

Scope Specs Table

for e.g.: 4-14x | 4-16x | 3-18x | 4-20x

Bottom Magni. = 4x or lower

Top Magni. = 14x or higher

with 10y-Side Parallax

Exposed Turrets

Holdoff Reticle

\$200–\$500(–\$1000)

August 31, 2023 | Matthias

Requirements for this Table (a few exceptions are included)

Bottom end magnification = 4x or lower

Top end magnification = 14x or higher

Minimum parallax = 10 yards or less (a few exceptions with 15y)

Side parallax adjustment

Turrets = exposed (with a few exceptions with capped turrets)

Reticle = holdoff reticle (evenly spaced hash lines or dots for aiming with holdoff/ holdover)

Price = mostly between \$200 and \$500, but some are quite a bit more expensive, and they are included because they have all around very good specs (e.g., great magnification range; great bottom end FoV; 10-mil turrets, etc.)

Abbreviations in the Table

Green is a good thing... – e.g.: a very good warranty, a shorter size or lighter weight than average for this magnification range, a larger than average elevation adjustment range, a very wide field of view (FoV), or some additional feature (bubble level, zero stop [0-Stop], turret turn counter [T Turn Counter], numbers on the hash lines of the reticle [N]), etc.

Red is less of a good thing... – e.g.: a not so great warranty, a longer size or heavier weight than average, a smaller than average elevation adjustment range, a very narrow field of view (FoV), or some other negative or limiting feature, like: a small exit pupil (reducing the eye box), a min. parallax longer than 10y, a reticle without illumination, capped turrets, an FFP reticle without thick outside posts, or a price higher than the max. price that was set for this scope table), etc.

Purple is something noteworthy that could be either good or bad, depending on the shooting scenario... – e.g.: an objective lens that is exceptionally small or large for its magnification (e.g., a small lens allows less light to enter, and reduces the need to focus to correct parallax errors), or an exceptionally short or long eye relief (affecting the scope mounting location and eye/head placement), etc.

Orange is a caution flag, a marginal feature or characteristic... – e.g.: warranty limitations, a marginal FoV, a smaller objective diameter for (supposedly) less light than average for the magnification range, an uneven number of mils or moas per turret turn (not multiples of 5mil or 10moa), a 34mm tube (somewhat limiting scope mount choices), a price so low as to shed doubt on the quality of the scope, etc.

SFP vs. **FFP** = table starts with **SFP** (*second focal plane*) scopes, then *first focal plane* (**FFP**)

Thick O/S Posts [for **FFP**] = thick black outside posts, i.e., 3 or 4 of the crosshairs are thick toward the outside (the posts are not hollow rectangles, but filled in with black), which allows seeing the crosshairs easily even when at low magnification. Some have no thick posts, and some have *semi thick* posts.

10x [or 16x, or another number] [for **SFP**] = the magnification at which the holdoff hash lines or dots have been calibrated, i.e., where 1 moa indicated on the reticle actually is 1.047" in reality at 100 yards

Series and Part No. = the manufacturer's product or parts number; helpful to identify the scope at a seller's page as some scopes are very similar and the seller's description is either misleading or insufficient to identify the scope with certainty; also for shopping for the lowest price it helps to enter the number in the search

Discont. = product has been discontinued (but still could be purchased used)

Warranty Info: **Life** = life time warranty | **5y** = 5 years warranty | **OOwn** = warranty only for the original owner | **Unlmt** = unlimited warranty | **Anyb.** = warranty applies to any owner, anybody (e.g., even if you bought it used) | **NoRec.** = no receipt (proof of purchase) required | **Rec.** [or: **R.**] = receipt (proof of purchase) required | **30d** = must register the scope within 30 days of purchase

FoV = Field of View (in ft at 100y):

- *FoV @ bottom magnification:*

A large FoV at the bottom end of the magnification range is important for *hurried close range shooting*, as the large FoV helps rapid target acquisition. Note that a wide FoV is not critical for *unhurried shooting*, i.e., shooting on stationary targets (or quarry that isn't skittish and gives the shooter time to set up the shot).

The color coding in the table is based on my very personal, unabashedly subjective estimation: *For my kind of hurried close range shooting* I'd like to have a FoV of at least around 3ft at 10y (1m at 10m) (which translates to around 30ft @100y, as FoV is usually reported at 100y; it is color coded black).

The color coding at the bottom end of the magnification is applied irrespective of the scope's magnification, so naturally 6-24x scopes for example don't usually get a green rating, but orange or red. Note however that there are sometimes huge differences in FoV between scopes with the same magnification range which makes the bottom end magnification an unreliable indicator of FoV when scope shopping.

41ft or more | **40-35ft** | **34-28ft** | **27-22ft** | **21-17ft** | **16ft or less**

- *FoV @ top magnification:*

Between two scopes with the same top end magnification the one with a larger FoV is

preferable, all other things being equal. This is because the larger FoV might allow to see more clues to how the wind is behaving, or allows to see additional quarry, or makes following the quarry easier if it decides to move. The color coding in the table is based on what is typical for this magnification, i.e., what I have observed to be average for this top magnification.

Examples: At 16x a FoV of 6.3ft normal, whereas a FoV of **4.7ft** is rather narrow and limited. A FoV of **8.5ft** would be great.

