

MISUMI

ELECTRONICS CORP.

Products Catalogue



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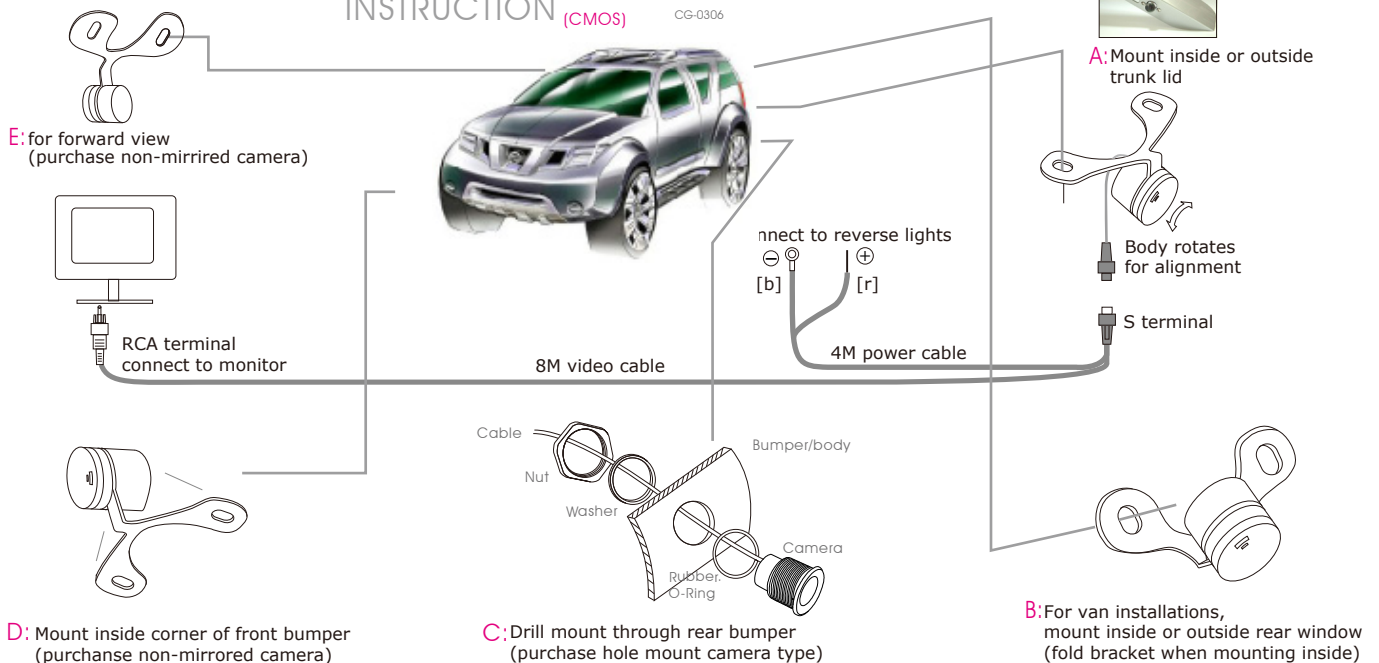
Address: 5F-3, NO. 70. Jiann-Liow Rd., Chung-Ho City, Taipei Shann, Taiwan, R.O.C.

