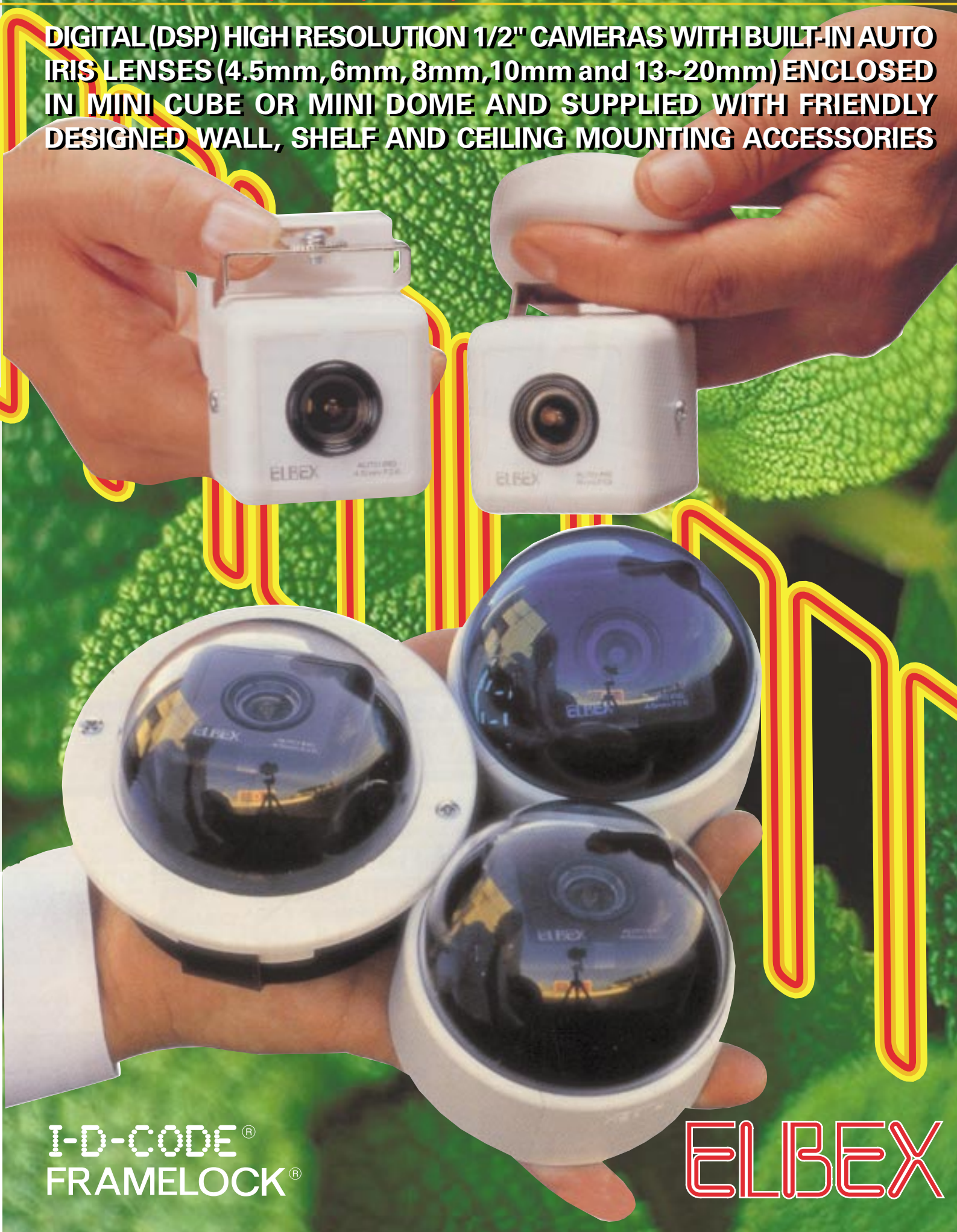
PEEPING TOM® PEEPING DOM®

EXC2, EXU2, EXC3, EXU3, EXC4, EXU4 HIGH SENSITIVITY B/W & COLOR SERIES
EXC12, EXU12, EXC13, EXU13, EXC14, EXU14 SUPER HIGH SENSITIVITY SERIES