Color Coding for the Evaluation of FoV at the <i>Top End</i> Magnification																																												
Magnification	1									7		8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32																
Magnification	1											8								16								32									64							
“times life size”	1x									7x		8x	9x	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32		39		46		53		60	64							
Evaluation of Field of View (FoV): Top End* FoV @ 100y																																												
FoV in ft	from worst to best												ft				ft				ft				ft				ft															
red bold	red/orange gets this evaluation if the value is as indicated or worse												8.5	8	7.5		6			5	4.6	4.2	4.0	3.9		3.7			2.8	2.8														
red													9.5	9	8.5		7			5.8	5.2	4.7	4.5	4.4		4.1					4.1			3.2	3.2									
orange													10.5	10	9.5		8			6.5	5.9	5.4	5.2	4.9		4.5						4.5			3.6	3.6								
Typical Value			color black								13	12	11		9		8	7.1	6.3	5.9	5.5		4.9				4	4																
green	green gets this evaluation if the value is as indicated or better												15	14	13		11		9	8.1	7.2	6.7	6.2		5.3				4.1	4.1														
green bold													17.5	17	15.5		13			10.1	9.3	8.5	7.7	7		5.7					5.7				4.4	4.4								
Magnification	1									7		8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32																

IR = illuminated reticle [Y = yes | **NO**]

Reticle; Ret. *D* = “dots” = enough dots or hash lines on the crosshairs for holdoffs for elevation and windage

N = “numbers” = the dots or hash lines are numbered for quicker holdoffs

Grid = the reticle is a grid style (“Christmas tree style”): for some shooters and for scope cams it “clutters” the reticle, but it allows for more precise elevation *and* windage holdoffs simultaneously

CD = “center dot” = the crosshairs use a *dot* at the center where the two crosshairs intersect

BDC = bullet drop compensating reticle, meaning that the spacing between the hash lines is uneven and therefore not usable for holdoffs unless shooting the ammo the reticle was calibrated for

Capped Turrets! BUT Clickable = means that though the turrets are capped, when uncapped they are finger adjustable, the numbers are visible from behind the rifle, and the zero can be reset

Hawke scopes: Careful when purchasing them, new or used. Hawke has the annoying habit of coming out with new scope models but fails to either add the designation “Gen. 2” or to give them a new series name. In addition they have the habit of adding a couple of innocuous letters or numbers to the name of the scope – which mean massive changes in the features or the performance. These letters or numbers are easy to miss for both the buyers and commercial and private sellers. To assure you are getting the scope with the features you are thinking you are getting, check that the manufacturer’s model number is the correct one. The Scope Specs Table notes the numbers for most scope models for that very reason.

Prices

In US dollars

Price Low = lowest street prices in US dollars I found in 2019 – and updated according to the list below. An additional price is separated by a *comma* ,

Price Mfctr.'s = manufacturer's price [last price in that field, after the semicolon ;]

Prices and/or models updated as follows: 2021-06: Hawke | 2021-07: Shepherd | 2022-12:

Riton | 2022-12: Element | 2023-07: Discoveryopt, aka Discovery | Primary Arms

in 2019, some 2020, 2021, 2022, 2023 Brand: Series Part No.	Price: Low; Mfctr.'s in US \$	War-ranty	Spring-ger-Rated	Magni-fication	FoV =Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Adjmt (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	Thick 0/S Posts? – SFP Calibration at ?	FFP Dots, No's, Grid CenterDot	Line Thick-ness	Tube Dia-meter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
SFP Scopes																				
UTG: Accushot T8 Tactical •Ret. MOA No. SCP3-216UMOA	178; 250	Life	Yes!!	2-16x	44-6	44	22-2.7	Y	??	1/4 inch	18 inch	SMOA≈	=MOA	SFP 10x	D, N	?	30	22.6 641g	12.4" 32c	Locking Turrets
UTG: Accushot OP3 •Ret. MOA No. OP3-GM4164UMOA	?; 210	Life	Yes!!	4-16x	26-8	44	11-3.0	Y	??	1/4 moa	24 moa	MOA=	=MOA	SFP 10x	D, N	?	30	21.5 610g	10.7" 27c	Locking Turrets
UTG: Accushot Premium: Bubble Leveler •Ret. MOA No. SCP3-UG4165AOIEWB	?; 210	Life	Yes!!	4-16x	24-7	56	14-3.5	Y	??	1/8 moa	16? moa	MOA≠	≠MIL	SFP 10x	D	?	30	31.7 899g	16.0" 41c	T Turn Counter Bubble Level Locking Turrets
Nikko: Diamond Long Range •Ret. HMD! No. NDS41650LRHMD	240; ?	Life, R. O.Own	?	4-16x	32-8	50	?	Y	60	1/4 moa		MOA≠	≠MIL	SFP x?	D	?	30	27.7 784g	13.7" 35c	Locking Turrets
Hawke: Airmax 30 SF •Ret. AMR IR No. 13310 Discontinued	400; ?	Life, R. O.Own	Yes!!	4-16x	23-6	50	13-3.0	Y, N	85	1/4 moa	?	MOA≠	≠MIL	SFP 10x	D	?	30	27.5 780g	14.1" 36c	Locking Turrets
Hawke: Vantage 30 WA SF IR No. 14296	340; 399	Life, R. O.Own	Yes!!	4-16x	29-8	50	12-3.1	Y	93	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D	?	30	26.1 740g	13.7" 35c	
MTC: Copperhead F2 [SFP]	480; ?	Life ^{30d} R. O.Own	?	4-16x	24-6	44	?	Y	40	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D 1mil Wind only, N	?	30	24.3 590g	10.8" 27c	Locking Turrets
Hawke: Airmax 30 SF Compact No. 13210	390; 429	Life, R. O.Own	Yes!!	4-16x	33-8	44	11-2.8	Y	67	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D	?	30	21.9 621g	11.7" 30c	Capped Turrets BUT Large for Dialing! T Turn Counter
MTC: Viper Pro	640; –	Life ^{30d} R. O.Own	Yes (?)	3-18x	42-7?	50	?	Y	73	1/4 moa	42 moa	MOA≠	≠MIL	SFP x?	D	?	30	30.4 862g	14.8" 38c	Customzbl Turrets "low quality glass" Magnifier Cap
MTC: Viper Pro Tactical	590; –	Life ^{30d} R. O.Own	Yes (?)	3-18x	42-7?	50	?	Y	73	1/4 moa	14 moa	MOA≠	≠MIL	SFP x?	D	?	30	25.6 725g	14.8" 38c	not customizable, "low quality glass"
Sightron: S-TAC [SFP!] •Ret. MOA-3	450; 520	Life	Yes!!	3-16x	32-6	42	?	Y	NO 70	1/4 moa	15 moa	MOA=	=MOA	SFP 16x	D	.02 ^{mi} .08 ^{mo}	30	23.5 666g	12.9" 33c	Dialing Turrets (capped w/ ^{N1}) T Turn Counter
Bushnell: Engage	325; ?	Life, NoRec.		4-16x	28-7	44	?	Y	NO 50	1/4 moa	15 moa	MOA=	=MOA	SFP x?	D		30	20.1 570g	14.0" 36c	
Aztec: Emerald	400; ?	Life	Yes!!	3-18x	40-4? =Error in the Catalog	50	?	Y	NO ??? (50MOA for 5.5-25x50)	1/4 moa	15 moa	MOA=	=MOA	SFP 18x	D	?	30	24.3 690g	13.3" 34c	
Optisan: EVX 4-16X44i •Ret. MIL-MH10X	391; 440	Life	?	4-16x	27-7	44	?	Y	50	0.1 mil	4.8! mil	MIL =	=MIL	SPF 10x	D, (N)	?	30	25.6 726g	14.3" 36c	T Revolution uneven 4.8 mil!
Sightron: S-TAC: [SFP!] •Ret. MOA	470; 540	Life		4-20x	24-4	50	?	Y	NO 80 (40 wind age)	1/4 moa	15 moa	MOA=	=MOA	SFP x?	D	.03 ^{mi} .1 ^{mo}	30	23.8 675g	14.8" 38c	Dialing Turrets (capped w/ ^{N1}) Turn Counter
Hawke: Sidewinder 30 SF No. 17140	459; 619	Life, R. O.Own	Yes	4-14x	28-9	44	10-3.1	Y	95	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D, Grid	?	30	24.0 680g	13.3" 34c	T Turn Counter
Hawke: Sidewinder 30 SF No. 17250	469; 629	Life, R. O.Own	Yes	4-16x	32-8	50	12-3.1	Y	90	0.1 mil	6 mil	MIL =	=MIL	SFP 10x	D, Grid	?	30	25.6 725g	13.3" 34c	T Turn Counter

