

# CCTV LENS

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## PRODUCT GUIDE



compartar<sup>®</sup>



## The World Standard for Industrial Lenses.

At CBC, we have set the world standard for industrial lenses through the design, manufacture and global sales of the "Computar" brand. Since the very beginning of the video security market, we have established a strong worldwide distribution network. As a pioneer in CCTV lenses, CBC and the Computar brand have grown along with the demands of the world market.

Computar CCTV lenses were introduced in the U.S.A. during the mid 1970s and have continued to meet security challenges globally for more than 40 years. Today, we lead the industry in Japan, Europe, Asia and markets all over the world. We offer a comprehensive lineup of high-quality products with excellent cost performance. Our designs utilize leading-edge technology, enabling us to achieve the highest quality while also ramping up production in our factories in Japan and abroad. We are proud to have an established worldwide sales network, built on the excellence of our **computar** products.

CBC is committed to maintaining the world standard for industrial lenses through continuous research and development. We continue to strive to achieve even greater quality to meet our customer needs for today's evolving security challenges.

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## FEATURE INDICATION

### Lens type

|             |             |                                                          |
|-------------|-------------|----------------------------------------------------------|
| <b>FIX</b>  | Fixed Focal | Fixed focal length, very simple and compact design       |
| <b>VARI</b> | Vari-Focal  | Compact design, focal length adjusted manually           |
| <b>ZOOM</b> | Zoom        | Focal length adjusted without focus shift of image plane |

### Iris type

|                |                 |                                                          |
|----------------|-----------------|----------------------------------------------------------|
| <b>MANUAL</b>  | Manual Iris     | Manually operated iris                                   |
| <b>DC</b>      | DC Auto Iris    | Auto iris supporting DC controlled cameras               |
| <b>VIDEO</b>   | Video Auto Iris | Auto iris supporting Video controlled cameras            |
| <b>P-iris</b>  | P-iris          | Auto iris supporting P-iris controlled cameras           |
| <b>3 MOTOR</b> | 3 Motors        | Operated iris, zoom and focus by electric remote control |

### Function

|             |                     |                                                                                                         |
|-------------|---------------------|---------------------------------------------------------------------------------------------------------|
| <b>F1.0</b> | Wide Aperture Ratio | Large aperture that transmits more light                                                                |
| <b>ASP</b>  | Aspherical Lens     | Aspherical lens which greatly improves the image quality and compact design                             |
| <b>1MP</b>  | Megapixel Lens      | High definition lens which is used mainly with 1MP cameras                                              |
| <b>2MP</b>  | Megapixel Lens      | High definition lens which is used mainly with 2MP cameras                                              |
| <b>3MP</b>  | Megapixel Lens      | High definition lens which is used mainly with 3MP cameras                                              |
| <b>5MP</b>  | Megapixel Lens      | High definition lens which is used mainly with 5MP cameras                                              |
| <b>IR</b>   | Day & Night         | Lens optimized for both visible and new IR spectrum which eliminates focus shift with Day&Night cameras |

### Feature of Focal Length

|             |                 |                                                                                   |
|-------------|-----------------|-----------------------------------------------------------------------------------|
| <b>WIDE</b> | Wide Angle Lens | Lens provides a wide field of view                                                |
| <b>TELE</b> | Telephoto Lens  | Lens provides a small field of view or magnified image in long range applications |

### Feature of Zoom

|                    |                        |                                                                                                                    |
|--------------------|------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>SPOT FILTER</b> | Spot Filter            | A neutral density filter inside the lens that attenuates the amount of light transmission from very bright objects |
| <b>PRESET</b>      | Preset on Focus & Zoom | The model which has the function of preset on focus and zoom                                                       |
| <b>OVERRIDE</b>    | Override Manual        | The model which enables manual control from remote locations                                                       |

### Application of Megapixel / FA Lens

|                 |                     |                                                                                              |
|-----------------|---------------------|----------------------------------------------------------------------------------------------|
| <b>SECURITY</b> | Security            | For Security, available for monitoring at infinity. Provides good image recognition accuracy |
| <b>FA</b>       | FA-Image Processing | For Factory Automation or Image Processing, used in monitoring at a close proximity          |

### SWIR / LWIR

|                 |                     |                                                                                                    |
|-----------------|---------------------|----------------------------------------------------------------------------------------------------|
| <b>SWIR</b>     | Short-wavelength IR | Designed for SWIR (800-1700nm) range                                                               |
| <b>LWIR</b>     | Long-wavelength IR  | Designed for LWIR (8-12μm) range                                                                   |
| <b>Athermal</b> | Athermal            | Athermalized lens which maintains focus position over wide change of the environmental temperature |
| <b>17μm</b>     | 17μm pitch Sensor   | Thermal lens which can be used with 17μm pitch sensor                                              |



# MODEL NAME CODING RULE

## Manual Iris / Auto Iris (DC&Video) / Vari-Focal Manual Iris / Vari-Focal Auto Iris (DC & Video)

|                  |   |   |    |    |    |    |          |
|------------------|---|---|----|----|----|----|----------|
| T2314FICS        | T |   | 23 | 14 | FI | CS |          |
| T3Z2910CS        | T |   | 3Z | 29 | 10 | CS |          |
| HG3Z4512AFCS-IR  | H | G | 3Z | 45 | 12 | AF | CS -IR   |
| HG2Z0414FC-MP    | H | G | 2Z | 04 | 14 | F  | C -MP    |
| AG3Z3112KCS-MPIR | A | G | 3Z | 31 | 12 | K  | CS -MPIR |
|                  | ① | ② | ③  | ④  | ⑤  | ⑥  | ⑦ ⑧      |

|                                 |                                     |
|---------------------------------|-------------------------------------|
| ① Sensor Size                   | T..... 1/3 inch                     |
|                                 | A..... 1/2.7 inch                   |
|                                 | H..... 1/2 inch                     |
|                                 | E..... 1/1.8 inch                   |
|                                 | M..... 2/3 inch                     |
| ② With Galvanometer (Auto Iris) |                                     |
| ③ Zoom Ratio                    | HG2Z0414FC-MP... 2 times (f=4~8mm)  |
| ④ Focal Length                  | T2314FICS..... f=2.3 mm             |
| ⑤ Aperture                      | T3Z2910CS..... F1.0                 |
| ⑥ Iris Type                     | FI / Blank..... Manual Iris         |
|                                 | AF..... Auto Iris (Video)           |
|                                 | F..... Auto Iris (DC)               |
|                                 | K..... P-iris                       |
| ⑦ Mount Type                    | CS..... CS-Mount                    |
|                                 | C..... C-Mount                      |
| ⑧ Character                     | IR..... InfraRed Lens (Day & Night) |
|                                 | MP..... Megapixel                   |
|                                 | P..... Pinhole                      |

## Manual Zoom

|                |   |    |    |    |    |    |     |
|----------------|---|----|----|----|----|----|-----|
| H6Z0812        | H | 6Z | 08 | 12 |    |    |     |
| T6Z5710AIDC-CS | T | 6Z | 57 | 10 | AI | DC | -CS |
| H6Z0812AIVD    | H | 6Z | 08 | 12 | AI | VD |     |
|                | ① | ③  | ④  | ⑤  | ⑨  | ⑩  | ⑦   |

|             |                     |
|-------------|---------------------|
| ⑨ Auto Iris |                     |
| ⑩ Iris Type | DC..... DC Drive    |
|             | VD..... Video Drive |

## Motorized Zoom

|                  |   |     |    |    |       |     |     |
|------------------|---|-----|----|----|-------|-----|-----|
| T21Z5816M-CS     | T | 21Z | 58 | 16 | M     | -CS |     |
| H10Z1218DC       | H | 10Z | 12 | 18 | DC    |     |     |
| H16Z7516AMSPR-IR | H | 16Z | 75 | 16 | AMSPR | -IR |     |
| H60Z1238A-IRF    | H | 60Z | 12 | 38 | A     | -IR | F   |
|                  | ① | ③   | ④  | ⑤  | ⑪     | ⑦   | ⑧ ⑩ |

|                             |                                                                               |
|-----------------------------|-------------------------------------------------------------------------------|
| ⑪ Functional Identification | M..... 3 Motors (Iris,Focus & Zoom by Motorized Control)                      |
|                             | MP..... 3 Motors + Preset                                                     |
|                             | MS..... 3 Motors + Spot Filter                                                |
|                             | MSP..... 3 Motors + Spot Filter + Preset                                      |
|                             | AMS..... Auto Iris (Video)+Spot Filter                                        |
|                             | AMSP..... Auto Iris (Video)+Spot Filter + Preset                              |
|                             | AMSR..... Auto Iris (Video)+Spot Filter+ Over-Ride                            |
|                             | AMSPR..... Auto Iris (Video) +Spot Filter+ Preset + Over-Ride                 |
|                             | DC..... Auto Iris (DC)+Spot Filter                                            |
|                             | PDC..... Auto Iris (DC)+Spot Filter+ Preset                                   |
|                             | A..... Auto Iris (Video)+Spot Filter+Preset+Over-Ride+Lever Remote+ALC remote |
|                             | F..... Fog through Filter                                                     |
|                             | EX..... 2X extender                                                           |

※ This rule does not apply to some products

FIX

MANUAL

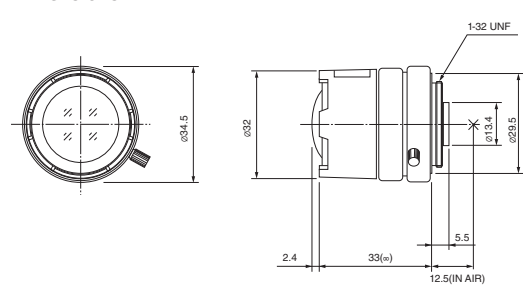
WIDE



| MODEL NO.                           | T2314FICS-3      |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 2.3              |
| Aperture (F)                        | 1.4-16C          |
| Angle of View (HOR)°                | 113.3            |
| M.O.D. (m)                          | 0.2              |
| Effective Aperture                  | Front (φmm) 22.8 |
|                                     | Rear (φmm) 7.0   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ34.5 × 35.4     |
| Weight (g)                          | 43               |

Dimensions

unit:mm



FIX

MANUAL

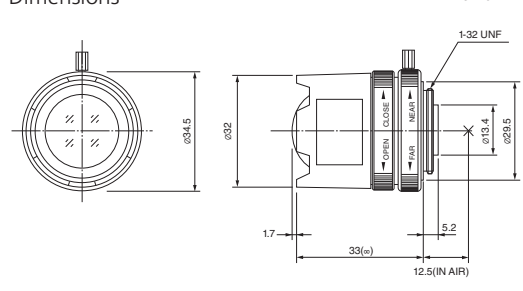
WIDE



| MODEL NO.                           | T2616FICS-4      |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 2.6              |
| Aperture (F)                        | 1.6-11C          |
| Angle of View (HOR)°                | 99.6             |
| M.O.D. (m)                          | 0.3              |
| Effective Aperture                  | Front (φmm) 16.4 |
|                                     | Rear (φmm) 8.0   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ34.5 × 34.7     |
| Weight (g)                          | 45               |

Dimensions

unit:mm



FIX

MANUAL

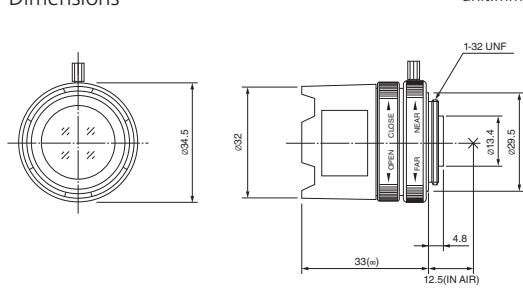
IR



| MODEL NO.                           | T0412FICS-3      |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 4                |
| Aperture (F)                        | 1.2-16C          |
| Angle of View (HOR)°                | 63.9             |
| M.O.D. (m)                          | 0.2              |
| Effective Aperture                  | Front (φmm) 15.5 |
|                                     | Rear (φmm) 8.5   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ34.5 × 33       |
| Weight (g)                          | 36               |

Dimensions

unit:mm



FIX

MANUAL

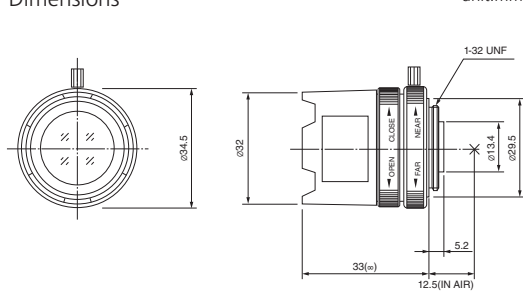
IR



| MODEL NO.                           | T0812FICS-3      |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 8                |
| Aperture (F)                        | 1.2-16C          |
| Angle of View (HOR)°                | 34.7             |
| M.O.D. (m)                          | 0.2              |
| Effective Aperture                  | Front (φmm) 15.0 |
|                                     | Rear (φmm) 8.8   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ34.5 × 33       |
| Weight (g)                          | 37               |

Dimensions

unit:mm



FIX

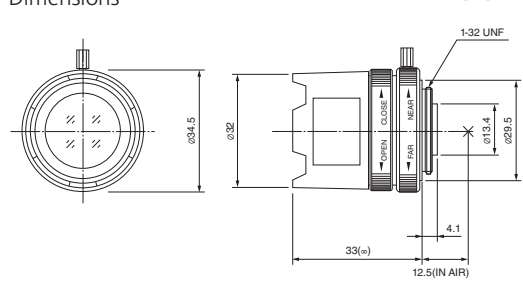
MANUAL



| MODEL NO.                           | H1214FICS-3      |
|-------------------------------------|------------------|
| Format (")                          | 1/2              |
| Mount                               | CS               |
| Focal Length (mm)                   | 12               |
| Aperture (F)                        | 1.4-16C          |
| Angle of View (HOR)°                | 30.4             |
| M.O.D. (m)                          | 0.3              |
| Effective Aperture                  | Front (φmm) 13.0 |
|                                     | Rear (φmm) 8.8   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ34.5 × 33       |
| Weight (g)                          | 33               |

Dimensions

unit:mm



# MANUAL IRIS

## C-MOUNT

MANUAL  
IRIS

FIX

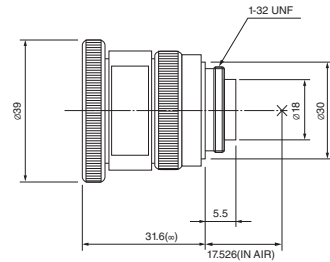
MANUAL



| MODEL NO.                              | M8513            |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 8.5              |
| Aperture (F)                           | 1.3-16C          |
| Angle of View (HOR)°                   | 57.4             |
| M.O.D. (m)                             | 0.2              |
| Effective Aperture                     | Front (φmm) 20.0 |
|                                        | Rear (φmm) 12.0  |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ39×31.6         |
| Weight (g)                             | 50               |

Dimensions

unit:mm



MANUAL IRIS

AUTO IRIS

# AUTO IRIS

DC DRIVE / VIDEO DRIVE

AUTO  
IRIS

FIX

DC

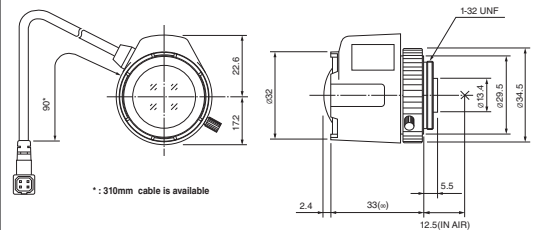
WIDE



| MODEL NO.                              | TG2314FCS-3      |
|----------------------------------------|------------------|
| Format (")                             | 1/3              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 2.3              |
| Aperture (F)                           | 1.4-360C         |
| Angle of View (HOR)°                   | 113.3            |
| M.O.D. (m)                             | 0.2              |
| Effective Aperture                     | Front (φmm) 22.8 |
|                                        | Rear (φmm) 7.0   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ32×39.8×35.4    |
| Weight (g)                             | 45               |

Dimensions

unit:mm



FIX

DC

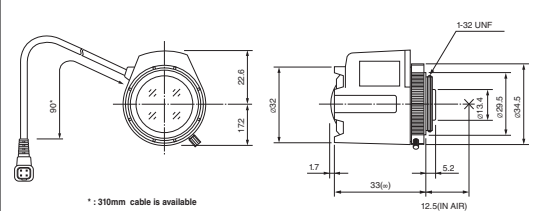
WIDE



| MODEL NO.                              | TG2616FCS-4      |
|----------------------------------------|------------------|
| Format (")                             | 1/3              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 2.6              |
| Aperture (F)                           | 1.6-360C         |
| Angle of View (HOR)°                   | 99.6             |
| M.O.D. (m)                             | 0.3              |
| Effective Aperture                     | Front (φmm) 16.4 |
|                                        | Rear (φmm) 8.0   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ32×39.8×34.7    |
| Weight (g)                             | 47               |

Dimensions

unit:mm



FIX

DC

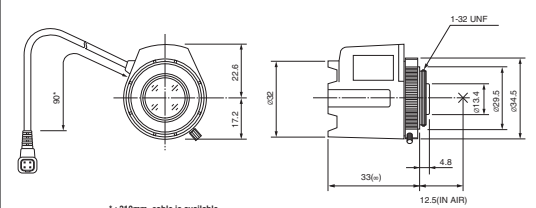
IR



| MODEL NO.                              | TG0412FCS-3      |
|----------------------------------------|------------------|
| Format (")                             | 1/3              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 4                |
| Aperture (F)                           | 1.2-360C         |
| Angle of View (HOR)°                   | 63.9             |
| M.O.D. (m)                             | 0.2              |
| Effective Aperture                     | Front (φmm) 15.5 |
|                                        | Rear (φmm) 8.5   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ32×39.8×33      |
| Weight (g)                             | 38               |

Dimensions

unit:mm



FIX

DC

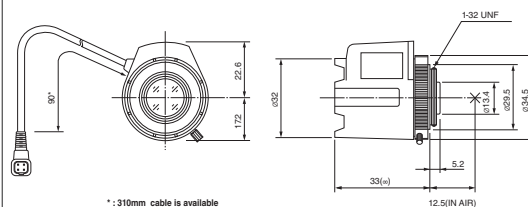
IR



| MODEL NO.                           | TG0812FCS-3      |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 8                |
| Aperture (F)                        | 1.2-360C         |
| Angle of View (HOR)°                | 34.7             |
| M.O.D. (m)                          | 0.2              |
| Effective Aperture                  | Front (φmm) 15.0 |
|                                     | Rear (φmm) 8.8   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ32×39.8×33      |
| Weight (g)                          | 39               |

Dimensions

unit:mm



FIX

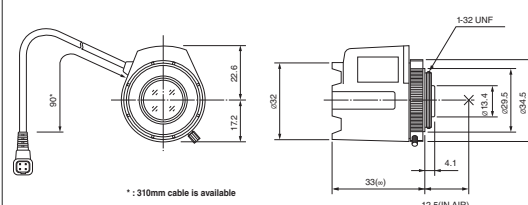
DC



| MODEL NO.                           | HG1214FCS-3      |
|-------------------------------------|------------------|
| Format (")                          | 1/2              |
| Mount                               | CS               |
| Focal Length (mm)                   | 12               |
| Aperture (F)                        | 1.4-360C         |
| Angle of View (HOR)°                | 30.4             |
| M.O.D. (m)                          | 0.3              |
| Effective Aperture                  | Front (φmm) 13.0 |
|                                     | Rear (φmm) 8.8   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ32×39.8×33      |
| Weight (g)                          | 35               |

Dimensions

unit:mm



FIX

VIDEO

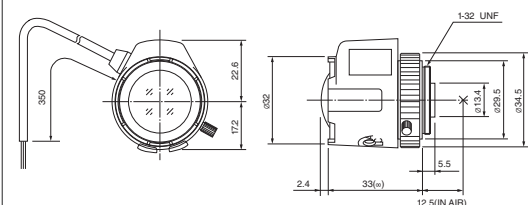
WIDE



| MODEL NO.                           | TG2314AFCS-3     |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 2.3              |
| Aperture (F)                        | 1.4-360C         |
| Angle of View (HOR)°                | 113.3            |
| M.O.D. (m)                          | 0.2              |
| Effective Aperture                  | Front (φmm) 22.8 |
|                                     | Rear (φmm) 7.0   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ32×39.8×35.4    |
| Weight (g)                          | 48               |

Dimensions

unit:mm



FIX

VIDEO

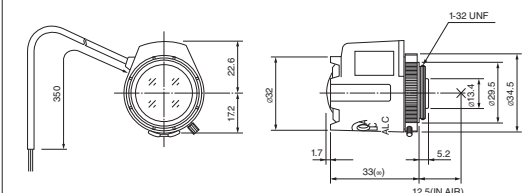
WIDE



| MODEL NO.                           | TG2616AFCS-4     |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 2.6              |
| Aperture (F)                        | 1.6-360C         |
| Angle of View (HOR)°                | 99.6             |
| M.O.D. (m)                          | 0.3              |
| Effective Aperture                  | Front (φmm) 16.4 |
|                                     | Rear (φmm) 8.0   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ32×39.8×34.7    |
| Weight (g)                          | 50               |

Dimensions

unit:mm



FIX

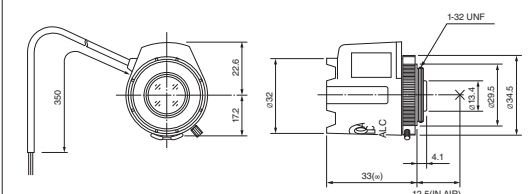
VIDEO



| MODEL NO.                           | HG1214AFCS-3     |
|-------------------------------------|------------------|
| Format (")                          | 1/2              |
| Mount                               | CS               |
| Focal Length (mm)                   | 12               |
| Aperture (F)                        | 1.4-360C         |
| Angle of View (HOR)°                | 30.4             |
| M.O.D. (m)                          | 0.3              |
| Effective Aperture                  | Front (φmm) 13.0 |
|                                     | Rear (φmm) 8.8   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ32×39.8×33      |
| Weight (g)                          | 39               |

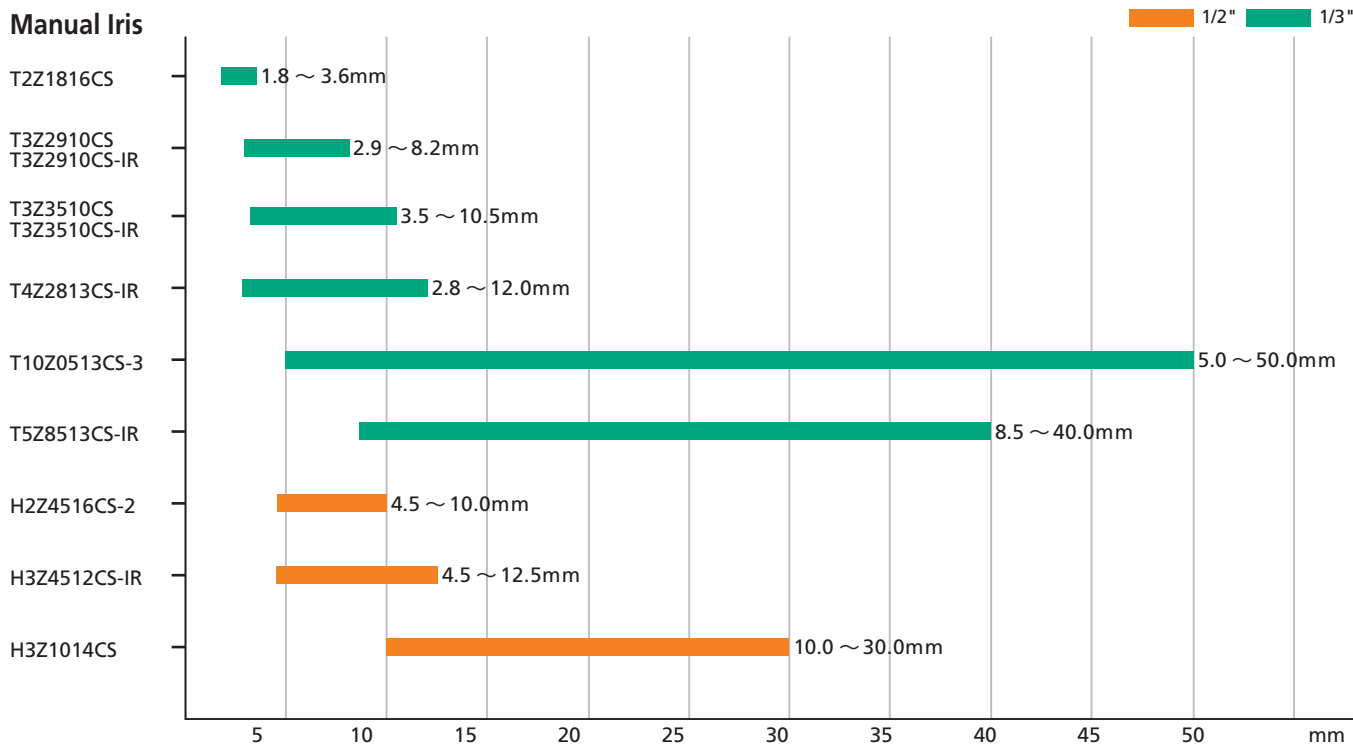
Dimensions

unit:mm



## Vari-Focal Lens Comparison

### Manual Iris



VARI-FOCAL  
MANUAL IRIS

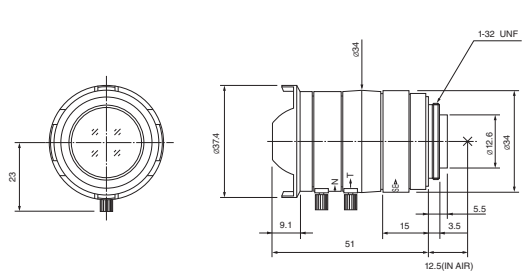
VARI  
MANUAL  
WIDE



| MODEL NO.                              | T2Z1816CS        |
|----------------------------------------|------------------|
| Format (")                             | 1/3              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 1.8-3.6          |
| Aperture (F)                           | 1.6-16C          |
| Angle of View (HOR)°                   | 144.2-79.4       |
| M.O.D. (m)                             | 0.2              |
| Effective Aperture                     | Front (φmm) 22.0 |
|                                        | Rear (φmm) 7.9   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ37.4×51         |
| Weight (g)                             | 68               |

### Dimensions

unit:mm



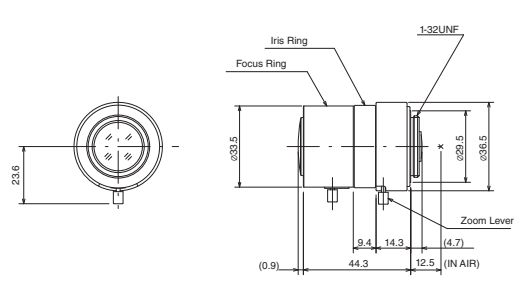
VARI  
MANUAL  
F1.0  
ASP



| MODEL NO.                              | T3Z2910CS        |
|----------------------------------------|------------------|
| Format (")                             | 1/3              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 2.9-8.2          |
| Aperture (F)                           | 1.0-16C          |
| Angle of View (HOR)°                   | 98.3-35.2        |
| M.O.D. (m)                             | 0.5              |
| Effective Aperture                     | Front (φmm) 18.8 |
|                                        | Rear (φmm) 9.0   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ36.5×44.3       |
| Weight (g)                             | 41               |

### Dimensions

unit:mm



VARI

MANUAL

F1.0

ASP

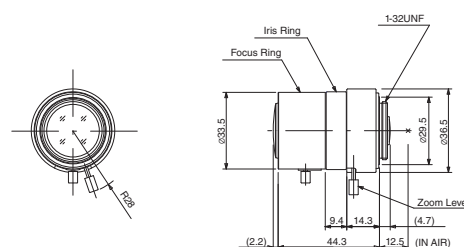
IR



| MODEL NO.                            | T3Z2910CS-IR     |
|--------------------------------------|------------------|
| Format (")                           | 1/3              |
| Mount                                | CS               |
| Focal Length (mm)                    | 2.9-8.2          |
| Aperture (F)                         | 1.0-16C          |
| Angle of View (HOR)°                 | 95.0-35.6        |
| M.O.D. (m)                           | 0.5              |
| Effective Aperture                   | Front (φmm) 19.0 |
|                                      | Rear (φmm) 8.5   |
| Front Filter Thread (φMxP=)          | -                |
| Dimensions (φD),(φFstD) or (WxHxD)mm | φ36.5 × 44.3     |
| Weight (g)                           | 44               |

Dimensions

unit:mm



VARI

MANUAL

F1.0

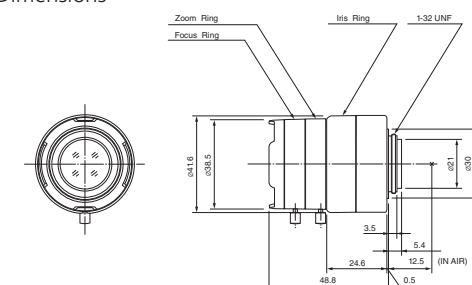
ASP



| MODEL NO.                            | T3Z3510CS        |
|--------------------------------------|------------------|
| Format (")                           | 1/3              |
| Mount                                | CS               |
| Focal Length (mm)                    | 3.5-10.5         |
| Aperture (F)                         | 1.0-16C          |
| Angle of View (HOR)°                 | 81.6-27.2        |
| M.O.D. (m)                           | 0.3              |
| Effective Aperture                   | Front (φmm) 18.5 |
|                                      | Rear (φmm) 10.1  |
| Front Filter Thread (φMxP=)          | -                |
| Dimensions (φD),(φFstD) or (WxHxD)mm | φ41.6 × 48.8     |
| Weight (g)                           | 63               |

Dimensions

unit:mm



VARI

MANUAL

F1.0

ASP

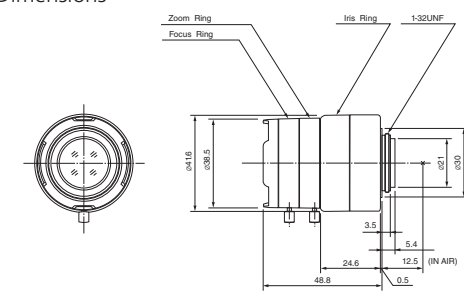
IR



| MODEL NO.                            | T3Z3510CS-IR     |
|--------------------------------------|------------------|
| Format (")                           | 1/3              |
| Mount                                | CS               |
| Focal Length (mm)                    | 3.5-10.5         |
| Aperture (F)                         | 1.0-16C          |
| Angle of View (HOR)°                 | 81.8-27.2        |
| M.O.D. (m)                           | 0.3              |
| Effective Aperture                   | Front (φmm) 18.6 |
|                                      | Rear (φmm) 10.2  |
| Front Filter Thread (φMxP=)          | -                |
| Dimensions (φD),(φFstD) or (WxHxD)mm | φ41.6 × 48.8     |
| Weight (g)                           | 63               |

Dimensions

unit:mm



VARI

MANUAL

ASP

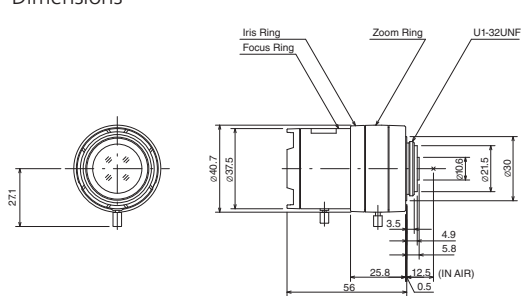
IR



| MODEL NO.                            | T4Z2813CS-IR-2   |
|--------------------------------------|------------------|
| Format (")                           | 1/3              |
| Mount                                | CS               |
| Focal Length (mm)                    | 2.8-12           |
| Aperture (F)                         | 1.3-16C          |
| Angle of View (HOR)°                 | 102.2-23.7       |
| M.O.D. (m)                           | 0.3              |
| Effective Aperture                   | Front (φmm) 23.0 |
|                                      | Rear (φmm) 7.4   |
| Front Filter Thread (φMxP=)          | -                |
| Dimensions (φD),(φFstD) or (WxHxD)mm | φ40.7 × 56.0     |
| Weight (g)                           | 63               |

Dimensions

unit:mm



VARI

MANUAL

TELE

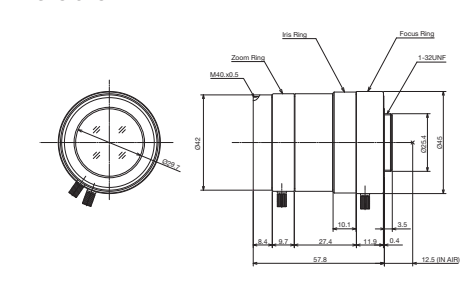
ASP



| MODEL NO.                            | T10Z0513CS-3     |
|--------------------------------------|------------------|
| Format (")                           | 1/3              |
| Mount                                | CS               |
| Focal Length (mm)                    | 5-50             |
| Aperture (F)                         | 1.3-16C          |
| Angle of View (HOR)°                 | 51.8-5.6         |
| M.O.D. (m)                           | 0.8              |
| Effective Aperture                   | Front (φmm) 29.5 |
|                                      | Rear (φmm) 8.7   |
| Front Filter Thread (φMxP=)          | 40.5 × 0.5       |
| Dimensions (φD),(φFstD) or (WxHxD)mm | φ45 × 57.8       |
| Weight (g)                           | 90               |