Specification

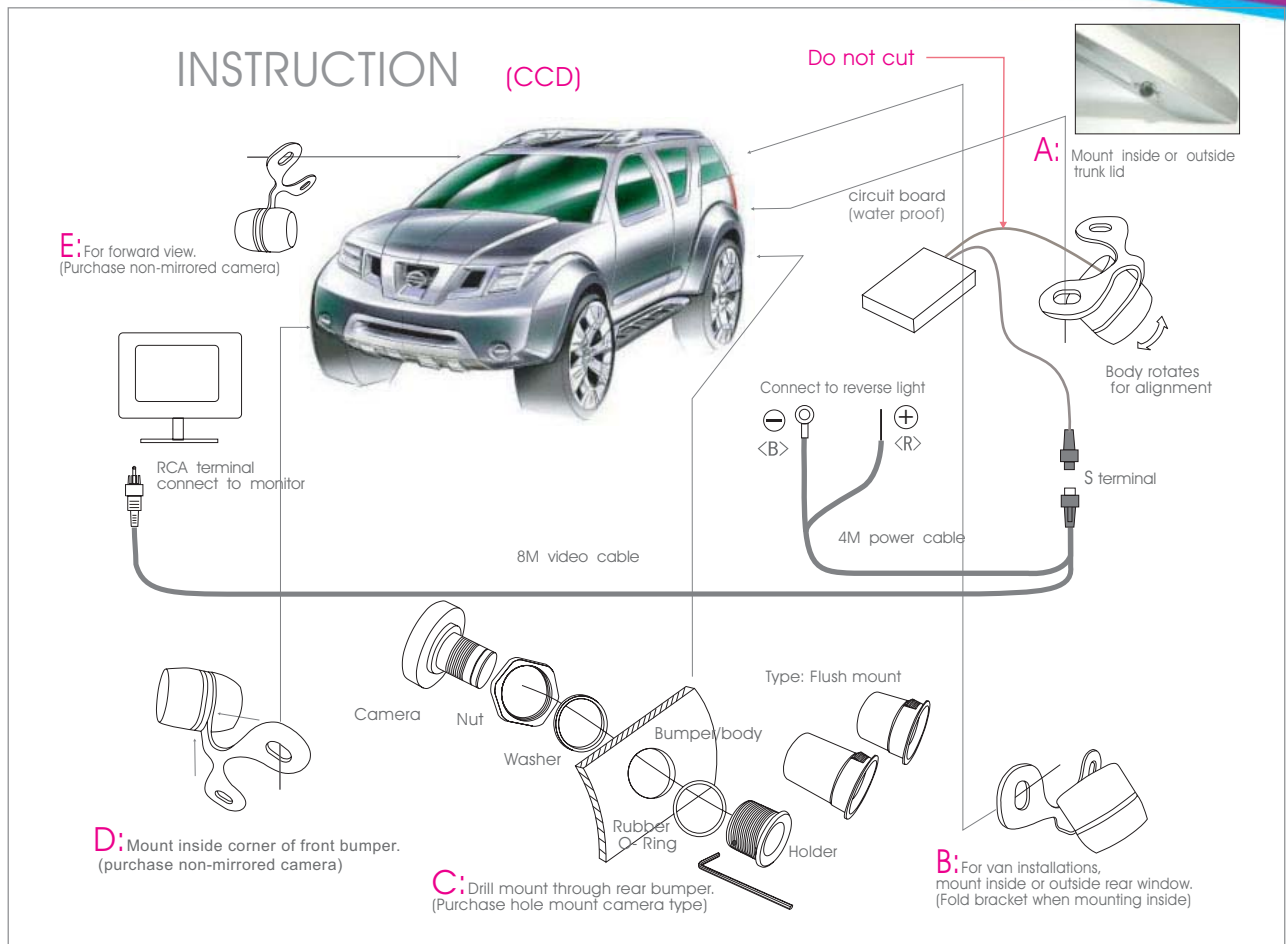
| | | | | | |
|-------------------------------------|--|------------------|-----------------------|-------------|-------------|
| Model | MO-XC313 | MO-AC713 | MO-PC143 | MO-AC554 | MO-AC524 |
| Video system | NTSC / PAL | | | | |
| Number of effective pixels | 250K(NTSC)/ 370k(PAL) | | 270K(NTSC)/320k(PAL) | | |
| Image sensor | 1/3" CCIQ Color Camera | | 1/4" CCIQColor Camera | | |
| Resolution(TV Lines) | 380TV Lines | | 400TV Lines | | |
| S/N Ratio | more than 50dB | | | | |
| Minimum illumination | 0.5Lux | | 0.1Lux | | |
| Horizontal sync frequency | NTSC(EIA) -15.734kHz , PAL(CCIR) - 15.625kHz | | | | |
| Vertical sync frequency | NTSC(EIA) - 60Hz , PAL(CCIR) - 50Hz | | | | |
| Camera consumption | 0.45 | | | | |
| Video output | 1Vp-p , 75ohm composite | | | | |
| Storage temperature | -30 to 60 Degree C | | | | |
| Working temperature | -10 to 45 Degree C | | | | |
| Power source | DC 5~12 V | | DC 5~12 V | | |
| Power current | 60 mA-max | | 80 mA-max | | |
| Dimension (mm) (without bracket) | 22 x 25(mm) | 24 x 25 x 32(mm) | 25 x 25 x 32(mm) | 22 x 25(mm) | 19 x 25(mm) |