				Magni. → FoV	→ Eye Box	Exposed Turrets				Holdoff Reticle				Dimensions						
in 2019, some 2020, 2021, 2022, 2023	Price: Low; Mfctr.'s in US \$	Warranty	Springer-Rated	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? – SFP Calibration at ?	Enough Dots, No's, Grid CenterDot	Line Thickness	Tube Diameter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Vector: Paragon Gen. 2 No. SCOM-25 ≠ Gen. 1 No. SCOM-11 → NO!	?; 360	5y, Rec.	Yes	3-15x	37-8	50	8-3.3	Y	90	0.1 mil	8 mil	MIL =	=MIL	SFP 10x	D, N	?	30	22.0 625g	13.2" 34c	Locking Turrets
Vector: X6 Continental SPF Tactical • Normal turrets, ret. CenterDot lit • ARI, big turrets, all ret. is lit No. SCOL-53	?; 460	Life, NoRec.	?	3-18x	41-7	50	9-2.8	Y	70	0.1 mil	8 mil	MIL =	=MIL	SFP 10x	D, N, Grid	?	30	23.8 675g	15.2" 39c	3 screws; Locking Turrets; 0-Stop
Hawke: Frontier SF • Mil Pro Ret. No. 18120	550; 609	Life, R. 0.Own	Yes	3-15x	37-7.5	44	15-2.9	Y	70	0.1 mil	8 mil	MIL =	=MIL	SFP 10x	D, N, Grid	?	1"	20.6 584g	13.2" 34c	3 screws; Locking Turrets; 0-Stop
Riton: 3 Conquer (or X3)	415; 560	Life, NoRec	Yes	3-15x	38-7.6	44	15-2.9	Y	85	¼ moa	15 moa	MOA =	=MOA	SFP 15x	D, N, CD	?	30	25.4 720g	13.1" 33c	0-Stop; T Turn Counters
Hawke: Frontier 30 SF • Mil Pro Ret. No. 18421	669; 849	Life, R. 0.Own	Yes	2.5-15x	45-7	50	20-3.3	Y	107	0.1 mil	8 mil	MIL =	=MIL	SFP 10x	D, N, Grid	?	30	23.3 660g	14.8" 38c	Parallax 15y 3 screws; Locking Turrets; Zero Stop
Vector: Continental X8 ED SFP Tactical No. SCOL-136	?; 649	Life		2-16x	61-7.7	44	6 ⁵ -2.8	Y	110	0.1 mil	8 mil	MIL =	=MIL	SFP 10x	D, N, Grid	?	30	23.8 675g	13.6" 35c	Parallax 14 or 10y (yes); 0-Stop Turn Counter; Locking Turrets
Element: Helix • Ret. APR-1C MRAD No. 50053 • Ret. APR-1C MOA No. 50054	589; ?	Life, NoRec.		2-16x	60-7.5	50	8 ⁵ -3.1	Y	100 ^{wind} 45moa	0.1mi ¼mo	6mi 15mo	MIL =	=MIL	SFP 16x	D, N, CD	.03mi ?	30	25.6 726g	13.4" 34c	Turn Counter; 0-Stop – limits the max. adjustment??
Maven: RS.5 Only SHR-MIL Ret.!	1400; 1400	Life	?	4-24x	2.8-4.6	50	8 ⁵ -2.1	Y	100	0.1 mil	10 mil	MIL =	=MIL	SFP 24x	•5mi Elev., CD	?	30	25.5 723g	14.4" 37c	0-Stop; Windage capped
Hawke: Frontier SF • Mil Pro Ret. No. 18130	479; 629	Life, R. 0.Own	Yes	4-20x	28-6	44	11-2.2	Y	63	0.1 mil	8 mil	MIL =	=MIL	SFP 20x	D, N, Grid	?	1"	20.6 584g	13.2" 34c	3 screws; Locking Turrets; 0-Stop
Hawke: Frontier 30 SF • Mil Pro Ret. No. 18431	699; 899	Life, R. 0.Own	Yes	4-24x	28-5	50	12-2.1	Y	73	0.1 mil	8 mil	MIL =	=MIL	SFP 20x	D, N, Grid	?	30	23.4 662g	14.5" 37c	Parallax 15y 3 screws; Locking Turrets; 0-Stop
Vector: X6 Continental SFP Tactical No. SCOL-33T	?; 499	Life, NoRec.	?	4-24x	31-5	50	9-2.1	Y	67	0.1 mil	8 mil	MIL =	=MIL	SFP 20x	D, N, Grid	?	30	23.6 670g	14.6" 37c	Parallax 15y
FFP Scopes – without Thick Outside Posts in the Reticle																				
Hawke: Vantage 30 WA FFP IR No. 14300	398; 469	Life, R. 0.Own	<12 FPE	4-16x	33-8	50	12-3.1	Y	86	0.1 mil	6 mil	MIL =	=MIL	FFP No Thick Posts	D	?	30	26.3 745g	13.7" 35c	
Vector: Veyron FFP No. SCFF-22	198; 259	5y	Yes	4-16x	26-6	44	11-2.7	NO	60	0.1 mil	6 mil	MIL =	=MIL	FFP ¹⁷ No Thick Posts	D	?	30	20.0 570g	10.6" 27c	Locking Turrets Eye Relief: 9.0-8.5cm
Sun Optics: FFP Variable Series No. CS41-41444	313; 563	1y	?	4-14x	27-8	44	11-3.2	NO ???		0.1 mil	???	MIL =	=MIL	FFP No Thick Posts	D, N		30	24.0 680g	14.0" 36c	Turrets a bit ugly!
Hawke: Airmax 30 FFP SF No. 13350	510; 569	Life, R. 0.Own	Yes!!	4-16x	32-8	50	12-3.1	Y	70	0.1 mil	6 mil	MIL =	=MIL	FFP w/ odd spacing No Thick Posts	D	?	30	26.6 755g	13.7" 35c	Capped Turrets! BUT Clickable
MTC: Cobra F1	427; –	Life Rec. 0.Own 30d	?	4-16x	27-7	50	?	Y	47	0.1 mil	6 mil	MIL =	=MIL	FFP No Thick Posts	D	?	30	29.4 834g	13.5" 34c	Parallax 15y Locking Turrets Magnifier in Cap
Hawke: Sidewinder SF FFP No. 17410 Discontinued	480; 579	Life, R. 0.Own	Yes	4-16x	23-6	50	13-3.0	Y	83	0.1 mil	6 mil	MIL =	=MIL	FFP ⁵ No Thick Posts	D	?	30	28.7 810g	14.4" 37c	
Vector: Taurus No. SCFF-11	360; 400	Life, NoRec.	?	3-18x	33-6	50	16-2.7	Y	60	0.1 mil	6 mil	MIL =	=MIL	FFP ¹ No Thick Posts	D, N	?	30	26.5 750g	13.2" 34c	Parallax says 15y, but is 10y