DIGITAL (DSP) HIGH RESOLUTION 1/2" CAMERAS WITH BUILT-IN AUTO IRIS LENSES (4.5mm, 6mm, 8mm, 10mm and 13~20mm) ENCLOSED IN MINI CUBE OR MINI DOME AND SUPPLIED WITH FRIENDLY DESIGNED WALL, SHELF AND CEILING MOUNTING ACCESSORIES



I-D-CODE®
FRAMELOCK®

ELBEX

PEEPING TOM® & PEEPING DOM® SUPERIOR PERFORMING 1/2" CCD CAMERAS, DEPICTING TOP PICTURE QUALITY WITH FOUR LEVELS OF PERFORMANCES TO CHOOSE FROM

..... WITH A WIDE CHOICE OF PRACTICAL MOUNTINGS.

FRAMELOCK® EXTERNAL SYNC.

EXT. SYNC - **FRAMELOCK®**

Patented ext. sync system, transmitting 25 Hz (PAL) or 29.97 Hz (NTSC) vertical sync pulses via the video coax cable in reverse direction to the video propagation. The camera will lock automatically to the ext. sync pulses for a perfect 2:1 interlace when the ext. sync detector in the camera detects the ext. sync pulses. In the absence of ext. sync the camera will operate on its internal 2:1 interlace sync. All VIACOAX® and non-polar AC/DC powered models incorporate **FRAMELOCK®**.

A CHOICE OF BUILT-IN AUTO IRIS LENS

4.5mm

Super wide angle (90°)
4.5mm, F2.6
with ND & IR cut or Quartz filters.
Focus ranges from macro to infinity.

6mm

Very wide angle (68°)
6mm, F1.9
with ND & IR cut or Quartz filters.
Focus ranges from macro to infinity.

8mm

Wide angle (52°)
8mm, F1.6
with ND & IR cut or Quartz filters.
Focus ranges from macro to infinity.

10mm

Wide angle (45°)
10mm, F1.6
with ND & IR cut or Quartz filters.
Focus ranges from macro to infinity.

13mm ——— 20mm

Wide to narrow angle (38° - 22°)
Vari focal 13-20mm, F1.8 with ND & IR cut or Quartz filters.
Focus ranges from 1.5m to infinity.

* Lens angle of view is measured diagonally.
For estimated horizontal coverage multiply the diagonal angle by 0.8 and for vertical coverage by 0.6.

A CHOICE OF FLEXIBLE POWER SOURCE AND POWER SUPPLIES

EXC2/EXU2 series
EXC12/EXU12 series — 12V~16V DC with low current,max. 200mA (2.5W)

EXC3/EXU3 series
EXC13/EXU13 series — Power through the coax cable by EP100 or EP700 power supplies. Up to 300m (1000ft) with RG59U, 900m (3000ft) with RG11U.

EXC4/EXU4 series
EXC14/EXU14 series — 12V-24 V AC/DC (non-polar) with low current, max. 250mA (2.5W)

Choice of black/white performances

580 TVL/0.1LUX

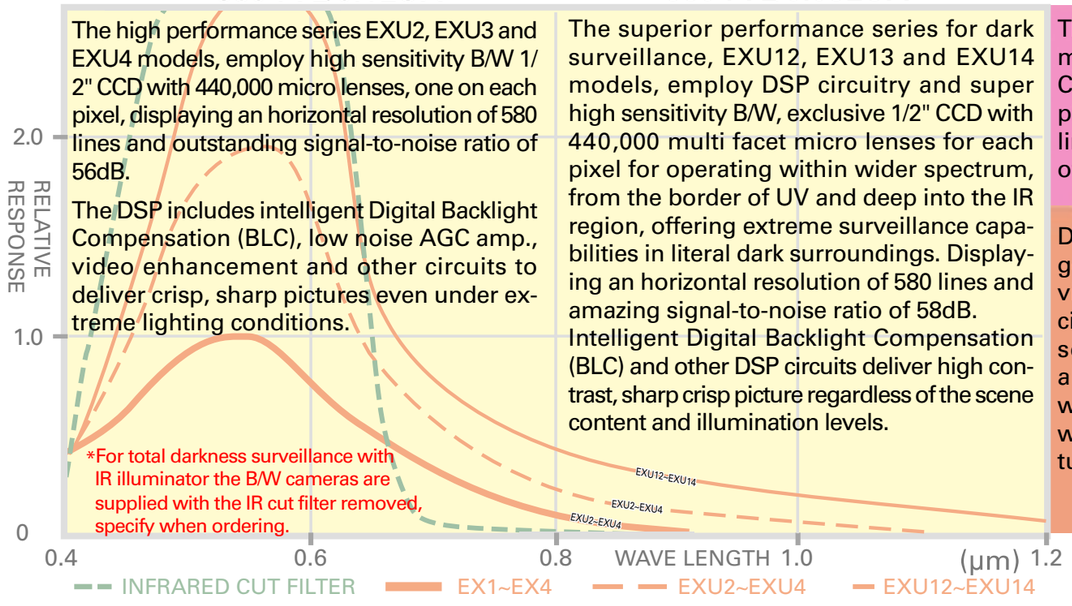
The high performance series EXU2, EXU3 and EXU4 models, employ high sensitivity B/W 1/2" CCD with 440,000 micro lenses, one on each pixel, displaying an horizontal resolution of 580 lines and outstanding signal-to-noise ratio of 56dB.