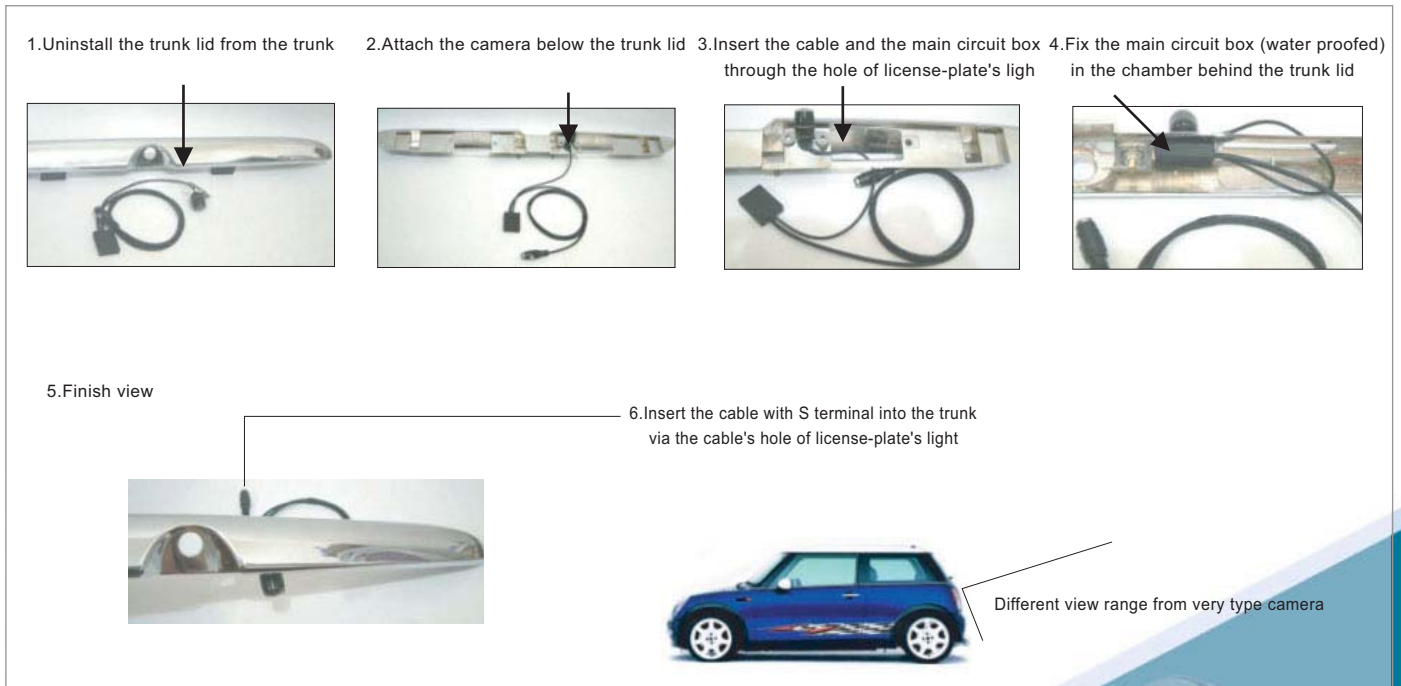
INSTRUCTION (CMOS) CG-0306



REARVIEW CCD CAMERA



How to install the camera below the trunk lid



Specification

| | | | | | | |
|---|-----------------------|-----------------------|---|---|---|---------------|
|  Dimensions: 20mm(Diameter)x25/27(L)mm | Item NO. | MS-EC54 | MS-EC514 | MS-EC524 | | |
| | CCD Image Sensor | 1/4" Color CCD | | | | |
| | Video system. | NTSC/PAL (Optional) | | | | |
| | Minimum Illumination | 0.5Lux | 0.3Lux/F2.0 | | | |
| | Resolution (TV Lines) | 350 TV Lines | | | | |
| | Electronic Shutter | 1/50 - 1/100,000 Sec. | 1/50 - 1/120,000 Sec. | | | |
| | Built-In Lens | 3.6mm | 2.1mm | 1.9mm | | |
| | Angle View | 70 | 130 | 150 | | |
| | Power Source | DC 12V (Standard) | | | | |
| | Power Current | 40mA | | | | |
|  Dimensions: 20mm(Diameter)x25/27(L)mm | Item NO. | MS-EC84 | MS-EC814 | MS-EC824 | | |
| | CCD Image Sensor | 1/4" Color CCD | | | | |
| | Video system. | NTSC/PAL (Optional) | | | | |
| | Minimum Illumination | 0.5Lux | 0.3Lux/F2.0 | | | |
| | Resolution (TV Lines) | 350 TV Lines | | | | |
| | Electronic Shutter | 1/50 - 1/100,000 Sec. | 1/50 - 1/120,000 Sec. | | | |
| | Built-In Lens | 3.6mm | 2.1mm | 1.9mm | | |
| | Angle View | 70 | 130 | 150 | | |
| | Power Source | DC 12V (Standard) | | | | |
| | Power Current | 40mA | | | | |
|  Dimensions: 26mm(Diameter) | Item NO. | MS-BC34 |  Dimensions: 26mm(Diameter) | MS-BC314 | | |
| | CCD Image Sensor | 1/4" Color CCD | | 1/4" Color CCD | | |
| | Video system. | NTSC/PAL (Optional) | | NTSC/PAL (Optional) | | |
| | Minimum Illumination | 1Lux/F2.8 | | 1Lux/F2.8 | | |