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in 2019, some 2020, 2021, 2022, 2023	Price: Low; Mfctr.'s in US \$	Warranty	Springer-Related	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Adjmt. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? - SFP Calibration at ?	Enough Dots, No's, Grid CenterDot	Line Thickness	Tube Diameter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Brand: Series Part No.																				
Vector: Taurus No. SCFF-17	300; 430	Life, NoRec.	?	4-24x	27-4	50	12-2.1	Y	50	0.1 mil	6 mil	MIL =	=MIL	FFP ¹⁵ No Thick Posts	D, N	.04 ^{mi} .14 ^{mo}	30	27.1 770g	15.0" 38c	Parallax says 15y, but is 10y. Locking turrets. 2 extra elev. turrets
Hawke: Sidewinder 30 FFP •FFP Half Mil Ret. No. 17450 •FFP MOA Ret. No. 17451	599; 799. 697; 799	Life, R. 0.Own	Yes	4-16x	32-8	50	13-3.1	Y	90	0.1mi 1/4mo	6mi 15 mo	MIL =	= MIL	FFP No Thick Posts	D, Grid	?	30	25.6 725g	13.3" 34c	T Turn Counter
Hawke: Frontier 30 FFP •Mil Pro 20x Ret. No. 18530	950; 1200	Life, R. 0.Own	Yes	4-20x	28 ² -5.7	50	12-2.5	Y	80	0.1 mil	8 mil	MIL =	=MIL	FFP ²⁷ No Thick Posts	D, N, Grid	?	30	22.2 630g	13.2" 34c	Parallax 15y 3 screws; Locking Turrets; 0-Stop
Hawke: Frontier 30 FFP •Mil Pro 15x Ret. No. 18520	900; 1150	Life, R. 0.Own	Yes	3-15x	37.5-7.5	50	17-3.3	Y	90	0.1 mil	8 mil	MIL =	=MIL	FFP ²⁶ No Thick Posts	D, N, Grid	?	30	22.2 630g	13.2" 34c	3 screws; Locking Turrets; 0-Stop
FFP Scopes – with Thick Outside Posts in the Reticle																				
Monstrum: FFP-G2 No. G2-BFFPS41650-M	?; 170	1y, R. 0.Own	?	4-14x	?	44	?	Y	???	1/4 moa	15 moa	MOA ≠	≠ MIL	FFP Thick O/S Posts	D	?	30	29.0 822g	14.5" 37c	
Monstrum: FFP-G3 No. G3-F1444	?; 240	1y, R. 0.Own	?	4-14x	?	44	?	Y	???	1/4 moa	15 moa	MOA =	=MOA	FFP ²⁰ Thick O/S Posts	D	?	30	26.0 737g	14.0" 36c	
Monstrum: FFP-G1 No. FFPS41444-M	?; 195	1y, R. 0.Own	?	4-14x	?	44	?	Y	???	0.1 mil	6 mil	MIL =	=MIL	FFP ¹⁰ Thick O/S Posts	D, N	?	30	26.0 737g	13.0" 33c	T Turn Counter
Nikko: Diamond FFP 30 •w/ PRR Reticle No. NSFFP41644PRR •w/ Skeleton HMD Reticle No. NSFFP41644HMD	275; ?	Life, 0.Own	?	4-16x	27-7	44		Y	60	0.1 mil		MIL =	=MIL	FFP ¹⁸ O/S Posts: •Thick •Not Thick	•D, N •D, –	.05 ^{mi} .17 ^{mo}	30	21.9 620g	13.4" 34c	Locking Turrets
Primary Arms (US): Silver Series SLx: •w/ R-Grid 2B Ret. No. 610090 •w/ MIL-DOT Ret. No. 610091 •w/ ARC-2-MOARet. No. 610089	280 Mfc 230 Mfc 250 Mfc	3y	?	4-14x	27 ² -7.9	44	11-3.3	Y	60	0.1mi 0.1mi 1/4mo	6 mi 6 mi 12mo	MIL = MIL = MOA =	=MIL =MIL =MOA	FFP ⁴ O/S Posts: •Not Thick •Thick •Thick	D, N, Grid. D, (N)	?	30	25.2 714g	13.0" 33c	T Turn Counter
Blackhound (US): 4-14x44 FFP	?; 300	Life, Anyb.	?	4-14x	27-8	44	?	Y	70	0.1mi 1/4mo	5 mi 15mo	MIL = MOA =	=MIL =MOA	FFP ² Thick O/S Posts	D, N		30	25.6 726g	13.0" 33c	T Turn Counter
Vector: Tourex No. SCFF-24	?; 260	5y, Rec.	?	4-16x	25-6	44	11-2.7	Y	60	0.1 mil	6 mil	MOA =	=MOA	FFP Thick O/S Posts	D, ≈N	?	30	23.5 665g	14.0" 36c	
Nikko: Diamond FFP 34 •w/ PRR Reticle No. NSFFP3441644 •w/ Skeleton HMD Ret. No. NSFFP3441644	320; ?	Life, 0.Own	?	4-16x	27-7	44		Y	115	0.1 mil	6 mil	MIL =	=MIL	FFP ¹⁸ O/S Posts: •Thick •Not Thick	D, N D, –	.05 ^{mi} .17 ^{mo}	34	24.0 680g	13.4" 34c	Locking turrets
Optisan: EVX4-16X44F1 (MIL-F1MH16)	490; 550	Life	?	4-16x	27-7	44	11-2.7	NO	50	0.1 mil	5 mil	MIL =	=MIL	FFP ¹⁹ Thick O/S Posts	D, (N)		30	24.0 680g	14.2" 36c	
Athlon: Talos BTR No. 215028	290; 360	Life, NoRec.	Yes!!	4-14x	27-8	44	11-3.3	Y	67	0.1 mil	5 mil	MIL =	=MIL	FFP ⁷ Thick O/S Posts	D, N	.025 ^{mi} .08 ^{mo}	30	23.6 669g	12.9" 33c	
Primary Arms (US): Silver Series SLx: •w/ Apollo 6.5CM Reticle •w/ Athena BPR MIL Ret. •w/ Hera BPR MOA Ret.	?; 480	Life	?	3-18x	37-6	50	16-2.7	Y	50	0.1mi 0.1mi 1/4mo	7 mi 7 mi 18mo	MIL = MIL = MOA =	=MIL =MIL =MOA	FFP ³ Thick O/S Posts	D, N D, N, Grid	?	30	25.5 720g	13.2" 34c	Parallax 15y ✓ Locking Turrets
Arken: EPL4 •MIL VHR Ret. •MOA VHR Ret.	350, 300; 400	Life		4-16x	30-7 ⁵	44	?	Y	86	0.1mi 1/4mo	8 mi 20mo	MIL = MOA =	= MIL =MOA	FFP ³⁶ Thick O/S Posts	D, N, CD	.03 ^{mi} .10 ^{mo}	30	23.7 672g	13.2" 34c	0-Stop; 3 screws to re-zero; T Turn Counter
SWFA: 30mm series "Turrets + scope very tough."	550 Demo, 700	Life, NoRec	Yes ??	3-15x	35-7	42	11-2.8	NO	125	0.1mi 1/4mo	5 mil 15moa	MIL = or MOA =	=MIL or =MOA	FFP Thick O/S Posts	D or D, N	.06 ^{mi} .20 ^{mo}	30	24.1 680g	13.7" 35c	T Turn Counter Tough! Turrets a bit ugly. Min. Parall. 7y

