD-RW drive for easy video export (EDR 910 D)
- ✓ programmable motion detection area (30x24) for each channel
- ✓ one internal hard disk for data storage
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ network operation independent from local operation mode
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service:
DDNS account registration directly from DVR setup

► EDR 910 x2D - 9-channel duplex MPEG-4 digital video recorder with DVD-RW drive



MPEG-4 "Ease" Series



Delivery includes IR remote control EDA 966!



EDR 410 D - 4-channel duplex MPEG-4 digital video recorder with DVD-RW drive

Specifications

Video format: PAL / CCIR

Display format: 1, 4x multiscreeen, PIP, 2x2 zoom

Video input: 4 video inputs, 1 Vp-p composite PAL, BNC, automatic 75 Ohm termination

Video output: 4 loop-through outputs, 1 Vp-p at 75 Ohm

1 main monitor output, 1 Vp-p at 75 Ohm, BNC

1 call monitor output, 1 Vp-p at 75 Ohm, BNC

1 monitor output VGA

Video compression: MPEG-4

Display resolution: 720 x 576 or 720 x 288 or 360 x 288

Harddisk storage: 1 x internal 3,5" IDE HDD

Recording resolution: Full D1 size: 720 x 576

Half D1 size: 720 x 288

CIF size: 360 x 288

Recording rate: 1 ~ 100 IPS (360 x 288)

1 ~ 50 IPS (720 x 288)

1 ~ 25 IPS (720 x 576)

Recording modes: continuous, timer, schedule or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area (30x24) and 6 sensitivity levels

Event log: yes (10240 entries)

Alarm input: 4 alarm inputs

Alarm output: 1 alarm output

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control optional: keyboard control, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time synchronisation via global NTP server through Internet

Title: 12-characters title generator for each camera

Archive: USB 2.0 interface (for USB stick or EPR200 DVD-RW drive), internal DVD-RW drive

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan, HDD temperature and HDD activity

Password protection: for menu and record function

Remote control: optional

Media: DVD+RW media, UDF formatted

Power source: 100 ~ 240 V AC

Power consumption: 90 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 430 (W) x 83 (H) x 385 (D) mm

Weight: 6,4 kg

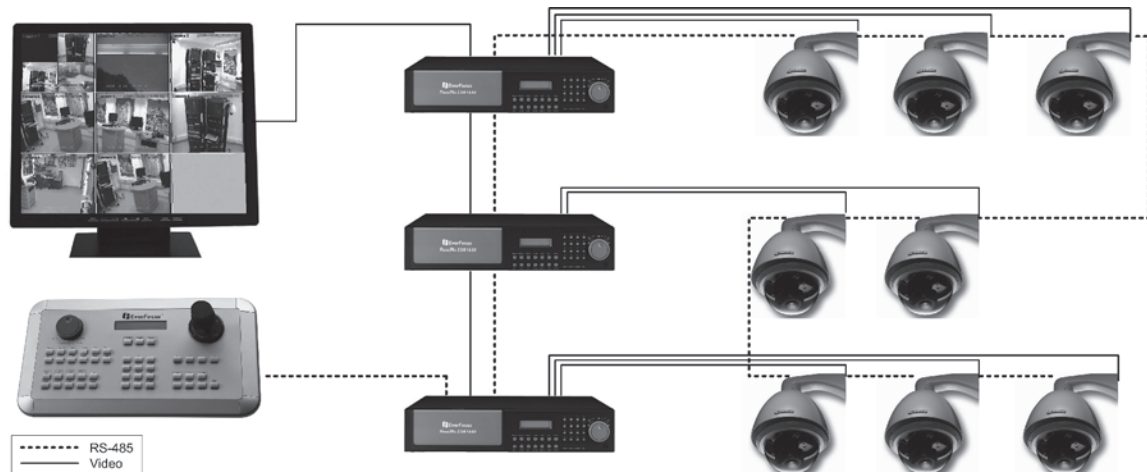
Features:

- ✓ built-in MPEG-4 compression/decompression with configurable quality
- ✓ variable recording speeds up to 100 IPS
- ✓ data archiving via USB 2.0 port
- ✓ internal DVD-RW drive for easy video export
- ✓ programmable motion detection area (30x24) for each channel
- ✓ one internal hard disk for data storage
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ network operation independent from local operation mode
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service:
DDNS account registration directly from DVR setup

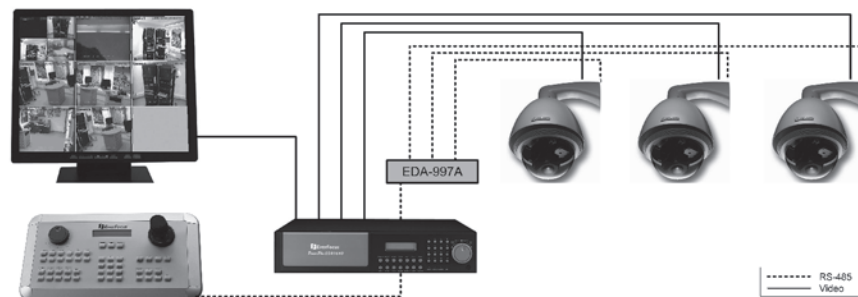


System Examples

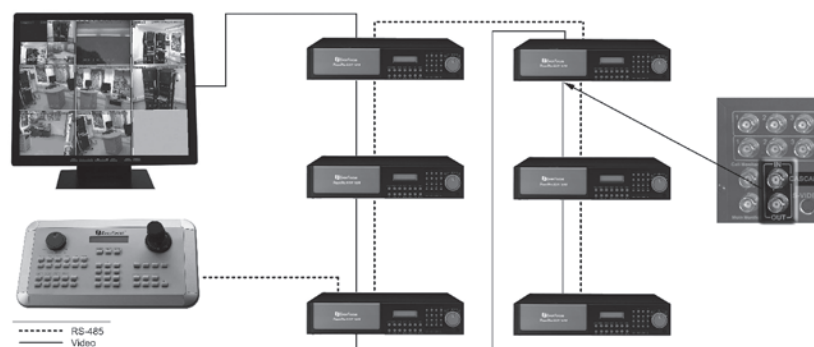
EEFbus system example with speed dome EPTZ 1000, 3 cascaded EDR 1640 and TFT monitor FH 7517 T



EEFbus remote control with speed dome star wiring



Multi-DVR remote control using cascading function



MPEG-4 "Half size" Series



Delivery includes IR remote control EDA 966!

EDR 810 H - 8-channel half size MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format main monitor:

1, 4, 7, 8/9x multiscreen, SEQ, PIP, 2x2 zoom

Display format call monitor:

1, 4x display, SEQ

Video input: 8 video inputs, 1 Vp-p composite PAL, BNC, automatic 75 Ohm termination

Video output: 1 main monitor output, 1 Vp-p at 75 Ohm, BNC
1 call monitor output, 1 Vp-p at 75 Ohm, BNC

Video compression: MPEG-4

Display resolution: 720 x 576 or 720 x 288 or 360 x 288

Harddisk storage: 1 x 3,5" IDE HDD

Recording resolution: Full D1 size: 720 x 576

Half D1 size: 720 x 288

CIF size: 360 x 288

Recording rate: 1 ~ 100 IPS (360 x 288)

1 ~ 50 IPS (720 x 288)

1 ~ 25 IPS (720 x 576)

Recording modes: continuous, timer, schedule
or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area (30x24)
and 6 sensitivity levels

Event log: yes (10240 entries)

Alarm input: 8 alarm inputs

Alarm output: 1 alarm output

Audio input: 2 mono (line) inputs

Audio output: 2 mono (line) outputs

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control
optional: keyboard control, network, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time
synchronisation via global NTP server through Internet



Title: 12-characters title generator for each camera

Archive: USB 2.0 interface

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: 2x RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan,
HDD temperature and HDD activity

Password protection: 3 level

Power source: 12 / 24 V DC,
via included power supply 230 V AC

Power consumption: 60 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 215 (W) x 100 (H) x 321 (D) mm

Weight: 5,0 kg

Features:

- ✓ built-in MPEG-4 compression/decompression with configurable quality
- ✓ variable recording speeds up to 100 IPS
- ✓ data archiving via USB 2.0 port
- ✓ programmable motion detection area (30x24) for each camera
- ✓ one hard disk for internal storage
- ✓ quad output for call monitor
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ real time audio recording at any video recording speed
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ network operation independent from local operation mode
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service:
DDNS account registration directly from DVR setup



Delivery includes IR remote control EDA 966!



► EDR 410 H - 4-channel half size MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format main monitor:

1, 4x multiscreen, SEQ, PIP, 2x2 zoom

Display format call monitor:

1, 4x display, SEQ

Video input: 4 video inputs, 1 Vp-p composite PAL, BNC, automatic 75 Ohm termination

Video output: 4 loop-through outputs, 1 Vp-p at 75 Ohm, BNC

1 main monitor output, 1 Vp-p at 75 Ohm, BNC

1 call monitor output, 1 Vp-p at 75 Ohm, BNC

Video compression: MPEG-4

Display resolution: 720 x 576 or 720 x 288 or 360 x 288

Harddisk storage: 1 x 3,5" IDE HDD

Recording resolution: Full D1 size: 720 x 576

Half D1 size: 720 x 288

CIF size: 360 x 288

Recording rate: 1 ~ 100 IPS (360 x 288)

1 ~ 50 IPS (720 x 288)

1 ~ 25 IPS (720 x 576)

Recording modes: continuous, timer, schedule or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area (30x24) and 6 sensitivity levels

Event log: yes (10240 entries)

Alarm input: 4 alarm inputs

Alarm output: 1 alarm output

Audio input: 2 mono (line) inputs

Audio output: 2 mono (line) outputs

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control optional: keyboard control, network, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time synchronisation via global NTP server through Internet

Title: 12-characters title generator for each camera

Archive: USB 2.0 interface

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: 2x RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan, HDD temperature and HDD activity

Password protection: 3 level

Power source: 12 / 24 V DC, via included power supply 230 V AC

Power consumption: 60 W max.

Ambient temperature: 0°C ~ +40°C

Dimensions: 215 (W) x 100 (H) x 321 (D) mm

Weight: 5,0 kg

Features:

- ✓ built-in MPEG-4 compression/decompression with configurable quality
- ✓ variable recording speeds up to 100 IPS
- ✓ data archiving via USB 2.0 port
- ✓ programmable motion detection area (30x24) for each camera
- ✓ one hard disk for internal storage
- ✓ quad output for call monitor
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ real time audio recording at any video recording speed
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ network operation independent from local operation mode
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service: DDNS account registration directly from DVR setup

MPEG-4 "Mobile" Series



Delivery includes IR remote control EDA 966!



