


SPOTTING SCOPES



Spotting Scope Specifications

| Model | Objective Lens Diameter | Lens Type | Minimum Focusing Distance | Length | Weight | Filter Diameter* |
|--|-------------------------|-----------|---------------------------|---------------|----------------|----------------------|
| TSN-880 Series | | | | | | |
|  TSN-881 | Angled | 88mm | High-Grade Normal Lens | 5m (16.4feet) | 343mm (13.5in) | 1520g (53.6oz) 95mm |
|  TSN-882 | Straight | 88mm | High-Grade Normal Lens | 5m (16.4feet) | 329mm (13.0in) | 1520g (53.6oz) 95mm |
|  TSN-883 | Angled | 88mm | Fluorite Crystal Lens | 5m (16.4feet) | 343mm (13.5in) | 1520g (53.6oz) 95mm |
|  TSN-884 | Straight | 88mm | Fluorite Crystal Lens | 5m (16.4feet) | 329mm (13.0in) | 1520g (53.6oz) 95mm |
| TSN-770 Series | | | | | | |
|  TSN-771 | Angled | 77mm | High-Grade Normal Lens | 5m (16.4feet) | 318mm (12.5in) | 1330g (46.9oz) 82mm |
|  TSN-772 | Straight | 77mm | High-Grade Normal Lens | 5m (16.4feet) | 304mm (12.0in) | 1330g (46.9oz) 82mm |
|  TSN-773 | Angled | 77mm | XD Lens | 5m (16.4feet) | 318mm (12.5in) | 1330g (46.9oz) 82mm |
|  TSN-774 | Straight | 77mm | XD Lens | 5m (16.4feet) | 304mm (12.0in) | 1330g (46.9oz) 82mm |
| TSN-660 Series | | | | | | |
|  TSN-661 | Angled | 66mm | Normal Lens | 6m (19.7feet) | 311mm (12.2in) | 1010g (35.6oz) 72 mm |
|  TSN-662 | Straight | 66mm | Normal Lens | 6m (19.7feet) | 312mm (12.3in) | 990g (34.9oz) 72 mm |
|  TSN-663 | Angled | 66mm | XD Lens | 6m (19.7feet) | 311mm (12.2in) | 1040g (36.7oz) 72 mm |
|  TSN-664 | Straight | 66mm | XD Lens | 6m (19.7feet) | 312mm (12.3in) | 1020g (36.0oz) 72 mm |
| TSN-600 Series | | | | | | |
|  TSN-601 | Angled | 60mm | Normal Lens | 6m (19.7feet) | 299mm (11.8in) | 735g (25.9oz) 67 mm |
|  TSN-602 | Straight | 60mm | Normal Lens | 6m (19.7feet) | 299mm (11.8in) | 720g (25.4oz) 67 mm |
|  TSN-603 | Angled | 60mm | XD Lens | 6m (19.7feet) | 300mm (11.8in) | 745g (26.3oz) 67 mm |
|  TSN-604 | Straight | 60mm | XD Lens | 6m (19.7feet) | 300mm (11.8in) | 730g (25.7oz) 67 mm |

*Filter can be attached to scope.

*In accordance with JIS(Japan Industrial Standard).








Photo Attachment Specifications

| Model | Compatible Scopes | Focal Length | F-Number | Minimum Focusing Distance | Length | Weight |
|---|-------------------|--------------|----------|---------------------------|---------------|---------------|
|  | TSN-880 | 680~1000mm | 7.7~11.4 | 5m (16.4feet) | 105mm (4.1in) | 350g (12.3oz) |
| | TSN-770 | 680~1000mm | 8.8~13.0 | 5m (16.4feet) | 105mm (4.1in) | 350g (12.3oz) |
| | TSN-660 | 560~840mm | 8.5~12.7 | 6m (19.7feet) | 105mm (4.1in) | 350g (12.3oz) |
| | TSN-600 | 560~840mm | 9.3~14.0 | 6m (19.7feet) | 105mm (4.1in) | 350g (12.3oz) |
|  | TSN-880 | 600mm | 6.8 | 5m (16.4feet) | 110mm (4.3in) | 285g (10.0oz) |
| | TSN-770 | 600mm | 7.8 | 5m (16.4feet) | 110mm (4.3in) | 285g (10.0oz) |

*When using a digital SLR camera, the focal length of the system will change according to the CCD/CMOS size.