Dimensions

unit:mm





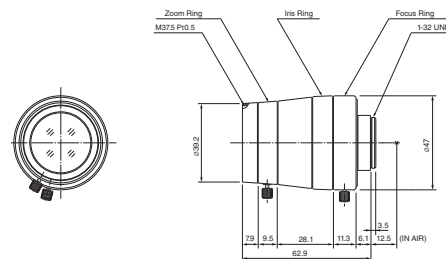
VARI  
MANUAL  
TELE  
ASP  
IR



| MODEL NO.                              | T5Z8513CS-IR     |
|----------------------------------------|------------------|
| Format (")                             | 1/3              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 8.5-40           |
| Aperture (F)                           | 1.3-16C          |
| Angle of View (HOR)°                   | 33.5-7.1         |
| M.O.D. (m)                             | 0.8              |
| Effective Aperture                     | Front (φmm) 27.0 |
|                                        | Rear (φmm) 9.3   |
| Front Filter Thread (φMxP=)            | 37.5×0.5         |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ47.0×62.9       |
| Weight (g)                             | 126              |

### Dimensions

unit:mm



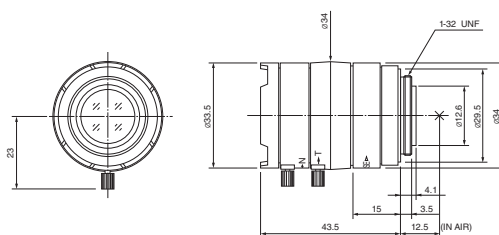
VARI  
MANUAL  
IR



| MODEL NO.                              | H2Z4516CS-2      |
|----------------------------------------|------------------|
| Format (")                             | 1/2              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 4.5-10           |
| Aperture (F)                           | 1.6-16C          |
| Angle of View (HOR)°                   | 81.3-38.2        |
| M.O.D. (m)                             | 0.3              |
| Effective Aperture                     | Front (φmm) 18.6 |
|                                        | Rear (φmm) 9.0   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ34×43.5         |
| Weight (g)                             | 40               |

### Dimensions

unit:mm



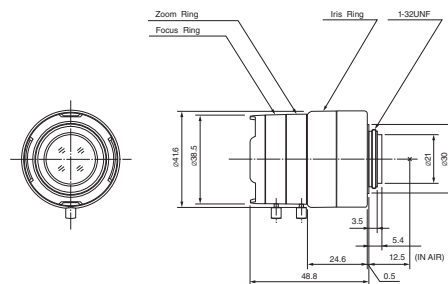
VARI  
MANUAL  
ASP  
IR



| MODEL NO.                              | H3Z4512CS-IR     |
|----------------------------------------|------------------|
| Format (")                             | 1/2              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 4.5-12.5         |
| Aperture (F)                           | 1.2-16C          |
| Angle of View (HOR)°                   | 83.7-30.1        |
| M.O.D. (m)                             | 0.3              |
| Effective Aperture                     | Front (φmm) 19.9 |
|                                        | Rear (φmm) 9.9   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ41.6×48.8       |
| Weight (g)                             | 66               |

### Dimensions

unit:mm



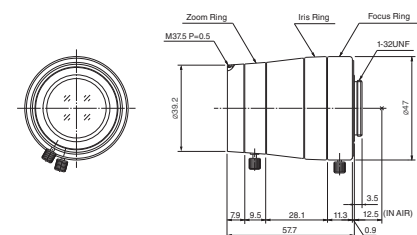
VARI  
MANUAL  
TELE  
ASP  
IR



| MODEL NO.                              | H3Z1014CS        |
|----------------------------------------|------------------|
| Format (")                             | 1/2              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 10-30            |
| Aperture (F)                           | 1.4-16C          |
| Angle of View (HOR)°                   | 35.8-12.5        |
| M.O.D. (m)                             | 0.6              |
| Effective Aperture                     | Front (φmm) 26.6 |
|                                        | Rear (φmm) 9.0   |
| Front Filter Thread (φMxP=)            | 37.5×0.5         |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ47×57.7         |
| Weight (g)                             | 125              |

### Dimensions

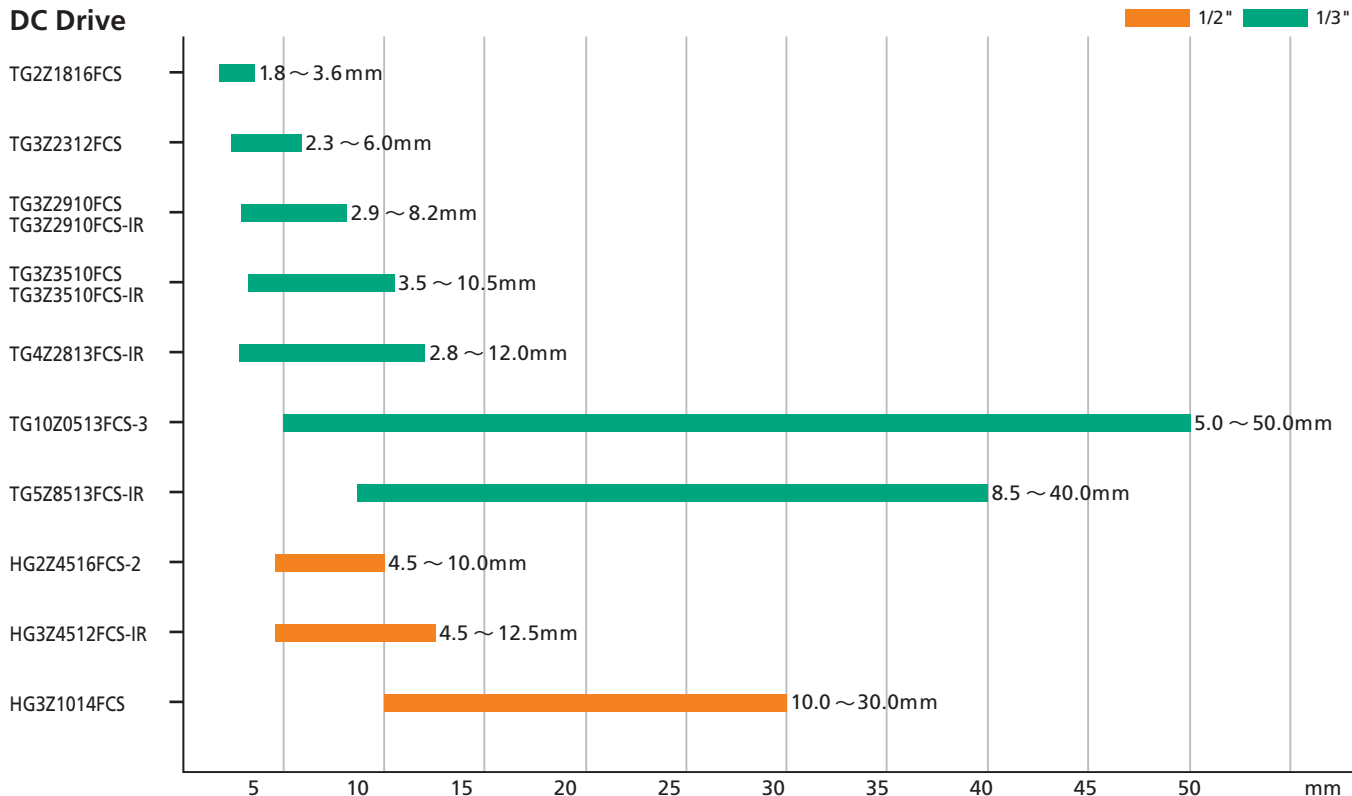
unit:mm



※ HG3Z1014 Series 1/2type lenses have no focus shift with or without IR lighting only when used with 1/2type cameras. If these lenses are used with 1/3type cameras, some focus shift may occur with IR lighting.

## Vari-Focal Lens Comparison

### DC Drive



VARI-FOCAL  
AUTO IRIS

VARI

DC

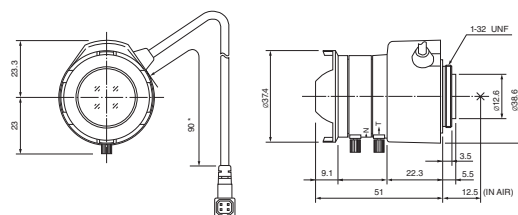
WIDE



| MODEL NO.                                         | TG2Z1816FCS                        |
|---------------------------------------------------|------------------------------------|
| Format (")                                        | 1/3                                |
| Mount                                             | CS                                 |
| Focal Length (mm)                                 | 1.8-3.6                            |
| Aperture (F)                                      | 1.6-360C                           |
| Angle of View (HOR)°                              | 144.2-79.4                         |
| M.O.D. (m)                                        | 0.2                                |
| Effective Aperture                                | Front (φmm) 22.0<br>Rear (φmm) 7.9 |
| Front Filter Thread (φMxP=)                       | -                                  |
| Dimensions (φD <sub>1</sub> (φHxD)<br>or (WxD)mm) | φ37.4×42.6×51                      |
| Weight (g)                                        | 78                                 |

### Dimensions

unit:mm



VARI

DC

WIDE

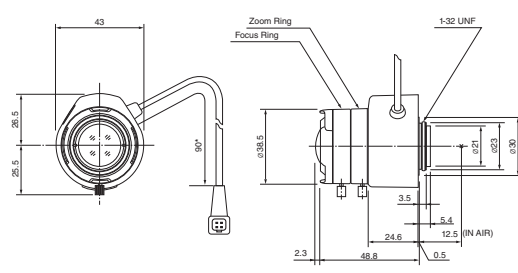
ASP



| MODEL NO.                                         | TG3Z2312FCS                        |
|---------------------------------------------------|------------------------------------|
| Format (")                                        | 1/3                                |
| Mount                                             | CS                                 |
| Focal Length (mm)                                 | 2.3-6                              |
| Aperture (F)                                      | 1.2-360                            |
| Angle of View (HOR)°                              | 114.8-48.2                         |
| M.O.D. (m)                                        | 0.3                                |
| Effective Aperture                                | Front (φmm) 19.5<br>Rear (φmm) 9.0 |
| Front Filter Thread (φMxP=)                       | -                                  |
| Dimensions (φD <sub>1</sub> (φHxD)<br>or (WxD)mm) | φ38.5×48×51.1                      |
| Weight (g)                                        | 76                                 |

### Dimensions

unit:mm





VARI

DC

F1.0

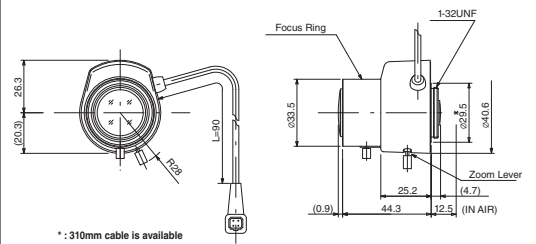
ASP



| MODEL NO.                              | TG3Z2910FCS         |
|----------------------------------------|---------------------|
| Format (")                             | 1/3                 |
| Mount                                  | CS                  |
| Focal Length (mm)                      | 2.9-8.2             |
| Aperture (F)                           | 1.0-360C            |
| Angle of View (HOR)°                   | 98.3-35.2           |
| M.O.D. (m)                             | 0.5                 |
| Effective Aperture                     | Front (φmm) 18.8    |
|                                        | Rear (φmm) 9.0      |
| Front Filter Thread (φMxP=)            | -                   |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ33.5 × 46.6 × 44.3 |
| Weight (g)                             | 47                  |

Dimensions

unit:mm



VARI

DC

F1.0

ASP

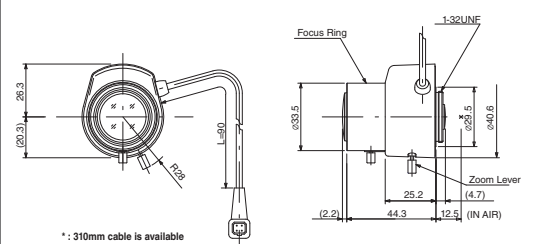
IR



| MODEL NO.                              | TG3Z2910FCS-IR      |
|----------------------------------------|---------------------|
| Format (")                             | 1/3                 |
| Mount                                  | CS                  |
| Focal Length (mm)                      | 2.9-8.2             |
| Aperture (F)                           | 1.0-360C            |
| Angle of View (HOR)°                   | 95.0-35.6           |
| M.O.D. (m)                             | 0.5                 |
| Effective Aperture                     | Front (φmm) 19.0    |
|                                        | Rear (φmm) 8.5      |
| Front Filter Thread (φMxP=)            | -                   |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ33.5 × 46.6 × 44.3 |
| Weight (g)                             | 50                  |

Dimensions

unit:mm



VARI

DC

F1.0

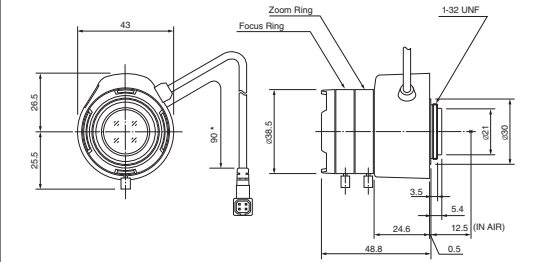
ASP



| MODEL NO.                              | TG3Z3510FCS       |
|----------------------------------------|-------------------|
| Format (")                             | 1/3               |
| Mount                                  | CS                |
| Focal Length (mm)                      | 3.5-10.5          |
| Aperture (F)                           | 1.0-360           |
| Angle of View (HOR)°                   | 81.6-27.2         |
| M.O.D. (m)                             | 0.3               |
| Effective Aperture                     | Front (φmm) 18.5  |
|                                        | Rear (φmm) 10.1   |
| Front Filter Thread (φMxP=)            | -                 |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ38.5 × 48 × 48.8 |
| Weight (g)                             | 65                |

Dimensions

unit:mm



VARI

DC

F1.0

ASP

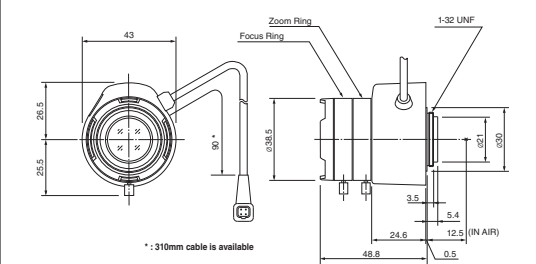
IR



| MODEL NO.                              | TG3Z3510FCS-IR    |
|----------------------------------------|-------------------|
| Format (")                             | 1/3               |
| Mount                                  | CS                |
| Focal Length (mm)                      | 3.5-10.5          |
| Aperture (F)                           | 1.0-360           |
| Angle of View (HOR)°                   | 81.6-27.2         |
| M.O.D. (m)                             | 0.3               |
| Effective Aperture                     | Front (φmm) 18.6  |
|                                        | Rear (φmm) 10.2   |
| Front Filter Thread (φMxP=)            | -                 |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ38.5 × 48 × 48.8 |
| Weight (g)                             | 65                |

Dimensions

unit:mm



VARI

DC

ASP

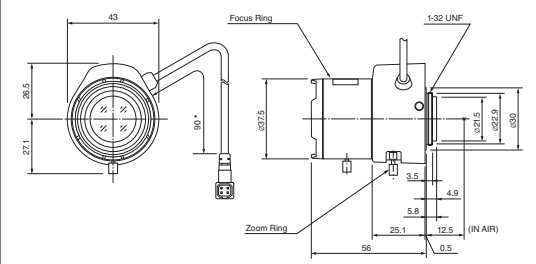
IR



| MODEL NO.                              | TG4Z2813FCS-IR-2 |
|----------------------------------------|------------------|
| Format (")                             | 1/3              |
| Mount                                  | CS               |
| Focal Length (mm)                      | 2.8-12           |
| Aperture (F)                           | 1.3-360          |
| Angle of View (HOR)°                   | 102.2-23.7       |
| M.O.D. (m)                             | 0.3              |
| Effective Aperture                     | Front (φmm) 23.0 |
|                                        | Rear (φmm) 7.4   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ37.5 × 48 × 56  |
| Weight (g)                             | 71               |

Dimensions

unit:mm



VARI

DC

TELE

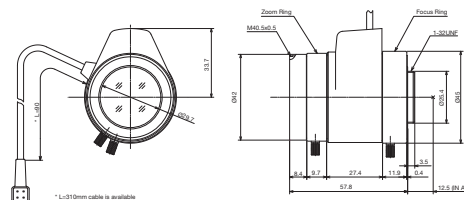
ASP



| MODEL NO.                                                                 | TG10Z0513FCS-3   |
|---------------------------------------------------------------------------|------------------|
| Format (")                                                                | 1/3              |
| Mount                                                                     | CS               |
| Focal Length (mm)                                                         | 5-50             |
| Aperture (F)                                                              | 1.3-360C         |
| Angle of View (HOR)°                                                      | 51.8-5.6         |
| M.O.D. (m)                                                                | 0.8              |
| Effective Aperture                                                        | Front (φmm) 29.5 |
|                                                                           | Rear (φmm) 8.7   |
| Front Filter Thread (φMxP=)                                               | 40.5×0.5         |
| Dimensions (φD) <sub>1</sub> (φHxD) <sub>2</sub> or (WxHxD) <sub>mm</sub> | φ45×56.2×57.8    |
| Weight (g)                                                                | 100              |

Dimensions

unit:mm



VARI

DC

TELE

ASP

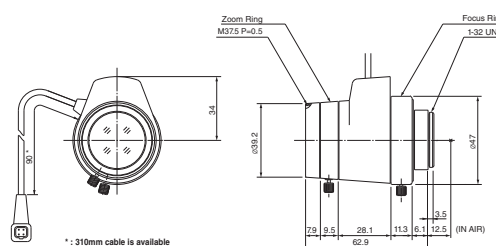
IR



| MODEL NO.                                                                 | TG5Z8513FCS-IR   |
|---------------------------------------------------------------------------|------------------|
| Format (")                                                                | 1/3              |
| Mount                                                                     | CS               |
| Focal Length (mm)                                                         | 8.5-40           |
| Aperture (F)                                                              | 1.3-360C         |
| Angle of View (HOR)°                                                      | 33.5-7.1         |
| M.O.D. (m)                                                                | 0.8              |
| Effective Aperture                                                        | Front (φmm) 27.0 |
|                                                                           | Rear (φmm) 9.3   |
| Front Filter Thread (φMxP=)                                               | 37.5×0.5         |
| Dimensions (φD) <sub>1</sub> (φHxD) <sub>2</sub> or (WxHxD) <sub>mm</sub> | φ41.7×57.5×62.9  |
| Weight (g)                                                                | 114              |

Dimensions

unit:mm


VARI-FOCAL  
AUTO IRIS

VARI

DC

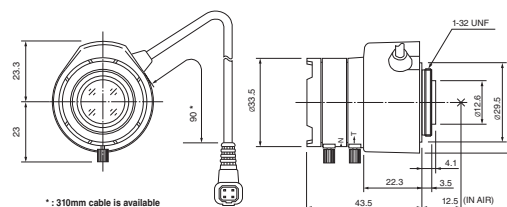
IR



| MODEL NO.                                                                 | HG2Z4516FCS-2    |
|---------------------------------------------------------------------------|------------------|
| Format (")                                                                | 1/2              |
| Mount                                                                     | CS               |
| Focal Length (mm)                                                         | 4.5-10           |
| Aperture (F)                                                              | 1.6-360C         |
| Angle of View (HOR)°                                                      | 81.3-38.2        |
| M.O.D. (m)                                                                | 0.3              |
| Effective Aperture                                                        | Front (φmm) 18.6 |
|                                                                           | Rear (φmm) 9.0   |
| Front Filter Thread (φMxP=)                                               | -                |
| Dimensions (φD) <sub>1</sub> (φHxD) <sub>2</sub> or (WxHxD) <sub>mm</sub> | φ33.5×42.6×43.5  |
| Weight (g)                                                                | 54               |

Dimensions

unit:mm



VARI

DC

ASP

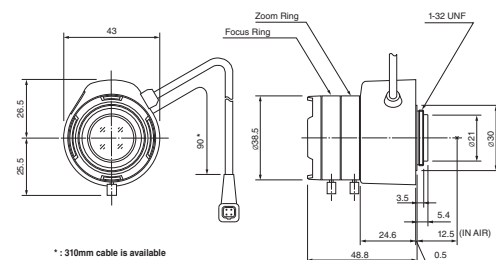
IR



| MODEL NO.                                                                 | HG3Z4512FCS-IR   |
|---------------------------------------------------------------------------|------------------|
| Format (")                                                                | 1/2              |
| Mount                                                                     | CS               |
| Focal Length (mm)                                                         | 4.5-12.5         |
| Aperture (F)                                                              | 1.2-360          |
| Angle of View (HOR)°                                                      | 83.7-30.1        |
| M.O.D. (m)                                                                | 0.3              |
| Effective Aperture                                                        | Front (φmm) 19.9 |
|                                                                           | Rear (φmm) 9.9   |
| Front Filter Thread (φMxP=)                                               | -                |
| Dimensions (φD) <sub>1</sub> (φHxD) <sub>2</sub> or (WxHxD) <sub>mm</sub> | φ38.5×47.5×48.8  |
| Weight (g)                                                                | 68               |

Dimensions

unit:mm



VARI

DC

TELE

ASP

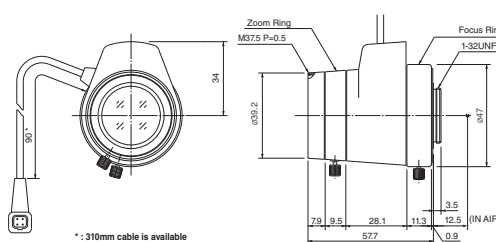
IR



| MODEL NO.                                                                 | HG3Z1014FCS      |
|---------------------------------------------------------------------------|------------------|
| Format (")                                                                | 1/2              |
| Mount                                                                     | CS               |
| Focal Length (mm)                                                         | 10-30            |
| Aperture (F)                                                              | 1.4-360C         |
| Angle of View (HOR)°                                                      | 35.8-12.5        |
| M.O.D. (m)                                                                | 0.6              |
| Effective Aperture                                                        | Front (φmm) 26.6 |
|                                                                           | Rear (φmm) 9.0   |
| Front Filter Thread (φMxP=)                                               | 37.5×0.5         |
| Dimensions (φD) <sub>1</sub> (φHxD) <sub>2</sub> or (WxHxD) <sub>mm</sub> | φ41.7×57.5×57.7  |
| Weight (g)                                                                | 120              |

Dimensions

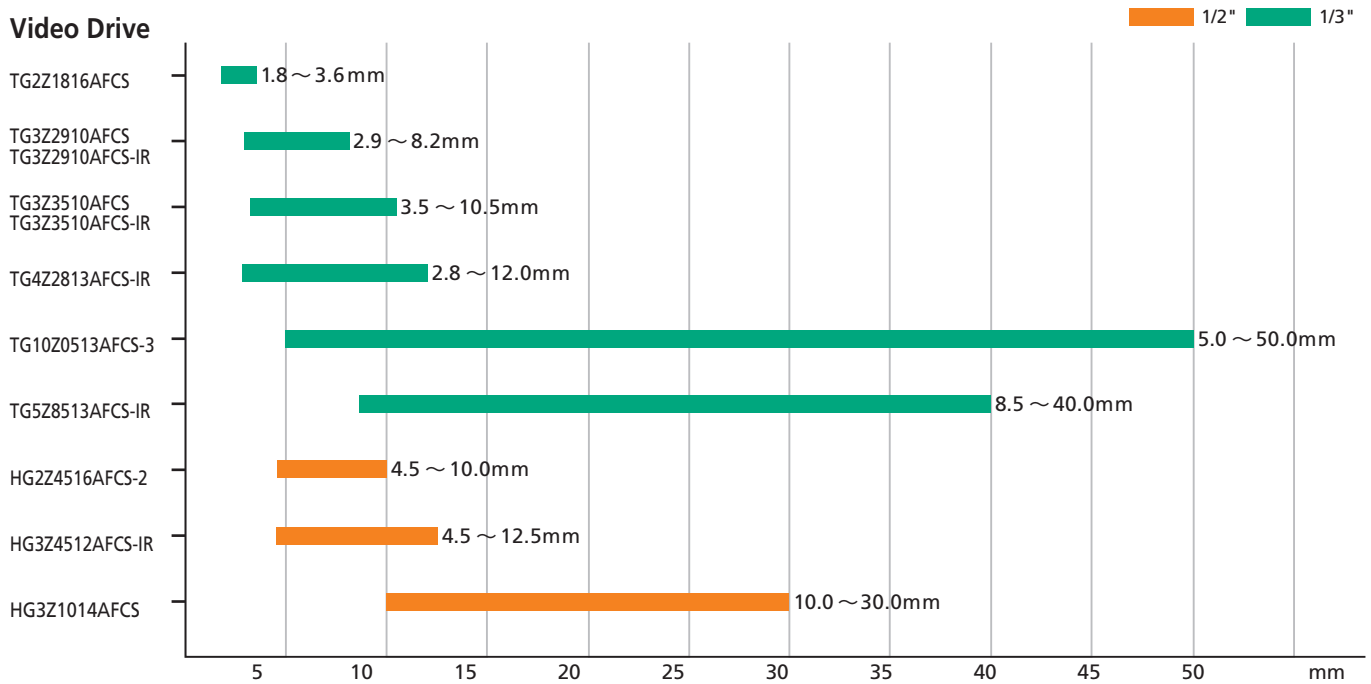
unit:mm



※ HG3Z1014 Series 1/2type lenses have no focus shift with or without IR lighting only when used with 1/2type cameras. If these lenses are used with 1/3type cameras, some focus shift may occur with IR lighting.

## Vari-Focal Lens Comparison

### Video Drive



VARI-FOCAL  
AUTO IRIS

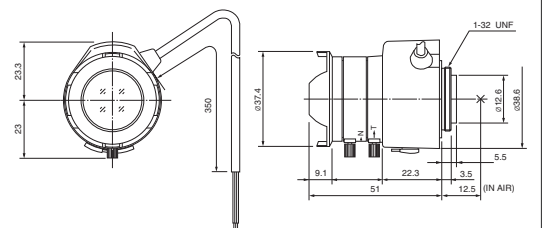
VARI  
VIDEO  
WIDE



| MODEL NO.                             | TG2Z1816AFCS      |
|---------------------------------------|-------------------|
| Format (")                            | 1/3               |
| Mount                                 | CS                |
| Focal Length (mm)                     | 1.8-3.6           |
| Aperture (F)                          | 1.6-360C          |
| Angle of View (HOR)°                  | 144.2-79.4        |
| M.O.D. (m)                            | 0.2               |
| Effective Aperture                    | Front (φmm) 22.0  |
|                                       | Rear (φmm) 7.9    |
| Front Filter Thread (φMxP=)           | -                 |
| Dimensions (φxD), (φHxD) or (WxHxD)mm | φ37.4 × 42.6 × 51 |
| Weight (g)                            | 83                |

### Dimensions

unit:mm



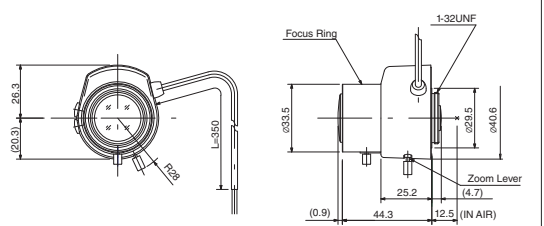
VARI  
VIDEO  
F1.0  
ASP



| MODEL NO.                             | TG3Z2910AFCS        |
|---------------------------------------|---------------------|
| Format (")                            | 1/3                 |
| Mount                                 | CS                  |
| Focal Length (mm)                     | 2.9-8.2             |
| Aperture (F)                          | 1.0-360C            |
| Angle of View (HOR)°                  | 98.3-35.2           |
| M.O.D. (m)                            | 0.5                 |
| Effective Aperture                    | Front (φmm) 18.8    |
|                                       | Rear (φmm) 9.0      |
| Front Filter Thread (φMxP=)           | -                   |
| Dimensions (φxD), (φHxD) or (WxHxD)mm | φ33.5 × 46.6 × 44.3 |
| Weight (g)                            | 51                  |

### Dimensions

unit:mm



VARI

VIDEO

F1.0

ASP

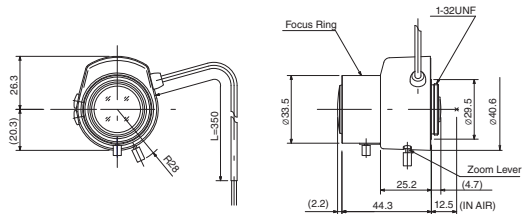
IR



| MODEL NO.                           | TG3Z2910AFCS-IR  |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 2.9-8.2          |
| Aperture (F)                        | 1.0-360C         |
| Angle of View (HOR)°                | 95.0-35.6        |
| M.O.D. (m)                          | 0.5              |
| Effective Aperture                  | Front (φmm) 19.0 |
|                                     | Rear (φmm) 8.5   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ33.5×46.6×44.3  |
| Weight (g)                          | 54               |

Dimensions

unit:mm



VARI

VIDEO

F1.0

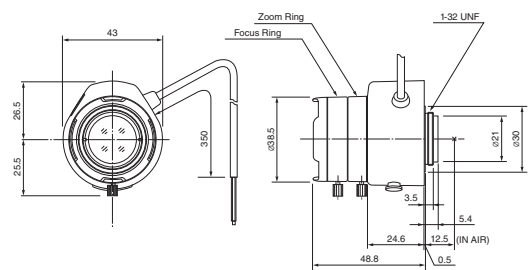
ASP



| MODEL NO.                           | TG3Z3510AFCS     |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 3.5-10.5         |
| Aperture (F)                        | 1.0-360          |
| Angle of View (HOR)°                | 81.6-27.2        |
| M.O.D. (m)                          | 0.3              |
| Effective Aperture                  | Front (φmm) 18.5 |
|                                     | Rear (φmm) 10.1  |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ38.5×48×48.8    |
| Weight (g)                          | 70               |

Dimensions

unit:mm



VARI

VIDEO

F1.0

ASP

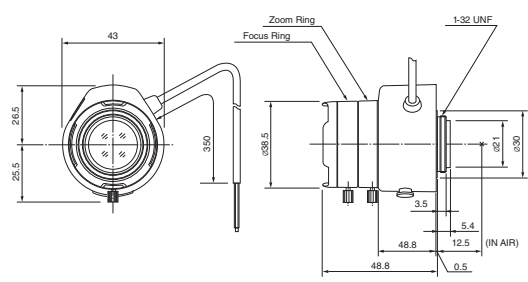
IR



| MODEL NO.                           | TG3Z3510AFCS-IR  |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 3.5-10.5         |
| Aperture (F)                        | 1.0-360          |
| Angle of View (HOR)°                | 81.8-27.2        |
| M.O.D. (m)                          | 0.3              |
| Effective Aperture                  | Front (φmm) 18.6 |
|                                     | Rear (φmm) 10.2  |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ38.5×48×48.8    |
| Weight (g)                          | 70               |

Dimensions

unit:mm



VARI

VIDEO

ASP

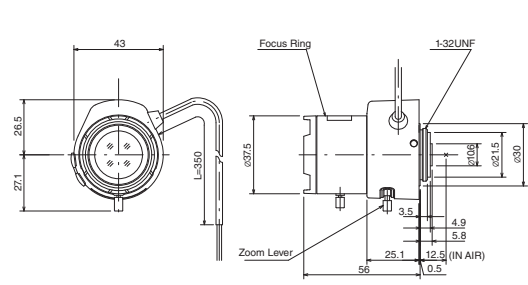
IR



| MODEL NO.                           | TG4Z2813AFCS-IR  |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 2.8-12           |
| Aperture (F)                        | 1.3-360          |
| Angle of View (HOR)°                | 102.2-23.7       |
| M.O.D. (m)                          | 0.3              |
| Effective Aperture                  | Front (φmm) 23.0 |
|                                     | Rear (φmm) 7.4   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ37.5×48×56      |
| Weight (g)                          | 74               |

Dimensions

unit:mm



VARI

VIDEO

TELE

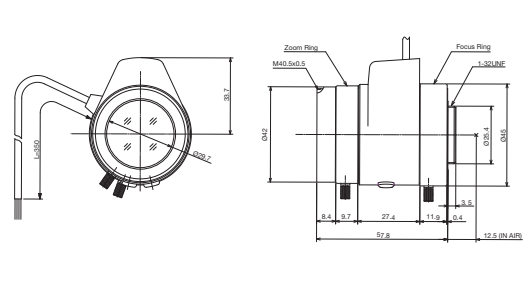
ASP



| MODEL NO.                           | TG10Z0513AFCS-3  |
|-------------------------------------|------------------|
| Format (")                          | 1/3              |
| Mount                               | CS               |
| Focal Length (mm)                   | 5-50             |
| Aperture (F)                        | 1.3-360C         |
| Angle of View (HOR)°                | 51.8-5.6         |
| M.O.D. (m)                          | 0.8              |
| Effective Aperture                  | Front (φmm) 29.5 |
|                                     | Rear (φmm) 8.7   |
| Front Filter Thread (φMxP=)         | 40.5×0.5         |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ45×56.2×57.8    |
| Weight (g)                          | 103              |

