



CX6 1-6X24 MS3 RETICLE

Introduction

The Optisan CX6 Precision Tactical Riflescope with MS3 reticle is designed with three separate ranging methods Power Ring, Width Bracket, and Mil-Dot incorporating speed, accuracy, and flexibility.

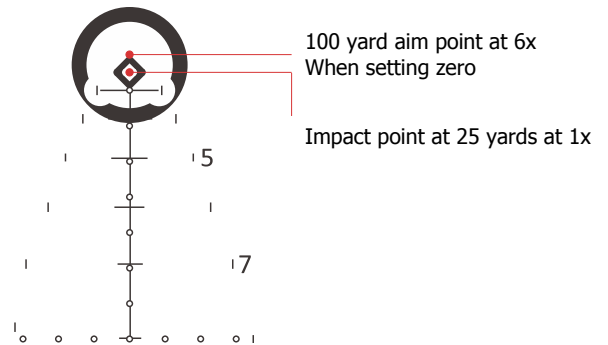
Zeroing in your Optisan

Your new Optisan CX6 is designed to be mounted approximately 1.5" above the rail on an AR15 or similar platform.

To zero first set your CX6 to 6x magnification. Zero your Optisan CX6 MS3 reticle at 100 yards using the top vertex of the central diamond shape (not the center of the diamond).

When mounted correctly the center of the diamond will be close to the center impact point at 25 yds at 1x magnification.

This is a close quarters speed feature and can be useful when when sighting in. Simply place a target at 25 yards and a second at 100 yards. Use the 25-yard target first and aim using the center of the diamond. Once you have the adjustments close, move to the 100-yard target and aim with the top vertex of the diamond and finalize your adjustments.



Ranging - Power Ring Method

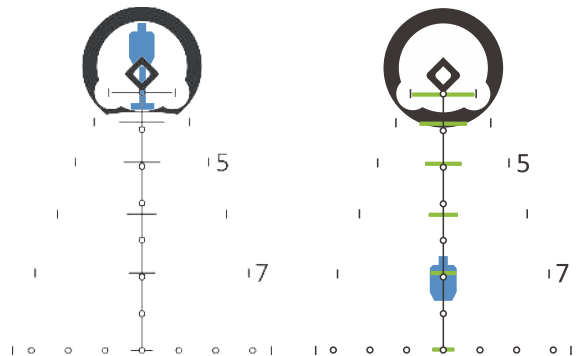
Used by militaries for years the power ring ranging method is a proven fast, accurate method of estimating the distance of a target. In a 2nd focal plane scope the relationship between the size of the target and the reticle is not fixed and changes in a predictable manner. For this application the inner diameter of the large circle is calibrated to be 5' 10" (based on IPSC steel).

To range such targets with your Optisan CX6 you only need to bracket the target within the ring and adjust the magnification power until the target fits the height. The range/distance can then be read off the power ring with precision

Ranging - Bracket Width Method

The bracket width method of ranging is based on the width of an 18" full size IPSC plate target. This is a quick ranging method that is easy to use.

To range a target with your Optisan CX6 using this method, bracket the 18" wide target with the drop line of the appropriate width at 6x magnification. The corresponding bracket line is the distance to your target. Bracket lines are space every 100 yards from 300 to 800 yards. (example: 5 = 500 yards)



Ranging - Mil-Dot Method

The Optisan CX6 MS3 reticle offers Mil Dot ranging using a line of vertical and horizontal mil-dots. When set to 6x magnification these dots are spaced 1 mil center-to-center and have an outside diameter of 0.1 mil. One mil is 3.6" at 100 yards or 10cm at 100 meters or 36" at 1000 yards and 1m at 1000 meters.

These dots may be used to estimate range either a vertically or horizontally where the actual size of a target is known or can be estimated. With the magnification set at 6x measure the target in mils. Input this dimension (in mils) into the following ranging equations along with the target's actual size (in inches or yards) per the following example.

$$\frac{\text{Height of target (yards)}}{\text{mils}} \times 1000 = \text{Distance to Target (yards)}$$

$$\frac{\text{Height of target (inches)}}{\text{mils}} \times 27.78 = \text{Distance to Target (inches)}$$

Bullet Drop Compensation

To compensate for bullet drop and wind drift using the mil dots your Optisan CX6 MS3 reticle is primarily designed and calibrated for use with the M855 62gr .223 cartridge fired from a 16" barrel. The exact ballistic table used is given below for revising to your specific load.

For hand loads, the SierraTM m65gr .224" GameKingTM bullet with a BC of .303 is virtually indistinguishably from the M855. When using other loads please note that the ballistics of the M855 cartridge do not differ far from the popular 55, 69, or 77 grain .223 loads or even from many .308 cartridges.

When using these or different cartridges you should consult the table below in comparison with a similar table for your selected cartridge. This will allow you to adjust for the degree of difference to be expected at each range.

Description :	M885	Range (yd)	Drop (mil)	Windage (mil)	Velocity (ft/s)	Energy (ft lbs)	Time (s)
Weight :	62.0 gr	100	-0.0	0.3	2691.1	996.8	0.105
Caliber :	0.224 in	200	-0.3	0.6	2392.9	788.1	0.224
Ballistic Coefficient :	0.304 G1 (ASM)	300	-1.0	0.9	2114.1	615.2	0.357
Muzzle Velocity :	3000.0 ft/s	400	-1.8	1.3	1854.9	473.6	0.509
Sight Height :	2.73 in	500	-2.9	1.8	1618.2	360.5	0.682
		600	-4.3	2.3	1409.2	273.4	0.881
		700	-5.9	2.9	1235.4	210.1	1.108
		800	-8.0	3.5	1105.1	168.1	1.366

Windage Compensation

Your Optisan CX6 MS3 reticle In the following example, a target at 700 yards with a 5 mph left to right crosswind is being targeted using the drop lines and 10 mph windage bars on the reticle.

The drop lines have been highlighted green, the IPSC full size target blue, and the 10 mph windage bars in pink.

Note: The drop and windage features are calibrated at 6x magnification.