The DSP includes intelligent Digital Backlight Compensation (BLC), low noise AGC amp., video enhancement and other circuits to deliver crisp, sharp pictures even under extreme lighting conditions.

*For total darkness surveillance with IR illuminator the B/W cameras are supplied with the IR cut filter removed, specify when ordering.

580 TVL/0.03LUX

The superior performance series for dark surveillance, EXU12, EXU13 and EXU14 models, employ DSP circuitry and super high sensitivity B/W, exclusive 1/2" CCD with 440,000 multi facet micro lenses for each pixel for operating within wider spectrum, from the border of UV and deep into the IR region, offering extreme surveillance capabilities in literal dark surroundings. Displaying an horizontal resolution of 580 lines and amazing signal-to-noise ratio of 58dB.
Intelligent Digital Backlight Compensation (BLC) and other DSP circuits deliver high contrast, sharp crisp picture regardless of the scene content and illumination levels.



Choice of color performances

460 TVL/0.5LUX

The high performance, high sensitivity series, models EXC2, EXC3 and EXC4,employ 1/2" CCD with 440,000 micro lenses, one on each pixel, displaying horizontal resolution of 460 lines and outstanding signal-to-noise ratio of 50dB.

Digital Auto Tracing White Balance, intelligent Digital Backlight Compensation (BLC), video enhancement circuit, low noise efficient AGC amp. and color temperature sensor for correcting white balance errors along with other DSP circuit, depict true white balance and natural colors against wide range of illuminator color temperatures.

460 TVL/0.1LUX

The super high sensitivity series for color surveillance in the dark, models EXC12, EXC13 and EXC14, employ DSP circuitry and an exclusive 1/2" CCD with 440,000 multi facet micro lenses, one on each multi facet pixel, displaying horizontal resolution of 460 lines and amazing signal-to-noise ratio of 52dB.

Versatile, intelligent Digital Backlight Compensation (BLC) and advanced Digital Auto Tracing White Balance combined, superior low noise efficient AGC amp. and color temperature sensor for correcting white balance errors caused by illuminators, such as fluorescent lamps or sodium vapor, deliver crisp, sharp pictures even under very dark conditions, offering exceptional natural colors against wide range of illuminator color temperatures.