SPOTTING SCOPES

Eyepiece Specifications

| Model | Magnification | Real Field of View | Exit Pupil | Relative Brightness | Twilight Factor | Eye Relief | Field of view at 1000m/yds |
|---|----------------|--------------------|------------|---------------------|-----------------|------------|----------------------------|
| TSN-880/770 Series Upper: TSN-880 / Lower: TSN-770 | | | | | | | |
|  | TE-10Z | 20~60X,ZOOM | 2.2°~1.1° | 4.4~1.5mm | 19.4~2.3 | 42.0~72.7 | 17.0~16.5mm |
| | | | | 3.9~1.3mm | 15.2~1.7 | | |
|  | TE-17W | 30X,Wide | 2.4° | 2.9mm | 8.4 | 51.4 | 20.0mm |
| | | | | 2.6mm | 6.8 | | |
|  | TE-20H | 25X,LER | 2.1° | 3.5mm | 12.3 | 46.9 | 32.0mm |
| | | | | 3.1mm | 9.6 | | |
| TSN-660/600 Series* Upper: TSN-660 / Lower: TSN-600 | | | | | | | |
|  | TE-9Z | 20~60X,ZOOM | 1.9°~1.0° | 3.3~1.1mm | 10.9~1.2 | 36.3~62.9 | 16.5~16.0mm |
| | | | | 3.0~1.0mm | 9.0~1.0 | | |
|  | TE-14WD | 30X,Wide | 2.4° | 2.2mm | 4.8 | 44.5 | 20.0mm |
| | | | | 2.0mm | 4.0 | | |
|  | TE-9WD | 45X,Wide | 1.43° | 1.5mm | 2.3 | 54.5 | 15.0mm |
| | | | | 1.3mm | 1.7 | | |
|  | TE-17HD | 25X,LER | 2.1° | 2.6mm | 6.8 | 40.6 | 32.0mm |
| | | | | 2.4mm | 5.8 | | |






*Eyepiece for TSN-660/600 Series are also usable with TSN-82SV, however, the magnifications and other specifications will slightly vary.

Photo & Video Adapter Specifications


| Model | Compatible Scopes | Magnification | Real Field of View | Eye Relief |
|---|-------------------|---------------|--------------------|------------|
|  | TSN-880 | 14X | 1.97° | 100mm |
| | TSN-770 | | | |
| | TSN-660 | 12X | 2.3° | |
| | TSN-600 | | | |
|  | TSN-880 | 14X | 3.0° | 60mm |
| | TSN-770 | | | |