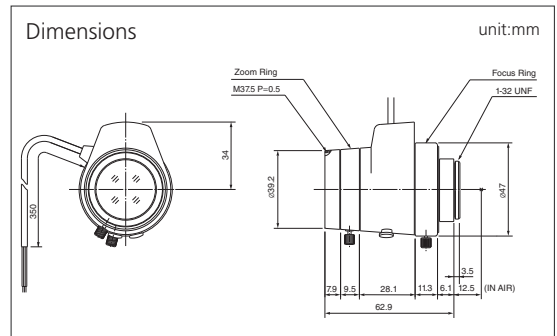
Dimensions

unit:mm

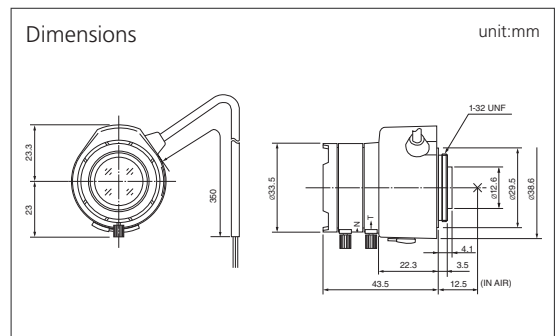




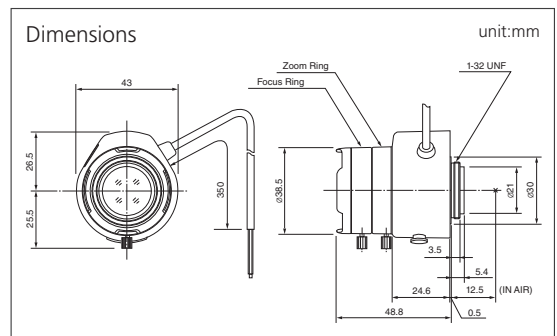
| MODEL NO.                              | TG5Z8513AFCS-IR |
|----------------------------------------|-----------------|
| Format (")                             | 1/3             |
| Mount                                  | CS              |
| Focal Length (mm)                      | 8.5-40          |
| Aperture (F)                           | 1.3-360C        |
| Angle of View (HOR)°                   | 33.5-7.1        |
| M.O.D. (m)                             | 0.8             |
| Effective Aperture Front (φmm)         | 27.0            |
| Rear (φmm)                             | 9.3             |
| Front Filter Thread (φMxP=)            | 37.5×0.5        |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ41.7×57.5×62.9 |
| Weight (g)                             | 115             |



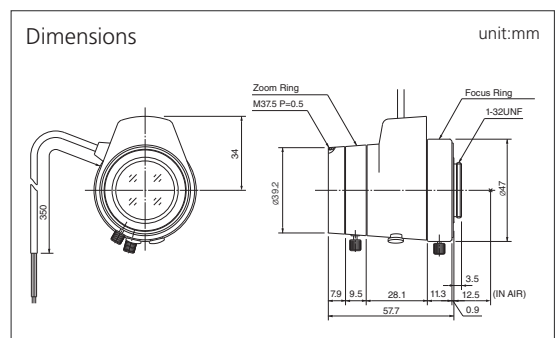
| MODEL NO.                              | HG2Z4516AFCS-2  |
|----------------------------------------|-----------------|
| Format (")                             | 1/2             |
| Mount                                  | CS              |
| Focal Length (mm)                      | 4.5-10          |
| Aperture (F)                           | 1.6-360C        |
| Angle of View (HOR)°                   | 81.3-38.2       |
| M.O.D. (m)                             | 0.3             |
| Effective Aperture Front (φmm)         | 18.6            |
| Rear (φmm)                             | 9.0             |
| Front Filter Thread (φMxP=)            | -               |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ33.5×42.6×43.5 |
| Weight (g)                             | 56              |



| MODEL NO.                              | HG3Z4512AFCS-IR |
|----------------------------------------|-----------------|
| Format (")                             | 1/2             |
| Mount                                  | CS              |
| Focal Length (mm)                      | 4.5-12.5        |
| Aperture (F)                           | 1.2-360         |
| Angle of View (HOR)°                   | 83.7-30.1       |
| M.O.D. (m)                             | 0.3             |
| Effective Aperture Front (φmm)         | 19.9            |
| Rear (φmm)                             | 9.9             |
| Front Filter Thread (φMxP=)            | -               |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ38.5×47.5×48.8 |
| Weight (g)                             | 73              |



| MODEL NO.                              | HG3Z1014AFCS    |
|----------------------------------------|-----------------|
| Format (")                             | 1/2             |
| Mount                                  | CS              |
| Focal Length (mm)                      | 10-30           |
| Aperture (F)                           | 1.4-360C        |
| Angle of View (HOR)°                   | 35.8-12.5       |
| M.O.D. (m)                             | 0.6             |
| Effective Aperture Front (φmm)         | 26.6            |
| Rear (φmm)                             | 9.0             |
| Front Filter Thread (φMxP=)            | 37.5×0.5        |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ41.7×57.5×57.7 |
| Weight (g)                             | 125             |



※ HG3Z1014 Series 1/2type lenses have no focus shift with or without IR lighting only when used with 1/2type cameras. If these lenses are used with 1/3type cameras, some focus shift may occur with IR lighting.



# PINHOLE

## PINHOLE

MANUAL IRIS / DC DRIVE / VIDEO DRIVE

FIX

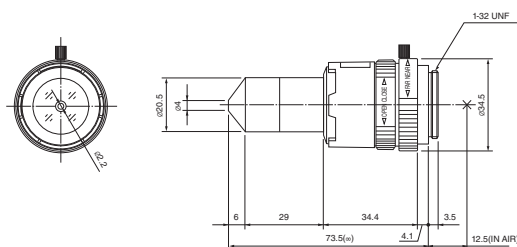
MANUAL



| MODEL NO.                             | T2625CS-P  |
|---------------------------------------|------------|
| Format (")                            | 1/3        |
| Mount                                 | CS         |
| Focal Length (mm)                     | 2.6        |
| Aperture (F)                          | 2.5-32C    |
| Angle of View (HOR)°                  | 83.2       |
| M.O.D. (m)                            | 0.2        |
| Effective Aperture Front (φmm)        | 4.8        |
| Rear (φmm)                            | 11.5       |
| Front Filter Thread (φMxP=)           | -          |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ34.5×73.5 |
| Weight (g)                            | 80         |

Dimensions

unit:mm



FIX

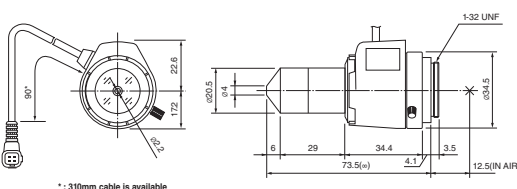
DC



| MODEL NO.                             | TG2625FCS-P     |
|---------------------------------------|-----------------|
| Format (")                            | 1/3             |
| Mount                                 | CS              |
| Focal Length (mm)                     | 2.6             |
| Aperture (F)                          | 2.5-360C        |
| Angle of View (HOR)°                  | 83.2            |
| M.O.D. (m)                            | 0.2             |
| Effective Aperture Front (φmm)        | 4.8             |
| Rear (φmm)                            | 11.5            |
| Front Filter Thread (φMxP=)           | -               |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ34.5×39.8×73.5 |
| Weight (g)                            | 82              |

Dimensions

unit:mm



FIX

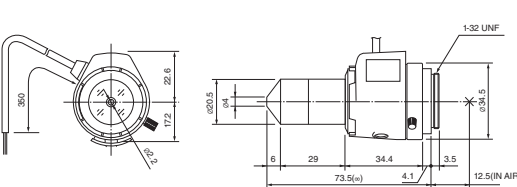
VIDEO



| MODEL NO.                             | TG2625AFCS-P    |
|---------------------------------------|-----------------|
| Format (")                            | 1/3             |
| Mount                                 | CS              |
| Focal Length (mm)                     | 2.6             |
| Aperture (F)                          | 2.5-360C        |
| Angle of View (HOR)°                  | 83.2            |
| M.O.D. (m)                            | 0.2             |
| Effective Aperture Front (φmm)        | 4.8             |
| Rear (φmm)                            | 11.5            |
| Front Filter Thread (φMxP=)           | -               |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ34.5×39.8×73.5 |
| Weight (g)                            | 85              |

Dimensions

unit:mm



# MANUAL ZOOM

## MANUAL ZOOM

MANUAL IRIS / DC DRIVE / VIDEO DRIVE

ZOOM

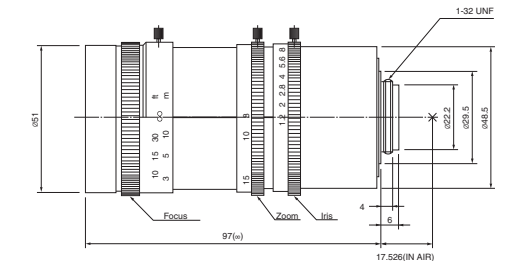
MANUAL



| MODEL NO.                             | H6Z0812   |
|---------------------------------------|-----------|
| Format (")                            | 1/2       |
| Mount                                 | C         |
| Focal Length (mm)                     | 8-48      |
| Aperture (F)                          | 1.2-16C   |
| Angle of View (HOR)°                  | 44.6-8.0  |
| M.O.D. (m)                            | 1.2       |
| Effective Aperture Front (φmm)        | 32.9      |
| Rear (φmm)                            | 16.6      |
| Front Filter Thread (φMxP=)           | 49.0×0.75 |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ51.8×97  |
| Weight (g)                            | 305       |

Dimensions

unit:mm





# MANUAL ZOOM

## MANUAL IRIS / DC DRIVE / VIDEO DRIVE

MANUAL  
ZOOM

ZOOM

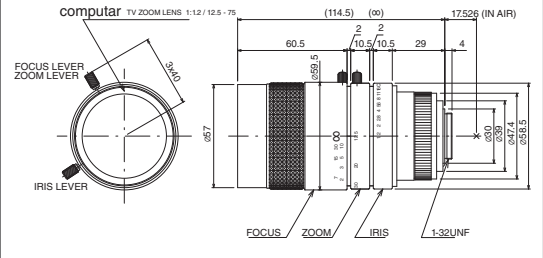
MANUAL



| MODEL NO.                             | M6Z1212-3S       |
|---------------------------------------|------------------|
| Format (")                            | 2/3              |
| Mount                                 | C                |
| Focal Length (mm)                     | 12.5-75          |
| Aperture (F)                          | 1.2-16C          |
| Angle of View (HOR)°                  | 38.3-6.7         |
| M.O.D. (m)                            | 1.0              |
| Effective Aperture                    | Front (φmm) 46.5 |
|                                       | Rear (φmm) 15.6  |
| Front Filter Thread (φMxP=)           | 55.0 × 0.75      |
| Dimensions (φxD), (φHxD) or (WxHxD)mm | φ59.9 × 114.5    |
| Weight (g)                            | 483              |

Dimensions

unit:mm



ZOOM

DC

F1.0

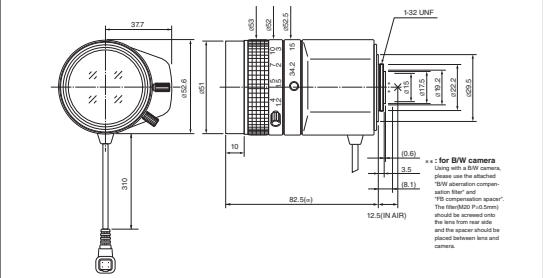
SPOT  
FILTER



| MODEL NO.                             | T6Z5710AIDC-CS   |
|---------------------------------------|------------------|
| Format (")                            | 1/3              |
| Mount                                 | CS               |
| Focal Length (mm)                     | 5.7-34.2         |
| Aperture (F)                          | 1.0-360C         |
| Angle of View (HOR)°                  | 45.9-8.1         |
| M.O.D. (m)                            | 1.2              |
| Effective Aperture                    | Front (φmm) 41.0 |
|                                       | Rear (φmm) 10.2  |
| Front Filter Thread (φMxP=)           | 49.0 × 0.75      |
| Dimensions (φxD), (φHxD) or (WxHxD)mm | φ53 × 64 × 82.5  |
| Weight (g)                            | 295              |

Dimensions

unit:mm



ZOOM

DC

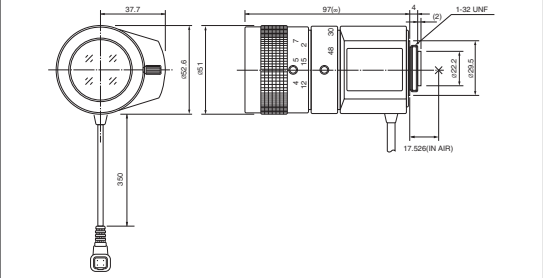
SPOT  
FILTER



| MODEL NO.                             | H6Z0812AIDC      |
|---------------------------------------|------------------|
| Format (")                            | 1/2              |
| Mount                                 | C                |
| Focal Length (mm)                     | 8-48             |
| Aperture (F)                          | 1.2-560C         |
| Angle of View (HOR)°                  | 44.6-8.0         |
| M.O.D. (m)                            | 1.2              |
| Effective Aperture                    | Front (φmm) 39.2 |
|                                       | Rear (φmm) 16.6  |
| Front Filter Thread (φMxP=)           | 49.0 × 0.75      |
| Dimensions (φxD), (φHxD) or (WxHxD)mm | φ52.6 × 64 × 97  |
| Weight (g)                            | 295              |

Dimensions

unit:mm



ZOOM

VIDEO

F1.0

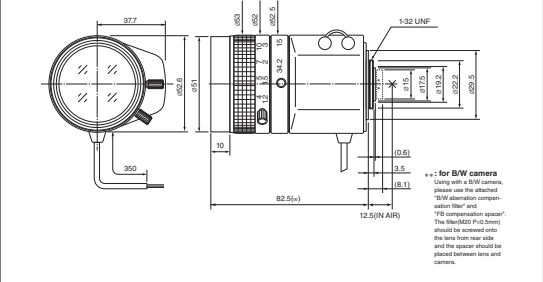
SPOT  
FILTER



| MODEL NO.                             | T6Z5710AIVD-CS   |
|---------------------------------------|------------------|
| Format (")                            | 1/3              |
| Mount                                 | CS               |
| Focal Length (mm)                     | 5.7-34.2         |
| Aperture (F)                          | 1.0-360C         |
| Angle of View (HOR)°                  | 45.9-8.1         |
| M.O.D. (m)                            | 1.2              |
| Effective Aperture                    | Front (φmm) 41.0 |
|                                       | Rear (φmm) 10.2  |
| Front Filter Thread (φMxP=)           | 49.0 × 0.75      |
| Dimensions (φxD), (φHxD) or (WxHxD)mm | φ53 × 64 × 82.5  |
| Weight (g)                            | 295              |

Dimensions

unit:mm



ZOOM

VIDEO

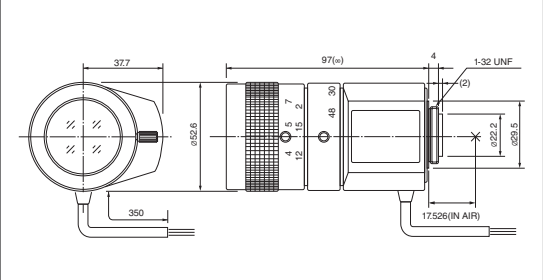
SPOT  
FILTER



| MODEL NO.                             | H6Z0812AIVD      |
|---------------------------------------|------------------|
| Format (")                            | 1/2              |
| Mount                                 | C                |
| Focal Length (mm)                     | 8-48             |
| Aperture (F)                          | 1.2-560C         |
| Angle of View (HOR)°                  | 44.6-8.0         |
| M.O.D. (m)                            | 1.2              |
| Effective Aperture                    | Front (φmm) 39.2 |
|                                       | Rear (φmm) 16.6  |
| Front Filter Thread (φMxP=)           | 49.0 × 0.75      |
| Dimensions (φxD), (φHxD) or (WxHxD)mm | φ52.6 × 64 × 97  |
| Weight (g)                            | 295              |

Dimensions

unit:mm



MANUAL ZOOM

# T6Z5710 Series

## f 5.7-34.2mm, F1.0

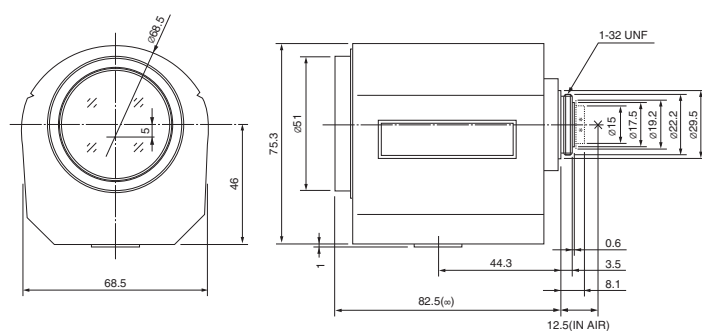
6x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/3              |
| Mount                       | CS               |
| Focal Length (mm)           | 5.7-34.2         |
| Angle of View (HOR)°        | 45.9-8.1         |
| M.O.D. (m)                  | 1.2              |
| Effective Aperture          | Front (φmm) 41.0 |
|                             | Rear (φmm) 10.2  |
| Front Filter Thread (φMxP=) | 49.0×0.75        |
| Dimensions (WxHxD)mm        | 68.5×76.3×82.5   |

Dimensions

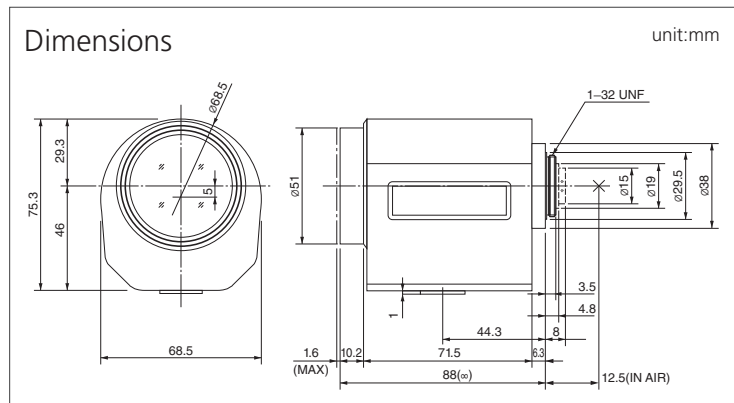
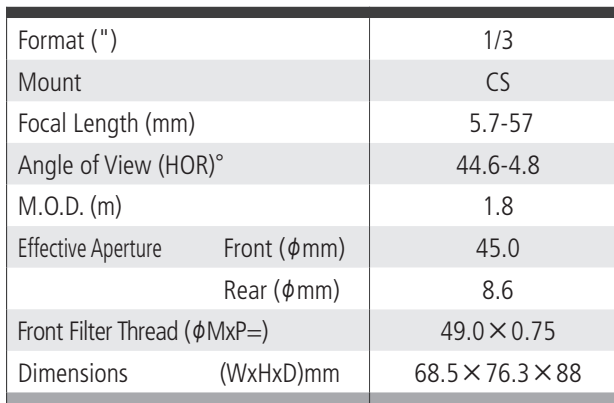
unit:mm



| NO. | MODEL NO.      |      |         |      |        |             | Aperture (F) | Weight (g) |
|-----|----------------|------|---------|------|--------|-------------|--------------|------------|
| 1   | T6Z5710M-CS    | ZOOM | 3 MOTOR | F1.0 |        |             | 1.0-16C      | 430        |
| 2   | T6Z5710MP-CS   | ZOOM | 3 MOTOR | F1.0 | PRESET |             | 1.0-16C      | 470        |
| 3   | T6Z5710MS-CS   | ZOOM | 3 MOTOR | F1.0 |        | SPOT FILTER | 1.0-360C     | 430        |
| 4   | T6Z5710MSP-CS  | ZOOM | 3 MOTOR | F1.0 | PRESET | SPOT FILTER | 1.0-360C     | 470        |
| 5   | T6Z5710AMS-CS  | ZOOM | VIDEO   | F1.0 |        | SPOT FILTER | 1.0-360C     | 450        |
| 6   | T6Z5710AMSP-CS | ZOOM | VIDEO   | F1.0 | PRESET | SPOT FILTER | 1.0-360C     | 490        |
| 7   | T6Z5710DC-CS   | ZOOM | DC      | F1.0 |        | SPOT FILTER | 1.0-360C     | 440        |
| 8   | T6Z5710PDC-CS  | ZOOM | DC      | F1.0 | PRESET | SPOT FILTER | 1.0-360C     | 480        |

## ZOOM LENSES

10x



## MOTORIZED ZOOM

# T21Z5816 Series

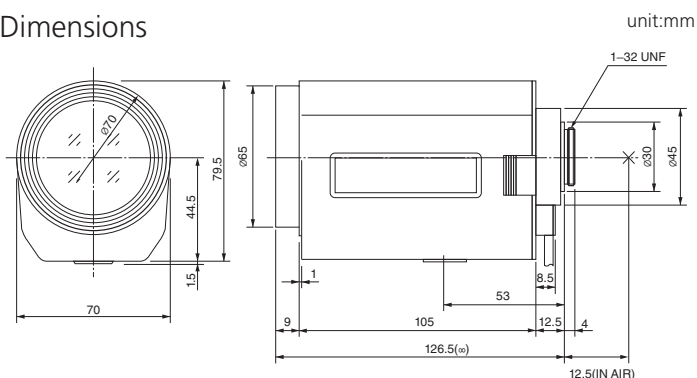
f 5.8-121.8mm, F1.6

21x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/3              |
| Mount                       | CS               |
| Focal Length (mm)           | 5.8-121.8        |
| Angle of View (HOR)°        | 44.8-2.3         |
| M.O.D. (m)                  | 1.5              |
| Effective Aperture          | Front (φmm) 53.2 |
|                             | Rear (φmm) 10.6  |
| Front Filter Thread (φMxP=) | 62.0×0.75        |
| Dimensions (WxHxD)mm        | 70×81×126.5      |

Dimensions



| NO. | MODEL NO.        |                                 | Aperture (F) | Weight (g) |
|-----|------------------|---------------------------------|--------------|------------|
| 1   | T21Z5816M-CS     | ZOOM 3 MOTOR                    | 1.6-22C      | 665        |
| 2   | T21Z5816MP-CS    | ZOOM 3 MOTOR PRESET             | 1.6-22C      | 700        |
| 3   | T21Z5816MS-CS    | ZOOM 3 MOTOR SPOT FILTER        | 1.6-560C     | 665        |
| 4   | T21Z5816MSP-CS   | ZOOM 3 MOTOR PRESET SPOT FILTER | 1.6-560C     | 700        |
| 5   | T21Z5816AMS-CS2  | ZOOM VIDEO SPOT FILTER          | 1.6-560C     | 700        |
| 6   | T21Z5816AMSP-CS2 | ZOOM VIDEO PRESET SPOT FILTER   | 1.6-560C     | 740        |
| 7   | T21Z5816DC-CS    | ZOOM DC SPOT FILTER             | 1.6-560C     | 650        |
| 8   | T21Z5816PDC-CS   | ZOOM DC PRESET SPOT FILTER      | 1.6-560C     | 690        |

# T34Z5518 Series

## f 5.5-187mm, F1.8

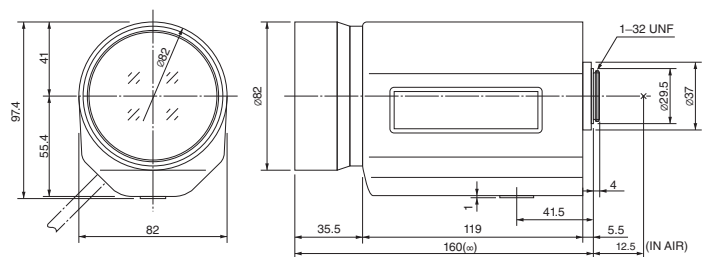
# 34x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/3              |
| Mount                       | CS               |
| Focal Length (mm)           | 5.5-187          |
| Angle of View (HOR)°        | 46.6-1.5         |
| M.O.D. (m)                  | 1.5              |
| Effective Aperture          | Front (φmm) 70.0 |
|                             | Rear (φmm) 9.1   |
| Front Filter Thread (φMxP=) | 77.0×0.75        |
| Dimensions (WxHxD)mm        | 82×97.4×160      |

Dimensions

unit:mm


MOTORIZED  
ZOOM

| NO. | MODEL NO.        |      |       |             |             |          | Aperture (F) | Weight (g) |
|-----|------------------|------|-------|-------------|-------------|----------|--------------|------------|
| 1   | T34Z5518AMS-CS   | ZOOM | VIDEO | SPOT FILTER |             |          | 1.8-560C     | 1160       |
| 2   | T34Z5518AMSP-CS  | ZOOM | VIDEO | PRESET      | SPOT FILTER |          | 1.8-560C     | 1190       |
| 3   | T34Z5518AMSR-CS  | ZOOM | VIDEO | SPOT FILTER |             | OVERRIDE | 1.8-560C     | 1150       |
| 4   | T34Z5518AMSPR-CS | ZOOM | VIDEO | PRESET      | SPOT FILTER | OVERRIDE | 1.8-560C     | 1180       |
| 5   | T34Z5518DC-CS    | ZOOM | DC    | SPOT FILTER |             |          | 1.8-560C     | 1110       |
| 6   | T34Z5518PDC-CS   | ZOOM | DC    | PRESET      | SPOT FILTER |          | 1.8-560C     | 1150       |

# H6Z0812 Series

## f 8-48mm, F1.2

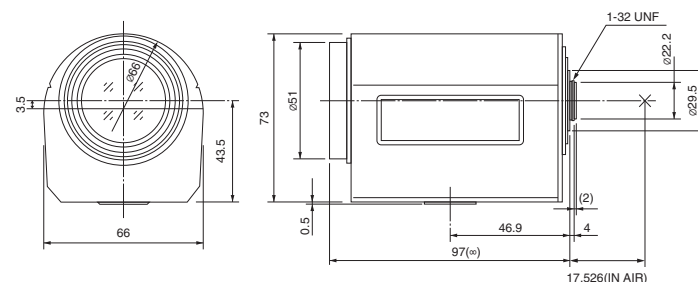
6x

MOTORIZED  
ZOOM

|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/2              |
| Mount                       | C                |
| Focal Length (mm)           | 8-48             |
| Angle of View (HOR)°        | 44.6-8.0         |
| M.O.D. (m)                  | 1.2              |
| Effective Aperture          | Front (φmm) 39.2 |
|                             | Rear (φmm) 16.6  |
| Front Filter Thread (φMxP=) | 49.0×0.75        |
| Dimensions (WxHxD)mm        | 66×73.5×97       |

Dimensions

unit:mm



| NO. | MODEL NO.   |                                 | Aperture (F) | Weight (g) |
|-----|-------------|---------------------------------|--------------|------------|
| 1   | H6Z0812M    | ZOOM 3 MOTOR                    | 1.2-16C      | 400        |
| 2   | H6Z0812MP   | ZOOM 3 MOTOR PRESET             | 1.2-16C      | 440        |
| 3   | H6Z0812MS   | ZOOM 3 MOTOR SPOT FILTER        | 1.2-560C     | 400        |
| 4   | H6Z0812MSP  | ZOOM 3 MOTOR PRESET SPOT FILTER | 1.2-560C     | 440        |
| 5   | H6Z0812AMS  | ZOOM VIDEO SPOT FILTER          | 1.2-560C     | 420        |
| 6   | H6Z0812AMSP | ZOOM VIDEO PRESET SPOT FILTER   | 1.2-560C     | 460        |



# H10Z0812 Series

## f 8-80mm, F1.2

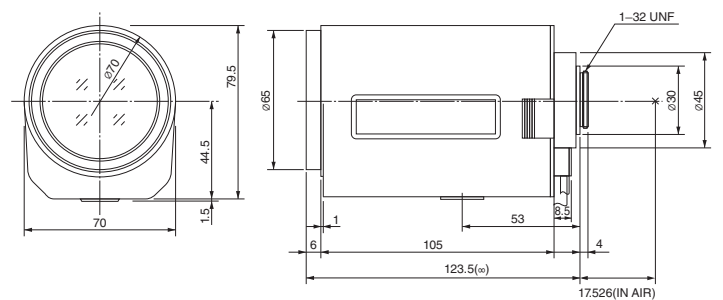
10x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/2              |
| Mount                       | C                |
| Focal Length (mm)           | 8-80             |
| Angle of View (HOR)°        | 44.0-4.7         |
| M.O.D. (m)                  | 1.5              |
| Effective Aperture          | Front (φmm) 54.0 |
|                             | Rear (φmm) 14.0  |
| Front Filter Thread (φMxP=) | 62.0×0.75        |
| Dimensions (WxHxD)mm        | 70×81×123.5      |

Dimensions

unit:mm

MOTORIZED  
ZOOM

| NO. | MODEL NO.      |                                 | Aperture (F) | Weight (g) |
|-----|----------------|---------------------------------|--------------|------------|
| 1   | H10Z0812M      | ZOOM 3 MOTOR                    | 1.2-22C      | 635        |
| 2   | H10Z0812MP     | ZOOM 3 MOTOR PRESET             | 1.2-22C      | 670        |
| 3   | H10Z0812MS     | ZOOM 3 MOTOR SPOT FILTER        | 1.2-560C     | 635        |
| 4   | H10Z0812MSP    | ZOOM 3 MOTOR PRESET SPOT FILTER | 1.2-560C     | 670        |
| 5   | H10Z0812AMS-2  | ZOOM VIDEO SPOT FILTER          | 1.2-560C     | 670        |
| 6   | H10Z0812AMSP-2 | ZOOM VIDEO PRESET SPOT FILTER   | 1.2-560C     | 710        |

# H10Z1218 Series

## f 12-120mm, F1.8

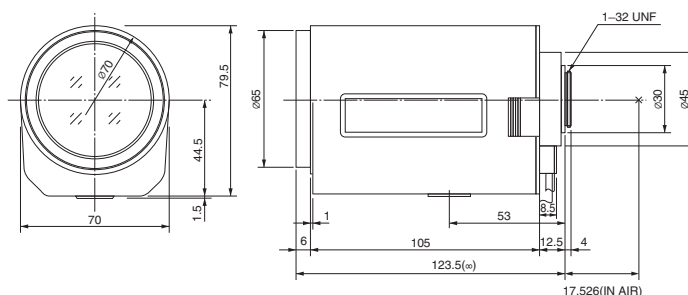
10x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/2              |
| Mount                       | C                |
| Focal Length (mm)           | 12-120           |
| Angle of View (HOR)°        | 29.4-3.1         |
| M.O.D. (m)                  | 1.5              |
| Effective Aperture          | Front (φmm) 54.0 |
|                             | Rear (φmm) 9.2   |
| Front Filter Thread (φMxP=) | 62.0 × 0.75      |
| Dimensions (WxHxD)mm        | 70 × 81 × 123.5  |

Dimensions

unit:mm



| NO. | MODEL NO.      |                                 | Aperture (F) | Weight (g) |
|-----|----------------|---------------------------------|--------------|------------|
| 1   | H10Z1218M      | ZOOM 3 MOTOR                    | 1.8-22C      | 635        |
| 2   | H10Z1218MP     | ZOOM 3 MOTOR PRESET             | 1.8-22C      | 670        |
| 3   | H10Z1218MS     | ZOOM 3 MOTOR SPOT FILTER        | 1.8-560C     | 635        |
| 4   | H10Z1218MSP    | ZOOM 3 MOTOR PRESET SPOT FILTER | 1.8-560C     | 670        |
| 5   | H10Z1218AMS-2  | ZOOM VIDEO SPOT FILTER          | 1.8-560C     | 670        |
| 6   | H10Z1218AMSP-2 | ZOOM VIDEO PRESET SPOT FILTER   | 1.8-560C     | 710        |
| 7   | H10Z1218DC     | ZOOM DC SPOT FILTER             | 1.8-560C     | 630        |
| 8   | H10Z1218PDC    | ZOOM DC PRESET SPOT FILTER      | 1.8-560C     | 670        |

# H16Z7516 Series

## f 7.5-120mm, F1.6

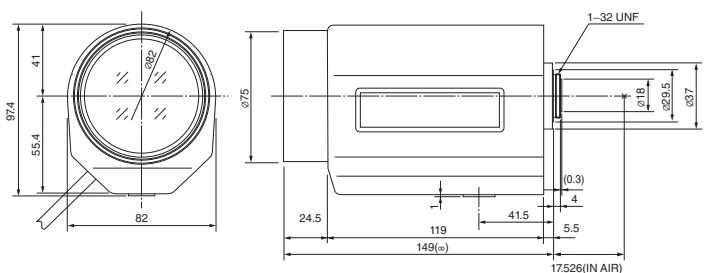
# 16x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/2              |
| Mount                       | C                |
| Focal Length (mm)           | 7.5-120          |
| Angle of View (HOR)°        | 46.6-3.2         |
| M.O.D. (m)                  | 1.5              |
| Effective Aperture          | Front (φmm) 66.4 |
|                             | Rear (φmm) 13.5  |
| Front Filter Thread (φMxP=) | 72.0×0.75        |
| Dimensions (WxHxD)mm        | 82×97.4×149      |

Dimensions

unit:mm


MOTORIZED  
ZOOM

| NO. | MODEL NO.     |      |       |             |             |          | Aperture (F) | Weight (g) |
|-----|---------------|------|-------|-------------|-------------|----------|--------------|------------|
| 1   | H16Z7516AMS   | ZOOM | VIDEO | SPOT FILTER |             |          | 1.6-560C     | 1050       |
| 2   | H16Z7516AMSP  | ZOOM | VIDEO | PRESET      | SPOT FILTER |          | 1.6-560C     | 1080       |
| 3   | H16Z7516AMSR  | ZOOM | VIDEO | SPOT FILTER |             | OVERRIDE | 1.6-560C     | 1040       |
| 4   | H16Z7516AMSPR | ZOOM | VIDEO | PRESET      | SPOT FILTER | OVERRIDE | 1.6-560C     | 1070       |
| 5   | H16Z7516DC    | ZOOM | DC    | SPOT FILTER |             |          | 1.6-560C     | 1010       |
| 6   | H16Z7516PDC   | ZOOM | DC    | PRESET      | SPOT FILTER |          | 1.6-560C     | 1050       |

# H16Z7516-IR Series

## f 7.5-120mm, F1.6

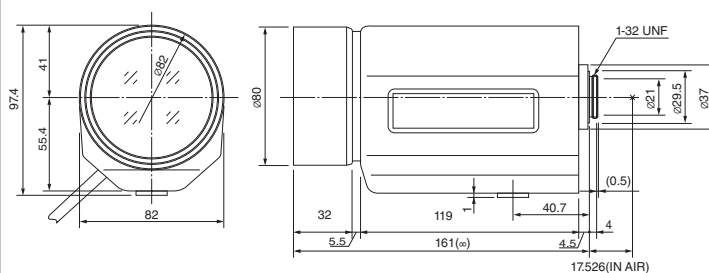
16x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/2              |
| Mount                       | C                |
| Focal Length (mm)           | 7.5-120          |
| Angle of View (HOR)°        | 47.0-3.1         |
| M.O.D. (m)                  | 1.5              |
| Effective Aperture          | Front (φmm) 68.0 |
|                             | Rear (φmm) 14.3  |
| Front Filter Thread (φMxP=) | 77.0×0.75        |
| Dimensions (WxHxD)mm        | 82×97.4×161.5    |

Dimensions

unit:mm



| NO. | MODEL NO.        |      |       |             |             |          | Aperture (F) | Weight (g) |
|-----|------------------|------|-------|-------------|-------------|----------|--------------|------------|
| 1   | H16Z7516AMS-IR   | ZOOM | VIDEO | SPOT FILTER |             | IR       | 1.6-560C     | 1160       |
| 2   | H16Z7516AMSP-IR  | ZOOM | VIDEO | PRESET      | SPOT FILTER | IR       | 1.6-560C     | 1180       |
| 3   | H16Z7516AMSR-IR  | ZOOM | VIDEO | SPOT FILTER |             | OVERRIDE | IR           | 1185       |
| 4   | H16Z7516AMSPR-IR | ZOOM | VIDEO | PRESET      | SPOT FILTER | OVERRIDE | IR           | 1215       |

### Features of H16Z7516-IR series

Infrared light increases at night because the wavelength distribution changes greatly between day and night. In case of night surveillance with infrared lighting, standard CCTV lenses cause a focus shift because of the difference in wavelength distribution, even when focused properly during the day.