POWER SUPPLIES

EP700E/EP700U **EP100E/EP100U**

150mA regulated current

EP15/05E;EP15/05U
15V DC 0.5A

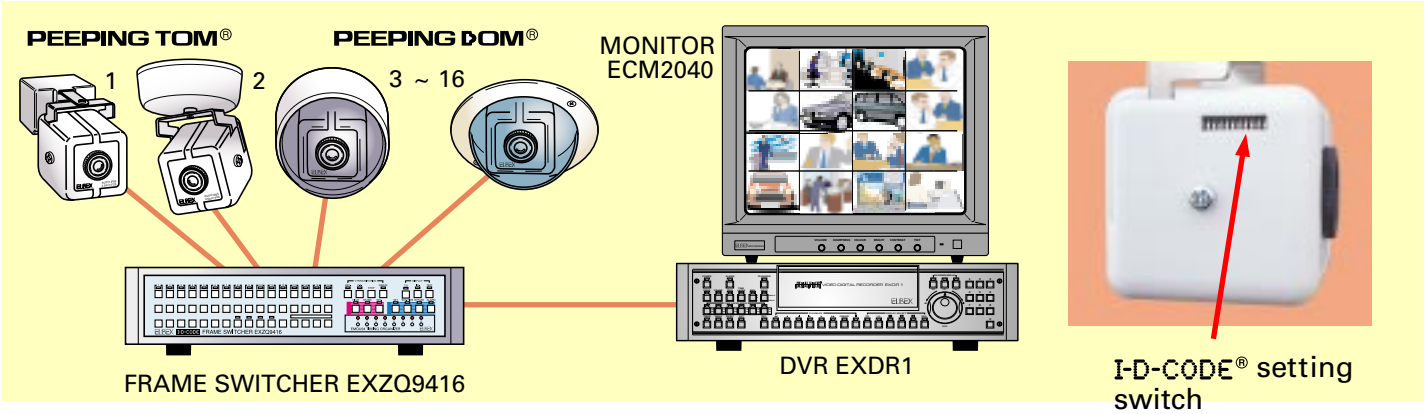
EP24/04E;EP24/04U
24V AC 0.4A

E=230/240V AC;
U=100/120V AC

CHOICE OF MODELS WITH I-D-CODE®

I.D. I-D-CODE® (refer to the selection chart for models with I-D-CODE®)

Patented I-D-CODE® system consists of an invisible 16 bit binary code injected into a single horizontal line (H12) within the vertical blanking period. The identification code is then extracted and decoded at a monitoring site using I-DECODER® for superimposing an I.D. number or a text onto the video display. The patented I-D-CODE® is also used for recording a large number of cameras on a single VCR or DVR and for retrieving the individual recorded signals. All models with I-D-CODE® incorporate a DIP switch for setting the I.D. number.



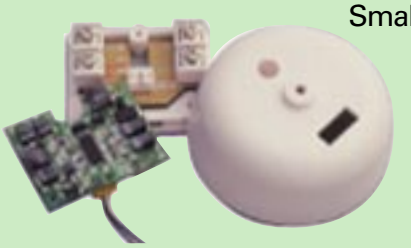
UNLIMITED CHOICES OF MOUNTING POSITIONS

WALL, SURFACE AND RECESS, SHELF, CEILING AND DROP CEILING MOUNTS

The EXC2/EXU2 PEEPING TOM® cameras are supplied with wall or shelf/ceiling mounts that are simple to install and adjust. The low profile and unobstructing mounts in off-white color, that matches the camera body color, incorporate the coax/power terminals and the camera connector.

EMCW2
WALL MOUNT
Small mount for installation on walls and vertical structures.

EMCS2
SHELF/CEILING MOUNT
Small mount for installation on ceiling, shelf and the like.