EDR 810 M - 8-channel mobile MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format main monitor:

1, 4, 7, 8/9x multiscreen, SEQ, PiP, 2x2 zoom

Display format call monitor:

1, 4x display, SEQ

Video input: 8 video inputs, 1 Vp-p composite PAL, BNC,
automatic 75 Ohm termination

Video output: 1 main monitor output, 1 Vp-p at 75 Ohm, BNC
1 call monitor output, 1 Vp-p at 75 Ohm, BNC

Video compression: MPEG-4

Display resolution: 720 x 576 or 720 x 288 or 360 x 288

Harddisk storage: 1 x 2,5" IDE HDD

Recording resolution: Full D1 size: 720 x 576

Half D1 size: 720 x 288

CIF size: 360 x 288

Recording rate: 1 ~ 100 IPS (360 x 288)

1 ~ 50 IPS (720 x 288)

1 ~ 25 IPS (720 x 576)

Recording modes: continuous, timer, schedule
or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area (30x24)
and 6 sensitivity levels

Event log: yes (10240 entries)

Alarm input: 8 alarm inputs

Alarm output: 1 alarm output

Audio input: 2 mono (line) inputs

Audio output: 2 mono (line) outputs

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control
optional: keyboard control, network, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time
synchronisation via global NTP server through Internet

Title: 12-characters title generator for each camera

Archive: USB 2.0 interface

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: 2x RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan,
HDD temperature and HDD activity

Password protection: 3 level

e9 certificate no.: e9*72/245*2004/104*6077*00

Power source: 12 / 24 V DC
(230 V AC power supply not included)

Power consumption: 60 W max.

Ambient temperature: -10°C ~ +50°C

Operating shock: 8G, 11 ms (20 per 5 seconds max.)

Operating vibration: 5 ~ 20 Hz, 0,037" (double amplitude),
5 ~ 500 Hz, 0,75 G (0 to peak)

Dimensions:

215 (W) x 100 (H) x 321 (D) mm (without mobile mounting kit)

320 (W) x 108 (H) x 321 (D) mm (with mobile mounting kit)

Weight: 5,0 kg

Features:

- ✓ built-in MPEG-4 compression/decompression with configurable quality
- ✓ variable recording speeds up to 100 IPS
- ✓ data archiving via USB 2.0 port
- ✓ programmable motion detection area (30x24) for each camera
- ✓ one hard disk for internal storage
- ✓ quad output for call monitor
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ real time audio recording at any video recording speed
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ shock- and vibration-proof mounting kit
- ✓ network operation independent from local operation mode
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service:
DDNS account registration directly from DVR setup



Delivery includes IR remote control EDA 966!



EDR 410 M - 4-channel mobile MPEG-4 digital video recorder

Specifications

Video format: PAL / CCIR

Display format main monitor:

1, 4x multiscreen, SEQ, PIP, 2x2 zoom

Display format call monitor:

1, 4x display, SEQ

Video input: 4 video inputs, 1 Vp-p composite PAL, BNC, automatic 75 Ohm termination

Video output: 4 loop-through outputs, 1 Vp-p at 75 Ohm, BNC

1 main monitor output, 1 Vp-p at 75 Ohm, BNC

1 call monitor output, 1 Vp-p at 75 Ohm, BNC

Video compression: MPEG-4

Display resolution: 720 x 576 or 720 x 288 or 360 x 288

Harddisk storage: 1 x 2,5" IDE HDD

Recording resolution: Full D1 size: 720 x 576

Half D1 size: 720 x 288

ClF size: 360 x 288

Recording rate: 1 ~ 100 IPS (360 x 288)

1 ~ 50 IPS (720 x 288)

1 ~ 25 IPS (720 x 576)

Recording modes: continuous, timer, schedule or event recording

Playback search: via time/date or event

Video pause: yes

Video loss detection: yes

Motion detection: yes, with configurable detection area (30x24) and 6 sensitivity levels

Event log: yes (10240 entries)

Alarm input: 4 alarm inputs

Alarm output: 1 alarm output

Audio input: 2 mono (line) inputs

Audio output: 2 mono (line) outputs

Setup: on-screen display

Control: front panel control with jog/shuttle, IR remote control

optional: keyboard control, network, RS-485 keyboard EKB 500

Timer: built-in real time clock with automatic time

synchronisation via global NTP server through Internet

Title: 12-characters title generator for each camera

Archive: USB 2.0 interface

Ethernet: RJ45 network connector

RS-232: 9-pin Sub-D

RS-485: 2x RJ45 connector for remote control and PTZ

Watchdog function: for processing, cooler fan, HDD temperature and HDD activity

Password protection: 3 level

e9 certificate no.: e9*72/245*2004/104*6077*00

Power source: 12 / 24 V DC

(230 V AC power supply not included)

Power consumption: 60 W max.

Ambient temperature: -10°C ~ +50°C

Operating shock: 8G, 11 ms (20 per 5 seconds max.)

Operating vibration: 5 ~ 20 Hz, 0,037" (double amplitude), 5~500 Hz, 0,75 G (0 to peak)

Dimensions:

215 (W) x 100 (H) x 321 (D) mm (without mobile mounting kit)

320 (W) x 108 (H) x 321 (D) mm (with mobile mounting kit)

Weight: 5,0 kg

Features:

- ✓ built-in MPEG-4 compression/decompression with configurable quality
- ✓ variable recording speeds up to 100 IPS
- ✓ data archiving via USB 2.0 port
- ✓ programmable motion detection area (30x24) for each camera
- ✓ one hard disk for internal storage
- ✓ quad output for call monitor
- ✓ individual recording settings for each channel
- ✓ on-screen menu operation with multi-language support
- ✓ real time audio recording at any video recording speed
- ✓ Ethernet interface for remote network viewing and controlling
- ✓ fast network video transmission through either Internet Explorer (ActiveX application) or optional PowerCon 4.0 software
- ✓ shock- and vibration-proof mounting kit
- ✓ network operation independent from local operation mode
- ✓ e-mail alarm
- ✓ network alarm with optional PowerCon 4.0 software
- ✓ speed dome control via network
- ✓ optional RS-485 remote control (EKB 500)
- ✓ free EverFocus DDNS service: DDNS account registration directly from DVR setup

DVR Accessories



▶ EPR 100 - harddisk reader for digital video recorders

Specifications

DVR models:

EDR 1640 / 920

EDR 810 H / 810 M / 410 H / 410 M

EDSR 1600 / 900 / 600

EDSR 400 H / 400 M / 100 H / 100 M

Multiplexer models (1-ch. DVR): 4BDX, 4CDX, 8CDX

HDD interface: 1 x 3,5" IDE harddisk

LED: 2 LED for power and disk activity indication

Lock: HDD tray lock

Interface: USB 2.0, type B connector

Power connector: 6-pin 5V / 12V DC

Operation: similar to DVR, mouse-controlled GUI

Search functions: via segment, alarm list, date/time and slider to move video pointer

Archive: save still image to BMP or JPEG file

print still image

capture video to AVI file or archive to proprietary format file

capture meta-data to text or binary file

Power source: 100 ~ 240V AC, 50/60 Hz, 30W max.

Ambient temperature: 0°C ~ +50°C

Dimensions: 155 (W) x 47 (H) x 277 (D) mm

Weight: 1,35 kg



▶ EDA 966 - IR remote control

Dimensions: 190 x 61 x 20 mm

Max. range: approx. 10 m

DVR models:

EDR 1640 / 920 / 1610 A/D / 910 A/D / 410 D

EDR 810 H / 810 M / 410 H / 410 M

EDSR 1600 / 900 / 600

Accessories (application with EDR 1610/910/810/410):

EDA 967 - 10m extension cable for DVR IR receiver

EDA 968 - 20m extension cable for DVR IR



▶ EDA 957 - harddisk tray

DVR models:

EDR 1640 / 1610 / 920 / 910

EDR 810 H / 410 H

EDSR 1600 / 900 / 600 / 100 H

▶ EDA 957 M - harddisk tray

DVR models:

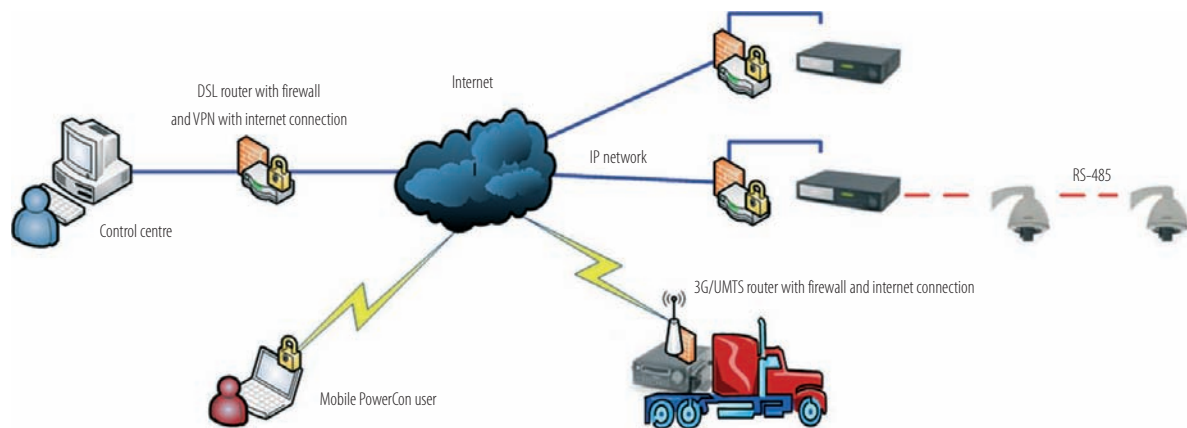
EDR 810 M / 410 M

EDSR 400 M / 100 M

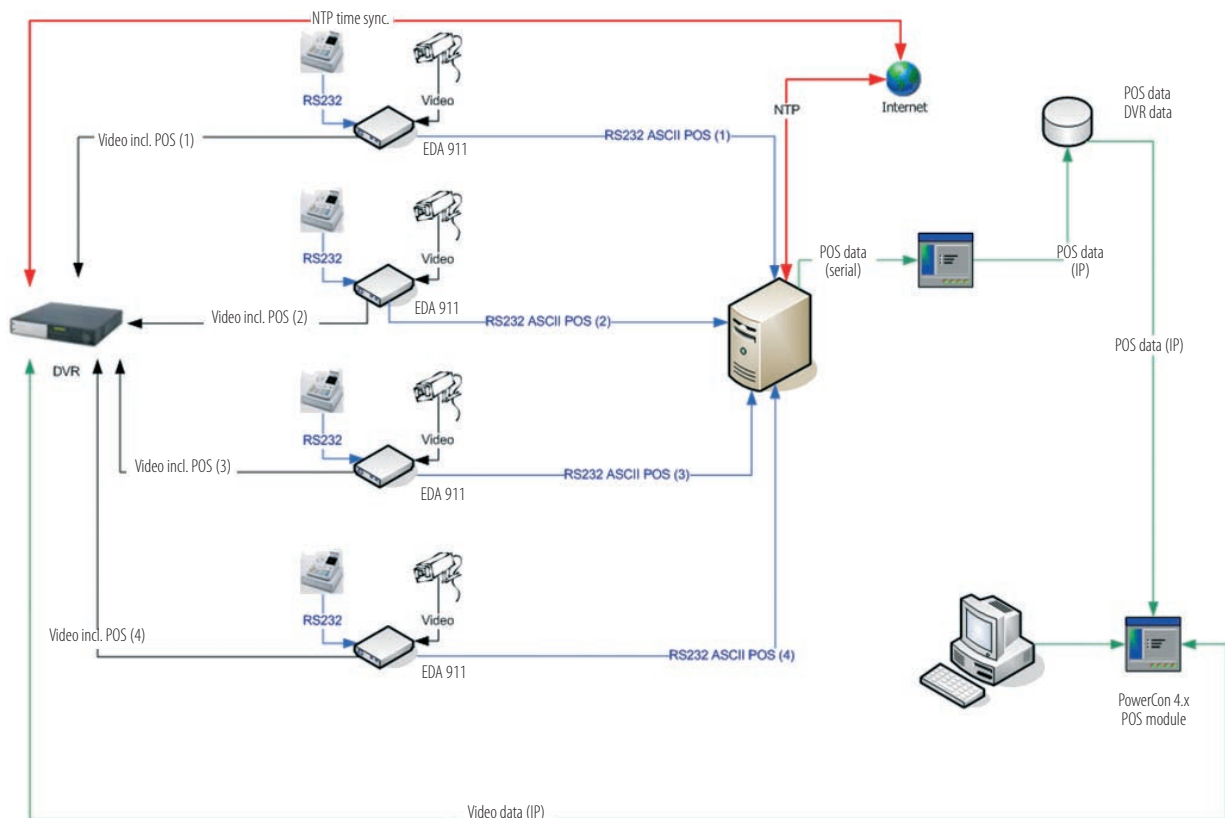


Network System Examples

WAN IP solution including vehicle access



POS solution with 4 POS terminals, graphical text display EDA 911 and PowerCon POS module



Recording capacities

EDR series (MPEG-4) 720 x 576

**Recording capacity (hours) for EDR series' digital video recorders - PAL mode recording
with 100 GB HDD capacity, system resolution: 720 x 576**

Recording rate (IPS)	Image quality / Image condition* / Image size in KB											
	LOWEST		LOW		BASIC		STANDARD		HIGH		HIGHEST	
	simple	complex	simple	complex	simple	complex	simple	complex	simple	complex	simple	complex
	8,04KB	12,33KB	8,42KB	13,70KB	10,15KB	16,72KB	11,86KB	19,56KB	14,72KB	24,63KB	18,60KB	30,05KB
200	17	11	17	10	14	8	12	7	9	6	7	5
100	35	22	33	20	27	16	23	14	19	11	15	9
96	36	23	34	21	29	17	24	15	20	12	16	10
64	54	35	52	32	43	26	37	22	29	18	23	14
50	70	45	66	41	55	33	47	28	38	23	30	18
32	108	70	103	63	86	52	73	44	59	35	47	29
16	216	141	206	127	171	104	146	89	118	70	93	58
8	432	282	412	253	342	208	293	178	236	141	187	116
4	864	563	825	507	684	415	586	355	472	282	373	231

EDR series (MPEG-4) 720 x 288

**Recording capacity (hours) for EDR series' digital video recorders - PAL mode recording
with 100 GB HDD capacity, system resolution: 720 x 288**

Recording rate (IPS)	Image quality / Image condition* / Image size in KB											
	LOWEST		LOW		BASIC		STANDARD		HIGH		HIGHEST	
	simple	complex	simple	complex	simple	complex	simple	complex	simple	complex	simple	complex
	3,53KB	7,82KB	3,87KB	8,36KB	4,21KB	8,90KB	4,92KB	9,54KB	5,62KB	10,17KB	6,41KB	12,89KB
200	39	18	36	17	33	16	28	15	25	14	22	11
100	79	36	72	33	66	31	56	29	49	27	43	21
96	82	37	75	35	69	33	59	30	52	28	45	22
64	123	56	112	52	103	49	88	46	77	43	68	34
50	157	71	144	66	132	62	113	58	99	55	87	43
32	246	111	224	104	206	98	176	91	154	85	135	67
16	492	222	449	208	412	195	353	182	309	171	271	135
8	984	444	897	415	825	390	706	364	618	341	542	269
4	1967	888	1794	831	1650	780	1411	728	1236	683	1083	539



EDR series (MPEG-4) 352 x 288

Recording capacity (hours) for EDR series' digital video recorders - PAL mode recording with 100 GB HDD capacity, system resolution: 352 x 288

Recording rate (IPS)	Image quality / Image condition* / Image size in KB											
	LOWEST		LOW		BASIC		STANDARD		HIGH		HIGHEST	
	simple	complex	simple	complex	simple	complex	simple	complex	simple	complex	simple	complex
	1,76 KB	4,56 KB	1,87 KB	4,87 KB	1,97 KB	5,46 KB	2,38 KB	6,51 KB	2,67 KB	7,08 KB	3,63 KB	9,02 KB
200	79	30	74	29	71	25	58	21	52	20	38	15
100	158	61	149	57	141	51	117	43	104	39	77	31
96	164	63	155	59	147	53	122	44	108	41	80	32
64	247	95	232	89	220	79	182	67	163	61	120	48
50	316	122	297	114	282	102	233	85	208	78	153	62
32	493	190	464	178	441	159	365	133	325	123	239	96
16	986	381	928	356	881	318	729	267	650	245	478	192
8	1973	761	1857	713	1763	636	1459	533	1300	490	957	385
4	3946	1523	3714	1426	3525	1272	2918	1067	2601	981	1913	770

EDSR series (M-JPEG)

Recording capacity (hours) for EDSR series' digital video recorders - PAL mode recording with 100 GB HDD capacity

Recording rate (IPS)	Image quality / Image size in KB					
	LOWEST	LOW	BASIC	STANDARD	HIGH	HIGHEST
	15 KB	19 KB	23 KB	27 KB	31 KB	35 KB
50	119	94	77	66	57	51
25	237	187	155	132	115	102
10	593	468	387	329	287	254
5	1185	936	773	658	574	508
2	2963	2339	1932	1646	1434	1270
1	5926	4678	3865	3292	2867	2540
0,5	11852	9357	7730	6584	5735	5079
0,4	14815	11696	9662	8231	7169	6349
0,2	29630	23392	19324	16461	14337	12698
0,1	59259	46784	38647	32922	28674	25397

* Image condition:

simple = low-noise image content

complex = frequent modification / much motion / slight noise

Note:

The indicated values are for reference only. With heavy noise, an MPEG-4 image may require 6 times the storage capacity

Megapixel Cameras

EAN 1350 - 1.3 Megapixel CCD day/night network camera

Specifications

Camera

Sensor type: 1/3" progressive CCD
Effective pixels: full scan mode: 1280 x 960, 4-pixel addition mode: 640x480
Electronic shutter: 1:50 ~ 1/10,000
Digital Slow Shutter: 2x ~ 32x max. / OFF
AGC (auto gain control): 3 level
AWB (auto white balance): auto / manual / indoor / outdoor
IR cut filter: automatic / manual / ext. contact mode
Lens mount: CS-mount / C-mount, DC drive, backfocus adjustment
Minimum illumination: 1 lux / F=1.2 colour mode
 0,2 lux / F=1.2 b/w mode

Analog video out

Signal standard: PAL
Video output: 1 Vp-p composite, BNC (switchable between video out and IP streaming)

Network streaming

Video compression: MPEG4 / JPEG (dual streaming)
Video frame rate: 12,5 IPS max. (JPEG 1260 x 980)
 25 IPS max. (MPEG4 640 x 480), configurable
Compression rate: 5 level
Video resolution: MPEG4: 640 x 480, 352 x 288, 320 x 240, 176 x 144
 MJPEG: 1260 x 960, 640 x 480, 352 x 288, 320 x 240, 176 x 144
Pan/tilt: digital and support for RS-485 PT devices
Motion detection: yes (3 zones)
Video streaming: RTSP/RTP/UDP, RTSP/RTP/TCP
Protocols: RTSP/RTP HTTP tunnel, LAN multicast
OSD: text, time and date, configurable

Audio

Audio input / output: 1 x line in, 1 x line out, 3,5mm stereo sockets
Audio modes: duplex / full duplex / simplex
Audio codec: G.711, G.726 selectable

Communication

LAN port: RJ-45, 10/100 M auto-sensed, auto crossover
Communication protocol: HTTP / RTSP / FTP / SMTP / TCP/IP / UDP / ARP / ICMP / DHCP / PPPoE / DDNS / UPnP / SAMBA
Video streaming: RTSP/RTP/UDP, RTSP/RTP/TCP, RTSP/RTP HTTP tunnel, LAN multicast

I/O

Alarm: 2x input, 1 relay output, screwless terminal
RS-485: 1 x RS-485 telemetry out (Pelco-D/PT), screwless terminal
Status LED: 3x: status, network link / traffic
Power: 12 V DC / 24 V AC, 8 W max., or PoE 802.3af
Dimensions: 80 (W) x 81 (H) x 166 (L) mm (w/o socket / lens)
Temperature: operating temp. 0°C ~ +55°C, storage temp. -20°C ~ +70°C
Humidity: 10% ~ 95%, non-condensing
Weight: 600 g

Software

Browser: integrated browser applet (Internet Explorer 6.0 or above required)

Application software: PowerCon 4.3 or higher (optional)
 EverFocus NVR series

OS supported: Microsoft Windows XP, Vista

Software features / functions

TCP/IP: Static IP address / DHCP
 PPoE, DDNS, UPnP, SAMBA
 Multicast
 SMTP (event notification)
 primary / secondary DNS server
 IP filtering

User management: 3 level user rights, anonymous login

Date/time: Time/date overlay
 internal RTC or sync. by NTP or PC time
 3 redundant NTP servers

Event management

Event trigger: motion, alarm in, boot
Event schedule: weekly schedule with 1 time zone per weekday
Event reaction: record to FTP / Samba
 e-mail notification
 HTTP / TCP notification
 relay output

Motion: 3 zones with adjustable sensitivity and threshold

Pre-alarm buffer: up to 10 sec.