Computar's new IR zoom lens utilizes a special optical glass material which minimizes light dispersion. As a result, refocusing is not required when used at night with infrared lighting. The lens also has a special multi-coating on all lens elements so that the lens transmits more light up to the infrared region. This provides a much more vivid picture when used at night with Day&Night cameras or ultra high sensitivity cameras.

## H30Z1015 Series

### f 10-300mm, F1.5

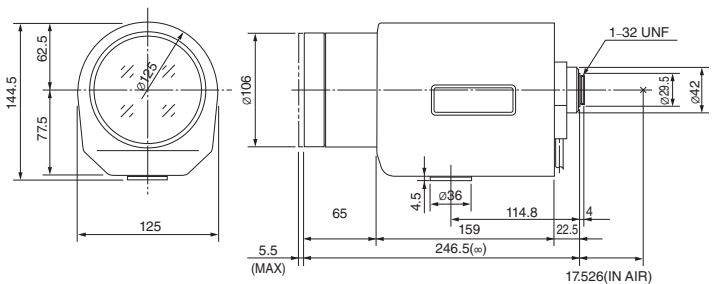
# 30x



|                             |                     |
|-----------------------------|---------------------|
| Format (")                  | 1/2                 |
| Mount                       | C                   |
| Focal Length (mm)           | 10-300              |
| Angle of View (HOR)°        | 35.5-1.25           |
| M.O.D. (m)                  | 2.2                 |
| Effective Aperture          | Front (φmm) 94.0    |
|                             | Rear (φmm) 14.8     |
| Front Filter Thread (φMxP=) | 100 × 1             |
| Dimensions (WxHxD)mm        | 125 × 144.5 × 246.5 |

Dimensions

unit:mm


MOTORIZED  
ZOOM

| NO. | MODEL NO.     |      |       |        |                         |                         | Aperture (F) | Weight (g) |
|-----|---------------|------|-------|--------|-------------------------|-------------------------|--------------|------------|
| 1   | H30Z1015AMS   | ZOOM | VIDEO |        |                         | SPOT FILTER             | 1.5-560C     | 3170       |
| 2   | H30Z1015AMSP  | ZOOM | VIDEO | PRESET | SPOT FILTER             |                         | 1.5-560C     | 3220       |
| 3   | H30Z1015AMSR  | ZOOM | VIDEO |        |                         | SPOT FILTER    OVERRIDE | 1.5-560C     | 3175       |
| 4   | H30Z1015AMSPR | ZOOM | VIDEO | PRESET | SPOT FILTER    OVERRIDE |                         | 1.5-560C     | 3225       |

### Features of H30Z1015 series

This lens provides powerful zoom ratio(10-300mm) and the fastest F-stop (F1.5) in the CCTV market, making it ideal for long distance or low light surveillance. Typical applications include highway and traffic monitoring, port and harbor surveillance, airport surveillance and border patrol.

# H10Z0819-MP Series

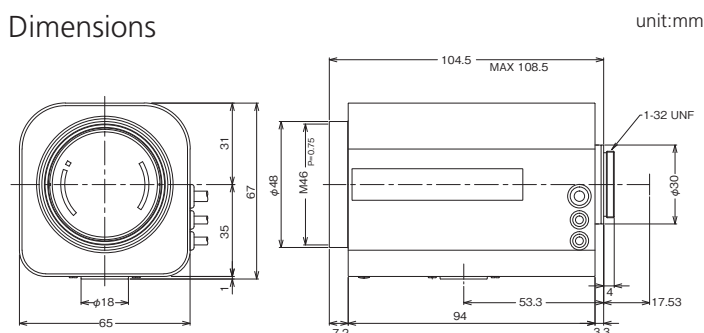
## f 8-80mm, F1.9

10x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/2              |
| Mount                       | C                |
| Focal Length (mm)           | 8-80             |
| Angle of View (HOR)°        | 44.8-4.5         |
| M.O.D. (m)                  | 2.5              |
| Effective Aperture          | Front (φmm) 40.0 |
|                             | Rear (φmm) 13.2  |
| Front Filter Thread (φMxP=) | 46 × 0.75        |
| Dimensions (WxHxD)mm        | 65 × 67 × 104.5  |

Dimensions



| NO. | MODEL NO.       |      |       |             |             | Aperture (F) | Weight (g) |
|-----|-----------------|------|-------|-------------|-------------|--------------|------------|
| 1   | H10Z0819AMS-MP  | ZOOM | VIDEO | SPOT FILTER | 2MP         | 1.9-1000     | 540        |
| 2   | H10Z0819AMSP-MP | ZOOM | VIDEO | PRESET      | SPOT FILTER | 2MP          | 590        |
| 3   | H10Z0819DC-MP   | ZOOM | DC    | SPOT FILTER | 2MP         | 1.9-1000     | 540        |
| 4   | H10Z0819PDC-MP  | ZOOM | DC    | PRESET      | SPOT FILTER | 2MP          | 590        |

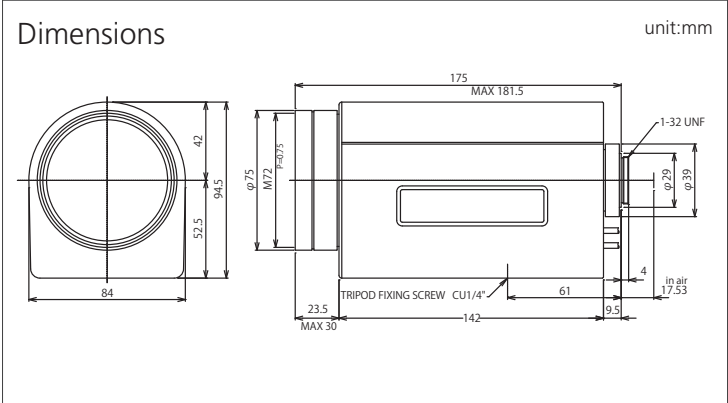


**H21Z1016-MP Series**  
f 10-210mm, F1.6

**21x**



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/2              |
| Mount                       | C                |
| Focal Length (mm)           | 10-210           |
| Angle of View (HOR)°        | 35.4-1.72        |
| M.O.D. (m)                  | 2.0              |
| Effective Aperture          | Front (φmm) 68.0 |
|                             | Rear (φmm) 11.8  |
| Front Filter Thread (φMxP=) | 72.0×0.75        |
| Dimensions (WxHxD)mm        | 84×94.5×181.5    |



MOTORIZED  
ZOOM

| NO. | MODEL NO.       |      |       |        |             |     | Aperture (F) | Weight (g) |
|-----|-----------------|------|-------|--------|-------------|-----|--------------|------------|
| 1   | H21Z1016AMS-MP  | ZOOM | VIDEO |        | SPOT FILTER | 2MP | 1.6-1000     | 1050       |
| 2   | H21Z1016AMSP-MP | ZOOM | VIDEO | PRESET | SPOT FILTER | 2MP | 1.6-1000     | 1100       |
| 3   | H21Z1016DC-MP   | ZOOM | DC    |        | SPOT FILTER | 2MP | 1.6-1000     | 1050       |
| 4   | H21Z1016PDC-MP  | ZOOM | DC    | PRESET | SPOT FILTER | 2MP | 1.6-1000     | 1100       |

# E24Z1018-MP Series

## f 10-240mm, F1.8

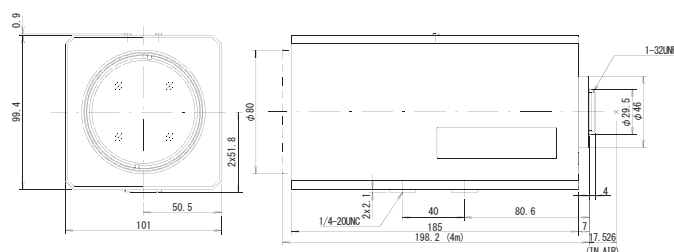
24x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/1.8            |
| Mount                       | C                |
| Focal Length (mm)           | 10-240           |
| Angle of View (HOR)°        | 39.0-1.7         |
| M.O.D. (m)                  | 4.0              |
| Effective Aperture          | Front (φmm) 66.0 |
|                             | Rear (φmm) 13.0  |
| Front Filter Thread (φMxP=) | 77×1             |
| Dimensions (WxHxD)mm        | 101×102.4×198.2  |

Dimensions

unit:mm



| NO. | MODEL NO.       |      |         |        |                 | Aperture (F) | Weight (g) |
|-----|-----------------|------|---------|--------|-----------------|--------------|------------|
| 1   | E24Z1018M-MP    | ZOOM | 3 MOTOR |        | 3MP             | 1.8-22C      | 2080       |
| 2   | E24Z1018MP-MP   | ZOOM | 3 MOTOR | PRESET | 3MP             | 1.8-22C      | 2120       |
| 3   | E24Z1018MS-MP   | ZOOM | 3 MOTOR |        | SPOT FILTER 3MP | 1.8-500C     | 2080       |
| 4   | E24Z1018MSP-MP  | ZOOM | 3 MOTOR | PRESET | SPOT FILTER 3MP | 1.8-500C     | 2120       |
| 5   | E24Z1018AMS-MP  | ZOOM | VIDEO   |        | SPOT FILTER 3MP | 1.8-500C     | 2020       |
| 6   | E24Z1018AMSP-MP | ZOOM | VIDEO   | PRESET | SPOT FILTER 3MP | 1.8-500C     | 2060       |
| 7   | E24Z1018DC-MP   | ZOOM | DC      |        | SPOT FILTER 3MP | 1.8-500C     | 2020       |
| 8   | E24Z1018PDC-MP  | ZOOM | DC      | PRESET | SPOT FILTER 3MP | 1.8-500C     | 2060       |
| 9   | E24Z1018K-MP    | ZOOM | P-iris  |        | 3MP             | 1.8-22C      | 2010       |
| 10  | E24Z1018KP-MP   | ZOOM | P-iris  | PRESET | 3MP             | 1.8-22C      | 2050       |

※ Override and Iris preset models are available. Please contact us.

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

# 1/1.8" MEGAPIXEL MOTORIZED ZOOM

MEGAPIXEL  
ZOOM

## E24Z1018-MPIR Series f 10-240mm, F1.8

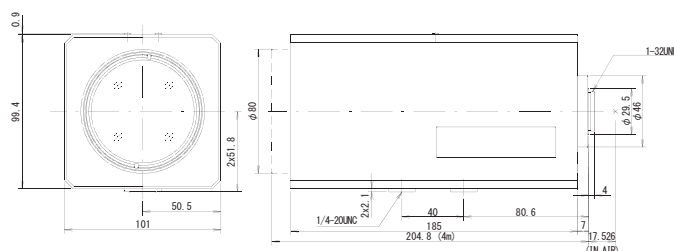
24x



|                             |                     |
|-----------------------------|---------------------|
| Format (")                  | 1/1.8               |
| Mount                       | C                   |
| Focal Length (mm)           | 10-240              |
| Angle of View (HOR)°        | 39.0-1.7            |
| M.O.D. (m)                  | 3.0                 |
| Effective Aperture          | Front (φmm) 66.0    |
|                             | Rear (φmm) 13.0     |
| Front Filter Thread (φMxP=) | 77 × 1              |
| Dimensions (WxHxD)mm        | 101 × 102.4 × 204.8 |

### Dimensions

unit:mm



MOTORIZED  
ZOOM

| NO. | MODEL NO.         |      |         |        |             |     | Aperture (F) | Weight (g) |
|-----|-------------------|------|---------|--------|-------------|-----|--------------|------------|
| 1   | E24Z1018M-MPIR    | ZOOM | 3 MOTOR |        |             | 3MP | IR           | 2160       |
| 2   | E24Z1018MP-MPIR   | ZOOM | 3 MOTOR | PRESET |             | 3MP | IR           | 2200       |
| 3   | E24Z1018MS-MPIR   | ZOOM | 3 MOTOR |        | SPOT FILTER | 3MP | IR           | 2160       |
| 4   | E24Z1018MSP-MPIR  | ZOOM | 3 MOTOR | PRESET | SPOT FILTER | 3MP | IR           | 2200       |
| 5   | E24Z1018AMS-MPIR  | ZOOM | VIDEO   |        | SPOT FILTER | 3MP | IR           | 2100       |
| 6   | E24Z1018AMSP-MPIR | ZOOM | VIDEO   | PRESET | SPOT FILTER | 3MP | IR           | 2140       |
| 7   | E24Z1018DC-MPIR   | ZOOM | DC      |        | SPOT FILTER | 3MP | IR           | 2100       |
| 8   | E24Z1018PDC-MPIR  | ZOOM | DC      | PRESET | SPOT FILTER | 3MP | IR           | 2140       |
| 9   | E24Z1018K-MPIR    | ZOOM | P-iris  |        |             | 3MP | IR           | 2090       |
| 10  | E24Z1018KP-MPIR   | ZOOM | P-iris  | PRESET |             | 3MP | IR           | 2130       |

※ Override and Iris preset models are available. Please contact us.

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

# M24Z1527-MP Series

## f 15-360mm, F2.7

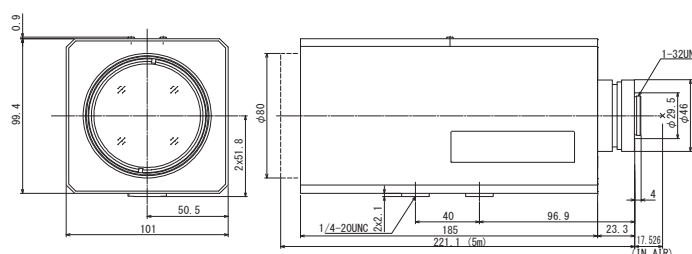
24x



|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 2/3              |
| Mount                       | C                |
| Focal Length (mm)           | 15-360           |
| Angle of View (HOR)°        | 32.3-1.4         |
| M.O.D. (m)                  | 5.0              |
| Effective Aperture          | Front (φmm) 66.0 |
|                             | Rear (φmm) 13.8  |
| Front Filter Thread (φMxP=) | 77×1             |
| Dimensions (WxHxD)mm        | 101×102.4×221.1  |

Dimensions

unit:mm



| NO. | MODEL NO.       |      |         |        |                 | Aperture (F) | Weight (g) |
|-----|-----------------|------|---------|--------|-----------------|--------------|------------|
| 1   | M24Z1527M-MP    | ZOOM | 3 MOTOR |        | 2MP             | 2.7-22C      | 2200       |
| 2   | M24Z1527MP-MP   | ZOOM | 3 MOTOR | PRESET | 2MP             | 2.7-22C      | 2240       |
| 3   | M24Z1527MS-MP   | ZOOM | 3 MOTOR |        | SPOT FILTER 2MP | 2.7-500C     | 2200       |
| 4   | M24Z1527MSP-MP  | ZOOM | 3 MOTOR | PRESET | SPOT FILTER 2MP | 2.7-500C     | 2240       |
| 5   | M24Z1527AMS-MP  | ZOOM | VIDEO   |        | SPOT FILTER 2MP | 2.7-500C     | 2140       |
| 6   | M24Z1527AMSP-MP | ZOOM | VIDEO   | PRESET | SPOT FILTER 2MP | 2.7-500C     | 2180       |
| 7   | M24Z1527DC-MP   | ZOOM | DC      |        | SPOT FILTER 2MP | 2.7-500C     | 2140       |
| 8   | M24Z1527PDC-MP  | ZOOM | DC      | PRESET | SPOT FILTER 2MP | 2.7-500C     | 2180       |
| 9   | M24Z1527K-MP    | ZOOM | P-iris  |        | 2MP             | 2.7-22C      | 2130       |
| 10  | M24Z1527KP-MP   | ZOOM | P-iris  | PRESET | 2MP             | 2.7-22C      | 2170       |

※ Override and Iris preset models are available. Please contact us.

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

# 1/1.8" MEGAPIXEL MOTORIZED ZOOM

MEGAPIXEL  
ZOOM

## M24Z2138-MP Series f 21-500mm, F3.8

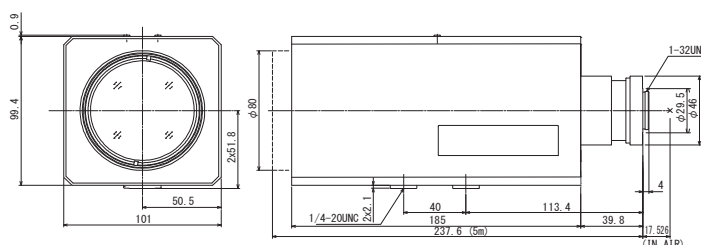
24x



|                             |                     |
|-----------------------------|---------------------|
| Format (")                  | 2/3                 |
| Mount                       | C                   |
| Focal Length (mm)           | 21-360              |
| Angle of View (HOR)°        | 23.5-1.0            |
| M.O.D. (m)                  | 5.0                 |
| Effective Aperture          | Front (φmm) 66.0    |
|                             | Rear (φmm) 14.5     |
| Front Filter Thread (φMxP=) | 77 × 1              |
| Dimensions (WxHxD)mm        | 101 × 102.4 × 237.6 |

### Dimensions

unit:mm



MOTORIZED  
ZOOM

| NO. | MODEL NO.       |      |         |        |                 | Aperture (F) | Weight (g) |
|-----|-----------------|------|---------|--------|-----------------|--------------|------------|
| 1   | M24Z2138M-MP    | ZOOM | 3 MOTOR |        | 2MP             | 3.8-22C      | 2260       |
| 2   | M24Z2138MP-MP   | ZOOM | 3 MOTOR | PRESET | 2MP             | 3.8-22C      | 2300       |
| 3   | M24Z2138MS-MP   | ZOOM | 3 MOTOR |        | SPOT FILTER 2MP | 3.8-500C     | 2260       |
| 4   | M24Z2138MSP-MP  | ZOOM | 3 MOTOR | PRESET | SPOT FILTER 2MP | 3.8-500C     | 2300       |
| 5   | M24Z2138AMS-MP  | ZOOM | VIDEO   |        | SPOT FILTER 2MP | 3.8-500C     | 2200       |
| 6   | M24Z2138AMSP-MP | ZOOM | VIDEO   | PRESET | SPOT FILTER 2MP | 3.8-500C     | 2240       |
| 7   | M24Z2138DC-MP   | ZOOM | DC      |        | SPOT FILTER 2MP | 3.8-500C     | 2200       |
| 8   | M24Z2138PDC-MP  | ZOOM | DC      | PRESET | SPOT FILTER 2MP | 3.8-500C     | 2240       |
| 9   | M24Z2138K-MP    | ZOOM | P-iris  |        | 2MP             | 3.8-22C      | 2190       |
| 10  | M24Z2138KP-MP   | ZOOM | P-iris  | PRESET | 2MP             | 3.8-22C      | 2230       |

※ Override and Iris preset models are available. Please contact us.

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

# H35Z1015-MP Series

## f 10-350mm, F1.5

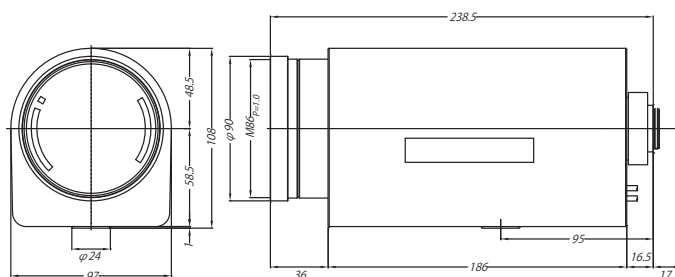
35x

MOTORIZED  
ZOOM

|                             |                  |
|-----------------------------|------------------|
| Format (")                  | 1/2              |
| Mount                       | C                |
| Focal Length (mm)           | 10-350           |
| Angle of View (HOR)°        | 35.30-1.05       |
| M.O.D. (m)                  | 2.5              |
| Effective Aperture          | Front (φmm) 80.1 |
|                             | Rear (φmm) 17.3  |
| Front Filter Thread (φMxP=) | 86×1             |
| Dimensions (WxHxD)mm        | 97×109×238.5     |

Dimensions

unit:mm



| NO. | MODEL NO.       |      |       |        |             |     | Aperture (F) | Weight (g) |
|-----|-----------------|------|-------|--------|-------------|-----|--------------|------------|
| 1   | H35Z1015AMS-MP  | ZOOM | VIDEO |        | SPOT FILTER | 2MP | 1.5-1000     | 1830       |
| 2   | H35Z1015AMSP-MP | ZOOM | VIDEO | PRESET | SPOT FILTER | 2MP | 1.5-1000     | 1830       |
| 3   | H35Z1015DC-MP   | ZOOM | DC    |        | SPOT FILTER | 2MP | 1.5-1000     | 1830       |
| 4   | H35Z1015PDC-MP  | ZOOM | DC    | PRESET | SPOT FILTER | 2MP | 1.5-1000     | 1830       |



**H62Z1235-MP Series**

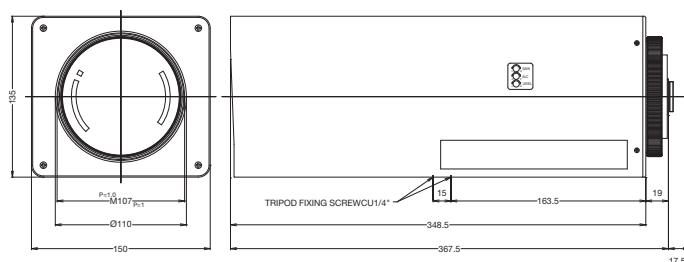
f 12.5-775mm, F3.5 / f 25-1550mm, F7.0(w/2 × extender)

**62x**

|                             |                                        |
|-----------------------------|----------------------------------------|
| Format (")                  | 1/2                                    |
| Mount                       | C                                      |
| Focal Length (mm)           | 12.5-775<br>25-1550(with 2x extender.) |
| Angle of View (HOR)°        | 28.77-0.47                             |
| M.O.D. (m)                  | 5.0                                    |
| Effective Aperture          | Front (φmm) 98.5<br>Rear (φmm) 17.5    |
| Front Filter Thread (φMxP=) | 107 × 1                                |
| Dimensions (WxHxD)mm        | 150 × 135 × 367.5                      |

## Dimensions

unit:mm

MOTORIZED  
ZOOM

| NO. | MODEL NO.           |      |       |        |     |          |    | Aperture (F)             | Weight (g) |
|-----|---------------------|------|-------|--------|-----|----------|----|--------------------------|------------|
| 1   | H62Z1235AMP-MP      | ZOOM | VIDEO | PRESET | 2MP |          |    | 3.5-Close                | 5350       |
| 2   | H62Z1235AMP-MP-EX   | ZOOM | VIDEO | PRESET | 2MP | Extender |    | 3.5-Close<br>(7.0-Close) | 5550       |
| 3   | H62Z1235AMP-MPIR    | ZOOM | VIDEO | PRESET | 2MP |          | IR | 3.5-Close                | 5800       |
| 4   | H62Z1235AMP-MPIR-EX | ZOOM | VIDEO | PRESET | 2MP | Extender | IR | 3.5-Close<br>(7.0-Close) | 6000       |
| 5   | H62Z1235PDC-MP      | ZOOM | DC    | PRESET | 2MP |          |    | 3.5-Close                | 5350       |
| 6   | H62Z1235PDC-MP-EX   | ZOOM | DC    | PRESET | 2MP | Extender |    | 3.5-Close<br>(7.0-Close) | 5550       |
| 7   | H62Z1235PDC-MPIR    | ZOOM | DC    | PRESET | 2MP |          | IR | 3.5-Close                | 5800       |
| 8   | H62Z1235PDC-MPIR-EX | ZOOM | DC    | PRESET | 2MP | Extender | IR | 3.5-Close<br>(7.0-Close) | 6000       |

※ Non-Preset model is available. Please contact us.



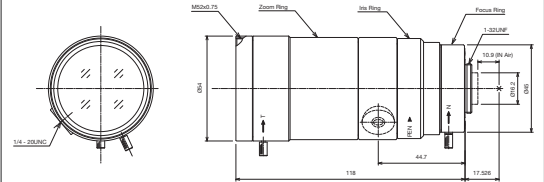
VARI  
MANUAL  
TELE  
ASP  
3MP  
SECURITY  
HDTV  
1080



| MODEL NO.                              | H5Z2518C-MP      |
|----------------------------------------|------------------|
| Format (")                             | 1/2              |
| Mount                                  | C                |
| Focal Length (mm)                      | 25-135           |
| Aperture (F)                           | 1.8-16C          |
| Angle of View (HOR)°                   | 14.5-2.8         |
| M.O.D. (m)                             | 1.5              |
| Effective Aperture                     | Front (φmm) 44.7 |
|                                        | Rear (φmm) 12.2  |
| Front Filter Thread (φMxP=)            | φ52 × 0.75       |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ54 × 118        |
| Weight (g)                             | 411              |

### Dimensions

unit:mm



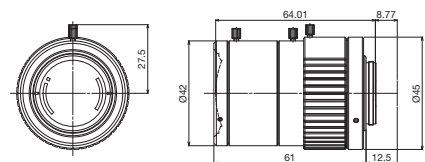
VARI  
MANUAL  
WIDE  
IR  
5MP  
SECURITY  
HDTV  
1080



| MODEL NO.                              | E3Z4518CS-MPIR   |
|----------------------------------------|------------------|
| Format (")                             | 1/1.8            |
| Mount                                  | CS               |
| Focal Length (mm)                      | 4.5-13.2         |
| Aperture (F)                           | 1.8-16C          |
| Angle of View (HOR)°                   | 105.3-35.3       |
| M.O.D. (m)                             | 0.5              |
| Effective Aperture                     | Front (φmm) 25.1 |
|                                        | Rear (φmm) 10.0  |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ42 × 61         |
| Weight (g)                             | 148              |

### Dimensions

unit:mm



VARI  
MANUAL  
WIDE  
ASP  
IR  
5MP  
SECURITY  
HDTV  
1080

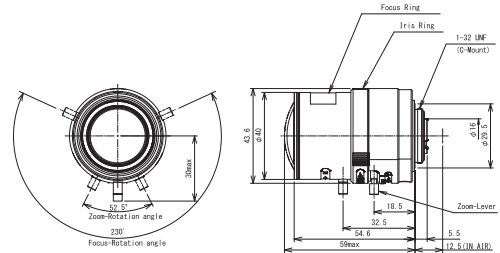


NEW

| MODEL NO.                              | A3Z2812CS-MPWIR  |
|----------------------------------------|------------------|
| Format (")                             | 1/2.7            |
| Mount                                  | CS               |
| Focal Length (mm)                      | 2.8-8.5          |
| Aperture (F)                           | 1.2-16C          |
| Angle of View (HOR)°                   | 124.7-41.3       |
| M.O.D. (m)                             | 0.5              |
| Effective Aperture                     | Front (φmm) 24.8 |
|                                        | Rear (φmm) 8.4   |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ43.6 × 59       |
| Weight (g)                             | 64               |

### Dimensions

unit:mm



VARI  
MANUAL  
WIDE  
ASP  
IR  
8MP  
SECURITY  
HDTV  
1080

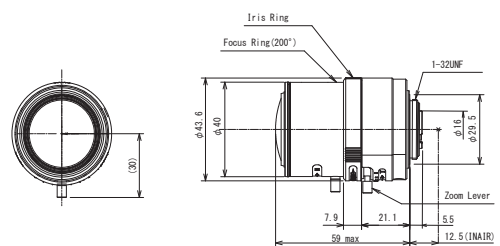


NEW

| MODEL NO.                              | E3Z3915CS-MPWIR  |
|----------------------------------------|------------------|
| Format (")                             | 1/1.8            |
| Mount                                  | CS               |
| Focal Length (mm)                      | 3.9-10           |
| Aperture (F)                           | 1.5-16C          |
| Angle of View (HOR)°                   | 108.1-42.1       |
| M.O.D. (m)                             | 0.8              |
| Effective Aperture                     | Front (φmm) 25.0 |
|                                        | Rear (φmm) 10.0  |
| Front Filter Thread (φMxP=)            | -                |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ43.6 × 59       |
| Weight (g)                             | 69               |

### Dimensions

unit:mm

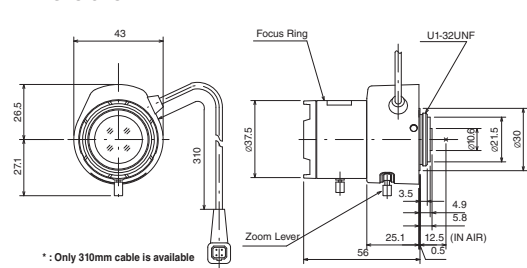


VARI  
DC  
ASP  
IR  
1MP  
SECURITY



| MODEL NO.                           | TG4Z2816FCS-MPIR-2 |
|-------------------------------------|--------------------|
| Format (")                          | 1/3                |
| Mount                               | CS                 |
| Focal Length (mm)                   | 2.8-12             |
| Aperture (F)                        | 1.6-360            |
| Angle of View (HOR)°                | 102.2-23.7         |
| M.O.D. (m)                          | 0.3                |
| Effective Aperture                  | Front (φmm) 23.0   |
|                                     | Rear (φmm) 7.4     |
| Front Filter Thread (φMxP=)         | -                  |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ37.5×48×56        |
| Weight (g)                          | 71                 |

Dimensions unit:mm



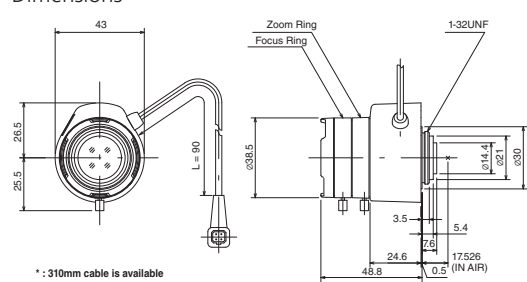
\* : Only 310mm cable is available

VARI  
DC  
1MP  
SECURITY



| MODEL NO.                           | HG2Z0414FC-MP    |
|-------------------------------------|------------------|
| Format (")                          | 1/2              |
| Mount                               | C                |
| Focal Length (mm)                   | 4-8              |
| Aperture (F)                        | 1.4-360          |
| Angle of View (HOR)°                | 90.4-47.0        |
| M.O.D. (m)                          | 0.5              |
| Effective Aperture                  | Front (φmm) 22.2 |
|                                     | Rear (φmm) 10.7  |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ38.5×48×48.8    |
| Weight (g)                          | 75               |

