



# 13VD Series Varifocal Lens

## 1/3-INCH FORMAT, AUTO IRIS (DIRECT DRIVE)

### Product Features

- CS Mount
- Spot Filter
- For Use with 1/3-Inch Format Cameras
- Auto Iris, Manual Focus, and Zoom
- Infrared Capability on 13VDIR Models for Day/Night Use
- 13VDIR Models Compatible with CCC1390H and CC3770H/UH Cameras
- High Resolution Power in Compact Body



13VD5-40

Pelco's **13VD Series** 1/3-inch varifocal lenses offer versatile and flexible packages in one basic lens. Each auto iris lens in this series covers a specific range of focal lengths. Adjust these lenses to get the exact field of view instead of "almost-the-right-view."

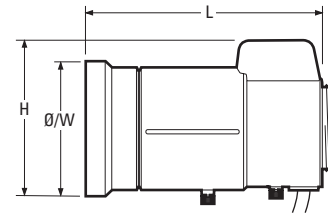
Appropriate for indoor and outdoor lighting situations, the **13VD Series** lenses will fit all 1/3-inch CS-mount cameras requiring DC-drive auto iris lenses. In addition, all auto iris lenses include a spot filter. Lenses in the **13VD Series** come with a standard square 4-pin plug installed for ease of installation and convenience.

Lenses in this series are available in 2.1X, 2.4X, 2.7X, 2.8X, 4.3X, 6.7X, 8X, 10X, and 15X zoom with varying focal lengths.

The 13VDIR models have infrared-corrected optics for day/night operation. These models are designed specifically for use with true day/night cameras, which are designed with a moving filter arrangement, or with fixed focal length black-white cameras. The 13VDIR models work especially well with CCC1390H, CC3770H, and CC3770UH cameras.

Pelco's VD series lenses are intraspot-type lenses, which optimize the dynamic range of the iris. Maximum apertures of no less than F1.8 to a minimum aperture of F360 are typical of all these lenses. This allows for excellent performance characteristics across a wide range of lighting conditions.

Select the model lens that best suits your needs from the Technical Specifications section of this product specification sheet.



|              | H           | Ø/W         | L           |
|--------------|-------------|-------------|-------------|
| 13VD1-3      | 1.80 (4.57) | 1.56 (3.96) | 2.05 (5.21) |
| 13VD2.5-6    | 1.80 (4.57) | 1.55 (3.94) | 1.85 (4.70) |
| 13VD2.8-12   | 1.83 (4.65) | 1.58 (4.01) | 2.33 (5.92) |
| 13VD3-8      | 1.74 (4.42) | 1.44 (3.66) | 2.13 (5.41) |
| 13VD5-40     | 1.95 (4.95) | 1.66 (4.22) | 2.85 (7.24) |
| 13VD5-50     | 2.13 (5.41) | 1.63 (4.14) | 2.33 (5.92) |
| 13VD5.5-82.5 | 2.15 (5.46) | 1.89 (4.80) | 3.23 (8.20) |
| 13VDIR3-8.5  | 1.87 (4.74) | 1.37 (3.50) | 1.86 (4.72) |
| 13VDIR7.5-50 | 1.97 (5.00) | 1.49 (3.80) | 2.17 (5.52) |

NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.