Display: overlay time / date / text
 image normal, flip h/v, rotate 180°

Digital zoom: 100% ~ 800% (client browser)
 100% ~ 1200% (camera)

Video settings: brightness, saturation, contrast, sharpness, backlight

Others: remote firmware upgrade
 configuration up- / download
 remote reboot

Recommended accessories:

EFV 246 MP: 2,4~6mm / F=1.2 Megapixel DC lens
EFV 308 MP: 3~8mm / F=1.0 Megapixel DC lens
EFV 550 MP: 5~50mm / F=1.4 Megapixel DC lens
FH 7153 H: outdoor housing, side opening (specification see page 29)
BA 12: wall mount bracket for FH 7153 H with internal cable management



Features

- ✓ 1.3 Megapixel progressive scan CCD sensor providing high definition video
- ✓ progressive scan technology for clear reproduction of fast moving objects
- ✓ highest sensitivity day/night mode with auto-IR cut filter removal technologies and CCD sensor
- ✓ with digital pan/tilt and electronic zoom, users can point and see the very details of the region of interest
- ✓ dual codec (MPEG4 / MJPEG) simultaneously
- ✓ 2-way audio
- ✓ C/CS mount DC lens exchangeable with backfocus adjustment
- ✓ Power over Ethernet (PoE) eases installation, security and maintenance



Illustration: EAN 1350 + FH 7153 H + Megapixel lens

Available sets:

EAN 1350/308: EAN 1350 + FH 7153 H + EVF 308 MP
EAN 1350/550: EAN 1350 + FH 7153 H + EVF 550 MP



► EAN 900 - 1.3 Megapixel network camera with progressive scan

Specifications

Camera

Sensor type: 1/3" progressive scan CMOS image sensor
Effective pixels: 1280 (H) x 1024 (V)
Responsivity: 1.0 V / lux-sec.
Lens: optional C/CS-mount, DD control supported

Network video

Picture compression: H.264 / MPEG4 / MJPEG
Picture resolution: 720P, VGA, CIF, QVGA
 1280 x 1024, 1280 x 720, 640 x 480, 320 x 240, 160 x 120

Compression setting: 4 levels: superior / high / standard / low
Streaming frame rate: 15

Audio

Microphone: built-in microphone,
 selectable internal microphone or audio input in camera setting

Audio input: 3.5mm stereo socket, sensitivity 100 mV max. / 10 KOhm
 impedance
 selectable internal microphone or audio input in camera setting

Audio output: 3.5mm stereo socket, sensitivity 500 mV max. at 10 KOhm
 impedance

Compression method: ADPCM (Pulse Code Modulation) U-Law
Frequency bandwidth: 300 Hz ~ 3.4 KHz
2-way audio: yes

Alarm

Alarm input: 1 x input for dry contacts, N.O. / N.C. adjustable, input pulse
 length 50 ms min.

Alarm output: 1 x dry relay contact, N.O. / N.C. adjustable,
 70 VDC / 200 mA max.

Motion

Operation: built-in motion detection
Motion areas: up to 5 windows

Network

Interface: 10 Base-T / 100 Base-TX auto-negotiation, RJ-45 socket
Protocol types: HTTP, TCP/IP, FTP, SMTP, DHCP, DNS, DDNS, NTP
Bandwidth control: min. 64 kByte / sec. adjustable

Serial interface

RS-485: RS-485 interface half-duplex (functionality reserved),
 screwless terminal 2-pin

LED display

Power: Light on: system power is on; light off: system power is off
Network: supports MDI/MDI-X auto crossover function
 green LED: light on still is linked; light off is not linked; blinking is active
 yellow LED: light on still is 100 Mbps; light off is 10 Mbps

Local storage

SD card: SD card interface for optional SD card 3.3 V,
 supports SDHC host specification

Recommended accessories:

EFV 246 MP: 2.4~6mm / F=1.2 Megapixel DC lens
EFV 308 MP: 3~8mm / F=1.0 Megapixel DC lens
EFV 550 MP: 5~50mm / F=1.4 Megapixel DC lens

Power

Power supply: 12 V DC & PoE
Power over Ethernet: PoE 802.3af 48VDC
Power consumption: 4.5 W max. (12 VDC)

Ambient temperature: 0°C ~ +40°C

Dimensions: 68 (W) x 57 (H) x 135 (D) mm

Weight: 600 g

Features

- ✓ 1.3 Megapixel 1/3" progressive scan CMOS sensor with high sensitivity
- ✓ built-in H.264, MPEG-4 and MJPEG digital signal output at 1280 x 720 (720P)
 image size with up to 15 FPS
- ✓ H.264 / MPEG4 / MJPEG multistream output for simultaneous live monitoring
 and high resolution recording
- ✓ Power over Ethernet (PoE) IEEE 802.3af.
- ✓ supports MDI/MDI-X auto crossover
- ✓ bandwidth control: 64K/128K/256K/1M/2M/4M/8M bps and unlimited
- ✓ built-in network interface (10 Base-T / 100 Base-TX) for remote monitoring
 by PC
- ✓ smart wizard settings for varied event and schedule recording
- ✓ built-in digital motion detection function
- ✓ built-in digital PTZ function (cropping)
- ✓ pre-defined window to express true resolution snapshot
- ✓ bidirectional audio

IP Cameras



Illustration: EZN 850 with additional IR illuminator kit EIR 100

EZN 850 - 1/3" IP outdoor IR camera with motorised lens, H.264, MPEG4, MJPEG

Specifications

Camera

Pickup device: 1/3" Sony super HAD interlaced CCD
Effective pixel: NTSC: 768 (H) x 494 (V); PAL: 752 (H) x 582 (V)
Sensitivity: IR LED OFF: 0.2 lux / F = 1.2; IR LED ON: 0 lux
Lens: motorised varifocal lens 6~50mm, 9x optical zoom
Video output: BNC socket, composite 1 Vp-p / 75 Ohm
Video output resolution: 530 TV lines colour / 560 TV lines b/w
IR distance: max. 30 ~ 50 m (depending on reflection in scenery)
 max. 40 ~ 70 m with additional IR illuminator kit EIR 100
IR wavelength: 850 nm

Network video

Picture compression: H.264 / MPEG-4 / M-JPEG
Picture resolution: D1, VGA, CIF, QVGA, QCIF
 NTSC: 720 x 480, 640 x 480, 352 x 240, 320 x 240, 176 x 144
 PAL: 720 x 576, 640 x 480, 352 x 288, 320 x 240, 176 x 144
Compression setting: 4 levels adjustable (superior / high / standard / low)
Streaming frame rate: 1~30 IPS (NTSC), 1~25 IPS (PAL), adjustable at full D1

Motion detection

Operation: built-in motion detection
Motion areas: up to 5 windows
Privacy areas: up to 5 windows

Network

Interface: 10 Base-T / 100 Base-TX auto-negotiation, RJ-45 socket
Protocol types: HTTP, TCP/IP, FTP, SMTP, DHCP, DNS, DDNS, NTP
Bandwidth control: min. 64 kByte / sec. adjustable

Terminal I/O

RS-485: RS-485 interface half-duplex (1: RS-485+, 2: RS-485-)
Alarm I/O: 1 x input, 1 x output, N.O. / N.C. adjustable
 (3: alarm in, 4: alarm out, 5: COM)
Power output: DC 12V for external IR illuminator (6: GND, 7: DC12V)

LED display

Network LED: green LED on (still): 100 Mbps; off: 10 Mbps
 yellow LED on (still): linked; on (blinking): active; off: not linked
Power LED: red LED on: system power on; off: system power off

Local storage

SD card: 1 x SD card slot
 SD-card interface for optional SD card 3,3 V, supports SDHC host specification

Power supply: EZN 850 / P: AC 100 V ~ 240 V, 50/60 Hz
 EZN 850 A/P: 24 V AC

Power consumption: 17 W max. (heater ON & IR LED ON),
 34 W max. with EIR 100

Ambient temperature: -40°C ~ +50°C

Humidity: 20~85%

Heater: 10°C on, 20°C off

Dimensions: 115 (H) x 275 (L) mm

Weight: 1,6 kg

Features

- ✓ motorised vari-focal DC lens 6~50mm
- ✓ 42 high-power IR LED with 35° beaming angle
- ✓ internal cable installation
- ✓ solid outdoor housing with integrated cable management
- ✓ 4 independently adjustable network video streams (for compression method and resolution)
- ✓ compression methods: H.264, MPEG4 or MJPEG
- ✓ adjustable compression rate with 4 levels
- ✓ camera module with high resolution technology (540 TV lines)
- ✓ high resolution stream: up to 720 x 576 pixel
- ✓ 5 adjustable privacy zones
- ✓ composite video output
- ✓ local alarm input / output
- ✓ motion detection with 5 zones
- ✓ alarm e-mail and network alarm function
- ✓ local alarm video storage at optional SD card
- ✓ PoE (Power over Ethernet) supported
- ✓ network bandwidth control



▶ EAN 850 A - 1/3" advanced day/night network camera, high resolution

Specifications

Pickup device: 1/3" Sony super HAD interlaced CCD, Polestar solution
Effective pixel: NTSC: 768 (H) x 494 (V); PAL: 752 (H) x 582 (V)
Sensitivity: 0,002 lux (SENS-UP x128); 0,25 lux / F = 1.2
Lens: optional C/CS mount, manual / DD control supported
Video output: BNC socket, composite 1 Vp-p / 75 Ohm
Video output resolution: 530 TV lines
Picture compression: H.264 / MPEG-4 / M-JPEG
Picture resolution: D1, VGA, CIF, QCIF
NTSC: 720 x 480, 640 x 480, 352 x 240, 176 x 120
PAL: 720 x 576, 640 x 480, 352 x 288, 176 x 144
Compression setting: 5 levels adjustable (super / high / standard / low / lowest)
Streaming frame rate: 1~30 IPS (NTSC), 1~25 IPS (PAL) adjustable
Microphone: internal electret microphone, selection internal microphone or audio input in camera setting
Audio input: 3,5mm stereo socket, sensitivity 100 mV max. / 10 KOhm impedance, selection internal microphone or audio input in camera setting
Audio output: 3,5mm stereo socket, sensitivity 500 mV max. at 10 KOhm impedance
Compression method: ADPCM (pulse code modulation) U-Law
Frequency bandwidth: 300 Hz ~ 3,4 KHz
Operation mode: duplex operation, audio direction enabled in browser GUI
selection internal microphone or audio input in camera setting
Alarm input: 1 x input for dry contacts, N.O. / N.C. adjustable
Alarm output: 1 x dry relay contact, N.O. / N.C. adjustable, 70 V DC / 200 mA max.
Network interface: 10 Base-T / 100 Base-TX auto-negotiation, RJ-45 socket
Protocol types: HTTP, TCP/IP, UDP / IP, FTP, SMTP, RTP, RTCP, DHCP, DNS, DDNS, NTP
Transmission method: unicast / multicast
Bandwidth control: min. 64 kByte / sec. adjustable
RS-485: RS-485 interface half-duplex (function reserved), screwless terminal 2-pin
Network LED: green LED on (still): 100 Mbps; off: 10 Mbps
yellow LED on (still): linked; on (blinking): active; off: not linked
Power LED: red LED on: system power on; off: system power off
Pre-alarm memory: internal memory for pre-alarm record 2~5 sec.
Event log: internal event log for 256 entries (FIFO), non-volatile
Local storage: SD-card interface for optional SD card 3,3 V, file system FAT 16

Power supply: 12 V DC or PoE (PoE 802.3af 48 VDC)
Power consumption: 7 W max. (12 VDC)

Ambient temperature: 0°C ~ +50°C
Dimensions: 68 (W) x 57 (H) x 135 (D) mm
Weight: 600 g