MODELS, NUMBERS AND EASY SELECTION CHART

MODELS					POWER		BUILT-IN AUTO IRIS LENSES						
	BLACK/WHITE		COLOR										
	DSP HIGH RESOLUTION 580 LINES & HIGH SENSITIVITY 0.1 LUX	DSP HIGH RESOLUTION 580 LINES & SUPER HIGH SENSITIVITY 0.03 LUX	DSP HIGH RESOLUTION 460 LINES & HIGH SENSITIVITY 0.5 LUX	DSP HIGH RESOLUTION 460 LINES & SUPER HIGH SENSITIVITY 0.1 LUX	VIDEOTEC® EP100 or EP700 power supply	12~16V DC	4.5mm F2.6	6mm F1.9	8mm F1.6	10mm F1.6	VARIFOCAL 13~20mm F1.8	FRAMELOCK®	I-D-CODE®
WALL MOUNT	EXU2/4W	EXU12/4W	EXC2/4W	EXC12/4W		●	●					●	
	EXU2/6W	EXU12/6W	EXC2/6W	EXC12/6W		●		●				●	
	EXU2/8W	EXU12/8W	EXC2/8W	EXC12/8W		●			●			●	
	EXU2/10W	EXU12/10W	EXC2/10W	EXC12/10W		●				●		●	
	EXU2/13W	EXU12/13W	EXC2/13W	EXC12/13W		●					●	●	
	EXU2/4W-ID	EXU12/4W-ID	EXC2/4W-ID	EXC12/4W-ID		●	●					●	●
	EXU2/6W-ID	EXU12/6W-ID	EXC2/6W-ID	EXC12/6W-ID		●		●				●	●
	EXU2/8W-ID	EXU12/8W-ID	EXC2/8W-ID	EXC12/8W-ID		●			●			●	●
	EXU2/10W-ID	EXU12/10W-ID	EXC2/10W-ID	EXC12/10W-ID		●				●		●	●
	EXU2/13W-ID	EXU12/13W-ID	EXC2/13W-ID	EXC12/13W-ID		●					●	●	●
SHELF/CEILING MOUNT	EXU2/4S	EXU12/4S	EXC2/4S	EXC12/4S		●	●					●	
	EXU2/6S	EXU12/6S	EXC2/6S	EXC12/6S		●		●				●	
	EXU2/8S	EXU12/8S	EXC2/8S	EXC12/8S		●			●			●	
	EXU2/10S	EXU12/10S	EXC2/10S	EXC12/10S		●				●		●	
	EXU2/13S	EXU12/13S	EXC2/13S	EXC12/13S		●					●	●	
	EXU2/4S-ID	EXU12/4S-ID	EXC2/4S-ID	EXC12/4S-ID		●	●					●	●
	EXU2/6S-ID	EXU12/6S-ID	EXC2/6S-ID	EXC12/6S-ID		●		●				●	●
	EXU2/8S-ID	EXU12/8S-ID	EXC2/8S-ID	EXC12/8S-ID		●			●			●	●
	EXU2/10S-ID	EXU12/10S-ID	EXC2/10S-ID	EXC12/10S-ID		●				●		●	●
	EXU2/13S-ID	EXU12/13S-ID	EXC2/13S-ID	EXC12/13S-ID		●					●	●	●

*Add suffix "P" to PAL/CCIR types such as EXC2P/4W, EXU2P/6S or EXC12P/13S

**When ordering shelf/ceiling mounts clearly state straight mounting (shelf) or upside down mounting (ceiling), the difference between the shelf and ceiling mount is the shape of the metal bracket holding the camera.

CONTINUED UNLIMITED CHOICES OF MOUNTING POSITIONS

WALL, SURFACE AND RECESS, SHELF, CEILING AND DROP CEILING DOME MOUNTS

The PEEPING DOM® cameras are supplied for mounting on wall surface, wall recessed, ceiling or drop ceiling and are simple to install and adjust.

The mini-sized domes in clear, smoked and tinted (FL or IR cut) mounted onto white body enclosure, incorporate the coax/power terminals and the camera connector for connecting an EXC2 black body camera model.

The dome mounts can be supplied separately without cameras as shown:

EHCW4
WALL SURFACE MOUNT DOME
Dome case for installation on walls/vertical structures.

EHCS4
SHELF/CEILINGMOUNT DOME
Dome case for installation on ceilings or flat surfaces.

EHCC4
DROP CEILING MOUNT DOME
Dome with drop ceiling adaptor for installation onto drop ceilings.

EHCR4
WALL RECESSED MOUNT DOME
Dome case and wall recess box for installation into walls.