Dimensions unit:mm



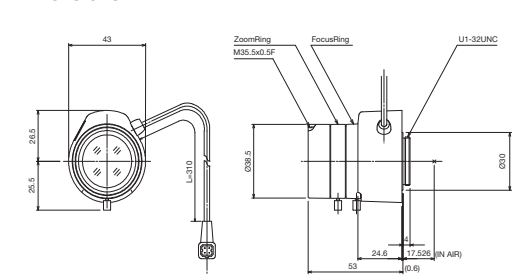
\* : 310mm cable is available

VARI  
DC  
1MP  
SECURITY



| MODEL NO.                           | MG3Z1228FC-MP    |
|-------------------------------------|------------------|
| Format (")                          | 2/3              |
| Mount                               | C                |
| Focal Length (mm)                   | 12-36            |
| Aperture (F)                        | 2.8-360          |
| Angle of View (HOR)°                | 41.0-13.6        |
| M.O.D. (m)                          | 0.2              |
| Effective Aperture                  | Front (φmm) 27.2 |
|                                     | Rear (φmm) 12.1  |
| Front Filter Thread (φMxP=)         | 35.5×0.5         |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ41.6×48×53      |
| Weight (g)                          | 99               |

Dimensions unit:mm



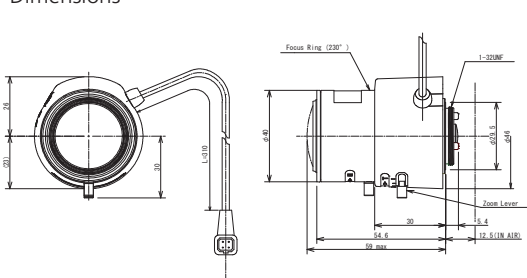
VARI  
DC  
WIDE  
ASP  
IR  
3MP  
SECURITY  
HDTV  
1080



NEW

| MODEL NO.                           | AG4Z2812FCS-MPIR |
|-------------------------------------|------------------|
| Format (")                          | 1/2.7            |
| Mount                               | CS               |
| Focal Length (mm)                   | 2.8-10           |
| Aperture (F)                        | 1.2-360C         |
| Angle of View (HOR)°                | 127.6-34.3       |
| M.O.D. (m)                          | 0.5              |
| Effective Aperture                  | Front (φmm) 27.0 |
|                                     | Rear (φmm) 9.7   |
| Front Filter Thread (φMxP=)         | -                |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ40×49×59        |
| Weight (g)                          | 66               |

Dimensions unit:mm



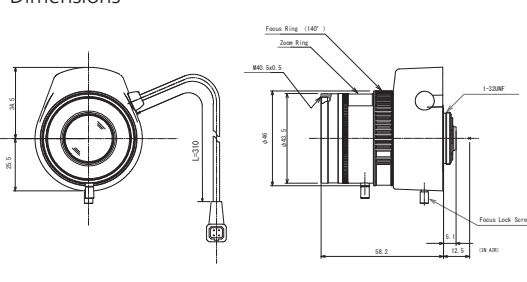
VARI  
DC  
TELE  
ASP  
3MP  
SECURITY  
HDTV  
1080



NEW

| MODEL NO.                           | AG6Z8516FCS-MP   |
|-------------------------------------|------------------|
| Format (")                          | 1/2.7            |
| Mount                               | CS               |
| Focal Length (mm)                   | 8.5-50           |
| Aperture (F)                        | 1.6-360C         |
| Angle of View (HOR)°                | 38.0-6.8         |
| M.O.D. (m)                          | 1.0              |
| Effective Aperture                  | Front (φmm) 21.7 |
|                                     | Rear (φmm) 9.8   |
| Front Filter Thread (φMxP=)         | 40.5×0.5         |
| Dimensions (φD),(φHxD) or (WxHxD)mm | φ46×60×58.2      |
| Weight (g)                          | 80               |

Dimensions unit:mm



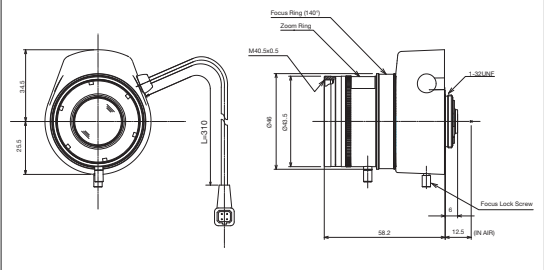
VARI  
DC  
TELE  
ASP  
IR  
3MP  
SECURITY  
HDTV  
1080



| MODEL NO.                              | AG4Z1214FCS-MPIR |
|----------------------------------------|------------------|
| Format (")                             | 1/2.7            |
| Mount                                  | CS               |
| Focal Length (mm)                      | 12.5-50          |
| Aperture (F)                           | 1.4-360C         |
| Angle of View (HOR)°                   | 24.0-6.2         |
| M.O.D. (m)                             | 1.0              |
| Effective Aperture Front (φmm)         | 21.7             |
| Rear (φmm)                             | 9.1              |
| Front Filter Thread (φMxP=)            | 40×0.5           |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ46×59.3×58.4    |
| Weight (g)                             | 83               |

Dimensions

unit:mm



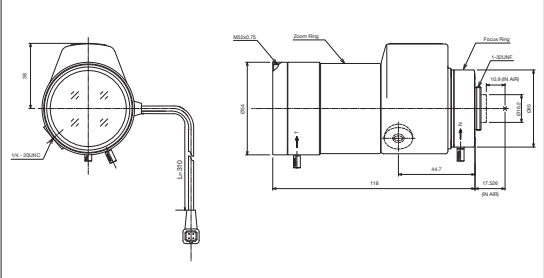
VARI  
DC  
TELE  
ASP  
3MP  
SECURITY  
HDTV  
1080



| MODEL NO.                              | HG5Z2518FC-MP |
|----------------------------------------|---------------|
| Format (")                             | 1/2           |
| Mount                                  | C             |
| Focal Length (mm)                      | 25-135        |
| Aperture (F)                           | 1.8-360C      |
| Angle of View (HOR)°                   | 14.5-2.8      |
| M.O.D. (m)                             | 1.5           |
| Effective Aperture Front (φmm)         | 44.7          |
| Rear (φmm)                             | 12.2          |
| Front Filter Thread (φMxP=)            | φ52×0.75      |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ54×65×118    |
| Weight (g)                             | 402           |

Dimensions

unit:mm



VARI  
DC  
WIDE  
ASP  
IR  
5MP  
SECURITY  
HDTV  
1080

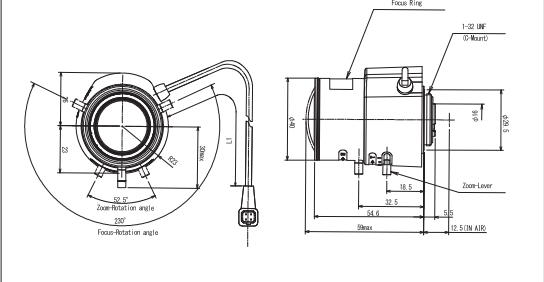


NEW

| MODEL NO.                              | AG3Z2812FCS-MPWIR |
|----------------------------------------|-------------------|
| Format (")                             | 1/2.7             |
| Mount                                  | CS                |
| Focal Length (mm)                      | 2.8-8.5           |
| Aperture (F)                           | 1.2-360C          |
| Angle of View (HOR)°                   | 124.7-41.3        |
| M.O.D. (m)                             | 0.5               |
| Effective Aperture Front (φmm)         | 24.8              |
| Rear (φmm)                             | 8.4               |
| Front Filter Thread (φMxP=)            | -                 |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ43.6×59          |
| Weight (g)                             | 67                |

Dimensions

unit:mm



VARI  
DC  
WIDE  
ASP  
IR  
8MP  
SECURITY  
HDTV  
1080

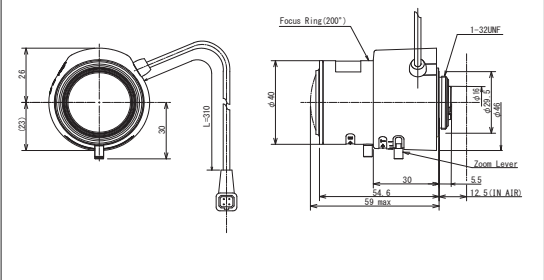


NEW

| MODEL NO.                              | EG3Z3915FCS-MPWIR |
|----------------------------------------|-------------------|
| Format (")                             | 1/1.8             |
| Mount                                  | CS                |
| Focal Length (mm)                      | 3.9-10            |
| Aperture (F)                           | 1.5-360C          |
| Angle of View (HOR)°                   | 108.1-42.1        |
| M.O.D. (m)                             | 0.8               |
| Effective Aperture Front (φmm)         | 25.0              |
| Rear (φmm)                             | 10.0              |
| Front Filter Thread (φMxP=)            | -                 |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ43.6×59          |
| Weight (g)                             | 72                |

Dimensions

unit:mm





VARI  
P-iris  
WIDE  
ASP  
IR  
3MP  
SECURITY  
HDTV  
1080

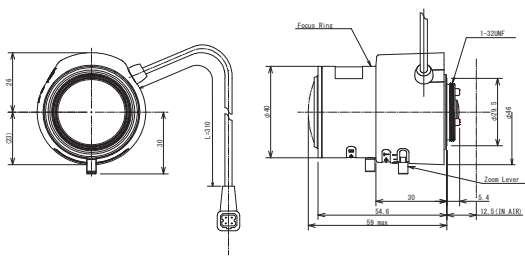


| MODEL NO.                            | AG4Z2812KCS-MPIR |
|--------------------------------------|------------------|
| Format (")                           | 1/2.7            |
| Mount                                | CS               |
| Focal Length (mm)                    | 2.8-10           |
| Aperture (F)                         | 1.2-F16C         |
| Angle of View (HOR)°                 | 127.6-34.3       |
| M.O.D. (m)                           | 0.5              |
| Effective Aperture                   | Front (φmm) 27.0 |
|                                      | Rear (φmm) 9.7   |
| Front Filter Thread (φMxP=)          | -                |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ40 × 49 × 59    |
| Weight (g)                           | 65               |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

### Dimensions

unit:mm



VARI  
P-iris  
TELE  
ASP  
3MP  
SECURITY  
HDTV  
1080



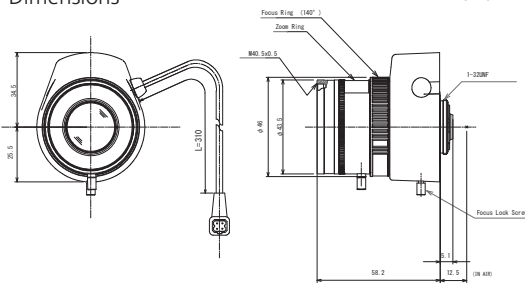
NEW

| MODEL NO.                            | AG6Z8516KCS-MP   |
|--------------------------------------|------------------|
| Format (")                           | 1/2.7            |
| Mount                                | CS               |
| Focal Length (mm)                    | 8.5-50           |
| Aperture (F)                         | 1.6-16C          |
| Angle of View (HOR)°                 | 38.0-6.8         |
| M.O.D. (m)                           | 1.0              |
| Effective Aperture                   | Front (φmm) 21.7 |
|                                      | Rear (φmm) 9.8   |
| Front Filter Thread (φMxP=)          | 40.5 × 0.5       |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ46 × 60 × 58.2  |
| Weight (g)                           | 78               |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

### Dimensions

unit:mm



VARI  
P-iris  
TELE  
ASP  
IR  
3MP  
SECURITY  
HDTV  
1080

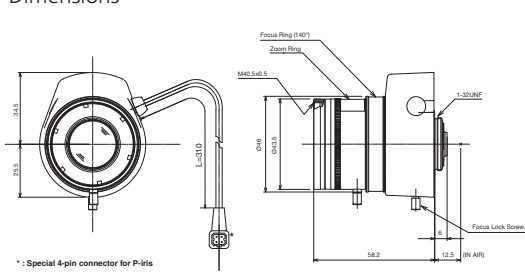


| MODEL NO.                            | AG4Z1214KCS-MPIR  |
|--------------------------------------|-------------------|
| Format (")                           | 1/2.7             |
| Mount                                | CS                |
| Focal Length (mm)                    | 12.5-50           |
| Aperture (F)                         | 1.4-16C           |
| Angle of View (HOR)°                 | 24.0-6.2          |
| M.O.D. (m)                           | 1.0               |
| Effective Aperture                   | Front (φmm) 21.7  |
|                                      | Rear (φmm) 9.1    |
| Front Filter Thread (φMxP=)          | 40 × 0.5          |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ46 × 59.3 × 58.4 |
| Weight (g)                           | 81                |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

### Dimensions

unit:mm



VARI  
P-iris  
WIDE  
ASP  
IR  
5MP  
SECURITY  
HDTV  
1080



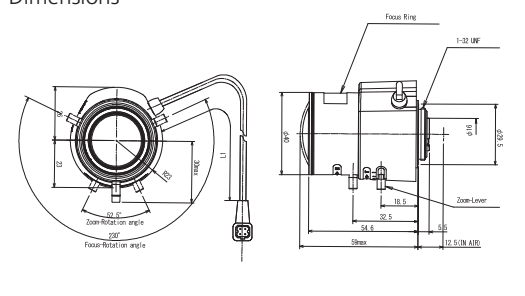
NEW

| MODEL NO.                            | AG3Z2812KCS-MPWIR |
|--------------------------------------|-------------------|
| Format (")                           | 1/2.7             |
| Mount                                | CS                |
| Focal Length (mm)                    | 2.8-8.5           |
| Aperture (F)                         | 1.2-16C           |
| Angle of View (HOR)°                 | 124.7-41.3        |
| M.O.D. (m)                           | 0.5               |
| Effective Aperture                   | Front (φmm) 24.8  |
|                                      | Rear (φmm) 8.4    |
| Front Filter Thread (φMxP=)          | -                 |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ43.6 × 59        |
| Weight (g)                           | 66                |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

### Dimensions

unit:mm



VARI  
P-iris  
WIDE  
ASP  
IR  
8MP  
SECURITY  
HDTV  
1080



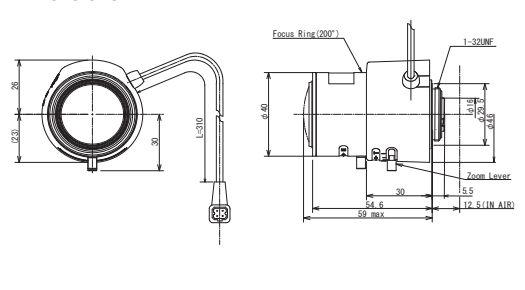
NEW

| MODEL NO.                            | EG3Z3915KCS-MPWIR |
|--------------------------------------|-------------------|
| Format (")                           | 1/1.8             |
| Mount                                | CS                |
| Focal Length (mm)                    | 3.9-10            |
| Aperture (F)                         | 1.5-360C          |
| Angle of View (HOR)°                 | 108.1-42.1        |
| M.O.D. (m)                           | 0.8               |
| Effective Aperture                   | Front (φmm) 25.0  |
|                                      | Rear (φmm) 10.0   |
| Front Filter Thread (φMxP=)          | -                 |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ43.6 × 59        |
| Weight (g)                           | 71                |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

### Dimensions

unit:mm





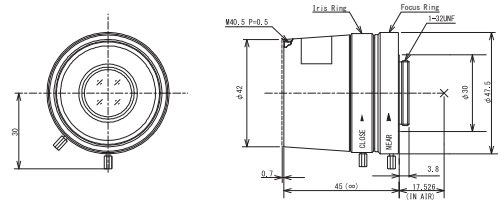
FIX  
MANUAL  
5MP  
ITS



| MODEL NO.                            | M0918FIC-MP      |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 9                |
| Aperture (F)                         | 1.8-16C          |
| Angle of View (HOR)°                 | 52.1             |
| M.O.D. (m)                           | 1                |
| Effective Aperture                   | Front (φmm) 20.1 |
|                                      | Rear (φmm) 12.4  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ47.5×45         |
| Weight (g)                           | 133.6            |

Dimensions

unit:mm



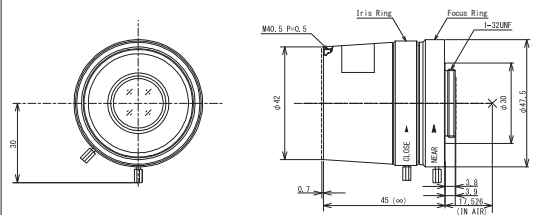
FIX  
MANUAL  
5MP  
ITS



| MODEL NO.                            | M1218FIC-MP      |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 12               |
| Aperture (F)                         | 1.8-16C          |
| Angle of View (HOR)°                 | 39.3             |
| M.O.D. (m)                           | 1                |
| Effective Aperture                   | Front (φmm) 20.0 |
|                                      | Rear (φmm) 13.2  |
| Front Filter Thread (φMxP=)          | 40.2×0.5         |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ47.5×45         |
| Weight (g)                           | 133.2            |

Dimensions

unit:mm



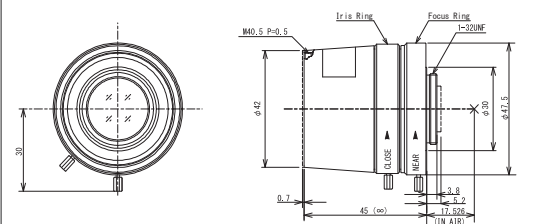
FIX  
MANUAL  
5MP  
ITS



| MODEL NO.                            | M1616FIC-MP      |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 16               |
| Aperture (F)                         | 1.6-16C          |
| Angle of View (HOR)°                 | 30.8             |
| M.O.D. (m)                           | 1                |
| Effective Aperture                   | Front (φmm) 21.9 |
|                                      | Rear (φmm) 11.0  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ47.5×45         |
| Weight (g)                           | 139.3            |

Dimensions

unit:mm



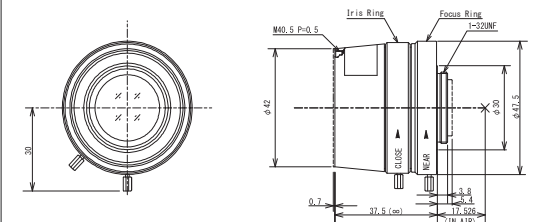
FIX  
MANUAL  
5MP  
ITS



| MODEL NO.                            | M2514FIC-MP      |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 25               |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 20.0             |
| M.O.D. (m)                           | 1.5              |
| Effective Aperture                   | Front (φmm) 23.4 |
|                                      | Rear (φmm) 14.6  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ47.5×37.5       |
| Weight (g)                           | 124.8            |

Dimensions

unit:mm



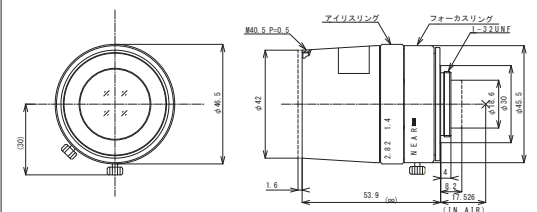
FIX  
MANUAL  
IR  
5MP  
ITS



| MODEL NO.                            | M2514FIC-MPIR    |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 25               |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 20.0             |
| M.O.D. (m)                           | 1                |
| Effective Aperture                   | Front (φmm) 27.0 |
|                                      | Rear (φmm) 12.4  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ46.5×53.9       |
| Weight (g)                           | 154.2            |

Dimensions

unit:mm



FIX

MANUAL

IR

5MP

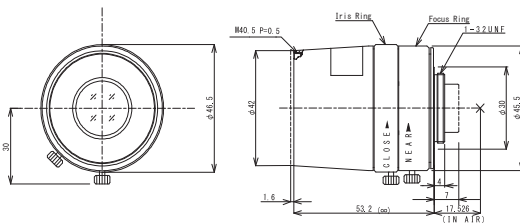
ITS



| MODEL NO.                             | M3518FC-MPIR     |
|---------------------------------------|------------------|
| Format (")                            | 2/3              |
| Mount                                 | C                |
| Focal Length (mm)                     | 35               |
| Aperture (F)                          | 1.8-16           |
| Angle of View (HOR)°                  | 13.9             |
| M.O.D. (m)                            | 1                |
| Effective Aperture                    | Front (φmm) 19.8 |
|                                       | Rear (φmm) 12.1  |
| Front Filter Thread (φMxP=)           | 40.5 × 0.5       |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ46.5 × 53.2     |
| Weight (g)                            | 149.2            |

Dimensions

unit:mm



FIX

MANUAL

IR

5MP

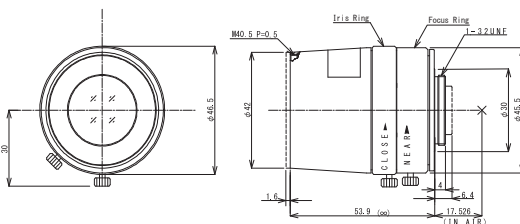
ITS



| MODEL NO.                             | M5020FC-MPIR     |
|---------------------------------------|------------------|
| Format (")                            | 2/3              |
| Mount                                 | C                |
| Focal Length (mm)                     | 50               |
| Aperture (F)                          | 2.0-16C          |
| Angle of View (HOR)°                  | 9.8              |
| M.O.D. (m)                            | 2                |
| Effective Aperture                    | Front (φmm) 25.2 |
|                                       | Rear (φmm) 11.0  |
| Front Filter Thread (φMxP=)           | 40.5 × 0.5       |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ46.5 × 53.9     |
| Weight (g)                            | 155              |

Dimensions

unit:mm



FIX

DC

5MP

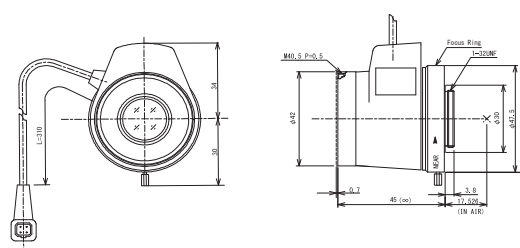
ITS



| MODEL NO.                             | MG0918FC-MP      |
|---------------------------------------|------------------|
| Format (")                            | 2/3              |
| Mount                                 | C                |
| Focal Length (mm)                     | 9                |
| Aperture (F)                          | 1.8-360C         |
| Angle of View (HOR)°                  | 52.1             |
| M.O.D. (m)                            | 1                |
| Effective Aperture                    | Front (φmm) 20.1 |
|                                       | Rear (φmm) 12.4  |
| Front Filter Thread (φMxP=)           | 40.5 × 0.5       |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ42 × 57.8 × 45  |
| Weight (g)                            | 107              |

Dimensions

unit:mm



FIX

DC

5MP

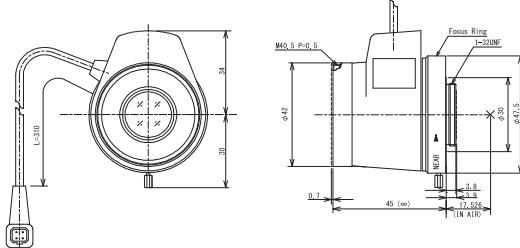
ITS



| MODEL NO.                             | MG1218FC-MP      |
|---------------------------------------|------------------|
| Format (")                            | 2/3              |
| Mount                                 | C                |
| Focal Length (mm)                     | 12               |
| Aperture (F)                          | 1.8-360C         |
| Angle of View (HOR)°                  | 39.3             |
| M.O.D. (m)                            | 1                |
| Effective Aperture                    | Front (φmm) 20.0 |
|                                       | Rear (φmm) 13.2  |
| Front Filter Thread (φMxP=)           | 40.5 × 0.5       |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ42 × 57.8 × 45  |
| Weight (g)                            | 105.6            |

Dimensions

unit:mm



FIX

DC

5MP

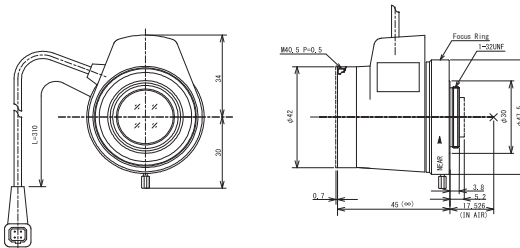
ITS



| MODEL NO.                             | MG1616FC-MP      |
|---------------------------------------|------------------|
| Format (")                            | 2/3              |
| Mount                                 | C                |
| Focal Length (mm)                     | 16               |
| Aperture (F)                          | 1.6-360C         |
| Angle of View (HOR)°                  | 30.8             |
| M.O.D. (m)                            | 1                |
| Effective Aperture                    | Front (φmm) 21.9 |
|                                       | Rear (φmm) 11.0  |
| Front Filter Thread (φMxP=)           | 40.5 × 0.5       |
| Dimensions (φD), (φxHxD) or (WxHxD)mm | φ42 × 57.8 × 45  |
| Weight (g)                            | 112.6            |

Dimensions

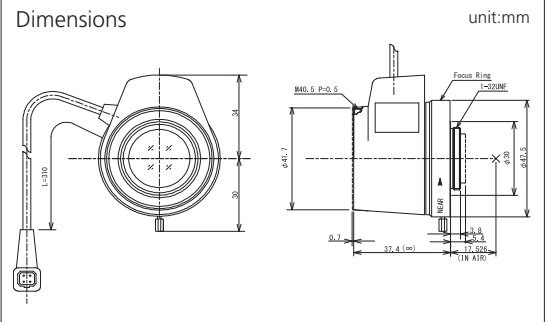
unit:mm



FIX  
DC  
5MP  
ITS



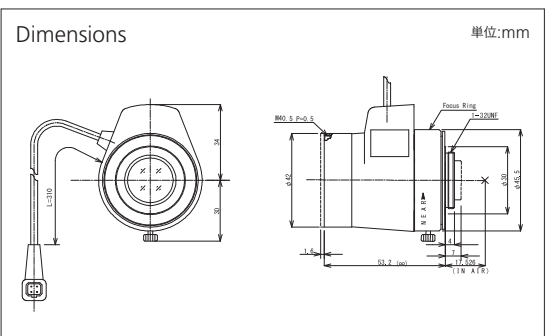
| MODEL NO.                              | MG2514FC-MP      |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 25               |
| Aperture (F)                           | 1.4-360C         |
| Angle of View (HOR)°                   | 20.0             |
| M.O.D. (m)                             | 1.5              |
| Effective Aperture                     | Front (φmm) 23.4 |
|                                        | Rear (φmm) 14.6  |
| Front Filter Thread (φMxP=)            | 40.5×0.5         |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ41.7×57.8×37.4  |
| Weight (g)                             | 102.2            |



FIX  
DC  
IR  
5MP  
ITS



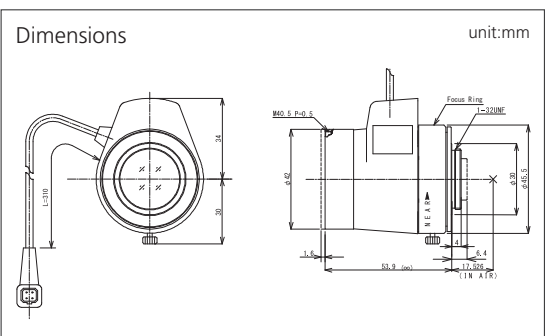
| MODEL NO.                              | MG3518FC-MPIR    |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 35               |
| Aperture (F)                           | 1.8-360C         |
| Angle of View (HOR)°                   | 13.9             |
| M.O.D. (m)                             | 1                |
| Effective Aperture                     | Front (φmm) 19.8 |
|                                        | Rear (φmm) 12.1  |
| Front Filter Thread (φMxP=)            | 40.5×0.5         |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ42×56.8×53.2    |
| Weight (g)                             | 125.8            |



FIX  
DC  
IR  
5MP  
ITS



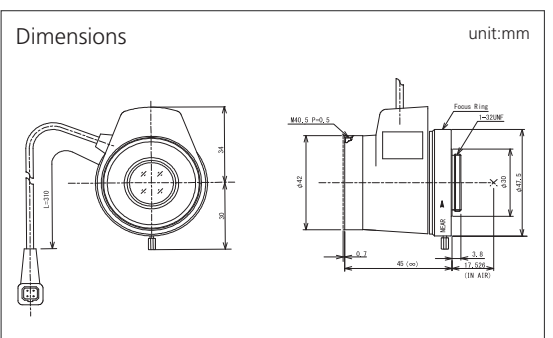
| MODEL NO.                              | MG5020FC-MPIR    |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 50               |
| Aperture (F)                           | 2.0-360C         |
| Angle of View (HOR)°                   | 9.8              |
| M.O.D. (m)                             | 2                |
| Effective Aperture                     | Front (φmm) 25.2 |
|                                        | Rear (φmm) 11.0  |
| Front Filter Thread (φMxP=)            | 40.5×0.5         |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ42×56.8×53.9    |
| Weight (g)                             | 131.8            |



FIX  
P-iris  
5MP  
ITS



| MODEL NO.                              | MG0918KC-MP      |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 9                |
| Aperture (F)                           | 1.8-16C          |
| Angle of View (HOR)°                   | 52.1             |
| M.O.D. (m)                             | 1                |
| Effective Aperture                     | Front (φmm) 20.1 |
|                                        | Rear (φmm) 12.4  |
| Front Filter Thread (φMxP=)            | 40.5×0.5         |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ42×57.8×45      |
| Weight (g)                             | 105              |

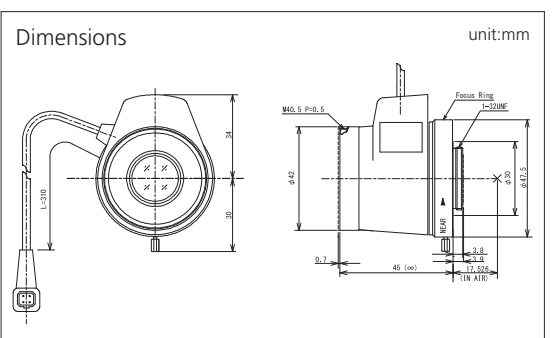


※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

FIX  
P-iris  
5MP  
ITS



| MODEL NO.                              | MG1218KC-MP      |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 12               |
| Aperture (F)                           | 1.8-16C          |
| Angle of View (HOR)°                   | 39.3             |
| M.O.D. (m)                             | 1                |
| Effective Aperture                     | Front (φmm) 20.0 |
|                                        | Rear (φmm) 13.2  |
| Front Filter Thread (φMxP=)            | 40.5×0.5         |
| Dimensions (φxD), (φxHxD) or (WxHxD)mm | φ42×57.8×45      |
| Weight (g)                             | 103              |



※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

FIX

P-iris

5MP

ITS



| MODEL NO.                            | MG1616KC-MP      |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 16               |
| Aperture (F)                         | 1.8-16C          |
| Angle of View (HOR)°                 | 30.8             |
| M.O.D. (m)                           | 1                |
| Effective Aperture                   | Front (φmm) 21.9 |
|                                      | Rear (φmm) 11.0  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ42×57.8×45      |
| Weight (g)                           | 110              |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

FIX

P-iris

5MP

ITS



| MODEL NO.                            | MG2514KC-MP      |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 25               |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 20.0             |
| M.O.D. (m)                           | 1.5              |
| Effective Aperture                   | Front (φmm) 23.4 |
|                                      | Rear (φmm) 14.6  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ41.7×57.8×37.4  |
| Weight (g)                           | 100              |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

FIX

P-iris

IR

5MP

ITS



| MODEL NO.                            | MG2514KC-MPIR    |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 25               |
| Aperture (F)                         | 1.4              |
| Angle of View (HOR)°                 | 20.0             |
| M.O.D. (m)                           | 1                |
| Effective Aperture                   | Front (φmm) 27.0 |
|                                      | Rear (φmm) 12.4  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ42×58.6×53.9    |
| Weight (g)                           | 129              |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

FIX

P-iris

IR

5MP

ITS



| MODEL NO.                            | MG3518KC-MPIR    |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 35               |
| Aperture (F)                         | 1.8-16C          |
| Angle of View (HOR)°                 | 13.9             |
| M.O.D. (m)                           | 1                |
| Effective Aperture                   | Front (φmm) 19.8 |
|                                      | Rear (φmm) 12.1  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ42×56.8×53.2    |
| Weight (g)                           | 123              |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

FIX

P-iris

IR

5MP

ITS

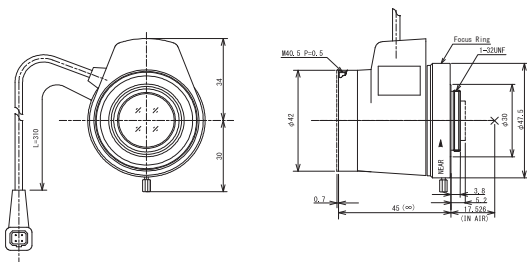


| MODEL NO.                            | MG5020KC-MPIR    |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 50               |
| Aperture (F)                         | 2.0-16C          |
| Angle of View (HOR)°                 | 9.8              |
| M.O.D. (m)                           | 2                |
| Effective Aperture                   | Front (φmm) 25.2 |
|                                      | Rear (φmm) 11.0  |
| Front Filter Thread (φMxP=)          | 40.5×0.5         |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ42×56.8×53.9    |
| Weight (g)                           | 129              |

※ P-iris lenses can only be controlled by specifically designed cameras with P-iris software.