| | Resolution (TV Lines) | 350 TV Lines | | 350 TV Lines | | |
| | Electronic Shutter | 1/50 - 1/120,000 Sec. | | 1/50 - 1/120,000 Sec. | | |
| | Built-In Lens | 2.1mm | | 2.1mm | | |
| | Angle View | 130 | | 130 | | |
| | Power Source | DC 12V (Standard) | | DC 12V (Standard) | | |
| | Power Current | 40mA | | 40mA | | |
|  Dimensions: 26mm(Diameter) | Item NO. | MS-BC24 |  Dimensions: 26mm(Diameter) | MS-AC54 | | |
| | CCD Image Sensor | 1/4" Color CCD | | 1/4" Color CCD | | |
| | Video system. | NTSC/PAL (Optional) | | NTSC/PAL (Optional) | | |
| | Minimum Illumination | 0.5Lux/F2.8 | | 1Lux | | |
| | Resolution (TV Lines) | 350 TV Lines | | 350 TV Lines | | |
| | Electronic Shutter | 1/50 - 1/120,000 Sec. | | 1/50 - 1/120,000 Sec. | | |
| | Built-In Lens | 1.9mm | | 1.9mm | | |
| | Angle View | 150 | | 130 | | |
| | Power Source | DC 12V (Standard) | | DC 12V (Standard) | | |
| | Power Current | 40mA | | 40mA | | |
|  Dimensions: 19mm(Diameter) | Item NO. | MS-DC54 | ITEM NO. | PIXELS <small>NTSC PAL</small> | PIXELS <small>EIA CCIR</small> | MIRROR |
| | CCD Image Sensor | 1/4" Color CCD | MS-xxxx-N | NTSC-250K | / | |
| | Video system. | NTSC/PAL (Optional) | MS-xxxx-P | PAL-290K | / | |
| | Minimum Illumination | 0.5Lux/F2.8 | MS-xxxx-C | / | EIA-250K | |
| | Resolution (TV Lines) | 350 TV Lines | MS-xxxx-E | / | CCIR-290K | |
| | Electronic Shutter | 1/50 - 1/120,000 Sec. | MS-xxxxR-N | NTSC-250K | / | ● |
| | Built-In Lens | 1.9mm | MS-xxxxR-P | PAL-290K | / | ● |
| | Angle View | 150 | MS-xxxxR-C | / | EIA-250K | ● |
| | Power Source | DC 12V (Standard) | MS-xxxxR-E | / | CCIR-290K | ● |
| | Power Current | 40mA | | | | |