MODELS, NUMBERS AND EASY SELECTION CHART

MODELS					POWER		BUILT-IN AUTO IRIS LENSES				FRAMELOCK®	DOME** COLOR			
	BLACK/WHITE		COLOR		VIACDAX® EP100 or EP700 power supply	12~24V AC/DC (NON-POLAR)	4.5mm F2.6	6mm F1.9	8mm F1.6	10mm F1.6		CLEAR	SMOKED	FL CUT	IR CUT
	DSP HIGH RESOLUTION 580 LINES & HIGH SENSITIVITY 0.1 LUX	DSP HIGH RESOLUTION 580 LINES & SUPER HIGH SENSITIVITY 0.03 LUX	DSP HIGH RESOLUTION 460 LINES & HIGH SENSITIVITY 0.5 LUX	DSP HIGH RESOLUTION 460 LINES & SUPER HIGH SENSITIVITY 0.1 LUX											
WALL MOUNT	EXU3/4W☐-☐	EXU13/4W☐-☐	EXC3/4W☐-☐	EXC13/4W☐-☐	●		●				●	K	D	F	R
	EXU3/6W☐-☐	EXU13/6W☐-☐	EXC3/6W☐-☐	EXC13/6W☐-☐	●			●			●	K	D	F	R
	EXU3/8W☐-☐	EXU13/8W☐-☐	EXC3/8W☐-☐	EXC13/8W☐-☐	●				●		●	K	D	F	R
	EXU3/10W☐-☐	EXU13/10W☐-☐	EXC3/10W☐-☐	EXC13/10W☐-☐	●					●	●	K	D	F	R
	EXU4/4W☐-☐	EXU14/4W☐-☐	EXC4/4W☐-☐	EXC14/4W☐-☐		●	●				●	K	D	F	R
	EXU4/6W☐-☐	EXU14/6W☐-☐	EXC4/6W☐-☐	EXC14/6W☐-☐		●		●			●	K	D	F	R
	EXU4/8W☐-☐	EXU14/8W☐-☐	EXC4/8W☐-☐	EXC14/8W☐-☐		●			●		●	K	D	F	R
	EXU4/10W☐-☐	EXU14/10W☐-☐	EXC4/10W☐-☐	EXC14/10W☐-☐		●				●	●	K	D	F	R
RECESS WALL MOUNT	EXU3/4R ☐-☐	EXU13/4R ☐-☐	EXC3/4R ☐-☐	EXC13/4R ☐-☐	●		●				●	K	D	F	R
	EXU3/6R ☐-☐	EXU13/6R ☐-☐	EXC3/6R ☐-☐	EXC13/6R ☐-☐	●			●			●	K	D	F	R
	EXU3/8R ☐-☐	EXU13/8R ☐-☐	EXC3/8R ☐-☐	EXC13/8R ☐-☐	●				●		●	K	D	F	R
	EXU3/10R ☐-☐	EXU13/10R ☐-☐	EXC3/10R ☐-☐	EXC13/10R ☐-☐	●					●	●	K	D	F	R
	EXU4/4R ☐-☐	EXU14/4R ☐-☐	EXC4/4R ☐-☐	EXC14/4R ☐-☐		●	●				●	K	D	F	R
	EXU4/6R ☐-☐	EXU14/6R ☐-☐	EXC4/6R ☐-☐	EXC14/6R ☐-☐		●		●			●	K	D	F	R
	EXU4/8R ☐-☐	EXU14/8R ☐-☐	EXC4/8R ☐-☐	EXC14/8R ☐-☐		●			●		●	K	D	F	R
	EXU4/10R ☐-☐	EXU14/10R ☐-☐	EXC4/10R ☐-☐	EXC14/10R ☐-☐		●				●	●	K	D	F	R
CEILING MOUNT	EXU3/4S ☐-☐	EXU13/4S ☐-☐	EXC3/4S ☐-☐	EXC13/4S ☐-☐	●		●				●	K	D	F	R
	EXU3/6S ☐-☐	EXU13/6S ☐-☐	EXC3/6S ☐-☐	EXC13/6S ☐-☐	●			●			●	K	D	F	R
	EXU3/8S ☐-☐	EXU13/8S ☐-☐	EXC3/8S ☐-☐	EXC13/8S ☐-☐	●				●		●	K	D	F	R
	EXU3/10S ☐-☐	EXU13/10S ☐-☐	EXC3/10S ☐-☐	EXC13/10S ☐-☐	●					●	●	K	D	F	R
	EXU4/4S ☐-☐	EXU14/4S ☐-☐	EXC4/4S ☐-☐	EXC14/4S ☐-☐		●	●				●	K	D	F	R
	EXU4/6S ☐-☐	EXU14/6S ☐-☐	EXC4/6S ☐-☐	EXC14/6S ☐-☐		●		●			●	K	D	F	R
	EXU4/8S ☐-☐	EXU14/8S ☐-☐	EXC4/8S ☐-☐	EXC14/8S ☐-☐		●			●		●	K	D	F	R
	EXU4/10S ☐-☐	EXU14/10S ☐-☐	EXC4/10S ☐-☐	EXC14/10S ☐-☐		●				●	●	K	D	F	R
DROP CEILING MOUNT	EXU3/4C ☐-☐	EXU13/4C ☐-☐	EXC3/4C ☐-☐	EXC13/4C ☐-☐	●		●				●	K	D	F	R
	EXU3/6C ☐-☐	EXU13/6C ☐-☐	EXC3/6C ☐-☐	EXC13/6C ☐-☐	●			●			●	K	D	F	R
	EXU3/8C ☐-☐	EXU13/8C ☐-☐	EXC3/8C ☐-☐	EXC13/8C ☐-☐	●				●		●	K	D	F	R
	EXU3/10C ☐-☐	EXU13/10C ☐-☐	EXC3/10C ☐-☐	EXC13/10C ☐-☐	●					●	●	K	D	F	R
	EXU4/4C ☐-☐	EXU14/4C ☐-☐	EXC4/4C ☐-☐	EXC14/4C ☐-☐		●	●				●	K	D	F	R
	EXU4/6C ☐-☐	EXU14/6C ☐-☐	EXC4/6C ☐-☐	EXC14/6C ☐-☐		●		●			●	K	D	F	R
	EXU4/8C ☐-☐	EXU14/8C ☐-☐	EXC4/8C ☐-☐	EXC14/8C ☐-☐		●			●		●	K	D	F	R
	EXU4/10C ☐-☐	EXU14/10C ☐-☐	EXC4/10C ☐-☐	EXC14/10C ☐-☐		●				●	●	K	D	F	R

