## FIND-R-SCOPE® - VISIBLE & NEAR-INFRARED VIEWER / CAMERA

**FIND-R-SCOPE® 1800/2200 Cameras** operate in the visible to near infrared range of the spectrum & utilize proven infrared viewing technology. These infrared vidicon tube CCTV cameras generate a clear view of objects & images which cannot otherwise be seen with the naked eye.

The cameras can be easily mounted on a standard tripod. No external processing box is required. The video image can be viewed on any monitor that accepts a video input. The camera video output can be fed directly to a video recorder, or to a computer via a standard image acquisition card (frame grabber card).
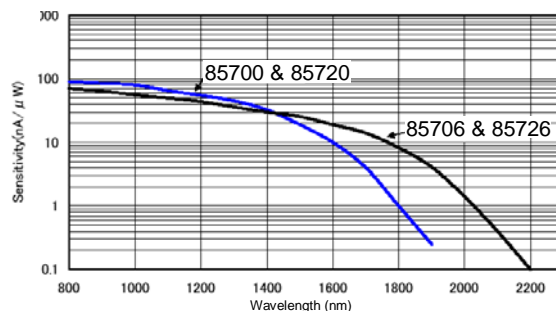
*(Shown with Optional Lens.)*

### CAMERA SPECIFICATIONS:

| Model | 85700* & 85706* |
|---|---|
| | * Add "P" for PAL version, (85700P or 85706P). |
| Spectral Response: | 400 to 1800 nanometers (85700, 85700P) 400 to 2200 nanometers (85706, 85706P) |
| Weight: | 2.78 kg, (98 oz.) |
| Dimensions (w/o lens): | 110.3 x 111.2 x 216.4 mm (4.4 x 4.4 x 8.5 in.) |
| Lens Mount: | Standard "C" mount |
| Standard Lens: | 25 mm, ƒ:1.4 with manual iris |
| Output connector: | BNC |
| Output signal: | Monochromatic, NTSC or PAL (50 or 60Hz interlaced) |
| Video Output: | 1.0 V p-p Composite, 75 Ohms |
| Scanning (NTSC): | 525 Lines/60 Fields/30 Frames |
| Scanning (PAL): | 625 Lines/50 Fields/25 Frames |
| Picture Lag: | 45-60% after 3 TV Fields (50ms) |
| Input power: | 100-240 Vac, 50/60 Hz to included Power Supply, 36 Vdc to camera |
| Vidicon: | 25mm (1") High Performance Infrared Tube |
| Horizontal Resolution: | Up to 700 TV Lines |
| Geometric Distortion: | Less than ± 0.5% |
| Signal to Noise Ratio: | 68dB |
| Gain: | Selectable, Auto Gain and 4 fixed values |
| Ambient Capability: | 15 to 45°C, (59 – 113°F) 15% to 95% rh, non-condensing. Altitude: 3,050-m, (10,000-ft.). |

### FEATURES:

- Antivignetting
- Simple Operation
- All Crystal Timing
- External On-Off Switch
- Balanced Tripod Mount
- Automatic Beam Current Regulation
- Available in NTSC or PAL Video Format
- Horizontal and Vertical Sweep Failure Protection
- Gamma Correction with Soft Peak White Clipping
- Gain Selection: AGC or Manually Select (½ max., ¼ max., or $^3/_{16}$ max. presets.

**Typical Spectral Response**

FJW Model 85700, 85706, 85720 and 85726 Cameras

| PART # | ITEM | DESCRIPTION |
|---|---|---|
| 85700 | 1800 nm Camera | Infrared camera with spectral sensitivity from 400 to 1800 nm. Includes Power Supply, 25 mm ƒ:1.4 Lens and Carrying Case. (NTSC) |
| 85700P | 1800 nm Camera | Infrared camera with spectral sensitivity from 400 to 1800 nm. Includes Power Supply, 25 mm ƒ:1.4 Lens and Carrying Case. (PAL) |
| 85706 | 2200 nm Camera | Same as 85700 except with spectral sensitivity from 400 to 2200 nm. (NTSC) |
| 85706P | 2200 nm Camera | Same as 85700P except with spectral sensitivity from 400 to 2200 nm. (PAL) |

*For applications which require specific magnifications, working distances, or fields of view, different lenses & lens attachment combinations can be individually chosen to suit your requirement. Infrared filters can be special ordered or chosen from those carried in-stock. Cameras can be ordered with either an NTSC or PAL video output.*

## OPTIONAL IR VIEWER ACCESSORIES

| Ask for part number | IR Filters | 830 nm long-pass infrared filter assembly for 25 mm, 50 mm, and 75 mm lenses (absolute min. at 780 nm) |
|---|---|---|
| *TBD* | Zoom Lens | Zoom Lens (To be determined.) |
| 85259 | 75 mm Lens | Standard C-mount $f$: 1.3, 75 mm lens with manual iris |
| 85432 | 50 mm Lens | Standard C-mount $f$: 1.3, 50 mm lens with manual iris |
| 85713 | 25 mm Lens | Standard C-mount $f$: 1.4, 25 mm lens with manual iris (supplied standard with camera) |
| 85676 | Frame Grabber | External USB 2.0 Analog to Digital Convertor for Desktop or Notebook PC. Record moving video or video snapshots from a variety of inputs. Frame Grabber saves 720 x 480 pixel files from NTSC composite video input |

# TYPICAL 1800 & 2200 nm CAMERA APPLICATIONS

**Alignment of Beams from Invisible Sources**
Use camera to align beams from invisible sources such as lasers and LEDs emitting in the invisible Near IR region.

**Light Intensity in the Near-Infrared Region**
View light intensity of infrared light sources such as infrared LEDs, and transmission characteristics of optical fibers.

**Surveillance and Covert Observation**
Use with IR light source for surveillance in low light and darkrooms conditions.

**Microscopy**
Camera can be mounted to a microscope for applications such as detecting internal IC defects and biomedical observations.

**External Processing**
After capturing video via a video capture device, third party software can be utilized for further image processing.

**Biological**
Detect unseen bruising in fruits. See indications of plant diseases invisible to the naked eye. Detect the presence of small insects not apparent due to small size and protective coloration.

**Document Examination and Forgery Detection**
Infrared viewers can help with deciphering of erased markings, detection of alterations or overwriting, restoration on certain inks removed by abrasion or bleaching and other forgery methods.

**Electronic Industry Applications**
Detect stress patterns in silicon crystals and various semiconductor wafer materials. Study of gaseous lasers.

**Industrial Applications**
Detect flaws not visible to the naked eye. Infrared penetrates many dyes and pigments used in textiles and various paints and coatings.

**Fine Art Analysis and Authentication**
Using Infrared Refrectography can allow viewers to look beneath the surface of a painting or look through years of soot and dust accumulation and to see beneath layers of darkened varnish or over glazing. This often allows the conservator to view under drawings and modifications that are invisible to the naked eye.



*(Rear Panel)*

## Additional Models to Be Released

Following the initial release of models 85700 and 85706, we will release two models that will provide the following additional features:

- On Camera Electronic Viewfinder
- Hand Strap and Handle Grip
- Rechargeable Battery

Complete details of these models will be released shortly.

*The details and specifications are known as accurate as of date of publication. Specifications are subject to change*