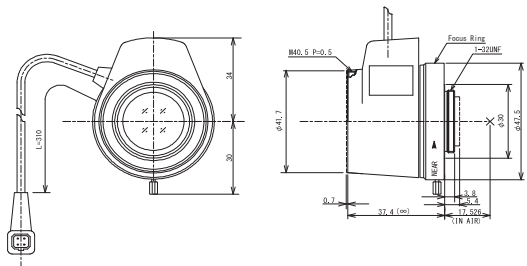
Dimensions

unit:mm



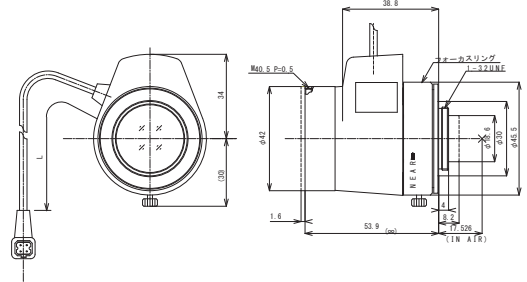
Dimensions

unit:mm



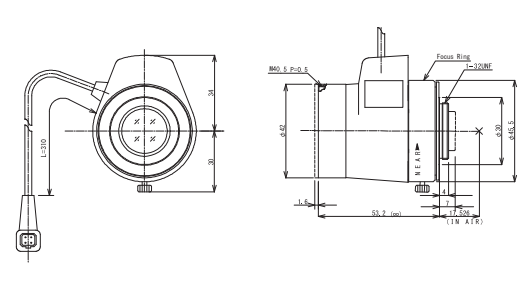
Dimensions

unit:mm



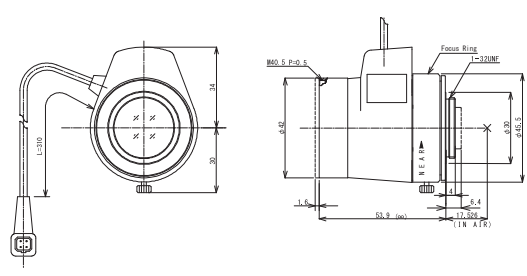
Dimensions

unit:mm



Dimensions

unit:mm

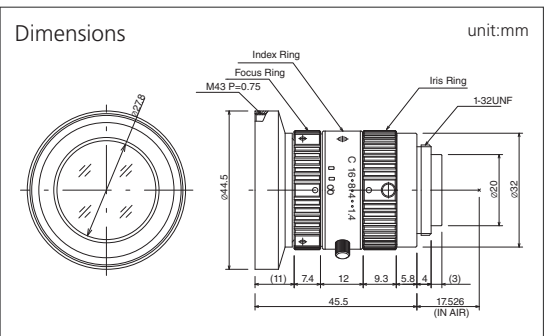




FIX  
MANUAL  
WIDE  
1.5MP  
FA



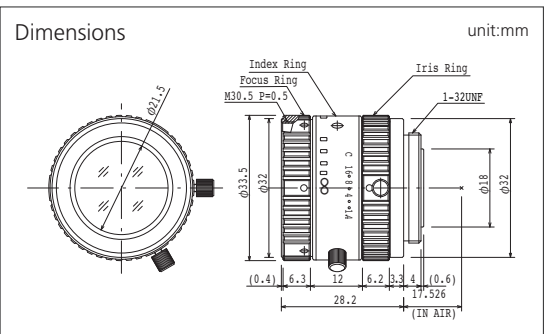
| MODEL NO.                            | H0514-MP2        |
|--------------------------------------|------------------|
| Format (")                           | 1/2              |
| Mount                                | C                |
| Focal Length (mm)                    | 5                |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 65.5             |
| M.O.D. (m)                           | 0.3              |
| Effective Aperture                   | Front (φmm) 27.8 |
|                                      | Rear (φmm) 14.8  |
| Front Filter Thread (φMxP=)          | 43.0 × 0.75      |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ44.5 × 45.5     |
| Weight (g)                           | 102              |



FIX  
MANUAL  
1.5MP  
SECURITY  
FA



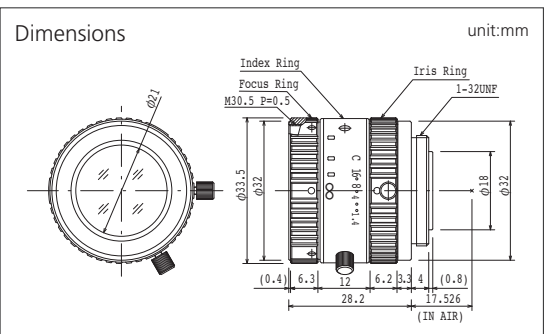
| MODEL NO.                            | M0814-MP2        |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 8                |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 56.3             |
| M.O.D. (m)                           | 0.1              |
| Effective Aperture                   | Front (φmm) 21.5 |
|                                      | Rear (φmm) 12.0  |
| Front Filter Thread (φMxP=)          | 30.5 × 0.5       |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ33.5 × 28.2     |
| Weight (g)                           | 63               |



FIX  
MANUAL  
1.5MP  
SECURITY  
FA



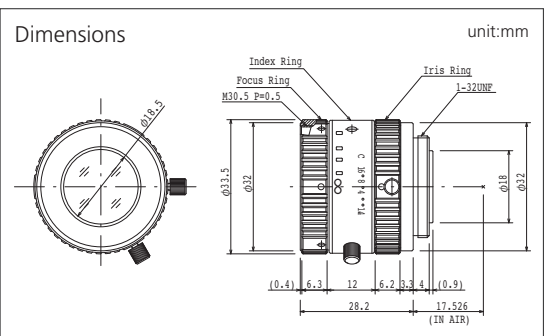
| MODEL NO.                            | M1214-MP2        |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 12               |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 40.4             |
| M.O.D. (m)                           | 0.15             |
| Effective Aperture                   | Front (φmm) 21.0 |
|                                      | Rear (φmm) 13.0  |
| Front Filter Thread (φMxP=)          | 30.5 × 0.5       |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ33.5 × 28.2     |
| Weight (g)                           | 62               |



FIX  
MANUAL  
1.5MP  
SECURITY  
FA



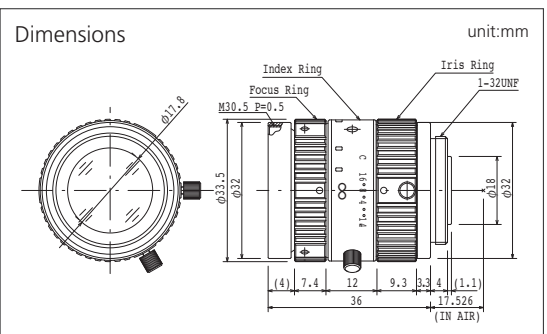
| MODEL NO.                            | M1614-MP2        |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 16               |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 30.8             |
| M.O.D. (m)                           | 0.3              |
| Effective Aperture                   | Front (φmm) 18.5 |
|                                      | Rear (φmm) 13.2  |
| Front Filter Thread (φMxP=)          | 30.5 × 0.5       |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ33.5 × 28.2     |
| Weight (g)                           | 60               |



FIX  
MANUAL  
1.5MP  
SECURITY  
FA



| MODEL NO.                            | M2514-MP2        |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 25               |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 20.0             |
| M.O.D. (m)                           | 0.3              |
| Effective Aperture                   | Front (φmm) 17.8 |
|                                      | Rear (φmm) 12.0  |
| Front Filter Thread (φMxP=)          | 30.5 × 0.5       |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ33.5 × 36.0     |
| Weight (g)                           | 71               |



FIX

MANUAL

1.5MP

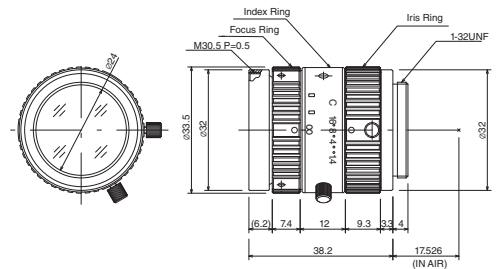
FA



| MODEL NO.                            | M3514-MP         |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 35               |
| Aperture (F)                         | 1.4-16C          |
| Angle of View (HOR)°                 | 13.9             |
| M.O.D. (m)                           | 0.3              |
| Effective Aperture                   | Front (φmm) 24.0 |
|                                      | Rear (φmm) 12.0  |
| Front Filter Thread (φMxP=)          | 30.5 × 0.5       |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ33.0 × 38.2     |
| Weight (g)                           | 87               |

Dimensions

unit:mm



FIX

MANUAL

1.5MP

SECURITY

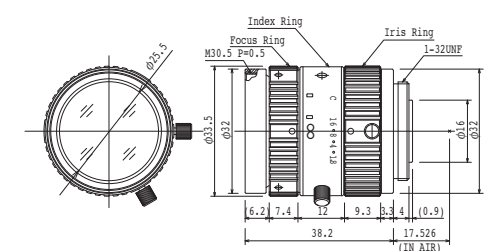
FA



| MODEL NO.                            | M5018-MP2        |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 50               |
| Aperture (F)                         | 1.8-16C          |
| Angle of View (HOR)°                 | 10.5             |
| M.O.D. (m)                           | 0.5              |
| Effective Aperture                   | Front (φmm) 25.5 |
|                                      | Rear (φmm) 9.6   |
| Front Filter Thread (φMxP=)          | 30.5 × 0.5       |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ33.5 × 38.2     |
| Weight (g)                           | 85               |

Dimensions

unit:mm



FIX

MANUAL

TELE

1.5MP

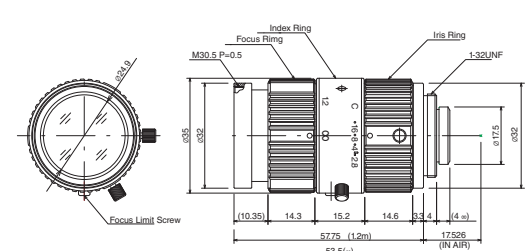
FA



| MODEL NO.                            | M7528-MP         |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 75               |
| Aperture (F)                         | 2.8-16C          |
| Angle of View (HOR)°                 | 6.8              |
| M.O.D. (m)                           | 0.3              |
| Effective Aperture                   | Front (φmm) 24.8 |
|                                      | Rear (φmm) 13.6  |
| Front Filter Thread (φMxP=)          | 30.5 × 0.5       |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ35.0 × 57.75    |
| Weight (g)                           | 113              |

Dimensions

unit:mm



FIX

MANUAL

5MP

FA

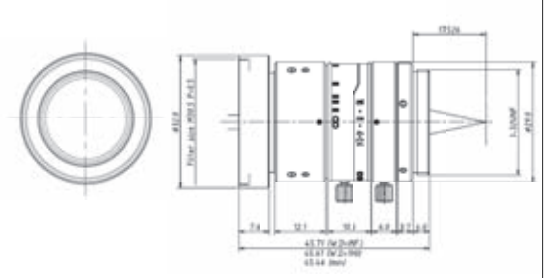


NEW

| MODEL NO.                            | M0824-MPW2       |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 8                |
| Aperture (F)                         | 2.4-16C          |
| Angle of View (HOR)°                 | 57.8             |
| M.O.D. (m)                           | 0.5              |
| Effective Aperture                   | Front (φmm) 21.0 |
|                                      | Rear (φmm) 12.0  |
| Front Filter Thread (φMxP=)          | 32 × 0.5         |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ32 × 45.71      |
| Weight (g)                           | 80               |

Dimensions

unit:mm



FIX

MANUAL

5MP

FA

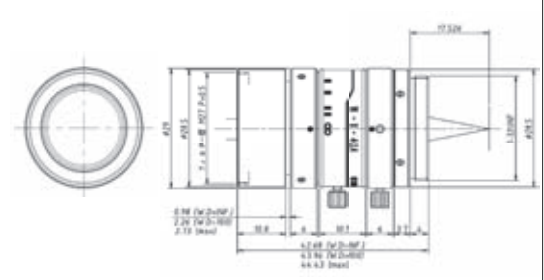


NEW

| MODEL NO.                            | M1224-MPW2       |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 12               |
| Aperture (F)                         | 2.4-16C          |
| Angle of View (HOR)°                 | 39.8             |
| M.O.D. (m)                           | 1.0              |
| Effective Aperture                   | Front (φmm) 19.5 |
|                                      | Rear (φmm) 13.5  |
| Front Filter Thread (φMxP=)          | 27 × 0.5         |
| Dimensions (φD), (φHxD) or (WxHxD)mm | φ29 × 42.68      |
| Weight (g)                           | 72               |

Dimensions

unit:mm





FIX

MANUAL

5MP

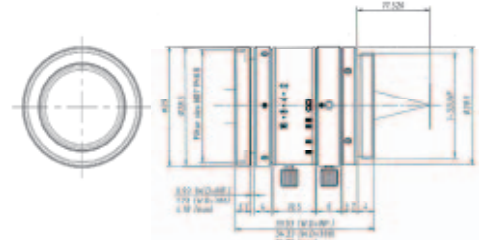
FA



| MODEL NO.                              | M1620-MPW2       |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 16               |
| Aperture (F)                           | 2.0-16           |
| Angle of View (HOR)°                   | 30.7             |
| M.O.D. (m)                             | 0.2              |
| Effective Aperture                     | Front (φmm) 18.0 |
|                                        | Rear (φmm) 11.0  |
| Front Filter Thread (φMxP=)            | 27.0×0.5         |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ29×33.53        |
| Weight (g)                             | 53               |

Dimensions

unit:mm



FIX

MANUAL

5MP

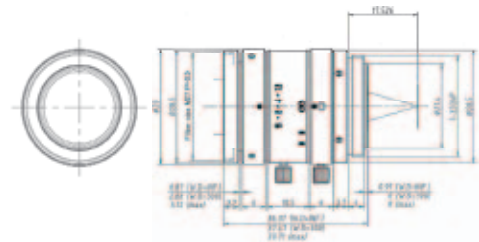
FA



| MODEL NO.                              | M2518-MPW2       |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 25               |
| Aperture (F)                           | 1.8-16           |
| Angle of View (HOR)°                   | 19.9             |
| M.O.D. (m)                             | 0.2              |
| Effective Aperture                     | Front (φmm) 18.0 |
|                                        | Rear (φmm) 13.0  |
| Front Filter Thread (φMxP=)            | 27.0×0.5         |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ29×36.37        |
| Weight (g)                             | 60               |

Dimensions

unit:mm



FIX

MANUAL

5MP

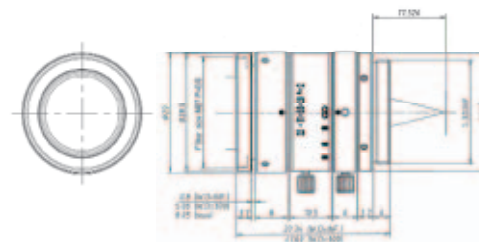
FA



| MODEL NO.                              | M3520-MPW2       |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 35               |
| Aperture (F)                           | 2.0-22           |
| Angle of View (HOR)°                   | 14.3             |
| M.O.D. (m)                             | 0.2              |
| Effective Aperture                     | Front (φmm) 18.0 |
|                                        | Rear (φmm) 12.0  |
| Front Filter Thread (φMxP=)            | 27.0×0.5         |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ29×37.34        |
| Weight (g)                             | 59               |

Dimensions

unit:mm



FIX

MANUAL

5MP

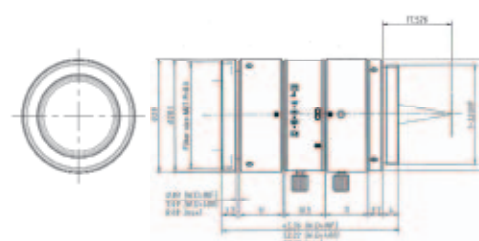
FA



| MODEL NO.                              | M5028-MPW2       |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 50               |
| Aperture (F)                           | 2.8-32           |
| Angle of View (HOR)°                   | 10.0             |
| M.O.D. (m)                             | 0.4              |
| Effective Aperture                     | Front (φmm) 18.0 |
|                                        | Rear (φmm) 12.0  |
| Front Filter Thread (φMxP=)            | 27.0×0.5         |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ29×45.36        |
| Weight (g)                             | 69               |

Dimensions

unit:mm



FIX

MANUAL

5MP

SECURITY

FA

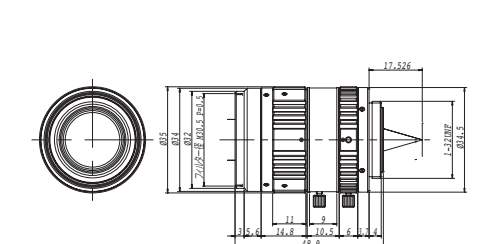
FLOATING



| MODEL NO.                              | M2518-MPW        |
|----------------------------------------|------------------|
| Format (")                             | 2/3              |
| Mount                                  | C                |
| Focal Length (mm)                      | 25               |
| Aperture (F)                           | 1.8-16           |
| Angle of View (HOR)°                   | 20.5             |
| M.O.D. (m)                             | 0.15             |
| Effective Aperture                     | Front (φmm) 18.0 |
|                                        | Rear (φmm) 13.0  |
| Front Filter Thread (φMxP=)            | 30.5×0.5         |
| Dimensions (φxD, (φxHxD) or (WxHxD)mm) | φ35×48.90        |
| Weight (g)                             | 102              |

Dimensions

unit:mm



ZOOM

MANUAL

FA

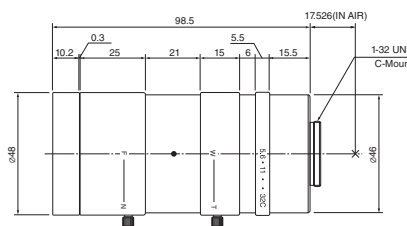


| MODEL NO.                            | MLH-10X          |
|--------------------------------------|------------------|
| Format (")                           | 1/2              |
| Mount                                | C                |
| Focal Length (mm)                    | * 0.084-0.84X    |
| Aperture (F)                         | 5.6-32C          |
| Angle of View (HOR)°                 | 18.0-3.6         |
| M.O.D. (m)                           | 0.1524 (6")      |
| Effective Aperture                   | Front (φmm) 30.0 |
|                                      | Rear (φmm) 6.4   |
| Front Filter Thread (φMxP=)          | 46.0 × 0.75      |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ48 × 98.5       |
| Weight (g)                           | 260              |

NOTE : Macro zoom lens \* mark shows maximum magnification

Dimensions

unit:mm



ZOOM

MANUAL

1MP

FA

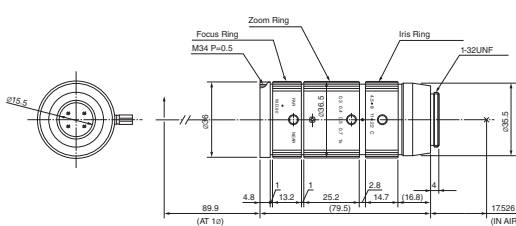


| MODEL NO.                            | MLM-3XMP         |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | * 0.3-1.0X       |
| Aperture (F)                         | 4.5-22C          |
| Angle of View (HOR)°                 | 11.8-2.78        |
| M.O.D. (m)                           | 0.09             |
| Effective Aperture                   | Front (φmm) 15.5 |
|                                      | Rear (φmm) 7.0   |
| Front Filter Thread (φMxP=)          | 34.0 × 0.5       |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ36.5 × 79.5     |
| Weight (g)                           | 150              |

NOTE : Macro zoom lens \* mark shows maximum magnification

Dimensions

unit:mm



ZOOM

MANUAL

5MP

FA

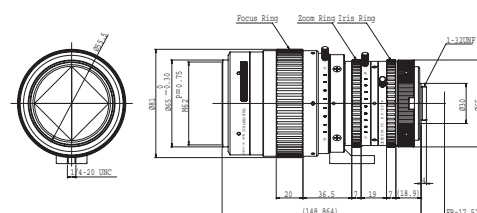


| 型名                                   | TEC-V7X          |
|--------------------------------------|------------------|
| Format (")                           | 1.1              |
| Mount                                | C                |
| Focal Length (mm)                    | * 0.07-0.5X      |
| Aperture (F)                         | 4.3-32           |
| Angle of View (HOR)°                 | 7.05-1.12        |
| M.O.D. (m)                           | 0.182            |
| Effective Aperture                   | Front (φmm) 55.2 |
|                                      | Rear (φmm) 14.9  |
| Front Filter Thread (φMxP=)          | 62.0 × 0.75      |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ61 × 152.86     |
| Weight (g)                           | 1400             |

NOTE : Macro zoom lens with telecentric design \* mark shows maximum magnification

Dimensions

unit:mm



FIX

MANUAL

FA

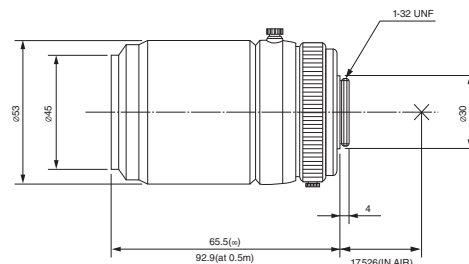


| MODEL NO.                            | TEC-M55          |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 55               |
| Aperture (F)                         | 2.8-32C          |
| Angle of View (HOR)°                 | 9.2              |
| M.O.D. (m)                           | 0.14             |
| Effective Aperture                   | Front (φmm) 33.0 |
|                                      | Rear (φmm) 13.3  |
| Front Filter Thread (φMxP=)          | 43.0 × 0.75      |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ53 × 92.9       |
| Weight (g)                           | 320              |

NOTE : Telecentric lens TEC-M55 has 0.75X and 2X rear adapters as option.

Dimensions

unit:mm



FIX

MANUAL

5MP

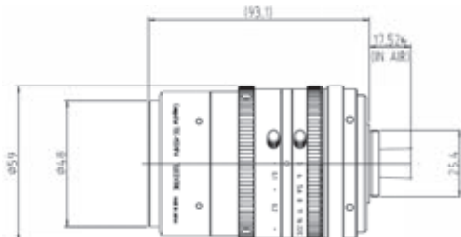
FA



| MODEL NO.                            | TEC-M55MPW       |
|--------------------------------------|------------------|
| Format (")                           | 2/3              |
| Mount                                | C                |
| Focal Length (mm)                    | 55               |
| Aperture (F)                         | 3.0-22C          |
| Angle of View (HOR)°                 | 0.14             |
| M.O.D. (m)                           | 0.14             |
| Effective Aperture                   | Front (φmm) 30.8 |
|                                      | Rear (φmm) 10.7  |
| Front Filter Thread (φMxP=)          | 46.0 × 0.75      |
| Dimensions (φD),(φxHxD) or (WxHxD)mm | φ59 × 93.1       |
| Weight (g)                           | 470              |

Dimensions

unit:mm





| MODEL NO.   | EX1.5CS                                                       |
|-------------|---------------------------------------------------------------|
| Description | 1.5X Extender for CS-mount                                    |
| Application | Attached between lens and camera -<br>Makes focal length 1.5X |



| MODEL NO.   | EX1.5C                                                        |
|-------------|---------------------------------------------------------------|
| Description | 1.5X Extender for C-mount                                     |
| Application | Attached between lens and camera -<br>Makes focal length 1.5X |



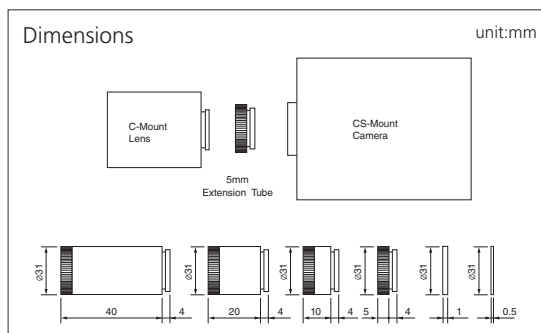
| MODEL NO.   | EX2CS                                                       |
|-------------|-------------------------------------------------------------|
| Description | 2X Extender for CS-mount                                    |
| Application | Attached between lens and camera -<br>Makes focal length 2X |



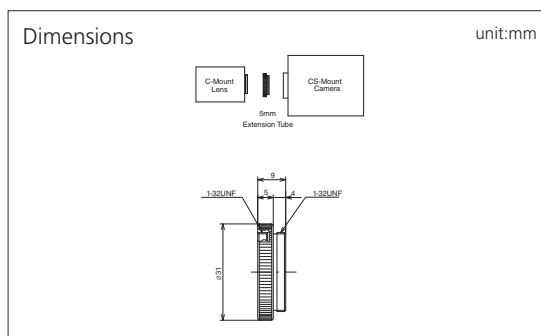
| MODEL NO.   | EX2C                                                        |
|-------------|-------------------------------------------------------------|
| Description | 2X Extender for C-mount                                     |
| Application | Attached between lens and camera -<br>Makes focal length 2X |



| MODEL NO.   | VM100                                                                   |
|-------------|-------------------------------------------------------------------------|
| Description | Extension Tube Kit 40, 20, 10, 5, 1, 0.5mm                              |
| Application | Attached between lens and camera -<br>Reduces minimum focusing distance |



| MODEL NO.   | VM400                                                                        |
|-------------|------------------------------------------------------------------------------|
| Description | 5mm Adapter Ring                                                             |
| Application | Attached between lens and camera -<br>Adapts C-mount lens to CS-mount camera |



| MODEL NO.   | M55-0.75X                                      |
|-------------|------------------------------------------------|
| Description | Rear converter 0.75X<br>(Designed for TEC-M55) |
| Application | Makes focal length 0.75X                       |



| MODEL NO.   | M55-2.0X                                      |
|-------------|-----------------------------------------------|
| Description | Rear converter 2.0X<br>(Designed for TEC-M55) |
| Application | Makes focal length 2.0X                       |

# SWIR Lens

Short-wavelength IR (800-1700nm)

FIX

MANUAL

SWIR

FA

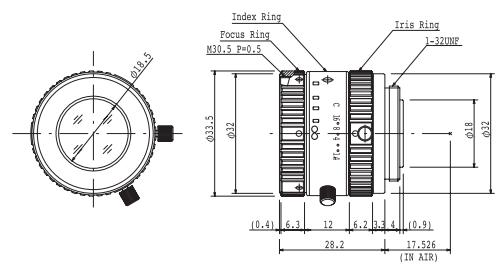


NEW

| MODEL NO.                                       | M1614-SW      |
|-------------------------------------------------|---------------|
| Focal Length (mm)                               | 16            |
| Aperture (F)                                    | 1.4-16C       |
| Image Circle                                    | φ 12.3        |
| Mount                                           | C             |
| Angle of View (HOR)°<br>(15 μm, 640x512 sensor) | 21.6          |
| M.O.D. (m)                                      | 0.3           |
| Front Filter Thread (φ MxP=)                    | 30.5 × 0.5    |
| Dimensions                                      | φ 33.5 × 28.2 |
| Weight (g)                                      | 60            |

Dimensions

unit:mm



FIX

MANUAL

SWIR

FA

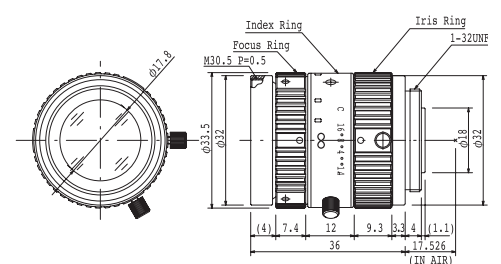


NEW

| MODEL NO.                                       | M2514-SW      |
|-------------------------------------------------|---------------|
| Focal Length (mm)                               | 25            |
| Aperture (F)                                    | 1.4-16C       |
| Image Circle                                    | φ 12.3        |
| Mount                                           | C             |
| Angle of View (HOR)°<br>(15 μm, 640x512 sensor) | 21.6          |
| M.O.D. (m)                                      | 0.3           |
| Front Filter Thread (φ MxP=)                    | 30.5 × 0.5    |
| Dimensions                                      | φ 33.5 × 36.0 |
| Weight (g)                                      | 71.2          |

Dimensions

單位:mm



FIX

MANUAL

SWIR

FA

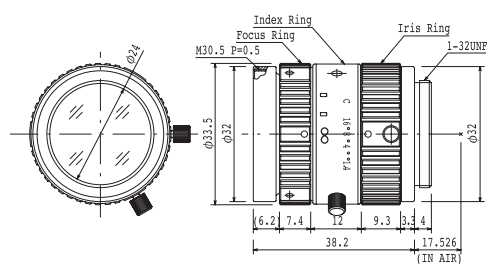


NEW

| MODEL NO.                                       | M3514-SW      |
|-------------------------------------------------|---------------|
| Focal Length (mm)                               | 35            |
| Aperture (F)                                    | 1.4-16C       |
| Image Circle                                    | φ 12.3        |
| Mount                                           | C             |
| Angle of View (HOR)°<br>(15 μm, 640x512 sensor) | 16.0          |
| M.O.D. (m)                                      | 0.3           |
| Front Filter Thread (φ MxP=)                    | 30.5 × 0.5    |
| Dimensions                                      | φ 33.5 × 38.2 |
| Weight (g)                                      | 87            |

Dimensions

unit:mm



FIX

MANUAL

SWIR

FA

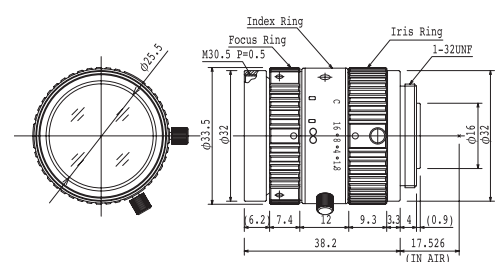


NEW

| MODEL NO.                                       | M5018-SW      |
|-------------------------------------------------|---------------|
| Focal Length (mm)                               | 50            |
| Aperture (F)                                    | 1.8-16C       |
| Image Circle                                    | φ 12.3        |
| Mount                                           | C             |
| Angle of View (HOR)°<br>(15 μm, 640x512 sensor) | 11.3          |
| M.O.D. (m)                                      | 0.3           |
| Front Filter Thread (φ MxP=)                    | 30.5 × 0.5    |
| Dimensions                                      | φ 33.5 × 38.2 |
| Weight (g)                                      | 85            |

Dimensions

unit:mm



## FIX

LWIR

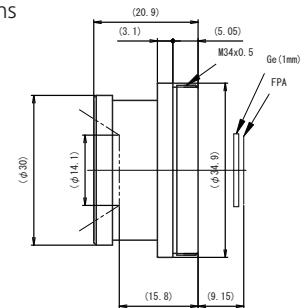
## ATHERMAL

17μm



| MODEL NO.                                         | TH17V1311-34      |
|---------------------------------------------------|-------------------|
| Focal Length (mm)                                 | 13                |
| Aperture (F)                                      | 1.1               |
| Image Circle                                      | φ 13.6            |
| Mount (mm)                                        | M34 x 0.5 (Pitch) |
| Wave Band (μm)                                    | 8-12              |
| Angle of View (HOR)°<br>(17μm, 640 x480 sensor)   | 50.3              |
| Back Focal Length (mm)<br>(Include 1mm Ge Window) | 12.44             |
| Material Used                                     | Zinc Sulfide      |
| Dimensions                                        | φ30×20.9          |
| Weight (g)                                        | 19                |

## Dimensions



unit:mm

NOTE : DLC (Diamond Like Carbon) coating option is available.

## FIX

LWIR

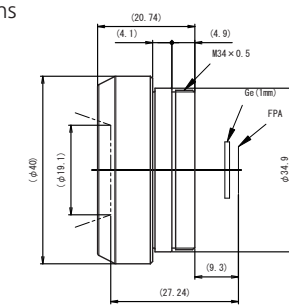
## ATHERMAL

17μm



| MODEL NO.                                         | TH17V1810-34      |
|---------------------------------------------------|-------------------|
| Focal Length (mm)                                 | 18.8              |
| Aperture (F)                                      | 1.0               |
| Image Circle                                      | ϕ 13.6            |
| Mount (mm)                                        | M34 x 0.5 (Pitch) |
| Wave Band (μm)                                    | 8-12              |
| Angle of View (HOR)°<br>(17μm, 640 x480 sensor)   | 32.9              |
| Back Focal Length (mm)<br>(Include 1mm Ge Window) | 11.3              |
| Material Used                                     | Zinc Sulfide      |
| Dimensions                                        | ϕ40 × 20.74       |
| Weight (g)                                        | 20                |

## Dimensions



unit:mm

NOTE : DLC (Diamond Like Carbon) coating option is available.