* Add suffix "P" to PAL/CCIR types such as EXC4P/4W, EXU3P/6S or EXC13P/13S
**Add the dome color to the mount's suffix such as EXC3P/4W☐-☐(smoked) or EXC4/10S☐-☐(clear). Clear dome is supplied for models without suffix.
**For models with I-D-CODE® add suffix ID such as EXC3P/4W☐-ID or EXC4/10S☐-ID.

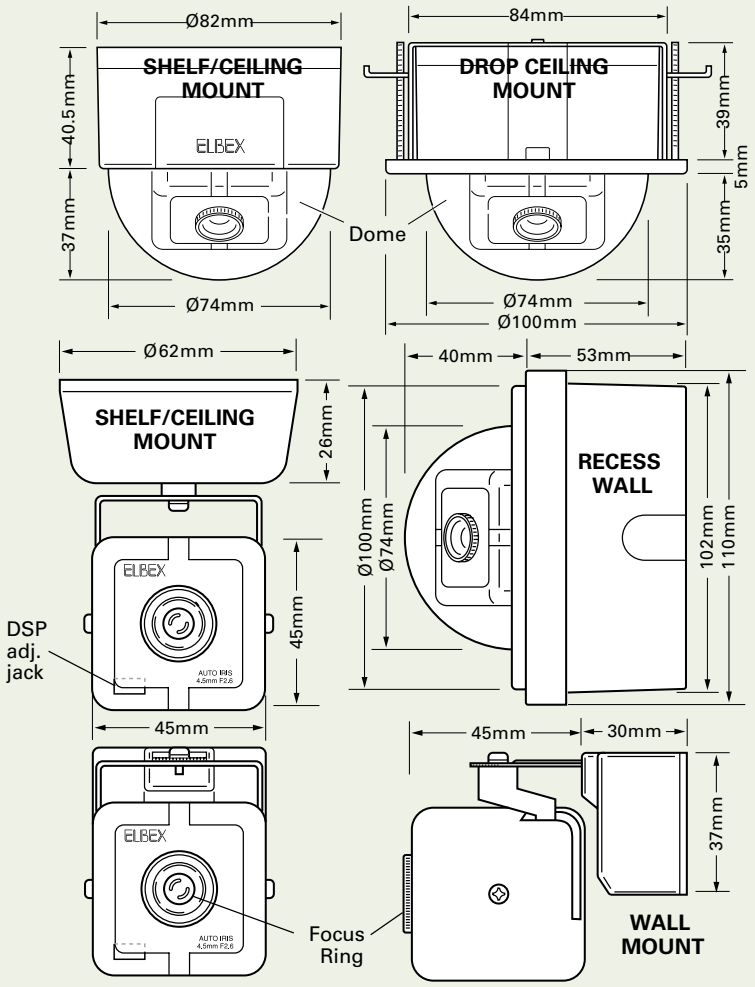
PEEPING TOM® & PEEPING DOM® EXC2/EXU2~EXC14/EXU14 SERIES