				Magni. → FoV	→ Eye Box	Exposed Turrets			Holdoff Reticle				Dimensions							
in 2019, some 2020, 2021, 2022, 2023	Price: Low; Mfctr.'s in US \$	Warranty	Springer-Related	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Adjmt. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? – SFP Calibration at ?	Enough Dots, No's, Grid CenterDot	Line Thickness	Tube Diameter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Brand: Series Part No.																				
Sightron: S-TAC: [FFP!] •Ret. MIL	660; 800	Life		4-20x	22-4	50	?	Y	80 (40 wind-age)	0.1 mil	5 mil	MIL =	=MIL	FFP Thick O/S Posts	D, N	.035 ^{mi} .12 ^{mo}	30	25.6 725g	15.0" 38c	T Turn Counter 0-Stop
Shepherd (US): BRS •BRS-MIL Ret. •BRS-MOA Ret.	449; 549	Life, Own		4-16x	25-7	44	?	Y	65	0.1mi 1/4mo	6?mil 15 mo	MIL = MOA =	=MIL =MOA	FFP ¹² Thick O/S Posts	D, N, Grid	.05 ^{mi} .16 ^{mo} ? ?	30	23.6 670g	13.8" 35c	T Turn Counter Locking Turrets
Element: Nexus •APR-1C MRAD Ret. •APR-2D MRAD Ret. •EHR-1C MOA Ret. •EHR-1D MOA Ret.	1500; 1500	Life		5-20x	23 ⁻³ -5.8	50	8-2.5	Y	80 50 wind-age	0.1mi 1/4mo	10 mi 20mo	MIL = MOA =	=MIL =MOA	FFP Thick O/S Posts	•D, N •+Grid •D, N •+Grid	? ?	30	28.0 794g	13.8" 35c	0-Stop T Turn Counter Toolless Rezero
Sightmark: Citadel •w/ MR2 No. SM13039MR2 •w/ LR2 No. SM13039LR2 •w/ LR1 No. SM13039LR1	340-400; 475	Life, 30d, Own		3-18x	33-6	50	7-27	Y	60	0.1mi 0.1mi 1/4mo	6 mi 6 mi 15 mo	MIL = MIL = MOA =	=MIL =MIL =MOA	FFP Thick O/S Posts	D, N +Grid +Grid	.03 ^{mi} .03 ^{mi} .12 ^{mo}	30	26.1 740g	13.0" 33c	Parallax says 15y, but is c.13y. Locking turrets. Throw lever.
Swampfox (US): Kentucky Long •Sharpsh. Grid Ret. MIL •Sharpsh. Grid Ret. MOA No. KTK31850-4L No. KTK31850-4M	428; 529	Life (50000 rounds)		3-18x	35-6	50	11-22	Y	110	0.1mi 1/4mo	6 mi 15mo	MIL = MOA =	=MIL =MOA	FFP ²² Semi Thick Posts	D, N, Grid	? ?	30	28.2 800g	14.8" 38c	Locking Turrets
Sightron: S-TAC: FFP Zero Stop •Mil-Hash-2 Ret. No. 260117-S-TAC3-16X42FFZSPMH •MOA-5 Ret. No. 26020-S-TAC3-16X42ZSFFIRM	580; 670	Life		3-16x	29-6	42	?	Y	70	0.1mi 1/4mo	5 mi 15 mo	MIL = MOA =	=MIL =MOA	FFP Thick O/S Posts	D, N	.05 ^{mi} .17 ^{mo} .03 ^{mi} .10 ^{mo}	30	24.8 703g	13.3" 34c	0-Stop T Turn Counter