**FIX**

LWIR

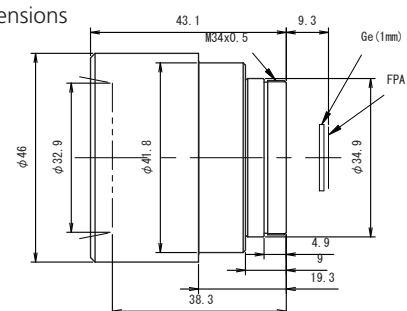
## ATHERMAL

17 $\mu$ m



| MODEL NO.                                         | TH17V3511-34      |
|---------------------------------------------------|-------------------|
| Focal Length (mm)                                 | 35                |
| Aperture (F)                                      | 1.1               |
| Image Circle                                      | ϕ 13.6            |
| Mount (mm)                                        | M34 x 0.5 (Pitch) |
| Wave Band (μm)                                    | 8-12              |
| Angle of View (HOR)°<br>(17μm, 640 x480 sensor)   | 17.7              |
| Back Focal Length (mm)<br>(Include 1mm Ge Window) | 13.2              |
| Material Used                                     | Zinc Sulfide      |
| Dimensions                                        | ϕ46 × 43.1        |
| Weight (g)                                        | 94                |

## Dimensions



unit:mm

NOTE : DLC (Diamond Like Carbon) coating option is available.

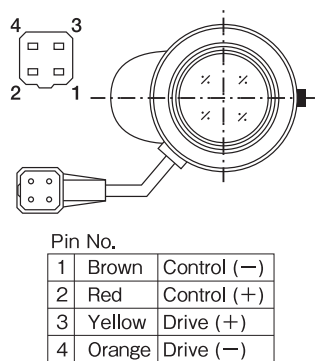
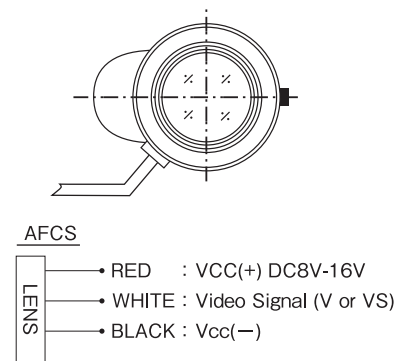
## CABLE DIAGRAMS OF AUTO IRIS LENSES

### FCS series (DC DRIVE)

FCS series Auto Iris Lens, equipped with auto iris mechanism by galvanometer and with ND filter, can be used with only cameras containing amplifier. Connector plug is applied to the end of the cable.

### AFCS series (VIDEO DRIVE)

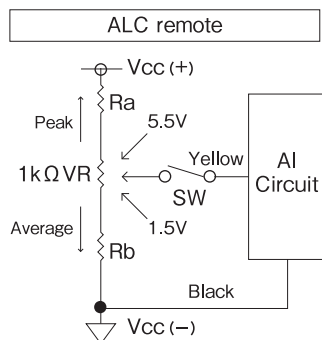
AFCS series Auto Iris Lens is equipped with auto iris mechanism by galvanometer, amplifier and ND spot filter.

|                        | FCS(w/o Amplifier)                                                                                                                                                                                                                                                                                                                                                                                                                                | AFCS(with Amplifier)                                              |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------|----------|---|-------|-------------|---|-----|-------------|---|--------|-----------|---|--------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Supplied Power         | -                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DC8V ~16V 35mA max                                                |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| Input Signal           | -                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Video Signal (V or Vs)                                            |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| Iris Accuracy          | -                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ± 15% (Video level)                                               |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| Sensitivity Adjustment | -                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.5V (p-p) ~1.0V (p-p) (Video signal)                             |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| Input Impedance        | -                                                                                                                                                                                                                                                                                                                                                                                                                                                 | High impedance                                                    |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| Transit Time           | -                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Approx. 2sec                                                      |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| Light Weighting Method | -                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Adjustable between Average-Peak (to be set at average at factory) |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| Operating Temperature  | -10°C~+50°C                                                                                                                                                                                                                                                                                                                                                                                                                                       | -10°C~+50°C                                                       |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| Wiring Diagram         |  <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Color</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Brown</td> <td>Control (-)</td> </tr> <tr> <td>2</td> <td>Red</td> <td>Control (+)</td> </tr> <tr> <td>3</td> <td>Yellow</td> <td>Drive (+)</td> </tr> <tr> <td>4</td> <td>Orange</td> <td>Drive (-)</td> </tr> </tbody> </table> | Pin No.                                                           | Color | Function | 1 | Brown | Control (-) | 2 | Red | Control (+) | 3 | Yellow | Drive (+) | 4 | Orange | Drive (-) |  <p>AFCS</p> <p>LENS</p> <ul style="list-style-type: none"> <li>RED : VCC(+) DC8V-16V</li> <li>WHITE : Video Signal (V or VS)</li> <li>BLACK : Vcc(-)</li> </ul> |
| Pin No.                | Color                                                                                                                                                                                                                                                                                                                                                                                                                                             | Function                                                          |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| 1                      | Brown                                                                                                                                                                                                                                                                                                                                                                                                                                             | Control (-)                                                       |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| 2                      | Red                                                                                                                                                                                                                                                                                                                                                                                                                                               | Control (+)                                                       |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| 3                      | Yellow                                                                                                                                                                                                                                                                                                                                                                                                                                            | Drive (+)                                                         |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |
| 4                      | Orange                                                                                                                                                                                                                                                                                                                                                                                                                                            | Drive (-)                                                         |       |          |   |       |             |   |     |             |   |        |           |   |        |           |                                                                                                                                                                                                                                                      |

## REMOTE FUNCTIONS

1) LEVEL & ALC remotes have been functioned on the following models

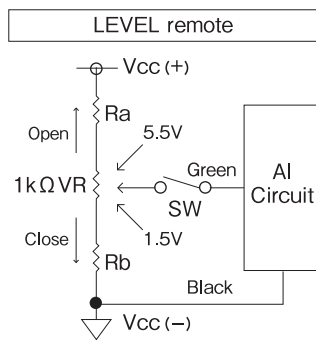
T21Z5816AMS-CS2/AMSP-CS2  
H10Z0812AMS-2/AMSP-2  
H10Z1218AMS-2/AMSP-2



\*Vcc represents input voltage.  
\*The ALC should be set at the full peak position.

2) LEVEL remote (AS OPTION)

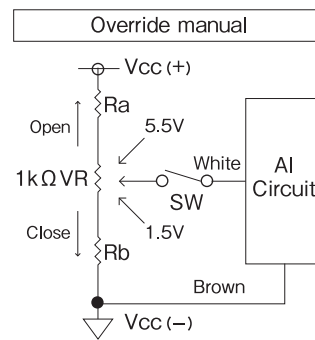
T6Z5710AMS-CS/AMSP-CS  
T10Z5712AMS-CS/AMSP-CS  
T34Z5518AMS-CS/AMSP-CS  
T34Z5518AMSR-CS/AMSPR-CS  
H6Z0812AMS/AMSP  
H16Z7516AMS/AMSP (-IR)  
H16Z7516AMSR/AMSPR (-IR)



\*Vcc represents input voltage.

3) Override manual

T34Z5518AMSR-CS/AMSPR-CS  
H16Z7516AMSR/AMSPR (-IR)  
H30Z1015AMSR/AMSPR



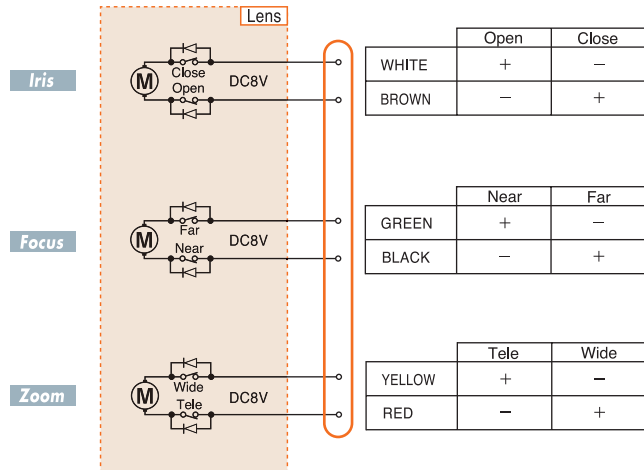
\*Vcc represents input voltage.  
\*The remote voltage should be set between 1.5 ~ 5.5V, and level remote should be OFF.



## WIRING DIAGRAMS FOR MOTORIZED ZOOM LENSES 1

### Motorized zoom / 3 motor type

Iris, focus & zoom can be adjusted by controller.



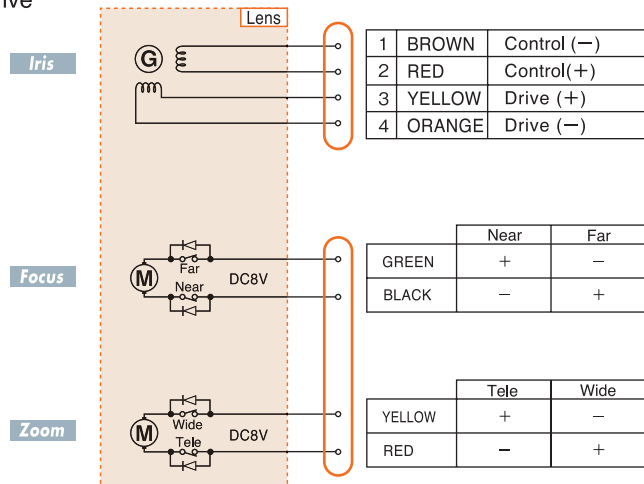
Remarks : Connect together with iris, focus and zoom for common system when necessary.

### Motorized zoom / auto iris type

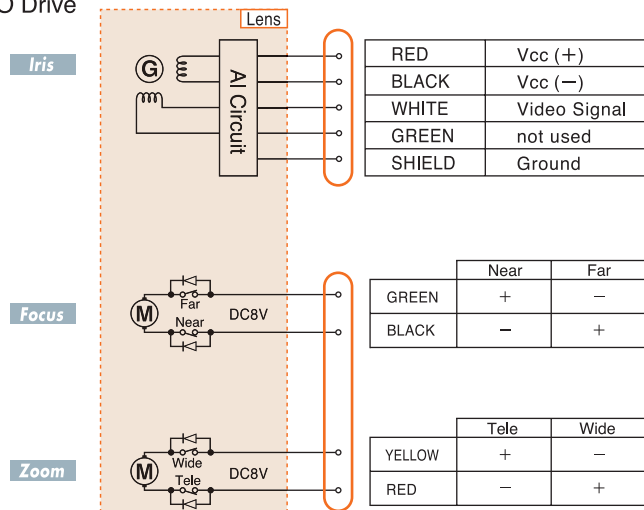
Auto-iris, focus & zoom can be adjusted by controller.

(Some lenses have Level & ALC remote.  
Please see remote functions at the left page.)

#### DC Drive



#### VIDEO Drive



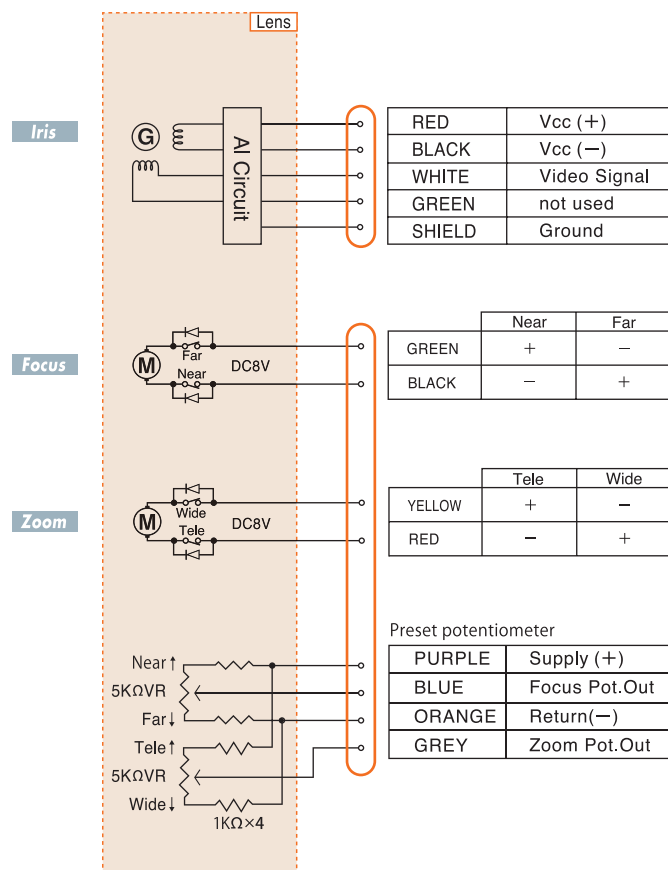
Remarks : Connect together with iris, focus and zoom for common system when necessary.

## WIRING DIAGRAMS FOR MOTORIZED ZOOM LENSES 2

### Motorized zoom preset potentiometer for focus & zoom

This preset function has been developed for high requirement in automation CCTV system using potentiometers as position sensor for focusing & zooming.

(Some lenses have Level, ALC & Override remote. Please see remote functions on page 51.)

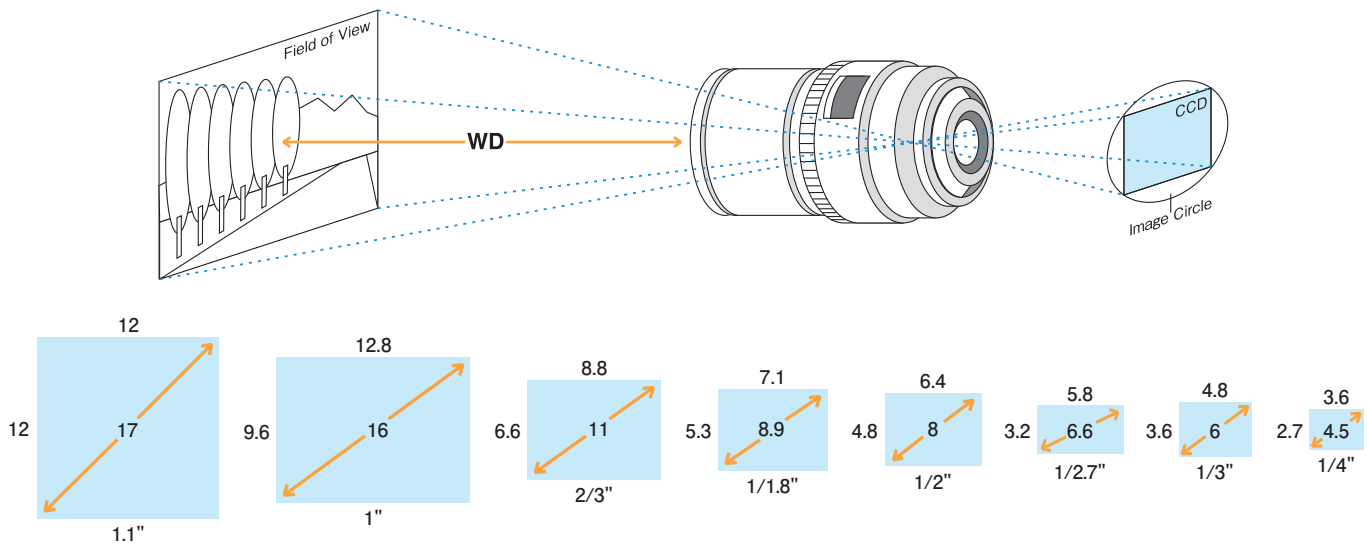


Remarks : Connect together with iris, focus and zoom for common system when necessary.

Note : Regarding the wiring diagram of x60 and x20 Zoomlens, please refer to the instruction manual.

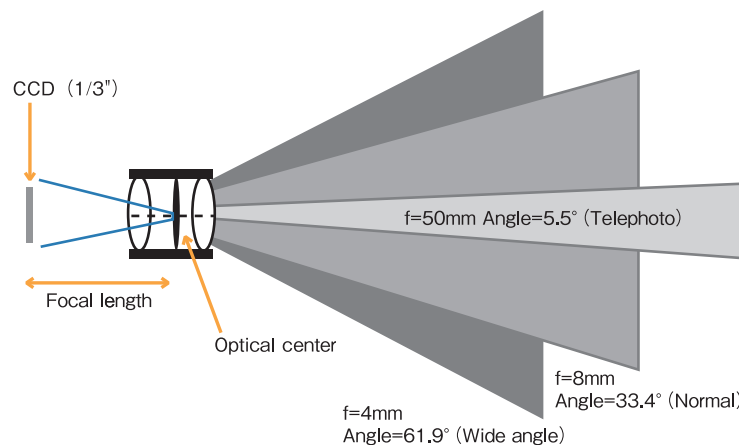
## IMAGE SIZE

The size of camera's imaging device also affects the angle of view, with the smaller devices creating narrower angles of view when used on the same lens. The format of the lens, however is irrelevant to the angle of view, it merely needs to project an image which will cover the device, i.e.; the same format of the camera or larger. This also means that 1/3" cameras can utilize the entire range of lenses from 1/3" to 1.1", with a 1/3" 8mm lens giving the same angle as a 1.1" 8mm lens. The latter combination also provides increased resolution and picture quality as only the centre of the lens is being utilized, where the optics can be ground more accurately.



## FOCAL LENGTH

The focal length of the lens is measured in mm and directly relates to the angle of view that will be achieved. Short focal length provides wide angle of view and long focal length becomes telephoto, with narrow angle of view. A normal angle of view is similar to what we see with our own eye and has a relative focal length equal to the pick up device. The "computer" range calculator is simple device to use for estimating focal length, object dimension and angle of view, alternatively the VM300 view finder gives an optical way of finding focal length.



## ANGLE OF VIEW

It is important to know the angle of view of the lens to take in the object. Angle of view changes with focal length of lens and image size of camera. The focal length to cover the object can be calculated from the next formula.

### ● Formula for calculation

$$f = v \times \frac{D}{V} \cdots (1) \quad f = h \times \frac{D}{H} \cdots (2)$$

f : focal length of lens

V : Vertical size of object

H : Horizontal size of object

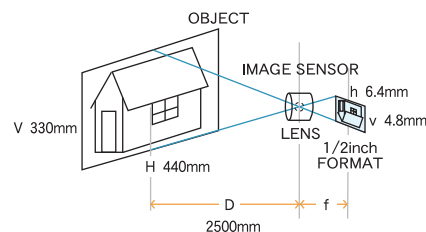
D : Distance from lens to object

v : vertical size of image (see the following table)

h : horizontal size of image (see the following table)

| FORMAT | 2/3 inch | 1/2 inch | 1/3 inch | 1/4 inch |
|--------|----------|----------|----------|----------|
| v      | 6.6mm    | 4.8mm    | 3.6mm    | 2.7mm    |
| h      | 8.8mm    | 6.4mm    | 4.8mm    | 3.6mm    |

### ● For example



(1) In case of vertical size

1/2 inch camera

Vertical size of object

Distance from lens to object

substitute these datas to formula (1)

v = 4.8mm

V = 330mm(33cm)

D = 2500mm(250cm)

$$f = 4.8 \times \frac{2500}{330} \div 36\text{mm}$$

(2) In case of horizontal size

1/2 inch camera

Horizontal size of object

Distance from lens to object

substitute these datas to formula (2)

h = 6.4mm

H = 440mm(44cm)

D = 2500mm(250cm)

$$f = 6.4 \times \frac{2500}{440} \div 36\text{mm}$$

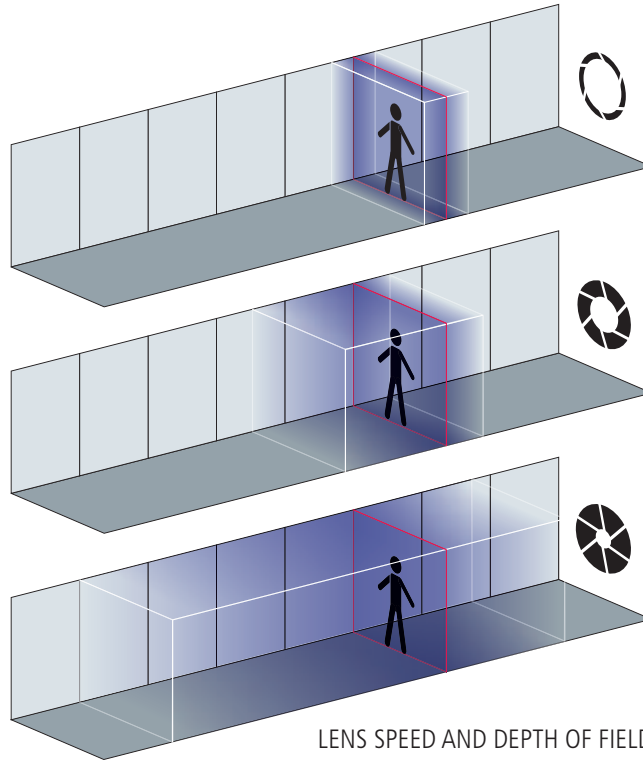
## ■ COMPARISON OF MONITORING IMAGES

※ Images on 1/3" camera

| Object distance<br>Focal length | 2m | 5m | 10m | 20m |
|---------------------------------|----|----|-----|-----|
| f=2.8mm                         |    |    |     |     |
| f=3.5mm                         |    |    |     |     |
| f=8mm                           |    |    |     |     |
| f=30mm                          |    |    |     |     |
| f=50mm                          |    |    |     |     |

## DEPTH OF FIELD

The depth of field refers to the area within the field of view which is in focus. A large depth of field means that a large percentage of the field of view is in focus. A small depth of field has only a small section of the field of view in focus. The depth of field is influenced by several factors; a wide angle lens generally has a larger depth of field than a telephoto lens, a higher F stop setting also has a larger depth of field, and high resolution cameras have a larger depth of field.



LENS SPEED AND DEPTH OF FIELD IMAGE

## AUTO OR MANUAL IRIS

Generally we tend to use auto iris lenses externally where there are variations in the lighting levels, manual iris lenses are normally for internal applications where the light level remains constant. With the introduction of electronic iris cameras it is now possible to use manual iris lenses in varying light conditions and the camera will electronically compensate, however there are several considerations to this option; the setting of the F stop becomes critical, if the iris is opened fully to allow the camera to work at night, the depth of field will be very small and it may be more difficult to achieve sharp focus even during the day, the camera can maintain normal video levels but it cannot affect the depth of field. If the iris is closed to increase the depth of field the low light performance of the camera will now be reduced.

## VIDEO DRIVE OR DC DRIVE

With auto iris lenses it is necessary to control the operation of the iris to maintain perfect picture levels, Video drive lenses contain amplifier circuit to convert the video signal from the camera into iris motor control. With DC drive lenses the camera must contain amplifier circuitry, the lens now only contains the galvanometric iris motor making it less expensive. The deciding factor depends on the auto iris output of the camera, most now have both types.

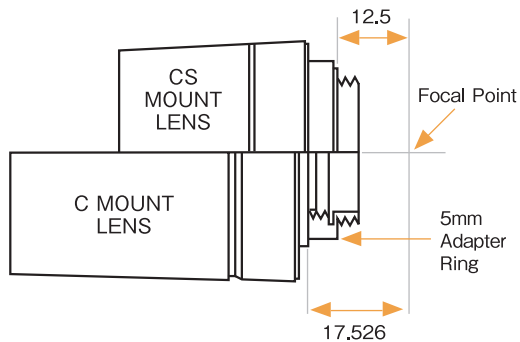
## F STOP

The lens usually has two measurements of F stop or aperture, the maximum aperture (minimum F stop) when the lens is fully open and minimum aperture (maximum F stop) just before the lens completely closes. The F stop has a number of effects upon the final image; a low minimum F stop will mean the lens can pass more light in dark condition, allowing the camera to produce a better image, and a maximum F stop may be necessary where there is a very high level of light or reflection, this will prevent the camera "whiting out" and maintain constant video level. All auto iris lenses are supplied with Neutral Density filters to increase the maximum F stop. The F stop also directly affects the depth of field.

## TECHNICAL INFORMATION

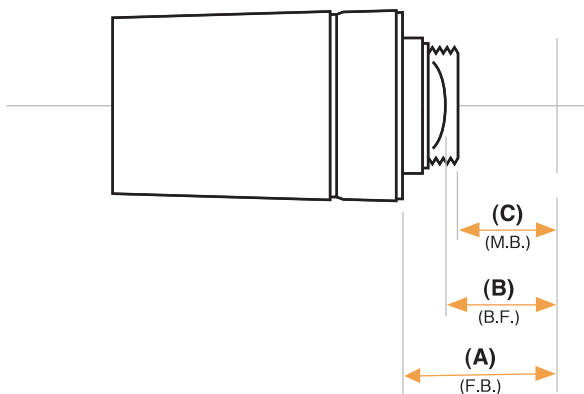
### C OR CS MOUNT

Modern cameras and lenses are generally CS mount, with CS mount cameras both types of lenses can be used but the C mount lens requires a 5mm ring (VM400) to be fitted between the camera and lens to achieve a focused image. With C mount cameras it is not possible to use CS mount lenses as it not physically possible to get the lens close enough to the sensor to achieve a focused image.



|                 | C mount lens   | CS mount lens |
|-----------------|----------------|---------------|
| C mount camera  | ○              | ×             |
| CS mount camera | needs 5mm ring | ○             |

### FLANGE BACK, BACK FOCAL LENGTH, AND MECHANICAL BACK FOCAL LENGTH



#### (A) Flange Back

Distance between the lens flange and CCD focal plane

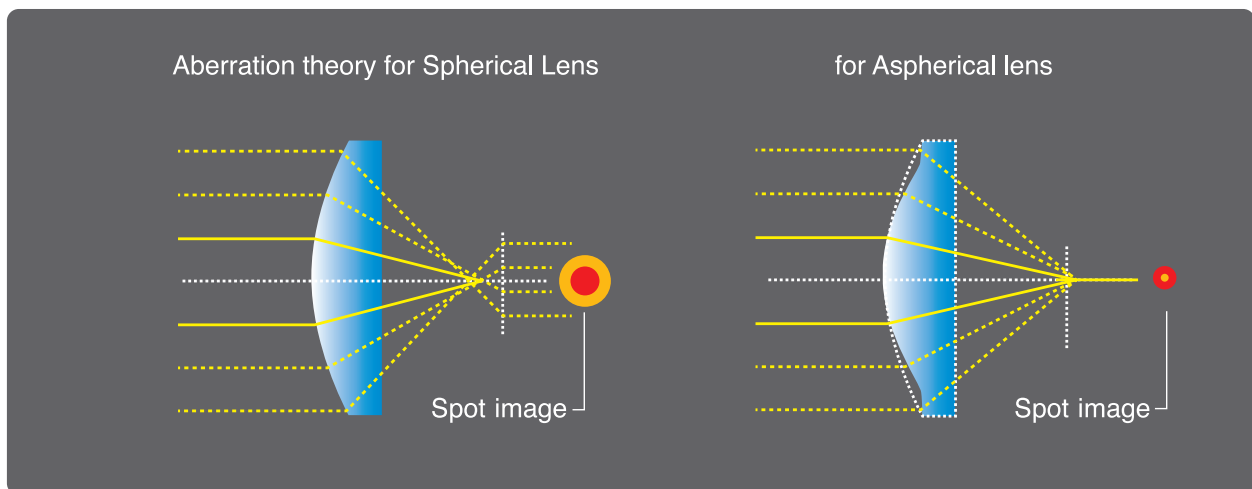
#### (B) Back Focal Length

Distance between the surface of the rear lens element and CCD focal plane

#### (C) Mechanical Back Focal Length

Distance between the surface of the lens frame and CCD focal plane

### ASPHERICAL LENSES

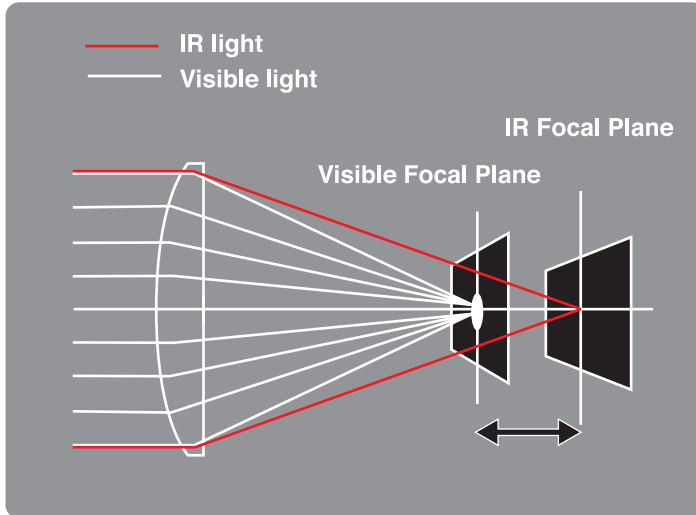


Spherical lenses have constant refractive indices and are commonly used in almost all CCTV lenses. They are designed in such a way so that light passing through the glass and center of a spherical element should fall on a single point on the image plane, but causing some spherical aberration. This problem is resolved by the aspherical lens technology, enabling more light to pass through the element and to focus right on the same point as on the image plane. Supported by more advanced molding technologies, aspherical lenses eliminate the size constraints and improve the overall optical performance compared with more conventional CCTV lenses.

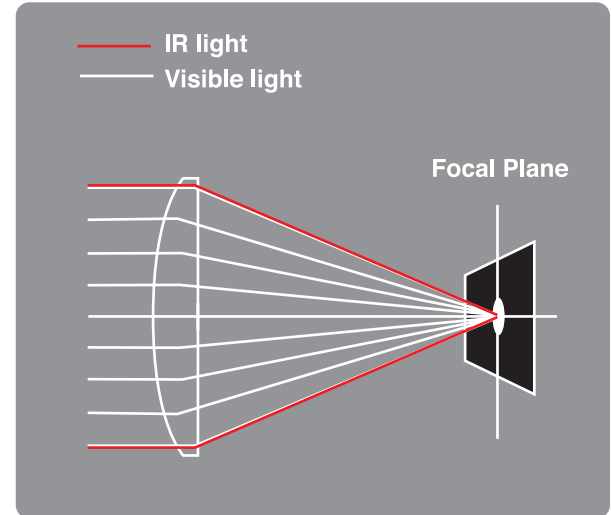


## MECHANISM AND ADVANTAGEOUS EFFECT OF IR LENS

### ■ NON IR LENS



### ■ IR LENS



Day & Night cameras normally operate in the near-infrared / infrared zones at night, making the image "out of focus" and unsuitable if used with a conventional lens. Computar® has developed IR Lenses that utilize a special optical glass material which minimizes light dispersion. As a result, refocusing is not required when used with infrared lighting. The lens is manufactured with a special ED glass (extra dispersion) which does not widely disperse light of different wavelengths and with "special coating". This combination allows the lens to deliver perfect focus under normal lighting and also under IR illumination by transmitting more light to the infrared region.

Daytime



Nighttime

IR lens



Non IR lens



※ Monitoring images with Day & Night cameras

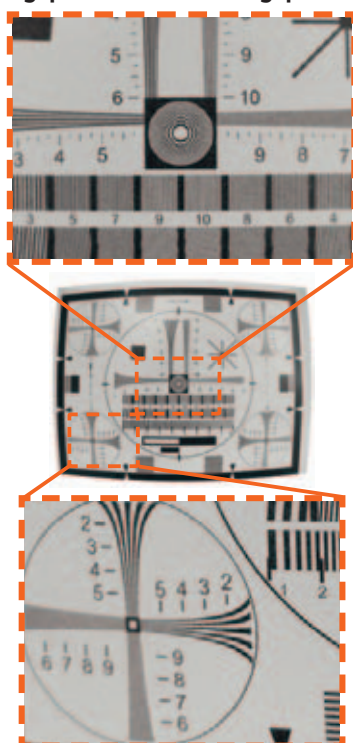
## MEGAPIXEL

CCD and CMOS image sensors use a series of pixels arranged on a 2 dimensional grid. These pixels convert an optical image to an electronic signal. The number of pixels in an image usually defines the resolution, with more pixels meaning higher resolution. A megapixel is defined as one million pixels and a camera with a megapixel sensor is called a megapixel camera.

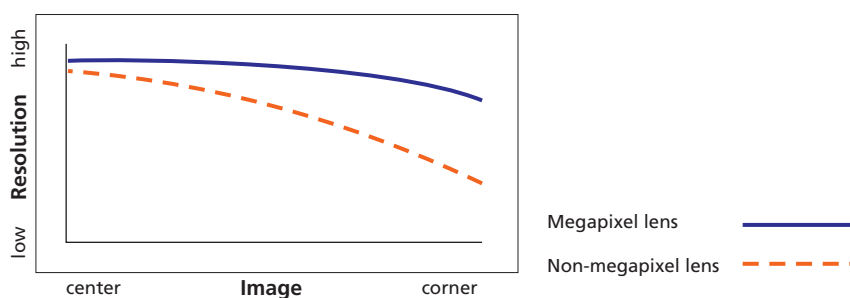
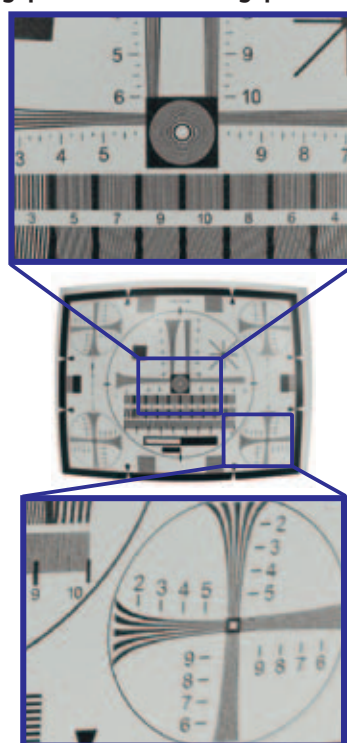
## MEGAPIXEL LENS FOR MEGAPIXEL CAMERA

To capture the full resolution of a megapixel camera, it is essential to use a high quality megapixel lens. Overall image quality is heavily influenced by the quality of the optical image directed onto the image sensor. Megapixel lenses provide high contrast, brightness and sharpness across the entire image plane. Non-megapixel lenses will not fully display the resolution of megapixel sensors, especially in the corners of the image.