# TECHNICAL SPECIFICATIONS

## MODELS

|                         | <b>13VD1-3</b>      | <b>13VD2.5-6</b>    | <b>13VD2.8-12</b>   | <b>13VD3-8</b>      | <b>13VD5-40</b>     |
|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Type                    | Varifocal           | Varifocal           | Varifocal           | Varifocal           | Varifocal           |
| Format Size             | 1/3-inch            | 1/3-inch            | 1/3-inch            | 1/3-inch            | 1/3-inch            |
| Mount Type              | CS                  | CS                  | CS                  | CS                  | CS                  |
| Focal Length            | 1.6-3.4 mm          | 2.5-6 mm            | 2.8-12 mm           | 3-8 mm              | 5-40 mm             |
| Zoom Ratio              | 2.1X                | 2.4X                | 4.3X                | 2.7X                | 8X                  |
| Relative Aperture (F)   | 1.4-360             | 1.4-125             | 1.4-360             | 1.0-360             | 1.6-360             |
| Operation               |                     |                     |                     |                     |                     |
| Iris                    | Auto (Direct Drive) | Auto (Direct Drive) | Auto (Direct Drive) | Auto (Direct Drive) | Auto (Direct Drive) |
| Focus                   | Manual              | Manual              | Manual              | Manual              | Manual              |
| Zoom                    | Manual              | Manual              | Manual              | Manual              | Manual              |
| Angle of View           |                     |                     |                     |                     |                     |
| Diagonal                | 106.1°-180.0°       | 56.8°-133.3°        | —                   | 44.9°-117.9°        | 8.8°-66.9°          |
| Horizontal              | 84.3°-180.0°        | 45.6°-107.6°        | 24.1°-97.4°         | 35.9°-91.0°         | 6.5°-53.6°          |
| Vertical                | 55.8°-114.1°        | 34.2°-80.9°         | 18.1°-72.5°         | 26.9°-66.6°         | 4.8°-40.2°          |
| Minimum Object Distance | Close               | 0.2 m               | 0.3 m               | 0.2 m               | Consult factory     |
| Back Focal Length       | 7.06-11.54 mm       | 8.72-14.24 mm       | 8.6 mm              | 8.36-14.12 mm       | 10-14.3 mm          |
| Filter Size (mm)        | N/A                 | N/A                 | N/A                 | N/A                 | 40.5P0.5            |
| Unit Weight             | 0.23 lb (0.11 kg)   | 0.20 (0.09 kg)      | 0.17 lb (0.08 kg)   | 0.09 lb (0.04 kg)   | 0.30 lb (0.14 kg)   |
| Shipping Weight         | 1 lb (0.45 kg)      | 1 lb (0.45 kg)      | 1 lb (0.45 kg)      | 1 lb (0.45 kg)      | 1 lb (0.45 kg)      |
|                         | <b>13VD5-50</b>     | <b>13VD5.5-82.5</b> | <b>13VDIR3-8.5</b>  | <b>13VDIR7.5-50</b> |                     |
| Type                    | Varifocal           | Varifocal           | Varifocal Infrared  | Varifocal Infrared  |                     |
| Format Size             | 1/3-inch            | 1/3-inch            | 1/3-inch            | 1/3-inch            |                     |
| Mount Type              | CS                  | CS                  | CS                  | CS                  |                     |
| Focal Length            | 5-50 mm             | 5.5-82.5 mm         | 3-8.5 mm            | 7.5-50 mm           |                     |
| Zoom Ratio              | 10X                 | 15X                 | 2.8X                | 6.7X                |                     |
| Relative Aperture (F)   | 1.4-185             | 1.8-360             | 1.0-360             | 1.3-360             |                     |
| Operation               |                     |                     |                     |                     |                     |
| Iris                    | Auto (Direct Drive) | Auto (Direct Drive) | Auto (Direct Drive) | Auto (Direct Drive) |                     |
| Focus                   | Manual              | Manual              | Manual              | Manual              |                     |
| Zoom                    | Manual              | Manual              | Manual              | Manual              |                     |
| Angle of View           |                     |                     |                     |                     |                     |
| Diagonal                | —                   | 4.2°-64.7°          | 41.9°-114.1°        | 7.00°-46.2°         |                     |
| Horizontal              | 5.3°-53.4°          | 3.1°-50.7°          | 33.6°-90.5°         | 5.64°-36.6°         |                     |
| Vertical                | 4.1°-40.1°          | 2.3°-37.5°          | 25.2°-67.2°         | 4.26°-27.4°         |                     |
| Minimum Object Distance | 0.5 m               | 0.2 m               | 0.2 m               | 0.4 m               |                     |
| Back Focal Length       | 10.05 mm            | 8.65-10.32 mm       | 7.94-13.96 mm       | 9.61-11.96 mm       |                     |
| Filter Size (mm)        | N/A                 | 46P0.75             | N/A                 | N/A                 |                     |
| Unit Weight             | 0.25 lb (0.11 kg)   | 0.44 lb (0.20 kg)   | 0.12 lb (0.05 kg)   | 0.15 lb (0.07 kg)   |                     |
| Shipping Weight         | 1 lb (0.45 kg)      | 1 lb (0.45 kg)      | 1 lb (0.45 kg)      | 1 lb (0.45 kg)      |                     |

## CERTIFICATIONS

- CE, Class B (all models)

## OPTIONAL ACCESSORIES

|        |   |
|--------|---|
| LDC100 | Auto iris drive converter. Converts a DC-drive auto iris lens to a video drive auto iris lens. Compatible with all lens size formats. |
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