Specification

CCD Rearview Camera

| CCD REARVIEW CAMERA | | | |
|----------------------------|---|------------|-------------|
| Item NO. | MS-AC14 | MS-AC24 | MS-AC44 |
| Video system. | NTSC/PAL | | |
| Number of Effective Pixels | PAL | 500x582 | |
| | NTSC | 510x492 | |
| CCD Image Sensor | 1/4" Interline CCD | | |
| Scanning System | 2:1 INTERLACE | | |
| Synchronization | INTERNAL | | |
| Resolution (TV Lines) | 350 TV LINES | | |
| S/N Ratio | more than 48dB | | |
| Minimum Illumination | 0.5Lux / F 1.4 | | |
| Electronic Shutter | 1/50 - 1/120,000 | | |
| Horizontal Sync Frequency | NTSC(EIA)-15.734kHz / PAL(CCIR)-15.625kHz | | |
| Vertical Sync Frequency | NTSC(EIA)-60Hz / PAL(CCIR)-50Hz | | |
| Gamma Consumption | 0.45 | | |
| Video Output | 1Vp-p , 75ohms Composite | | |
| Audio Output | Frequency 20-16000Hz,S/N ratio more than 63dB SPL(at 1000Hz))(Ordering in advance) | | |
| Audio Standard | Frequency 20-16000Hz,S/N ratio more than 58dB | | |
| Built-In Lens | 1.9mm/F2.0 | 3.6mm/F2.0 | 1.67mm/F2.0 |
| Storage Temperature | -30 to 60 Degree C | | |
| Working Temperature | -10 to 45 Degree C | | |
| Power Source | DC 12V(standard) | | |
| Power Current | 150mA(max) | | |
| Dimension (mm) | 32x19x25 | 32x29x25 | 32x26x25 |



MS-AC14



MS-AC24



MS-AC44

Dimensions

Ordering Information

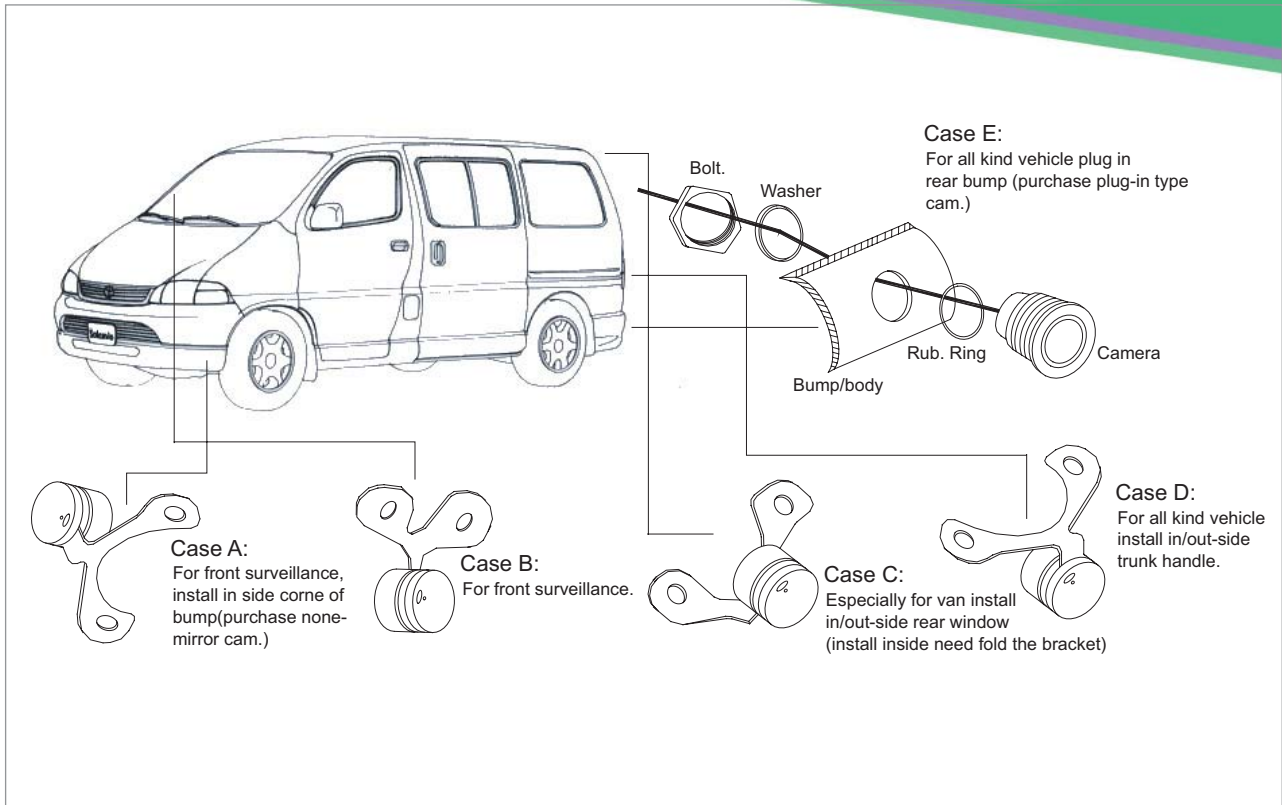
| Model | Side view (mm) | Front view (mm) |
|----------------|----------------|-----------------|
| MS-AC14 | | |
| MS-AC24 | | |
| MS-AC44 | | |