Non-megapixel lens with a megapixel camera



Megapixel lens with a megapixel camera



※ Above pictures and chart are illustrations of lens performance.

## P-IRIS LENS

Computar® has launched P-iris (Precise iris) lens series targeted at the network camera market. This series is equipped with a stepping motor for digital iris control instead of a conventional galvanometer. With this



technology, Computar® has created a dedicated network camera lens that can systematically control the iris. Combined with specialized software in the camera, P-iris lenses deliver superior picture quality, enhancing contrast, resolution and depth of field in a wide range of applications, not just to maintain the optimum light level to the image as an existing function.

### ■ ENHANCING PICTURE QUALITY

Megapixel cameras with the P-iris system minimize the difference in resolution between the center and corners of the image, enhancing overall picture quality and sharpness by enabling the optimal iris position to be set. Also, P-iris limits the iris position to prevent diffraction when the iris becomes too small in extremely bright situations.

### ■ MAXIMIZE DEPTH OF FIELD

Having good depth of field throughout the scene is essential to achieve optimized image quality. Unfortunately, megapixel sensors often have small pixels which can cause a narrow depth of field. P-iris technology will optimize the available depth of field, providing overall sharper images and enhancing foreground and background resolution. The technology is particularly useful in scenes where foreground and background resolution is critical, as in a long corridor.

### ■ WIDE RANGE OF BOARD AND CS MOUNT OPTIONS

Various vari-focal board lenses using P-iris technology are available to fit a variety of mini dome and bullet camera housings. Computar® also offers a wide range of P-iris CS mount lenses. Each P-iris CS mount lens has a special 4-pin connector on its cable. To protect the cameras from damage, P-iris connector plugs are designed not to fit regular cameras.

# ANGLE OF VIEW

## MONO FOCAL MANUAL IRIS

### C-MOUNT / CS-MOUNT

P3 ~ 4

|          | Model No.   | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|----------|-------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|          |             | inch   |       |                   |              | 2/3" (8.8×6.6mm)           | 1/2" (6.4×4.8mm) | 1/3" (4.8×3.6mm) | 1/4" (3.6×2.7mm) |           |
| CS MOUNT | T2314FICS-3 | 1/3    | CS    | 2.3               | 1.4-16C      | -                          | -                | 113.3            | 86.3             |           |
|          | T2616FICS-4 | 1/3    | CS    | 2.6               | 1.6-11C      | -                          | -                | 99.6             | 74.9             |           |
|          | T0412FICS-3 | 1/3    | CS    | 4                 | 1.2-16C      | -                          | -                | 63.9             | 49.1             |           |
|          | T0812FICS-3 | 1/3    | CS    | 8                 | 1.2-16C      | -                          | -                | 34.7             | 25.9             |           |
|          | H1214FICS-3 | 1/2    | CS    | 12                | 1.4-16C      | -                          | 30.4             | 22.8             | 17.0             |           |
| C MOUNT  | M8513       | 2/3    | C     | 8.5               | 1.3-16C      | 57.4                       | 42.6             | 32.2             | 24.2             |           |

## MONO FOCAL AUTO IRIS

### DC DRIVE / VIDEO DRIVE

P4 ~ 5

|             | Model No.    | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|-------------|--------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|             |              | inch   |       |                   |              | 2/3" (8.8×6.6mm)           | 1/2" (6.4×4.8mm) | 1/3" (4.8×3.6mm) | 1/4" (3.6×2.7mm) |           |
| DC DRIVE    | TG2314FCS-3  | 1/3    | CS    | 2.3               | 1.4-360C     | -                          | -                | 113.3            | 86.3             |           |
|             | TG2616FCS-4  | 1/3    | CS    | 2.6               | 1.6-360C     | -                          | -                | 99.6             | 74.9             |           |
|             | TG0412FCS-3  | 1/3    | CS    | 4                 | 1.2-360C     | -                          | -                | 63.9             | 49.1             |           |
|             | TG0812FCS-3  | 1/3    | CS    | 8                 | 1.2-360C     | -                          | -                | 34.7             | 25.9             |           |
|             | HG1214FCS-3  | 1/2    | CS    | 12                | 1.4-360C     | -                          | 30.4             | 22.8             | 17.0             |           |
| VIDEO DRIVE | TG2314AFCS-3 | 1/3    | CS    | 2.3               | 1.4-360C     | -                          | -                | 113.3            | 86.3             |           |
|             | TG2616AFCS-4 | 1/3    | CS    | 2.6               | 1.6-360C     | -                          | -                | 99.6             | 74.9             |           |
|             | HG1214AFCS-3 | 1/2    | CS    | 12                | 1.4-360C     | -                          | 30.4             | 22.8             | 17.0             |           |

## VARI-FOCAL MANUAL IRIS

P6 ~ 8

|             | Model No.    | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|-------------|--------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|             |              | inch   |       |                   |              | 2/3" (8.8×6.6mm)           | 1/2" (6.4×4.8mm) | 1/3" (4.8×3.6mm) | 1/4" (3.6×2.7mm) |           |
| MANUAL IRIS | T2Z1816CS    | 1/3    | CS    | 1.8-3.6           | 1.6-16C      | -                          | -                | 144.2-79.4       | 109.5-59.6       |           |
|             | T3Z2910CS    | 1/3    | CS    | 2.9-8.2           | 1.0-16C      | -                          | -                | 98.3-35.2        | 70.7-26.3        |           |
|             | T3Z2910CS-IR | 1/3    | CS    | 2.9-8.2           | 1.0-16C      | -                          | -                | 95.0-35.6        | 69.0-26.7        |           |
|             | T3Z3510CS    | 1/3    | CS    | 3.5-10.5          | 1.0-16C      | -                          | -                | 81.6-27.2        | 59.4-20.4        |           |
|             | T3Z3510CS-IR | 1/3    | CS    | 3.5-10.5          | 1.0-16C      | -                          | -                | 81.8-27.2        | 59.2-20.4        |           |
|             | T4Z2813CS-IR | 1/3    | CS    | 2.8-12            | 1.3-16C      | -                          | -                | 102.2-23.7       | 74.2-17.8        |           |
|             | T10Z0513CS-3 | 1/3    | CS    | 5-50              | 1.3-16C      | -                          | -                | 51.8-5.6         | 39.2-4.3         |           |
|             | T5Z8513CS-IR | 1/3    | CS    | 8.5-40            | 1.3-16C      | -                          | -                | 33.5-7.1         | 24.4-5.3         |           |
|             | H2Z4516CS-2  | 1/2    | CS    | 4.5-10            | 1.6-16C      | -                          | 81.3-38.2        | 60.4-28.7        | 33.6-16.1        |           |
|             | H3Z4512CS-IR | 1/2    | CS    | 4.5-12.5          | 1.2-16C      | -                          | 83.7-30.1        | 61.3-22.6        | 45.3-17.0        |           |
|             | H3Z1014CS    | 1/2    | CS    | 10-30             | 1.4-16C      | -                          | 35.8-12.5        | 26.8-9.4         | 20.1-7.0         |           |

## VARI-FOCAL AUTO IRIS

## DC DRIVE / VIDEO DRIVE

P9 ~ 14

|             | Model No.       | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|-------------|-----------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|             |                 | inch   |       |                   |              | 2/3" (8.8x6.6mm)           | 1/2" (6.4x4.8mm) | 1/3" (4.8x3.6mm) | 1/4" (3.6x2.7mm) |           |
| DC DRIVE    | TG2Z1816FCS     | 1/3    | CS    | 1.8-3.6           | 1.6-360C     | -                          | -                | 144.2-79.4       | 109.5-59.6       |           |
|             | TG3Z2312FCS     | 1/3    | CS    | 2.3-6             | 1.2-360      | -                          | -                | 114.8-48.2       | 86.0-36.1        |           |
|             | TG3Z2910FCS     | 1/3    | CS    | 2.9-8.2           | 1.0-360C     | -                          | -                | 98.3-35.2        | 70.7-26.3        |           |
|             | TG3Z2910FCS-IR  | 1/3    | CS    | 2.9-8.2           | 1.0-360C     | -                          | -                | 95.0-35.6        | 69.0-26.7        |           |
|             | TG3Z3510FCS     | 1/3    | CS    | 3.5-10.5          | 1.0-360      | -                          | -                | 81.6-27.2        | 59.4-20.4        |           |
|             | TG3Z3510FCS-IR  | 1/3    | CS    | 3.5-10.5          | 1.0-360      | -                          | -                | 81.8-27.2        | 59.2-20.4        |           |
|             | TG4Z2813FCS-IR  | 1/3    | CS    | 2.8-12            | 1.3-360      | -                          | -                | 102.2-23.7       | 74.2-17.8        |           |
|             | TG10Z0513FCS-3  | 1/3    | CS    | 5-50              | 1.3-360C     | -                          | -                | 51.8-5.6         | 39.2-4.3         |           |
|             | TG5Z8513FCS-IR  | 1/3    | CS    | 8.5-40            | 1.3-360C     | -                          | -                | 33.5-7.1         | 24.4-5.3         |           |
|             | HG2Z4516FCS-2   | 1/2    | CS    | 4.5-10            | 1.6-360C     | -                          | 81.3-38.2        | 60.4-28.7        | 33.6-16.1        |           |
|             | HG3Z4512FCS-IR  | 1/2    | CS    | 4.5-12.5          | 1.2-360      | -                          | 83.7-30.1        | 61.3-22.6        | 45.3-17.0        |           |
| VIDEO DRIVE | HG3Z1014FCS     | 1/2    | CS    | 10-30             | 1.4-360C     | -                          | 35.8-12.5        | 26.8-9.4         | 20.1-7.0         |           |
|             | TG2Z1816AFCS    | 1/3    | CS    | 1.8-3.6           | 1.6-360C     | -                          | -                | 144.2-79.4       | 109.5-59.6       |           |
|             | TG3Z2910AFCS    | 1/3    | CS    | 2.9-8.2           | 1.0-360C     | -                          | -                | 98.3-35.2        | 70.7-26.3        |           |
|             | TG3Z2910AFCS-IR | 1/3    | CS    | 2.9-8.2           | 1.0-360C     | -                          | -                | 95.0-35.6        | 69.0-26.7        |           |
|             | TG3Z3510AFCS    | 1/3    | CS    | 3.5-10.5          | 1.0-360      | -                          | -                | 81.6-27.2        | 59.4-20.4        |           |
|             | TG3Z3510AFCS-IR | 1/3    | CS    | 3.5-10.5          | 1.0-360      | -                          | -                | 81.8-27.2        | 59.2-20.4        |           |
|             | TG4Z2813AFCS-IR | 1/3    | CS    | 2.8-12            | 1.3-36       | -                          | -                | 102.2-23.7       | 74.2-17.8        |           |
|             | TG10Z0513AFCS-3 | 1/3    | CS    | 5-50              | 1.3-360C     | -                          | -                | 51.8-5.6         | 39.2-4.3         |           |
|             | TG5Z8513AFCS-IR | 1/3    | CS    | 8.5-40            | 1.3-360C     | -                          | -                | 33.5-7.1         | 24.4-5.3         |           |
|             | HG2Z4516AFCS-2  | 1/2    | CS    | 4.5-10            | 1.6-360C     | -                          | 81.3-38.2        | 60.4-28.7        | 33.6-16.1        |           |
|             | HG3Z4512AFCS-IR | 1/2    | CS    | 4.5-12.5          | 1.2-360      | -                          | 83.7-30.1        | 61.3-22.6        | 45.3-17.0        |           |
|             | HG3Z1014AFCS    | 1/2    | CS    | 10-30             | 1.4-360C     | -                          | 35.8-12.5        | 26.8-9.4         | 20.1-7.0         |           |

## PIN HOLE

## MANUAL IRIS / DC DRIVE / VIDEO DRIVE

P15

|             | Model No.    | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|-------------|--------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|             |              | inch   |       |                   |              | 2/3" (8.8x6.6mm)           | 1/2" (6.4x4.8mm) | 1/3" (4.8x3.6mm) | 1/4" (3.6x2.7mm) |           |
| MANUAL IRIS | T2625CS-P    | 1/3    | CS    | 2.6               | 2.5-32C      | -                          | -                | 83.2             | 67.5             |           |
| DC DRIVE    | TG2625FCS-P  | 1/3    | CS    | 2.6               | 2.5-360C     | -                          | -                | 83.2             | 67.5             |           |
| VIDEO DRIVE | TG2625AFCS-P | 1/3    | CS    | 2.6               | 2.5-360C     | -                          | -                | 83.2             | 67.5             |           |

## MANUAL ZOOM

## MANUAL IRIS

P15 ~ 16

|             | Model No.  | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|-------------|------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|             |            | inch   |       |                   |              | 2/3" (8.8x6.6mm)           | 1/2" (6.4x4.8mm) | 1/3" (4.8x3.6mm) | 1/4" (3.6x2.7mm) |           |
| MANUAL IRIS | H6Z0812    | 1/2    | C     | 8-48              | 1.2-16C      | -                          | 44.6-8.0         | 33.5-6.1         | 25.2-4.6         |           |
|             | M6Z1212-3S | 2/3    | C     | 12.5-75           | 1.2-16C      | 38.3-6.7                   | 28.3-5.0         | 21.3-3.8         | 16.0-2.8         |           |

## MANUAL ZOOM WITH AUTO IRIS

## DC DRIVE/VIDEO DRIVE

P16

|             | Model No.      | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|-------------|----------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|             |                | inch   |       |                   |              | 2/3" (8.8x6.6mm)           | 1/2" (6.4x4.8mm) | 1/3" (4.8x3.6mm) | 1/4" (3.6x2.7mm) |           |
| DC DRIVE    | T6Z5710AIDC-CS | 1/3    | CS    | 5.7-34.2          | 1.0-360C     | -                          | -                | 45.9-8.1         | 34.8-6.2         |           |
|             | H6Z0812AIDC    | 1/2    | C     | 8-48              | 1.2-560C     | -                          | 44.6-8.0         | 33.5-6.1         | 25.2-4.6         |           |
| VIDEO DRIVE | T6Z5710AIVD-CS | 1/3    | CS    | 5.7-34.2          | 1.0-360C     | -                          | -                | 45.9-8.1         | 34.8-6.2         |           |
|             | H6Z0812AIVD    | 1/2    | C     | 8-48              | 1.2-560C     | -                          | 44.6-8.0         | 33.5-6.1         | 25.2-4.6         |           |

**MOTORIZED ZOOM**
**1/3" 1/2" 1/1.8" 2/3"**
**P17 ~ 34**

|           | Model No.              | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) UNIT: (°) |                    |                  |                  |                  |
|-----------|------------------------|--------|-------|-------------------|--------------|--------------------------------------|--------------------|------------------|------------------|------------------|
|           |                        | inch   |       |                   |              | 2/3" (8.8×6.6mm)                     | 1/1.8" (7.1×5.4mm) | 1/2" (6.4×4.8mm) | 1/3" (4.8×3.6mm) | 1/4" (3.6×2.7mm) |
| 1/3"      | T6Z5710 series         | 1/3    | CS    | 5.7-34.2          | 1.0 ~        | -                                    | -                  | -                | 45.9-8.1         | 34.8-6.2         |
|           | T10Z5712 series        | 1/3    | CS    | 5.7-57            | 1.2 ~        | -                                    | -                  | -                | 44.6-4.8         | 34.2-3.7         |
|           | T21Z5816 series        | 1/3    | CS    | 5.8-121.8         | 1.6 ~        | -                                    | -                  | -                | 44.8-2.3         | 33.8-1.8         |
|           | T34Z5518 series        | 1/3    | CS    | 5.5-187           | 1.8 ~        | -                                    | -                  | -                | 46.6-1.5         | 35.2-1.1         |
| 1/2"      | H6Z0812 series         | 1/2    | C     | 8-48              | 1.2 ~        | -                                    | -                  | 44.6-8.0         | 33.5-6.1         | 25.2-4.6         |
|           | H10Z0812 series        | 1/2    | C     | 8-80              | 1.2 ~        | -                                    | -                  | 44.0-4.7         | 33.3-3.5         | 25.0-2.6         |
|           | H10Z1218 series        | 1/2    | C     | 12-120            | 1.8 ~        | -                                    | -                  | 29.4-3.1         | 22.2-2.3         | 16.7-1.7         |
|           | H16Z7516 series        | 1/2    | C     | 7.5-120           | 1.6 ~        | -                                    | -                  | 46.6-3.2         | 35.3-2.4         | 26.6-1.8         |
|           | H16Z7516-IR series     | 1/2    | C     | 7.5-120           | 1.6 ~        | -                                    | -                  | 47.0-3.1         | 35.4-2.4         | 26.6-1.7         |
|           | H30Z1015 series        | 1/2    | C     | 10-300            | 1.5 ~        | -                                    | -                  | 35.5-1.25        | 26.8-0.94        | 20.1-0.71        |
|           | H60Z1238 series        | 1/2    | C     | 12.5-750          | 3.8 ~        | -                                    | -                  | 28.7-0.48        | 21.7-0.37        | 16.4-0.28        |
| MEGAPIXEL | H10Z0819-MP series     | 1/2    | C     | 8-80              | 1.9 ~        | -                                    | -                  | 44.81-4.45       | 34.62-3.38       | 26.39-2.55       |
|           | H21Z1016-MP series     | 1/2    | C     | 10-210            | 1.6 ~        | -                                    | -                  | 35.4-1.72        | 26.9-1.30        | 20.2-0.98        |
|           | E24Z1018-MP(IR) series | 1/1.8  | C     | 10-240            | 1.8 ~        | -                                    | 39.0-1.7           | 35.2-1.6         | 26.5-1.2         | -                |
|           | M24Z1527-MP series     | 2/3    | C     | 15-360            | F2.7 ~       | 32.3-1.4                             | 26.3-1.2           | 23.6-1.0         | -                | -                |
|           | M24Z2138-MP series     | 2/3    | C     | 21-500            | F3.8 ~       | 23.5-1.0                             | 18.9-0.8           | 17.1-0.8         | -                | -                |
|           | H35Z1015-MP series     | 1/2    | C     | 10-350            | 1.5 ~        | -                                    | -                  | 35.30-1.05       | 26.70-0.79       | 20.1-0.44        |
|           | H62Z1235-MP series     | 1/2    | C     | 12.5-775          | 3.5 ~        | -                                    | -                  | 28.77-0.47       | 21.8-0.35        | 16.41-0.26       |

**MEGAPIXEL**
**SECURITY**
**P35 ~ 39**

|             | Model No.         | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) UNIT: (°) |                    |                  |                    |                 |                |                  |                  |
|-------------|-------------------|--------|-------|-------------------|--------------|--------------------------------------|--------------------|------------------|--------------------|-----------------|----------------|------------------|------------------|
|             |                   | inch   |       |                   |              | 2/3" (8.8×6.6mm)                     | 1/1.8" (7.1×5.4mm) | 1/2" (6.4×4.8mm) | 1/2.8" (5.2×3.9mm) | 1/2.7" (16 : 9) | 1/2.7" (4 : 3) | 1/3" (4.8×3.6mm) | 1/4" (3.6×2.7mm) |
| MANUAL IRIS | H2Z0414FC-MP      | 1/2    | C     | 4-8               | 1.4-16C      | -                                    | -                  | 90.4-47.0        | -                  | -               | -              | 67.0-35.3        | 50.0-26.5        |
|             | M3Z1228C-MP       | 2/3    | C     | 12-36             | 2.8-16C      | 41.0-13.6                            | -                  | 30.2-10.0        | -                  | -               | -              | 22.8-7.6         | 17.1-5.7         |
|             | A4Z2812CS-MPIR    | 1/2.7  | CS    | 2.8-10            | 1.2-360C     | -                                    | -                  | -                | 110.3-30.5         | 127.6-34.3      | 113.4-31.2     | 101.3-28.4       | 73.7-21.3        |
|             | A6Z8516CS-MP      | 1/2.7  | CS    | 8.5-50            | 1.6-360C     | -                                    | -                  | -                | 34.0-6.0           | 38.0-6.8        | 34.8-6.2       | 31.6-5.7         | -                |
|             | A4Z1214CS-MPIR    | 1/2.7  | CS    | 12.5-50           | 1.4-16C      | -                                    | -                  | -                | 23.4-6.1           | 26.3-6.7        | 24.0-6.2       | 21.7-5.6         | -                |
|             | H5Z2518C-MP       | 1/2    | C     | 25-135            | 1.8-16C      | -                                    | -                  | 14.5-2.8         | -                  | -               | -              | 10.8-2.1         | -                |
|             | E3Z4518CS-MPIR    | 1/1.8  | CS    | 4.5-13.2          | 1.8-16C      | -                                    | 105.3-35.3         | 80.0-28.6        | -                  | -               | -              | 60.0-21.5        | -                |
|             | A3Z2812CS-MPWIR   | 1/2.7  | CS    | 2.8-8.5           | 1.2-16C      | -                                    | -                  | 108.8-37.0       | 124.7-41.3         | 110.8-37.6      | 99.1-34.1      | 72.3-25.6        | -                |
| DC IRIS     | E3Z3915CS-MPWIR   | 1/1.8  | CS    | 3.9-10            | 1.5-16C      | -                                    | 108.1-42.1         | 96.0-37.9        | -                  | -               | -              | 70.2-28.4        | -                |
|             | TG4Z2816FCS-MPIR  | 1/3    | CS    | 2.8-12            | 1.6-360C     | -                                    | -                  | -                | -                  | -               | -              | 102.2-23.7       | 74.2-17.8        |
|             | HG2Z0414FC-MP     | 1/2    | C     | 4-8               | 1.4-360C     | -                                    | -                  | 90.4-47.0        | -                  | -               | -              | 67.0-35.3        | 50.0-26.5        |
|             | MG3Z1228FC-MP     | 2/3    | C     | 12-36             | 2.8-360C     | 41.0-13.6                            | -                  | 30.2-10.0        | -                  | -               | -              | 22.8-7.6         | 17.1-5.7         |
|             | AG4Z2812FCS-MPIR  | 1/2.7  | CS    | 2.8-10            | 1.2-360C     | -                                    | -                  | -                | 110.3-30.5         | 127.6-34.3      | 113.4-31.2     | 101.3-28.4       | 73.7-21.3        |
|             | AG6Z8516FCS-MP    | 1/2.7  | CS    | 8.5-50            | 1.6-360C     | -                                    | -                  | -                | 34.0-6.0           | 38.0-6.8        | 34.8-6.2       | 31.6-5.7         | -                |
|             | AG4Z1214FCS-MPIR  | 1/2.7  | CS    | 12.5-50           | 1.4-360C     | -                                    | -                  | -                | 23.4-6.1           | 26.3-6.7        | 24.0-6.2       | 21.7-5.6         | -                |
|             | HG5Z2518FC-MP     | 1/2    | C     | 25-135            | 1.8-16C      | -                                    | -                  | 14.5-2.8         | -                  | -               | -              | 10.8-2.1         | -                |
| P-IRIS      | AG3Z2812FCS-MPWIR | 1/2.7  | CS    | 2.8-8.5           | 1.2-16C      | -                                    | -                  | -                | 108.8-37.0         | 124.7-41.3      | 110.8-37.6     | 99.1-34.1        | 72.3-25.6        |
|             | EG3Z3915FCS-MPWIR | 1/1.8  | CS    | 3.9-10            | 1.5-16C      | -                                    | 108.1-42.1         | 96.0-37.9        | -                  | -               | -              | 70.2-28.4        | -                |
|             | AG4Z2812KCS-MPIR  | 1/2.7  | CS    | 2.8-10            | 1.2-360C     | -                                    | -                  | -                | 110.3-30.5         | 127.6-34.3      | 113.4-31.2     | 101.3-28.4       | 73.7-21.3        |
|             | AG6Z8516KCS-MP    | 1/2.7  | CS    | 8.5-50            | 1.6-360C     | -                                    | -                  | -                | 34.0-6.0           | 38.0-6.8        | 34.8-6.2       | 31.6-5.7         | -                |
|             | AG4Z1214KCS-MPIR  | 1/2.7  | CS    | 12.5-50           | 1.4-16C      | -                                    | -                  | -                | 23.4-6.1           | 26.3-6.7        | 24.0-6.2       | 21.7-5.6         | -                |



### MEGAPIXEL MONO FOCAL

ITS

P40 ~ 43

|             | Model No.            | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|-------------|----------------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|             |                      | inch   |       |                   |              | 2/3" (8.8x6.6mm)           | 1/2" (6.4x4.8mm) | 1/3" (4.8x3.6mm) | 1/4" (3.6x2.7mm) |           |
| MANUAL IRIS | M0918FIC(KC)-MP      | 2/3    | C     | 9                 | 1.8-16C      | 52.1                       | 38.7             | 29.3             | -                |           |
|             | M1218FIC(KC)-MP      | 2/3    | C     | 12                | 1.8-16C      | 39.3                       | 29.1             | 22.1             | -                |           |
|             | M1616FIC(KC)-MP      | 2/3    | C     | 16                | 1.6-16C      | 30.8                       | 22.7             | 17.1             | -                |           |
|             | M2514FIC(KC)-MP (IR) | 2/3    | C     | 25                | 1.4-16C      | 20.0                       | 14.6             | 11.0             | -                |           |
|             | M3518FIC(KC)-MPIR    | 2/3    | C     | 35                | 1.8-16C      | 13.9                       | 10.2             | 7.6              | -                |           |
|             | M5020FIC(KC)-MPIR    | 2/3    | C     | 50                | 2.0-16C      | 9.8                        | 7.1              | 5.3              | -                |           |
| P-IRIS      | MG0918FC-MP          | 2/3    | C     | 9                 | 1.8-360C     | 52.1                       | 38.7             | 29.3             | -                |           |
|             | MG1218FC-MP          | 2/3    | C     | 12                | 1.8-360C     | 39.3                       | 29.1             | 22.1             | -                |           |
|             | MG1616FC-MP          | 2/3    | C     | 16                | 1.6-360C     | 30.8                       | 22.7             | 17.1             | -                |           |
|             | MG2514FC-MP (IR)     | 2/3    | C     | 25                | 1.4-360C     | 20.0                       | 14.6             | 11.0             | -                |           |
|             | MG3518FC-MPIR        | 2/3    | C     | 35                | 1.8-360C     | 13.9                       | 10.2             | 7.6              | -                |           |
|             | MG5020FC-MPIR        | 2/3    | C     | 50                | 2.0-360C     | 9.8                        | 7.1              | 5.3              | -                |           |

### MEGAPIXEL FA

FA / IMAGE PROCESSING / SECURITY / ITS

P44 ~ 46

|             | Model No.  | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                  |                  |                  | UNIT: (°) |
|-------------|------------|--------|-------|-------------------|--------------|----------------------------|------------------|------------------|------------------|-----------|
|             |            | inch   |       |                   |              | 2/3" (8.8x6.6mm)           | 1/2" (6.4x4.8mm) | 1/3" (4.8x3.6mm) | 1/4" (3.6x2.7mm) |           |
| MEGAPIXEL   | H0514-MP2  | 1/2    | C     | 5                 | 1.4-16C      | -                          | 65.5             | 51.4             | 39.5             |           |
|             | M0814-MP2  | 2/3    | C     | 8                 | 1.4-16C      | 56.3                       | 42.5             | 32.4             | 24.6             |           |
|             | M1214-MP2  | 2/3    | C     | 12                | 1.4-16C      | 40.4                       | 30.0             | 22.7             | 17.1             |           |
|             | M1614-MP2  | 2/3    | C     | 16                | 1.4-16C      | 30.8                       | 22.7             | 17.1             | 12.6             |           |
|             | M2514-MP2  | 2/3    | C     | 25                | 1.4-16C      | 20.0                       | 14.6             | 11.0             | 8.2              |           |
|             | M3514-MP   | 2/3    | C     | 35                | 1.4-16C      | 13.9                       | 10.1             | 7.6              | 5.7              |           |
|             | M5018-MP2  | 2/3    | C     | 50                | 1.8-16C      | 10.5                       | 7.6              | 5.7              | 4.3              |           |
|             | M7528-MP   | 2/3    | C     | 75                | 2.8-16C      | 6.8                        | 5.0              | 3.7              | 2.8              |           |
| 5 MEGAPIXEL | M0824-MPW2 | 2/3    | C     | 8                 | 2.4-16       | 57.8                       | 43.7             | 33.2             | 25.2             |           |
|             | M1224-MPW2 | 2/3    | C     | 12                | 2.4-16       | 39.8                       | 29.5             | 22.3             | 16.8             |           |
|             | M1620-MPW2 | 1/2    | C     | 16                | 2.0-16       | 30.7                       | 22.6             | 17.1             | 12.8             |           |
|             | M2518-MPW2 | 1/2    | C     | 25                | 1.8-16       | 19.9                       | 14.5             | 10.9             | 8.2              |           |
|             | M3520-MPW2 | 1/2    | C     | 35                | 2.0-22       | 14.3                       | 10.4             | 7.8              | 5.9              |           |
|             | M5028-MPW2 | 1/2    | C     | 50                | 2.8-32       | 10.0                       | 7.3              | 5.5              | 4.1              |           |
|             | M2518-MPW  | 1/2    | C     | 25                | 1.8-16       | 20.5                       | 15.0             | 11.3             | 8.5              |           |

### OTHERS

FA / IMAGE PROCESSING

P47

|                   | Model No.  | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |                 |                  |                  | UNIT: (°) |
|-------------------|------------|--------|-------|-------------------|--------------|----------------------------|-----------------|------------------|------------------|-----------|
|                   |            | inch   |       |                   |              | 1.1" (12x12mm)             | 1" (12.8x9.6mm) | 2/3" (8.8x6.6mm) | 1/2" (6.4x4.8mm) |           |
| MACRO TELECENTRIC | TEC-M55    | 2/3    | C     | 55                | 2.8-32C      | -                          | -               | 9.2              | 6.7              |           |
|                   | TEC-M55MPW | 2/3    | C     | 55                | 3.0-22C      | -                          | -               | 9.2              | 6.7              |           |
|                   | MLH-10X    | 1/2    | C     | *0.084-0.84X      | 5.6-32C      | -                          | -               | -                | 18.0-3.6         |           |
|                   | MLM-3XMP   | 2/3    | C     | *0.3X-1.0X        | 4.5-22C      | -                          | -               | 11.8-1.2         | 8.6-0.9          |           |
|                   | TEC-V7X    | 1.1    | C     | *0.07X-0.5X       | 4.3-32       | 7.05-1.12                  | 7.28-1.25       | 5.08-0.89        | -                |           |

\* mark (MLH-10X, MLM-3XMP, TEC-V7X) shows maximum magnification.

### SWIR

Short-wavelength IR (800-1700nm)

P49

|      | Model No. | Format | Mount | Focal Length (mm) | Aperture (F) | Angle of View (HORIZONTAL) |      | Angle of View (HORIZONTAL, InGaAs, Sensor) |                |                |
|------|-----------|--------|-------|-------------------|--------------|----------------------------|------|--------------------------------------------|----------------|----------------|
|      |           | inch   |       |                   |              | 2/3"                       | 1/2" | 640x512 (15μm)                             | 320x256 (25μm) | 320x256 (20μm) |
| SWIR | M1614-SW  | 2/3    | C     | 16                | 1.4-16C      | 30.6                       | 22.5 | 33.2                                       | 27.9           | 22.5           |
|      | M2514-SW  | 2/3    | C     | 25                | 1.4-16C      | 19.8                       | 14.5 | 21.6                                       | 18.1           | 14.5           |
|      | M3514-SW  | 2/3    | C     | 35                | 1.4-16C      | 14.7                       | 10.7 | 16.0                                       | 13.4           | 10.7           |
|      | M5018-SW  | 2/3    | C     | 50                | 1.8-16C      | 10.4                       | 7.6  | 11.3                                       | 9.5            | 7.6            |

### LWIR

Long-wavelength IR (8-12μm)

P50

|      | Model No.    | Mount<br>(mm)    | Focal<br>Length<br>(mm) | Aperture<br>(F) | Angle of View (HORIZONTAL) UNIT: (° ) |                     |                     |                     |
|------|--------------|------------------|-------------------------|-----------------|---------------------------------------|---------------------|---------------------|---------------------|
|      |              |                  |                         |                 | 640 x 480<br>(17μm)                   | 384 x 288<br>(25μm) | 320 x 240<br>(25μm) | 320 x 240<br>(17μm) |
| LWIR | TH17V1311-34 | M34 x 0.5(Pitch) | 13                      | 1.1             | 50.3                                  | 43.9                | 36.2                | 24.3                |
|      | TH17V1810-34 | M34 x 0.5(Pitch) | 18.8                    | 1.0             | 32.9                                  | 28.9                | 24.3                | 16.3                |
|      | TH17V3511-34 | M34 x 0.5(Pitch) | 35                      | 1.1             | 17.7                                  | 15.6                | 13.0                | 8.9                 |

\* SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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