Athlon: Midas TAC No. 213070	590; 737	Life, NoRec.	?	4-16x	28-7	44	11-18 error	NO	100	0.1 mil	10 mil	MIL =	=MIL	FFP ⁸ Thick O/S Posts	D, N	.04 ^{mi} .14 ^{mo}	30	23.8 669g	14.6" 37c	0-Stop T Turret Counter Capped Windage
Element: Helix FFP •MIL Ret. APR-2D MRAD •MOA Ret. APR-2D MOA •MIL Ret. APR-1C MRAD •MOA Ret. APR-1C MOA	460; –	Life, NoRec.		4-16x	26-6 ^{.5}	44	13-3.3	NO	80 45 Wind	0.1mi 1/4mo	6 mil 15 mo	MIL = MOA =	=MIL =MOA	FFP ²⁹ Thick O/S Posts	D, N, Grid, CD D, N, CD	.045 ^{mi} .15 ^{mo} ? ?	30	23.8 675g	14.2" 36c	Parallax 15y Toolless Re-zero; 0-Stop – limits the max. adjustment?? T Turn Counter
Hi-Lux (US): PentaLux TAC-VF 4-20x50 FFP G2	539; 575	Life, Rec.	No	4-20x	28-6	50	12-2.5	Y	80	0.1 mil	12 mil	MIL =	=MIL	FFP Thick O/S Posts	D, N	? ?	30	27.9 791g	14.7" 37c	Locking Turrets Throw Lever
Swampfox (US): Warhawk •Sharpsh. Grid Ret. MIL •Sharpsh. Grid Ret. MOA No. TWK31550-3L No. TWK31550-3M	??; 599	Life (50000 rounds)		3-15x	39 ⁻¹ -8 ⁰	50	8-3.0	Y	120	0.1mi 1/4mo	10 mi 25 mo	MIL = MOA =	=MIL =MOA	FFP ²⁵ Semi Thick Posts	D, N, Grid	? ?	34	30.0 850g	14.8" 38c	Locking Turrets
Shepherd (US): BRS •BRS-MIL Ret. •BRS-MOA Ret.	799; 850	Life, Own n		3-18x	35-6	50	?	Y	100	0.1mi 1/4mo	6?mil 15?mo	MIL = MOA =	=MIL =MOA	FFP ²⁸ Thick O/S Posts	D, N, Grid	? ? .05 ^{mi} .19 ^{mo}	34	31.0 880g	13.5" 35c	T Turn Counter; Locking Turrets
Falcon (UK): S18i FFP *343\$ at SWFA 12% Discontinued	343, 380; –	10y, Own	Yes! !	3-18x	39-7	50	16-2.8 calcul.	Y	90 Mine travels 105	0.1 mil	10 mil	MIL =	=MIL	FFP ⁶ Thick O/S Posts	D, N	.04 ^{mi} .14 ^{mo}	30	31.1 882g	14.6" 37c	T Turn Counter
Element: Titan •MIL Ret. APR-2D •MOA Ret. APR-2D	800; –	Life, NoRec.		3-18x	41-7	50	17-2.8	Y	150	0.1mi 1/4mo	10mi 25mo	MIL = MOA =	=MIL =MOA	FFP ³⁴ Thick O/S Posts	D, N, Grid, CD	? ?	34	34.4 976g	14.6" 37c	0-Stop – limits the max. adjst.?? Toolless Re-zero; T Turn Counter
Athlon: Ares BTR Gen.2 •APRS5 MIL Ret. No. 21201 •APLR4 MOA Ret. No. 212013	900; 1250	Life, NoRec.		25-15x	42-7	50	11-3.3	Y	100	0.1mi 1/4mo	10 mil 25mo	MIL = MOA =	=MIL =MOA	FFP Thick O/S Posts	D, N, Grid	.06 ^{mi} .20 ^{mo} .07 ^{mi} .24 ^{mo}	30	27.3 774g	13.8" 35c	0-Stop; T Turn Counter