BINOCULARS

Binocular Specifications

| Model | Magnification | Objective Lens Diameter | Minimum Focusing Distance | Real Field of View | Exit Pupil | Relative Brightness | Twilight Factor | Eye Relief | Field of View at 1000m/yds | Dimensions (Length x Width x Height) | Weight | |
|---|---------------|-------------------------|---------------------------|--------------------|------------|---------------------|-----------------|------------|----------------------------|--------------------------------------|------------------------------|---------------|
|  GENESIS/XD44 Series | 8.5X44 | 8.5X | 44mm | 1.7m (5.5feet) | 7.0° | 5.2mm | 27.0 | 19.3 | 18.3mm | 122.3m/yds | 165X138X64mm (6.5X5.4X2.5in) | 940g (33.2oz) |
| | 10.5X44 | 10.5X | 44mm | 1.7m (5.5feet) | 6.2° | 4.2mm | 17.6 | 21.5 | 16.0mm | 108.3m/yds | 165X138X64mm (6.5X5.4X2.5in) | 960g (33.9oz) |
|  GENESIS/XD33 Series | 8X33 | 8X | 33mm | 1.5m (5.0feet) | 8.0° | 4.1mm | 16.8 | 16.2 | 15mm | 140.0m/yds | 131X121X51mm (5.1X4.7X2.0in) | 590g (20.8oz) |
| | 10X33 | 10X | 33mm | 1.5m (5.0feet) | 6.8° | 3.3mm | 10.9 | 18.2 | 15mm | 119.0m/yds | 131X121X51mm (5.1X4.7X2.0in) | 590g (20.8oz) |
|  BD42 Series | BD42 -8GR | 8X | 42mm | 2.0m (6.5feet) | 6.3° | 5.25mm | 27.6 | 18.3 | 18.3mm | 110.1m/yds | 146X127X51mm (5.7X5.0X2.0in) | 730g (25.7oz) |
| | BD42 -10GR | 10X | 42mm | 2.0m (6.5feet) | 6.0° | 4.2mm | 17.6 | 20.5 | 14.3mm | 104.8m/yds | 146X127X51mm (5.7X5.0X2.0in) | 745g (26.3oz) |
|  BD32 Series | BD32 -8 | 8X | 32mm | 1.5m (5.0feet) | 7.5° | 4.0mm | 16.0 | 16.0 | 15.0mm | 131.1m/yds | 124X122X50mm (4.9X4.8X2.0in) | 560g (19.8oz) |
| | BD32 -10 | 10X | 32mm | 1.5m (5.0feet) | 6.0° | 3.2mm | 10.2 | 17.9 | 15.0mm | 104.8m/yds | 127X122X50mm (5.0X4.8X2.0in) | 565g (19.9oz) |
|  BD25 Series | BD25 -8GR | 8X | 25mm | 1.8m (6.0feet) | 6.3° | 3.1mm | 9.6 | 14.3 | 15.8mm | 110m/yds | 111X107X39mm (4.4X4.2X1.5in) | 320g (11.3oz) |
| | BD25 -10GR | 10X | 25mm | 1.8m (6.0feet) | 5.0° | 2.5mm | 6.3 | 15.8 | 17.7mm | 87.3m/yds | 111X107X39mm (4.4X4.2X1.5in) | 320g (11.3oz) |

HIGH LANDER Specifications

| Model | Lens Type | Objective Lens Diameter | Minimum Focusing Distance | Dimensions (Length x Width x Height) | Weight | Filter Diameter* | |
|---|----------------------------|-------------------------|---------------------------|--------------------------------------|--------------------------------|------------------|------|
|  | BL8J1 HIGH LANDER | Normal Lens | 82mm | 20m (65.6feet) | 430X240X150mm (16.9X9.4X5.9in) | 6.2kg (14lbs) | 95mm |
| | BL8J3 HIGH LANDER PROMINAR | Fluorite Crystal Lens | 82mm | 20m (65.6feet) | 430X240X150mm (16.9X9.4X5.9in) | 6.2kg (14lbs) | 95mm |

*Filter can be attached.
*In accordance with JIS(Japan Industrial Standard).

HIGH LANDER Eyepiece Specifications

| Model | Magnification | Real Field of View | Exit Pupil | Relative Brightness | Twilight Factor | Eye Relief | Field of View at 1000m/yds |
|-------------------|---------------|--------------------|------------|---------------------|-----------------|------------|----------------------------|
| Standard Eyepiece | 32X, WIDE | 2.2° | 2.6mm | 6.8 | 51.2 | 20.0mm | 38.4m/yds |
| TE-21WH | 21X, WIDE | 3.0° | 3.9mm | 15.2 | 41.5 | 17.0mm | 52.4m/yds |
| TE-9WH | 50X, WIDE | 1.33° | 1.6mm | 2.6 | 64.0 | 15.0mm | 23.2m/yds |

*Twilight factor

The twilight factor is a value that represents the ease of identifying an object in twilight conditions. The larger the number, the easier the identification will be. Twilight factor is calculated as the square root of the objective diameter x magnification. Relative Brightness is a value that represents how bright an image appears through an optical device. The larger the number, the brighter the image. Relative brightness is calculated by squaring the diameter of the exit pupil.