Unit:mm(Approx.)

| MODEL | MIRROR | VIEW (Degrees) | NOTE |
|------------|--------|----------------|-------------|
| MS-AC14-N | | 130 | NTSC - 250K |
| MS-AC14P | | 130 | PAL - 290K |
| MS-AC14R-N | ● | 130 | NTSC - 250K |
| MS-AC14R-P | ● | 130 | PAL - 290K |
| MS-AC24-N | | 70 | NTSC - 250K |
| MS-AC24P | | 70 | PAL - 290K |
| MS-AC24R-N | ● | 70 | NTSC - 250K |
| MS-AC24R-P | ● | 70 | PAL - 290K |
| MS-AC44-N | | 150 | NTSC - 250K |
| MS-AC44P | | 150 | PAL - 290K |
| MS-AC44R-N | ● | 150 | NTSC - 250K |
| MS-AC44R-P | ● | 150 | PAL - 290K |


Feature

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|--|
| Water Proof (IP67) Color CCD Camera. |
| Wide Angle Mirror image view for reverse back up system. |
| Compact and lightwewght design. |
| Optional : mirror |

REARVIEW CMOS CAMERA

Specification

| | | | |
|--|-----------------------|--------------------------------|------------------|
|  Dimensions: 26mm(Diameter)x30mm(L) | Item NO. | MO-MC103 | MO-MC103X |
| | CMOS Image Sensor | 1/3" COLOR CMOS | |
| | Effective Pixels. | NTSC - 510x492 / PAL - 500x528 | |
| | Minimum Illumination | 1.5 Lux | 1 Lux |
| | Resolution (TV Lines) | 380 TV Lines | |
| | Electronic Shutter | 1/50 ~ 1/15,000 | 1/50 ~ 1/125,000 |
| | Built-In Lens | 2.9mm / F2.0 | |
| | Angle View | NTSC - 130 / PAL - 120 | |
| | Power Source | DC 12 V | |
| | Power Current | 40 mA | 60 mA |
|  Dimensions: 26mm(Diameter)x30mm(L) | Item NO. | MO-MC113 | MO-MC113X |
| | CMOS Image Sensor | 1/3" COLOR CMOS | |
| | Effective Pixels. | NTSC - 510x492 / PAL - 500x528 | |
| | Minimum Illumination | 1.5 Lux | 1 Lux |
| | Resolution (TV Lines) | 380 TV Lines | |
| | Electronic Shutter | 1/50 ~ 1/15,000 | 1/50 ~ 1/125,000 |
| | Built-In Lens | 2.9mm / F2.0 | |
| | Angle View | NTSC - 130 / PAL - 120 | |
| | Power Source | DC 12 V | |
| | Power Current | 40 mA | 60 mA |