Features EAN 850 A / EDN 800 T

- ✓ 4 independently adjustable network video streams (for compression method and resolution)
- ✓ compression methods: H.264, MPEG4 or MJPEG
- ✓ adjustable compression rate with 4 levels
- ✓ camera module with high resolution technology (EAN 850 A: 540 TV lines, EDN 800 T: 520 TV lines)
- ✓ high resolution stream: up to 720 x 576 pixel
- ✓ varifocal lens with DC auto iris (EDN 800 T)
- ✓ 5 adjustable privacy zones
- ✓ bidirectional audio (EAN 850 A)
- ✓ composite video output (EAN 850 A)
- ✓ BNC video output for easy camera installation (EDN 800 T)
- ✓ local alarm input / output
- ✓ motion detection with 5 zones
- ✓ alarm e-mail and network alarm function
- ✓ local alarm video storage at optional SD card
- ✓ PoE (Power over Ethernet) supported
- ✓ network bandwidth control
- ✓ vandal-proof metal indoor housing (EDN 800 T)
- ✓ optional wall bracket (EDN 800 T)



▶ EDN 800 T - 1/3" vandal-proof CCD network camera, multistream H.264 / MPEG4 / MJPEG

Specifications

Sensor: 1/3" Sony IT colour CCD
Picture element: 752 (H) x 582 (V)
Sensitivity: 0,2 lux / F = 1.2
S/N ratio: >50 dB (AGC OFF)
Lens: 3,7~12mm direct drive (DC)
Video output: 1 Vp-p BNC, 520 TV lines
Compression method: H.264 / MPEG-4 / M-JPEG
Compression rate: 4 quality levels
Resolution: 720 x 576, 640 x 480, 352 x 288, 320 x 240, 176 x 144
Frame rate: 1~25 IPS
Network interface: 10 Base-T / 100 Base-TX, auto-negotiation, RJ-45 socket / plug, support of MDI/MDI-X auto crossover function
Protocol types: HTTP, TCP/IP, FTP, SMTP, DHCP, DNS, DDNS, NTP
Local storage: SD card interface for optional SD card 3.3 V, supports SDHC host specification
Alarm input: 1 x N.O./N.C.
Alarm output: 1 x relay contact N.O. / N.C. 70 VDC / 200 mA max.
Motion detection: 5 adjustable motion areas
Power source: 12 V DC or PoE (PoE 802.3af 48 VDC)
Power consumption: 6 W max.
Ambient temperature: 0°C ~ +40°C
Dimensions: 100 (H) x 118 (D) mm
Weight: 820 g

IP Products



► EVS 400 - 4-channel video server

Specifications

Video input: 4 x 1 Vp-p BNC, automatic 75 Ohm termination
Picture compression: MPEG-4
Picture resolution: 720 x 480, 640 x 480, 352 x 240, 320 x 240
Streaming frame rate: 1 ~ 200 IPS adjustable
Audio: 4 RCA line inputs / 1 RCA line output, bidirectional
Audio compression method: G723
Bandwidth control: 64 ~ 4096 kB/s adjustable
Network interface: 100 BASE-T, RJ-45 socket
RS-485: RS-485 interface half-duplex for PTZ control
RS-232: 9-pin Sub-D (for service purpose)
USB interface: USB 2.0 socket (function reserved)
Alarm input: 4 inputs for dry contacts
Alarm output: 4 transistor outputs
Monitor output: 1 monitor output, 1 Vp-p at 75 Ohm, BNC
Casing: Aluminium, powder-coated black

Power input: 12 V DC +/- 10%, 30W max.

Environmental temperature: 0°C ~ +50°C
Humidity: < 90%, non-condensing
Dimensions: 157 (W) x 46 (H) x 169 (D) mm
Weight: 800 g



► EVS 100 - 1-channel video server

Specifications

Video input: 1 x 1 Vp-p BNC, automatic 75 Ohm termination
Picture compression: MPEG-4 and M-JPEG selectable
Picture resolution: 720 x 480, 640 x 480, 352 x 240, 320 x 240
Compression setting: 5 steps
Streaming frame rate: 1 ~ 30 IPS adjustable
Audio input: 3,5mm socket, sensitivity 100 mV max. / 10 KOhm impedance
Audio output: 3,5mm socket, sensitivity 500 mV max. at 10 KOhm impedance
Audio compression method: ADPCM (Pulse Code Modulation) U-Law
Audio frequency bandwidth: 300 Hz ~ 3,4 KHz
Bandwidth control: 64 ~ 4096 kB/s adjustable
Network interface: 100 BASE-T, RJ-45 socket
RS-485: RS-485 interface half-duplex for PTZ control, screwless terminal
Alarm input: 1 x input for dry contacts, NO/NC adjustable, screwless terminal
Alarm output: 1 x relay contact, screwless terminal
Casing: Aluminium, powder-coated black

Power input: 12 V DC +/- 10%, 7W max.

Environmental temperature: 0°C ~ +40°C
Humidity: < 90%, non-condensing
Dimensions: 77 (W) x 36 (H) x 117 (D) mm
Weight: 400 g





ENR 3200 / ENR 1600 - 32/16-channel network video recorder

Specifications

IP video channels: 32 (ENR 3200) / 16 (ENR 1600) channels

Recording / playback rate: up to 25 IPS / channel

View modes ENR 3200: 1 / 4 / 6 / 9 / 10 / 13 / 16 / 25 / 36

View modes ENR 1600: 1 / 4 / 6 / 9 / 10 / 13 / 16

Recording resolution: up to 1280 x 1024

Compression method: MJPEG / MPEG4

Audio: bidirectional transmission, 1 audio channel per video channel

Video export: internal DVD-RW drive, USB 2.0 interface

Network interface: 1.000 Mbit/s, RJ45, standards IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3x

Power: 110 ~ 230 V AC, 300 VA max.

Operating temperature: 0°C ~ +40°C

Material: steel, aluminium front

Dimensions: 430 (W) x 171,5 (H) x 439,6 (D) mm

Weight: 11 kg

Features

- ✓ management of up to 32 channels from Megapixel cameras, IP cameras and video servers
- ✓ multi-brand IP product support
- ✓ local and remote PTZ control
- ✓ digital PTZ
- ✓ bidirectional audio
- ✓ dual monitor support
- ✓ integrated video analytics
- ✓ system and event log database
- ✓ 3GPP live view support



NVR 32 S / NVR 16 S - 32/16-channel network recording software

Specifications

IP video channels: 32 (NVR 32 S) / 16 (NVR 16 S) channels

Recording / playback rate: up to 25 IPS / channel

View modes NVR 32 S: 1 / 4 / 6 / 9 / 10 / 13 / 16 / 25 / 36

View modes NVR 16 S: 1 / 4 / 6 / 9 / 10 / 13 / 16

Recording resolution: up to 1280 x 1024

Compression method: MJPEG / MPEG4

Audio: bidirectional transmission, 1 audio channel per video channel

Network interface: 1.000 Mbit/s, RJ45, standards IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3x



EPS 4000 - PowerCon 4.x Station

Hardware specifications

Power: 110 ~ 230 V AC, 300 VA max.

Operating temperature: 0°C ~ +40°C

Material: steel, aluminium front

Dimensions: 430 (W) x 171,5 (H) x 439,6 (D) mm

Weight: 11 kg

Software specifications

For software specifications, please refer to page 60 ff. "PowerCon 4.x"

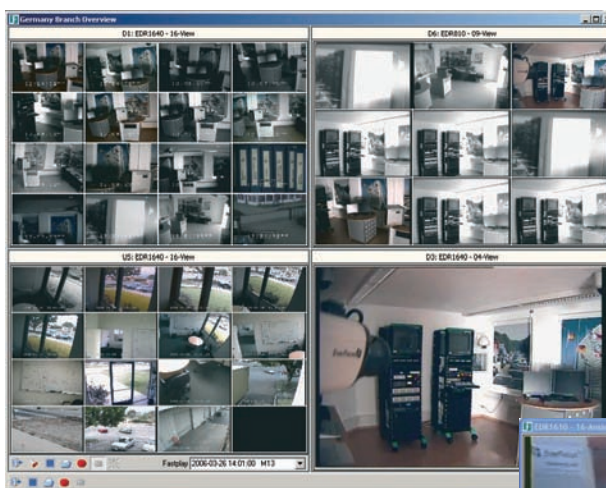
PowerCon 4.x



PowerCon 4.x - network management software

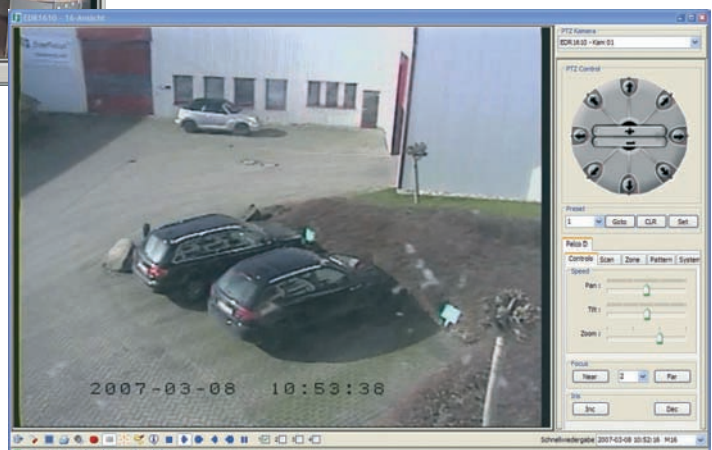
Features

- ✓ unlimited number of managed systems (DVRs, Megapixel / network cameras, video servers, 3rd party sequences)
- ✓ live and playback view
- ✓ local storage and printout of video data or single pictures on client PC
- ✓ multi-window design with scalable video windows
- ✓ free definable multiviews with up to 16 DVR systems or network cameras, also mixed display of different DVRs (max. 256 cameras in 1 multiview with 16 x 16-channel DVR)
- ✓ mapview: visualisation of CCTV system in areas or buildings with free scalable maps, graphics (BMP or JPG format) or active symbols
- ✓ remote DVR configuration (EDR DVR series only)
- ✓ remote configuration of EverFocus network cameras and video servers
- ✓ PTZ joystick control
- ✓ POS module for retail applications (optional)
- ✓ GPS module for object tracking (optional)
- ✓ network alarm reception and management
- ✓ multi-monitor support (depending on PC configuration)
- ✓ advanced access rights management with individual user rights for functions and system access
- ✓ network monitor for visualisation of network traffic
- ✓ system checker: integrated background port checker with alarm function for availability of DVRs, cameras and video servers in network
- ✓ support of external program starts
- ✓ basic feature support for browser-based 3rd party applications



Multiview function enables display of up to 64 cameras from up to 4 different DVRs

PTZ functionality for speed dome and further PTZ cameras during remote viewing





Mapview function: integration of freely scalable maps / graphics (BMP or JPG format) to visualise locations and areas

Minimum system requirements

Processor: PC Pentium IV (1.6 or higher) / AMD Athlon (1.8 or higher)