APPEARANCE, MAJOR COMPONENTS AND SIZES

SPECIFICATIONS

Pick-up Device	:	1/2" interline transfer CCD
Picture Elements (Pixels)	:	PAL/CCIR 438K (752H x 582V)
	:	NTSC/EIA 380K (768H x 494V)
Horizontal Resolution	:	460TVL (color); 580TVL (B/W)
Vertical Resolution TVL	:	440 (PAL/CCIR); 375 (NTSC/EIA)
50% Amplitude Response	:	> than 360TVL (EXC2/EXC12 series)
	:	> than 460TVL (EXU2/EXU12 series)
Scanning system	:	625/525 lines 50/59.94 vertical fields
Sync system	:	2:1 interlaced EIA (RS 170) or CCIR
Usable sensitivity	:	> than 0.5 Lux (EXC2/EXC3/EXC4)
	:	> than 0.1 Lux (EXU2/EXU3/EXU4)
	:	> than 0.1 Lux (EXC12/EXC13/EXC14)
	:	> than 0.03 Lux (EXU12/EXU13/EXU14)
Auto White Balance	:	Via lens/image signal (all color models)
Infra-red Spectrum (w/o IR cut filter)	:	1100nm (EXU2/EXU3/EXU4) and over 1200nm (EXU12/EXU13/EXU14)
S/N (AGC off 10~20Lux)	:	> than 50dB (EXC2/EXC3/EXC4)
S/N (AGC off 2~3Lux)	:	> than 56dB (EXU2/EXU3/EXU4)
S/N (AGC off 3~8Lux)	:	> than 52dB (EXC12/EXC13/EXC14)
S/N (AGC off 1~2Lux)	:	> than 58dB (EXU12/EXU13/EXU14)
AGC Gain	:	Up to 32dB
Video Output	:	1.0V p-p/75Ω
FRAMELOCK® Ext. Sync	:	8V p-p via the video coax cable
I-D-CODE®	:	16 bit code transmitted during single horizontal line (H12 ±1) of every field.
Lens System	:	4.5mm;F2.6, 6mm;F1.9, 8mm;F1.6, 10mm;F1.6, vari focal 13~20mm; F1.8 auto iris with ND and IR cut or LPF filter
Auto Iris Delay Time	:	Less than 2 sec.
Power via coax	:	150mA regulated current
Operating Voltage	:	12V ~ 24V AC/DC (non-polar)
	:	12V ~ 16V DC (EXC2/EXU2/EXC12/EXU12)
Current Consumption	:	250mA (max.)
Video & Power Connectors	:	Terminals
Ambient Temperature	:	-20°C to + 50°C (operating range)
Dimensions	:	Refer to the illustrations

Specifications and dimensions subject to change without notice.

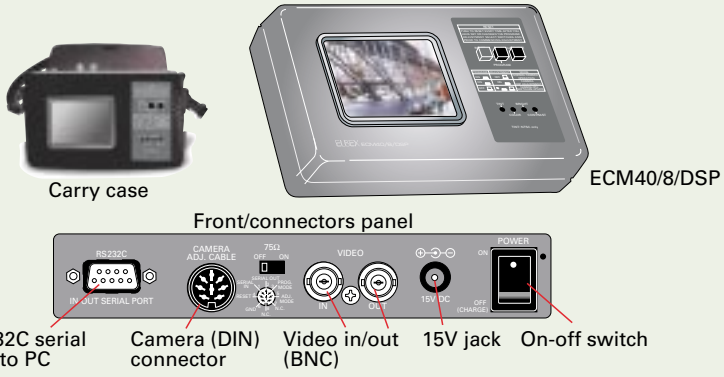


OPTIONAL ALIGNMENT EQUIPMENT

ECM40/8/DSP PROCESSING/INTERFACE MONITOR

Combining 4" LCD monitor and data selector/buffer the ECM40/8/DSP is a serviceman's tool for DSP camera setting. The ECM40/8/DSP is powered by a built-in rechargeable Ni-Cd batteries, and is supplied with ready made interconnecting cables, AC adaptor and carry case and with DSP software program for setting camera parameters including;

- Dynamic range
- BLC (backlight compensation)
- White balance
- Iris (manual/auto) and shutter speed
- AGC, Gamma and more



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	NORTHWEST OFFICE:33739-9th Ave South Federal Way, WA 98003 Tel:(253) 925-2111 Fax:(253) 925-2112
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