Specification

| | | | |
|--|-----------------------|--------------------------------|------------------------|
|  Dimensions: 22mm(Diameter)x28mm(L) | Item NO. | MO-PC123 | MO-PC123X |
| | CMOS Image Sensor | 1/3" COLOR CMOS | |
| | Effective Pixels. | NTSC - 510x492 / PAL - 500x528 | |
| | Minimum Illumination | 1.5 Lux | 1 Lux |
| | Resolution (TV Lines) | 380 TV Lines | |
| | Electronic Shutter | 1/50 ~ 1/15,000 | 1/50 ~ 1/125,000 |
| | Built-In Lens | 2.9mm / F2.0 | |
| | Angle View | NTSC - 130 / PAL - 120 | |
| | Power Source | DC 12 V | |
| | Power Current | 40 mA | 60 mA |
|  Dimensions: 26mm(Diameter)x33mm(L) | Item NO. | MO-MC13 | MO-MC13X |
| | CMOS Image Sensor | 1/3" COLOR CMOS | |
| | Effective Pixels. | NTSC - 510x492/PAL - 500x528 | |
| | Minimum Illumination | 1.5 Lux | 1 Lux |
| | Resolution (TV Lines) | 380 TV Lines | |
| | Electronic Shutter | 1/50 ~ 1/15,000 | 1/50 ~ 1/125,000 |
| | Built-In Lens | 2.1mm / F2.0 | |
| | Angle View | NTSC - 150 / PAL - 160 | NTSC - 150 / PAL - 160 |
| | Power Source | DC 12 V | |
| | Power Current | 40 mA | 60 mA |
|  Dimensions: 19mm(Diameter)x27mm(L) | Item NO. | MO-QC314 | MO-QC324 |
| | CMOS Image Sensor | 1/4" COLOR CMOS | |
| | Effective Pixels. | NTSC - 510x492 | |
| | Minimum Illumination | 1.5 Lux | 1.5 Lux |
| | Resolution (TV Lines) | 380 TV Lines | |
| | Electronic Shutter | 1/60 ~ 1/63,000 | 1/60 ~ 1/63,000 |
| | Built-In Lens | 1.9mm / F2.0 | |
| | Angle View | 145 | |
| | Power Source | DC 12 V | |
| | Power Current | 40 mA | 40 mA |
|  Dimensions: 32(W)x29(D)x25(H)(mm) | Item NO. | MO-AC73 | |
| | CMOS Image Sensor | 1/3" COLOR CMOS | |
| | Effective Pixels. | NTSC - 510x492/PAL - 500x528 | |
| | Minimum Illumination | 1 Lux | |
| | Resolution (TV Lines) | 380 TV Lines | |
| | Electronic Shutter | 1/50 ~ 1/125,000 | |
| | Built-In Lens | 2.9mm / F2.0 | |
| | Angle View | NTSC - 130 / PAL - 120 | |
| | Power Source | DC 6-12 V | |
| | Power Current | 60 mA | |

Ordering Information

| MODEL SAMPLE | | | |
|--------------|--------|--------------------|-------------|
| MODEL | Mirror | Electronic Shutter | Pixels |
| MO-PC123-P | / | 1/50 ~ 1/15,000 | PAL - 290K |
| MO-PC123-N | / | 1/60 ~ 1/15,000 | NTSC - 250K |
| MO-PC123X-P | / | 1/50 ~ 1/125,000 | PAL - 290K |
| MO-PC123X-N | / | 1/60 ~ 1/125,000 | NTSC - 250K |
| MO-PC123R-P | Mirror | 1/50 ~ 1/15,000 | PAL - 290K |
| MO-PC123R-N | Mirror | 1/60 ~ 1/15,000 | NTSC - 250K |
| MO-PC123XR-P | Mirror | 1/50 ~ 1/125,000 | PAL - 290K |
| MO-PC123XR-N | Mirror | 1/60 ~ 1/125,000 | NTSC - 250K |

NOTE:
Purchase no.= Item no. + (R) + (-N/P)
(N/P) = NTSC/PAL ; (R)=Mirror image

Feature

| |
|--|
| Water Proof (IP67) Color CMOS Camera. |
| Wide Angle Mirror image view for reverse back up system. |
| Compact and lightweight design. |
| Optional : mirror |