Operating system: Windows XP, service pack 2, .NET Framework 2.0, service pack 1

VGA card: 32 MB min., 16,7 million colours, with DirectX 9.0C support

USB: 2.0 interface

Memory: 512 MB RAM

30 MB free HD space for installation

min. 10 GB free HD space for storage

Mediaplayer: Microsoft mediaplayer version 8.x or higher

Further: DirectX 9.0C

Supported DVRs: EDR 400 / 1600*

EDSR 100* / EDSR 400 H/M* / EDSR 600 / 900 / 1600 *

EDR 410 / 810 H/M / EDR 410 D / 910 A/D / 1610 A/D / 920 / 1640

Paragon EDR series

* latest DVR firmware version

Supported network cameras: EAN 600 / EAN 800 / EAN 850 A /

EZN 850 / EDN 800 T

Supported Megapixel cameras: EAN 1350 / EAN 900

Further supported devices: video servers EVS 400 / EVS 100

network multi I/O controller EPS 100

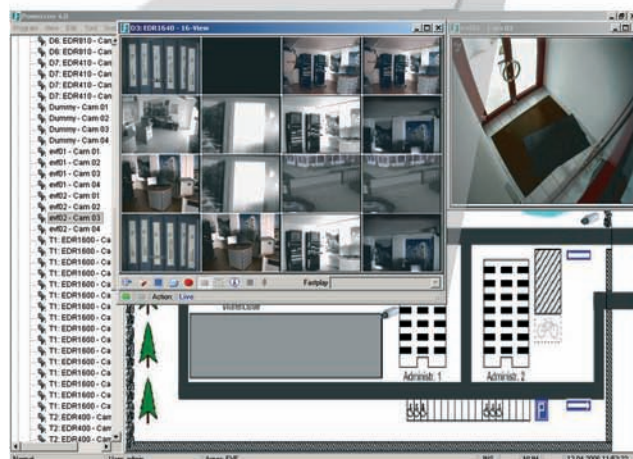
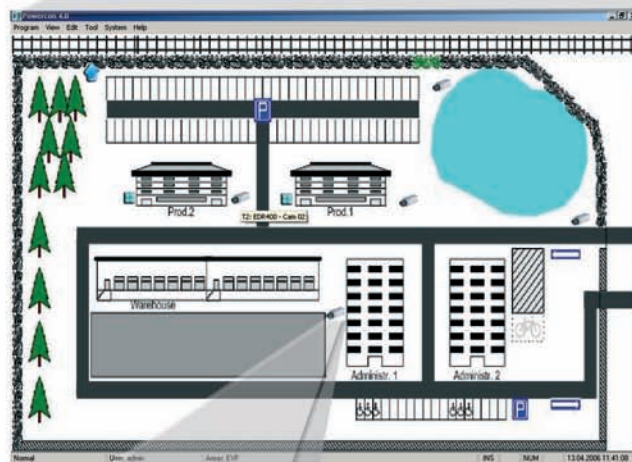
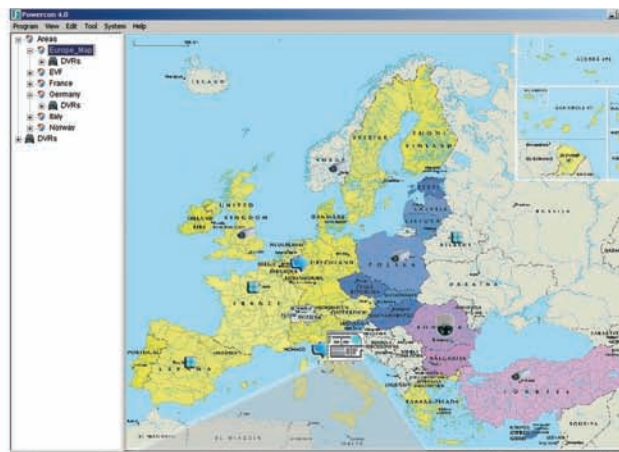
Versions:

PowerCon 4.x: single client version with CM-stick

multi-client versions (5/10/15/25 clients) with CM-stick

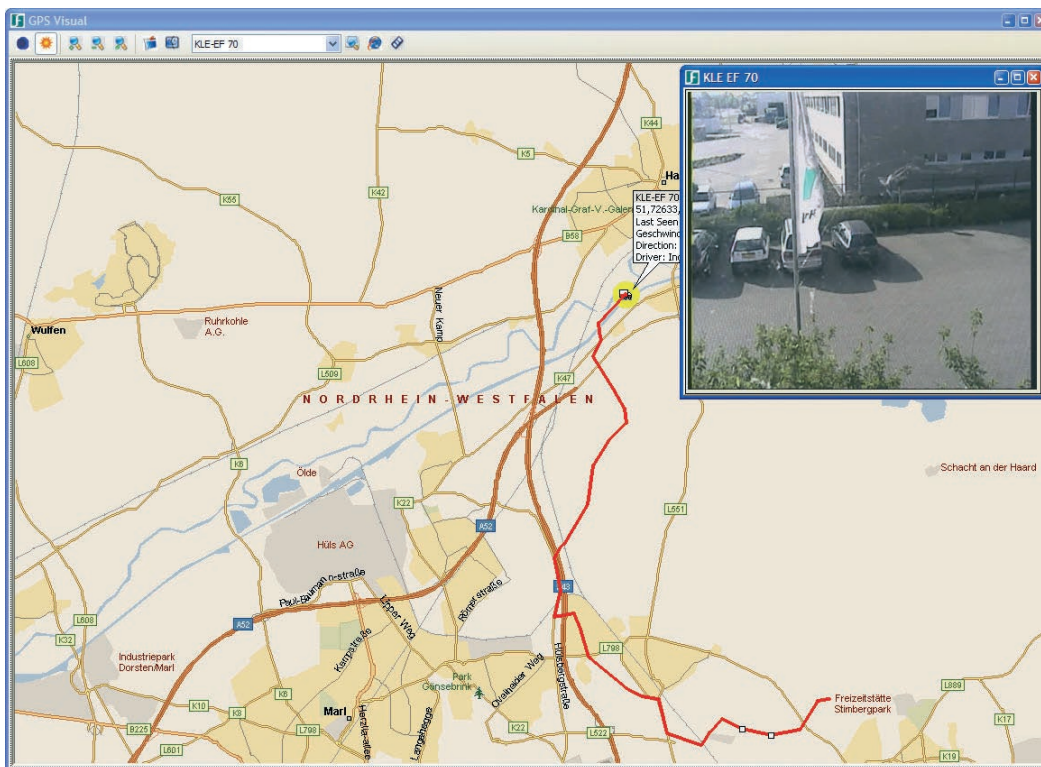
PowerCon 4.x update: update version for PowerCon Pro and

PowerCon Station (serial number of existing version required)



Multi-window design:
graphic surface remains visible
while the video images are displayed
on additional screens

PowerCon 4.x



GPS module:

Utilizing a wireless router (e.g. 3G / UMTS / GPRS) together with the mobile DVR, the vehicle's GPS data can periodically be sent through the Internet.

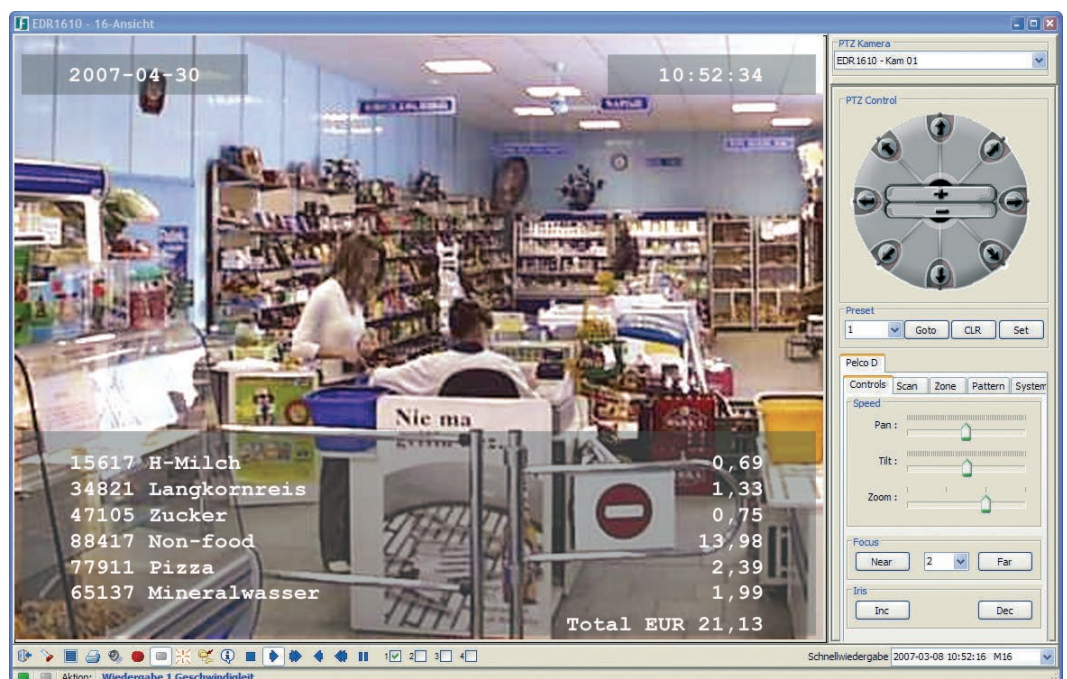
The received GPS data are indicated on the PowerCon-supported interactive map (e.g. Microsoft MapPoint) and allow for continuous automatic vehicle location.

POS module:

By means of the graphical text display (EDA 911, optional) featuring all relevant till protocols, POS data are captured together with related video data and recorded in the digital video recorder.

Recorded data can be evaluated on a common PC with PowerCon 4.x software.

The PowerCon Analyzer offers numerous search functions, e.g. date/time, cashier, value or keyword search, and instantly provides the associated playback video.





► EPS 100 - network multi I/O controller with 8 inputs / 8 outputs

Specifications

Output contacts:

Output type: 8 x Darlington transistors with common ground

Max. output voltage: up to DC 50V

Max. output current: up to 500 mA / 1 pin max.,
total power = 1W / 1 pin or 2,25W all pins

Inductive loads suppression: 8 x integral suppression diodes
for inductive loads, common pin

Input Contacts:

Input type: 8 x binary optocoupled

Log. 0 input voltage: 0 ... 3V

Log. 1 input voltage and current: from 5V / 5mA to 20V / 25mA

Max. input voltage and current: up to 40V / 50mA / 1 second

Isolation voltage: max. 50V

Sampling period: 100 ms

Network interface:

Interface: RJ45 10BASE-T (10 Mbit or 10/100 Mbit network compatible)

Compatibility: Ethernet: version 2.0/IEEE 802.3

Supported protocols: IP: ARP, TCP

TCP connection closing: data timeout 50s

Serial port (function reserved):

Operation modes: RS-232 or RS-485

Data bits: 7 or 8 or 9

Stop bits, parity: 1 or 2, none / odd / even / mark / space parity

Baud rates: 50 ... 115.2 kBd - entire range, step = 50 Bd

Data flow control: XON/XOFF, CTS/RTS, none

Interface: 1x DB9M (Rx/D, Tx/D, RTS, CTS, GND)

Used RS-232 signals: Rx/D, Tx/D, RTS, CTS (DTR output - defined voltage level only)

Diagnostic LEDs: power, link, activity

Power source: 8~24 V DC, 200 mA typical

Ambient temperature: 0°C ~ +50°C

Dimensions: 95 (W) x 38 (H) x 128 (D) mm

Weight: 395 g

► EDA 911 - graphic text display

Specifications

Video input: 1 Vp-p Composite PAL, 75 Ohm terminated, BNC

Video output: 1 Vp-p Composite PAL at 75 Ohm, BNC, with text overlay

RS-232: 2 x RS-232, 9-pin Sub-D male and female

Baud rate: 1200 ... 115.200 baud

Network interface: 10 Mbit Ethernet RJ45

Keyboard: PS/2 socket for clock and text settings

Relay output: 1 x NO/NC

Casing: steel, RAL 7037 powder-coated

Power source: 9~12 V DC, 800 mA max.

Dimensions: 140 (W) x 45 (H) x 83 (D) mm

Weight: 900 g

Features

- ✓ text overlay of serial data at video output
- ✓ characters display in 16 lines with 40 characters each, fixed character set
- ✓ configurable character colour / background
- ✓ free positioning of defined data fields; display timeout adjustable
- ✓ special characters possible (optional)
- ✓ generation of screen background signal in case of video loss
- ✓ on-screen camera text stored in EEPROM
- ✓ relay output can be triggered by data input
- ✓ POS data evaluation with EverFocus DVR and PowerCon management software (optional POS software module)
- ✓ data protocols for several ATM, access control and POS systems included on CD-ROM

► EL IPCT 100 - converter for network transmission via coaxial cable

Specifications

Network connector: RJ-45 socket

Coaxial connector: BNC socket

Max. network bandwidth: 10 Mbps, exceeds IEEE 802.3 10 Base-T specification

Transmission distance: max. 200m with RG-59 coaxial cable

Recommended cable: RG-59 video cable

Power: passive device, no power source

Dimensions: 25 (W) x 22 (H) x 69 (D) mm

Weight: 80 g

TFT Monitors



► FH 7519 EA - 19" TFT monitor, HD-ready

Specifications

LCD Display: 19" active matrix TFT LCD panel

Viewable size: 376 (H) x 301 (V) mm / 5:4

Contrast ratio: 800:1 (typ.)

Brightness: 300 cd / m² (typ.)

Response time (tr/ta): 5 ms (typ.)

Display colour: 16,7 million

Pixel pitch: 0,294 (H) x 0,294 (V) mm

Max. resolution: 1280 x 1024

Horizontal frequency: 31 K ~ 80 KHz

Vertical frequency: 60 Hz ~ 75 Hz

Viewing angle H/V: 160° / 150°

Video inputs: 2 x FBAS Video 1,0 Vp-p, BNC, with loop-through, automatic 75 Ohm termination,

S-Video, mini DIN,

VGA, 15-pin D-Sub

1 x HDMI

Audio: 2 x line in cinch / line out 3,5mm stereo jack,
2 internal speakers 2,5 W (max.)

OSD menu: all modes: Colour, brightness, contrast, H-Pos., V-Pos., V-size, H-size, clock, phase, colour temp., user colour R/G/B, OSD H-Pos. / V-Pos., volume, language (EN/DE/FR/IT/ES), load default

Power input: 12 VDC / 3 A, via external power supply 100~240 VAC

Power consumption: 35 W (max.), 5 W in power saving mode

Power management: VESA DPMS, DDC1 / 2B compatible

Operating condition: Temp. 0°C ~ +40°C, humidity 10~85%

Storage condition: Temp. -20°C ~ +60°C, humidity 10-85%

Dimensions: 420 (W) x 360 (H) x 60 (D) mm (w/o stand base)

Weight: 6,0 kg

Mounting: Stand base included,
VESA compatible mount 75x75

Mounting accessories: BA DW 151 / 161 (wall / table mount)
BA DW 170 / 171 (wall mount)
BA DW CM (ceiling mount with BA DW 170 / 171)
BA DW CM2 (ceiling mount)



► FH 7517 EA - 17" TFT monitor, HD-ready

Specifications

LCD Display: 17" active matrix TFT LCD panel

Viewable size: 338 (H) x 270 (V) mm / 5:4

Contrast ratio: 800:1 (typ.)

Brightness: 300 cd / m² (typ.)

Response time (tr/ta): 5 ms (typ.)

Display colour: 16,7 million

Pixel pitch: 0,264 (H) x 0,264 (V) mm

Max. resolution: 1280 x 1024

Horizontal frequency: 31 K ~ 80 KHz

Vertical frequency: 56 Hz ~ 75 Hz

Viewing angle H/V: 160° / 140°

Video inputs: 2 x FBAS Video 1,0 Vp-p, BNC, with loop-through, automatic 75 Ohm termination,

S-Video, mini DIN,

VGA, 15-pin D-Sub

1 x HDMI

Audio: 2 x line in cinch / line out 3,5mm stereo jack,
2 internal speakers 2,5 W (max.)

OSD menu: all modes: Colour, brightness, contrast, H-Pos., V-Pos., V-size, H-size, clock, phase, colour temp., user colour R/G/B, OSD H-Pos. / V-Pos., volume, language (EN/DE/FR/IT/ES), load default

Power input: 12 VDC / 3 A, via external power supply 100~240 VAC

Power consumption: 35 W (max.), 5 W in power saving mode

Power management: VESA DPMS, DDC1 / 2B compatible

Operating condition: Temp. 0°C ~ +40°C, humidity 10~85%

Storage condition: Temp. -20°C ~ +60°C, humidity 10-85%

Dimensions: 374 (W) x 327 (H) x 54 (D) mm (w/o stand base)

Weight: 5,8 kg

Mounting: Stand base included,
VESA compatible mount 75x75

Mounting accessories: BA DW 151 / 161 (wall / table mount)
BA DW 170 / 171 (wall mount)
BA DW CM (ceiling mount with BA DW 170 / 171)
BA DW CM2 (ceiling mount)



Monitors



FH 7519 T - 19" TFT monitor

Specifications

LCD Display: 19" active matrix TFT LCD panel
Viewable size: 376,32 (H) x 301,056 (V) mm / 5:4
Contrast ratio: 550:1 (typ.)
Brightness: 400 cd / m² (typ.)
Response time (tr/ta): 5,6/2,4 ms (typ.)
Display colour: 16,2 million
Pixel pitch: 0,294 (H) x 0,294 (V) mm
Max. resolution: 500 TV lines / 1280 x 1024
Horizontal frequency: 30 K ~ 80 KHz
Vertical frequency: 56 Hz ~ 75 Hz
Viewing angle H/V: 140° / 135°
Video inputs: FBAS Video 1,0 Vp-p, BNC in/out, automatic 75 Ohm termination
 S-Video, Mini-Din in / out
 VGA, 15-pin D-Sub

Audio: line in / out Cinch, 2 internal speakers 1W (max.)
OSD menu: VGA: Brightness, contrast, H-Pos., V-Pos., clock, phase, colour temp., user colour R/G/B, OSD H-Pos. / V-Pos., volume, PiP, language, recall
 Video: colour, tint (NTSC only), brightness, contrast, sharpness, H-Pos., volume, language, colour temp., scan, PiP, recall

Power input: 12 VDC / 4A, via external power supply 100~240 VAC
Power consumption: 50 W (max.)
Power management: VESA DPMS compatible

Operating condition: Temp. 0°C ~ +40°C, humidity 10~85%
Storage condition: Temp. -20°C ~ +60°C, humidity 10~85%
Dimensions: 420,6 (W) x 405,3 (H) x 170 (D) mm
Weight: 6,3 kg
Approvals: FCC, CE (EMC/LVD), UL, CUL
Mounting: standbase included, VESA compatible mount 75x75mm
Mounting accessories: BA DW 151 / 161 (wall / table mount)
 BA DW 170 / 171 (wall mount)
 BA DW CM (ceiling mount with BA DW 170 / 171)
 BA DW CM2 (ceiling mount)
 BA RK 19 - 19" rack mount bracket



FH 7517 T - 17" TFT monitor

Specifications

LCD Display: 17,1" active matrix TFT LCD panel
Viewable size: 337,92 (H) x 270,34 (V) mm / 5:4
Contrast ratio: 500:1 (typ.)
Brightness: 420 cd / m² (typ.)
Response time (tr/ta): 6/2 ms (typ.)
Display colour: 16,7 million
Pixel pitch: 0,264 (H) x 0,264 (V) mm
Max. resolution: 500 TV lines / 1280 x 1024
Horizontal frequency: 30 K ~ 80 KHz
Vertical frequency: 56 Hz ~ 75 Hz
Viewing angle H/V: 140° / 130°
Video inputs: FBAS Video 1,0 Vp-p, BNC in/out, automatic 75 Ohm termination
 S-Video, Mini-Din in / out
 VGA, 15-pin D-Sub

Audio: line in / out Cinch, 2 internal speakers 1W (max.)
OSD menu: VGA: Brightness, contrast, H-Pos., V-Pos., clock, phase, colour temp., user colour R/G/B, OSD H-Pos. / V-Pos., volume, PiP, language, recall
 Video: colour, tint (NTSC only), brightness, contrast, sharpness, H-Pos., volume, language, colour temp., scan, PiP, recall

Power input: 12 VDC / 3A, via external power supply 100~240 VAC
Power consumption: 50 W (max.)
Power management: VESA DPMS compatible

Operating condition: Temp. 0°C ~ +40°C, humidity 10~85%
Storage condition: Temp. -20°C ~ +60°C, humidity 10~85%
Dimensions: 375 (W) x 370 (H) x 170 (D) mm
Weight: 5,0 kg
Approvals: FCC, CE (EMC/LVD), UL, CUL
Mounting: standbase included, VESA compatible mount 75x75mm
Mounting accessories: BA DW 151 / 161 (wall / table mount)
 BA DW 170 / 171 (wall mount)
 BA DW CM (ceiling mount with BA DW 170 / 171)
 BA DW CM2 (ceiling mount)
 BA RK 17 - 19" rack mount bracket



EN 200 - 5,6" TFT LCD monitor

Specifications

Screen size: 87 x 116 mm, 5,6"
Effective display area: 83,52 x 111,36 mm
Dot matrix: 320 x 240
Pixel distance: 0,116 x 0,348
Brightness: 270 cd / m²
Video input: 1 Vp-p FBAS
Audio input: 50 mV (min.), stereo
Audio output: built-in 4cm, 200 mW speaker, stereo earphone
Control: brightness, contrast, colour, volume

Power source: 9 ~ 20 V DC,
 via included power supply 230 V AC

Power consumption: 8 W max. at 12 V DC

Ambient temperature: 0°C ~ +50°C
Colour casing: black
Dimensions: 162 (W) x 131 (H) x 54 (T) mm
Weight: 482 g

EN 220 - 5,6" TFT LCD monitor with service kit

Specifications see EN 200, additionally:

Service kit: bag, accumulator, charger,
 mains supply, cables

Weight: 2,95 kg incl. service kit

TFT Monitors



► ECS 7710 T - 10,4" TFT touchscreen control panel with DVR / PTZ control

Specifications

Display size: 10,4" (211 x 158 mm)

Display resolution: VGA 640 x 480, 65.536 colours

Controller hardware: 32 bit-RISC-CPU, 133 MHz, 8 MB

Interfaces: 2 x USB, 1 x RS-232, 2 x RS-485

Video input: 4 x BNC FBAS, 75 Ohm terminated

Casing: aluminium / steel

Mounting: desktop version, standard VESA mount 75/100 mm
optional with stand base BA-DW 140 or with brackets BA-DW 151 / 170 / 171

Power input: 12 VDC / 24 V DC, 650 mA typical, 1,1 A max.

Operating temperature: 0°C ~ +50°C

Dimensions: 302 (W) x 217 (H) x 73 (D) mm

Weight: 3,0 kg



► ECS 7710 C - 10,4" TFT touchscreen control panel with DVR / PTZ control

Specifications

Display size: 10,4" (211 x 158 mm)

Display resolution: VGA 640 x 480, 65.536 colours

Controller hardware: 32 bit-RISC-CPU, 133 MHz, 8 MB

Interfaces: 2 x USB, 1 x RS-232, 2 x RS-485

Video input: 4 x BNC FBAS, 75 Ohm terminated

Casing: aluminium / steel

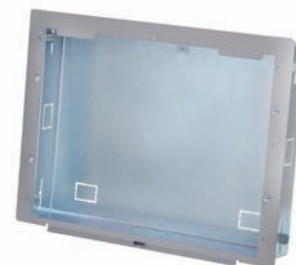
Mounting: built-in version, cutout 299,5 x 227,5 mm

Power input: 12 VDC / 24 V DC, 650 mA typical, 1,1 A max.

Operating temperature: 0°C ~ +50°C

Dimensions: 361 (W) x 297 (H) x 69 (D) mm, cutout 299,5 x 227,5 mm

Weight: 3,2 kg



► ECS HCS 10 - sleeve for dry wall or in-wall mounting

Material: steel

Outer dimensions: 345 (W) x 267 (H) mm

Inner dimensions: 325 (W) x 248 (H) mm

Depth: 65 mm

Weight: 2,6 kg

Application: with ECS 7710 C



Monitors



▶ BA DW 151 - wall mount arm with gas spring

Specifications

Material: iron / plastic, powder-coated
 Colour: black
 Length: 569 mm
 Weight: 3,95 kg
 Max. loads: 8 kg

Application: with FH 7515 T and FH 7517 T



▶ BA DW 170 - wall mount bracket with 3-axis adjustment

Specifications

Material: iron / plastic, powder-coated
 Colour: black
 Distance to monitor: 142 mm
 Weight: 1,25 kg
 Max. loads: 12 kg
 Swivel: left & right and upwards & downwards 180 degrees,
 LCD monitor swivel 270 degrees

Application: with FH 7515 T and FH 7517 T



▶ BA DW CM2 - ceiling mount adaptor

Specifications

Material: steel
 Colour: black
 Length: 500 - 900 mm adjustable
 Adjustment: left / right 360°, up / down ~ 135° (depending on monitor)
 Monitor mounting: VESA standard 75mm / 100mm
 Max. loads: 15 kg
 Weight: 3,7 kg

▶ BA DW 171 - wall mount bracket with 2-axis adjustment

Specifications

Material: iron / plastic, powder-coated
 Colour: black
 Distance to monitor: 115 mm
 Weight: 1,05 kg
 Max. loads: 12 kg
 Swivel: left & right or upwards & downwards 180 degrees,
 LCD monitor swivel 270 degrees

Application: with FH 7515 T and FH 7517 T



▶ BA DW 140 - stand base for TFT monitor

Specifications

Material: steel, ABS black
 Dimensions: 225 (W) x 240 (H) x 170 (D) mm
 Weight: 1,4 kg
 Monitor mount: 75mm x 75mm VESA standard

Application: with ECS 7710 T, 75mm VESA standard compatible monitors

CCTV Monitors



► FH 7421 AT - 21" colour monitor

Specifications

Video format: PAL / NTSC
 Picture tube: 21", 0,7mm stripe pitch
 Horizontal resolution: > 500 lines
 Input connector: 2 x composite BNC, 1 x S-video
 Input signal: 1 Vp-p
 Input impedance: 75 Ohm
 Audio (input/output): yes (3/3)

Power source: 100 ~ 240 V AC, 50/60 Hz
 Power consumption: 80 W max.

Ambient temperature: -10°C ~ +50°C
 Dimensions: 492 (W) x 474 (H) x 482 (D) mm
 Weight: 27,0 kg



► FH 7417 HR - 17" high resolution colour monitor

Specifications

Video format: PAL / NTSC
 Picture tube: 17", 0,25mm colour CDT
 Horizontal resolution: > 800 lines (center)
 Scanning frequency: 15.734 KHz/60 Hz (NTSC), 15.625 KHz/50 Hz (PAL)
 Video input: Composite video 1,0 Vp-p, 75 Ohm
 Video connections: Video BNC in x 2, Y/C in x 1, Video BNC out x 2, Y/C out x 1
 Audio connections: RCA in x 3 / RCA out x 3
 Control front: Power on/off, O/U scan, OSD
 Aspect ratio: 4:3
 Colour temperature: 9300°K (NTSC) / 6500°K (PAL)
 Power source: 100 ~ 240 V AC, 50/60 Hz
 Power consumption: 100 W max.
 Ambient temperature: -10°C ~ +50°C
 Dimensions: 412 (W) x 397 (H) x 417 (D) mm
 Weight: 20,0 kg



► FH 7419 HR - 19" high resolution colour monitor

Specifications

Video format: PAL / NTSC
 Picture tube: 19", 0,27mm stripe pitch
 Horizontal resolution: > 800 lines
 Input connector: 2 x composite BNC, 1 x S-video
 Input signal: 1 Vp-p
 Input impedance: 75 Ohm
 Audio (input/output): yes (3/3)

Power source: 100 ~ 240 V AC, 50/60 Hz
 Power consumption: 95 W max.

Ambient temperature: -10°C ~ +50°C
 Dimensions: 448 (W) x 434 (H) x 448 (D) mm
 Weight: 25,0 kg



► FH 7415 HR - 15" high resolution colour monitor

Specifications

Video format: PAL / NTSC
 Picture tube: 15", 0,27mm stripe pitch
 Horizontal resolution: > 800 lines
 Input connector: 2 x composite BNC, 1 x S-video
 Input signal: 1 Vp-p
 Input impedance: 75 Ohm
 Audio (input/output): yes (3/3)

Power source: 100 ~ 240 V AC, 50/60 Hz
 Power consumption: 95 W max.

Ambient temperature: -10°C ~ +50°C
 Dimensions: 368 (W) x 361 (H) x 376 (D) mm
 Weight: 15,0 kg



Infrared Illuminators



► FH IRG 40 / FH IRG 80 - LED infrared illuminator

Specifications

Wave length: 845 nm

Beam angle: 40° (FH IRG 40) / 80° (FH IRG 80)

Max. range*: 70 m (FH IRG 40) / 35 m (FH IRG 80)

Colour: black

Protection class: IP-65

Power source: 230 V AC

Power consumption: 43 W

Ambient temperature: -20°C ~ +50°C

Dimensions: 200 (W) x 120 (H) x 112 (D) mm

Weight: 1,5 kg



► BA WBJF - wall mount bracket for infrared illuminator

Specifications

Material: die-cast aluminium, powder-coated

Colour: black

Length: 285 mm

Max. loads: 25 kg

Application: with infrared illuminators FH IRG 40 / FH IRG 80



► FH IRK 40 / FH IRK 80 - LED infrared illuminator

Specifications

Wave length: 845 nm

Beam angle: 40° (FH IRK 40) / 80° (FH IRK 80)

Max. range*: 15 m (FH IRK 40) / 8 m (FH IRK 80)

Colour: black

Protection class: IP-65

Power source: 230 V AC

Power consumption: 12 W

Ambient temperature: -20°C ~ +50°C

Dimensions: 120 (W) x 80 (H) x 77 (D) mm

Weight: 1,1 kg



► BA WBCD - wall mount bracket for infrared illuminator

Specifications

Material: die-cast aluminium, powder-coated

Colour: black

Length: 140 mm

Max. loads: 1 kg

Application: with infrared illuminators FH IRK 40 / FH IRK 80

* The IR illuminator range depends on the location, camera and lens type as well as the surroundings of the installation.
Locating the device near highly absorbent surfaces can result in a significantly reduced range.

Accessories



EDA 997 A - RS-485 unidirectional data distributor / converter

Specifications

Signal input: manually switchable:

1 x RS-485 simplex, screw terminal or 1 x RS-232 9-pin Sub-D

Signal output: 8 x RS-485 simplex, screw terminal

Application: RS-485 star wiring for telemetry or DVR control, conversion of RS-232 input to RS-485 output

Power source: 12 V DC / 4 W max., via included power supply 230 V AC

Dimensions: 19" 1U, 482 (W) x 44 (H) x 99 (D) mm

Weight: 1,1 kg



EL GB 001 - video ground loop isolator

Specifications

Input / output impedance: 75 Ohm

Bandwidth: 10 MHz < 3 dB

Isolation voltage: 600 VDC min.

Transient voltage suppressors: 12 V RMS

Ambient temperature: 0°C ~ +50°C

Dimensions: 84 x 28 x 21 mm with 2 x 150 mm cable

Weight: 100 g



RG59-2S - RG 59 cable with 2 x 0,75 mm low-voltage cable

Specifications

Outer diameter: 9,6 mm

Video cable: RG-59 black

Low-voltage cable: 2 x 0,75 mm flexible, unshielded



Power supplies

Item code	Power supply input	Power supply output	Power	Europe	UK	Remarks
AP12A122E0	230 V AC	12 V DC	600 mA	x	-	stabilized, switched
AP12D202E0	230 V AC	12 V DC	2000 mA	x	-	for EZ 180 / EZ 350 HQ / EHD series
AP12D202I0	240 V AC	12 V DC	2000 mA	-	x	for EZ 180 / EZ 350 HQ / EHD series
AP24A501E0	230 V AC	24 V AC	500 mA	x	-	
AP24A501I0	240 V AC	24 V AC	500 mA	-	x	
AP24A302E1	230 V AC	24 V AC	3000 mA	x	-	indoor power supply for EPTZ speed dome cameras



System Design Services

Nowadays, the level of knowledge becomes more and more essential. New technologies are more closely related to the IT world and follow or finally replace the old ones.

Therefore, we now also offer consultation services on CCTV systems design through our **Sales Engineering Team**.

Our professional and highly qualified Sales Engineers help you achieve your project goals at a cost-effective price, e.g. by assisting you in determining the appropriate equipment and layouts for any major security projects - in schools and universities, healthcare, retail and transport facilities as well as other applications.

EverFocus System Design Services include:

- ➡ CCTV Design
- ➡ CCTV Integration
- ➡ CCTV System Upgrades
- ➡ CCTV Installation Start-up
- ➡ Network Consultation

Consultation services are arranged by appointment only - for detailed information about rates and availability, please contact our Sales Engineering Team!



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