				Magni. → FoV	→ Eye Box	Exposed Turrets			Holdoff Reticle				Dimensions							
in 2019, some 2020, 2021, 2022, 2023	Price: Low; Mfctr.'s in US \$	Warranty	Springer-Related	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Adjmt. (MOA)	1 Click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? - SFP Calibration at ?	Enough Dots, No's, Grid CenterDot	Line Thickness	Tube Diameter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Athlon: Helos BTR Gen. 2 •APRS6 MIL Ret. No. 214109 •APLR6 MOA Ret. No. 214108	500, 570; 750	Life, NoRec.		4-20x	28-6	50	?	Y	100	0.1mi	10 mi	MIL =	=MIL	FFP Thick O/S Posts	D, N, Grid	.05 ^{mi} .17 ^{mo} .05 ^{mi} .17 ^{mo}	30	27.6 782g	13.3" 34c	0-Stop; T Turn Counter
Apex: The Hunter	1040; 1200	Life		3-15x	38 ³ -7.6	44	17-3.3	Y + NO	70	0.1 mil	10 mil	MIL =	=MIL	FFPP ³⁷ Thick O/S Posts	D, N, Grid, CD	?	30	26.0 738g	13.8" 35c	Locking Turrets
Maven: RS.1 – Buy With Custom Turret!! Only MOA-2 Ret.!	1200; 1200	Life		25-15x	42-7	44	28-2.9	NO	100	¼ moa	20 moa	MOA =	=MOA	FFP Thick O/S Posts	All: CD •10 ^{mo} WindN	?	30	24.5 695g	14.1" 36c	
Swampfox (US): Kentucky Long	458; 569	Life (50000 rounds)		4-24x	30.9-4.7	50	11-2.0	Y	90	0.1mi ¼mo	6 mi 15 mo	MIL = or MOA =	=MIL or MOA	FFP ²³ Semi Thick Posts	D, N, Grid	?	30	28.2 800g	15.1" 38c	Locking Turrets
Swampfox (US): Warhawk •Sharpsh. Grid Ret. MIL No. TWK42050-3L •Sharpsh. Grid Ret. MOA No. TWK42050-3M	??; 659	Life (50000 rounds)		4-20x	32 ⁰ -7 ²	50	13-2.4	Y	90	0.1mi ¼mo	10 mi 25 mo	MIL = MOA =	=MIL MOA	FFP ²⁴ Semi Thick Posts	D, N, Grid	?	34	32.8 930g	15.0" 38c	Locking Turrets
Vector: Continental X6 FFP No. SCFF-28	?; 800	Life, NoRec.		3-18x	41-7	50	8-2.8	Y	146	0.1 mil	10 mil	MIL =	=MIL	FFP ¹³ Thick O/S Posts	D, N, Grid	?	34	28.9 820g	13.3" 34c	0-Stop with 68moa Limit Locking Turrets
Hawke: Frontier 34 FFP No. 18620 •MIL Ret. No. 18620 •MOA Ret. No. 18621	1170; 1300	Life, R. 0.0w n	Yes	3-18x	37-4	50	17-2.8	Y	158 ⁸⁷ Windage	0.1mi ¼mo	8 mil	MIL = MOA =	=MIL MOA	FFP ³¹ Semi Thick Posts	D, N, Grid	.04 ^{mi} .14 ^{mo}	34	27.9 790g	13.3" 34c	Parallax 15y 3 screws; Locking Turrets; 0-Stop
Vortex: Strike Eagle •EBR-7C MIL Ret. No. SE-31802 •EBR-7C MOA Ret. No. SE-31801	750; 850	Life, NoRec.		3-18x	39-7	44	?	Y	154 ⁶² Windage	0.1mi ¼mo	10 mi 25 mo	MIL = MOA =	=MIL MOA	FFP Thick O/S Posts	D, N, Grid CD	.03 ^{mi} .10 ^{mo} .04 ^{mi} .15 ^{mo}	34	27.3 774g	13.3" 34c	0-Stop; Toolless Re-zero; T Turn Counter; Capped Windage
Meopta: Optica6: 3-18x56 RD FFP •Only with MRad1 RD Reticle! ▲Careful w/ many similar models!	750; 850	Life, Anyb., Regist.	Yes	3-18x	33-6	56	9 ⁵ -3.1	Y	90	0.1 mil	10 mil	MIL =	=MIL	FFP ³⁵ Thick O/S Posts	D, N, Grid CD, Horse shoe	.04 ^{mi} .14 ^{mo}	30	30.5 865g	14.5" 37c	0-Stop Capped Windage
Athlon: Ares ETR UHD •APRS6 MIL Ret. No. 212106 •APLR6 MOA Ret. No. 212105	900; 1250	Life, NoRec.		3-18x	39-7	50	?	Y	110 ⁸⁰ Windage	0.1mi ¼mo	10 mi 25 mo	MIL = MOA =	=MIL MOA	FFP ³² Thick O/S Posts	D, N, Grid	.05 ^{mi} .18 ^{mo} .05 ^{mi} .18 ^{mo}	34	31.4 782g	14.2" 34c	0-Stop T Turn Counter Locking Windage
Riton: 7 Conquer (or X7) •T3 MIL Ret. •PSR MIL Ret.	900; 1700	Life	Yes	3-18x	35-6	50	7 ⁵ -2.9	Y	158	0.1 mil	10 mil	MIL =	=MIL	FFP ³³ Thick O/S Posts	•D, CD •D, N, Grid, CD	.06 ^{mi} .20 ^{mo} .15 ^{mi} .51 ^{mo}	34	31.0 878g	13.6" 35c	0-Stop → but then limited travel, 3 Screws to rezero
Vector: Continental X6 FFP • No. SCFF-29 • No. SCFF-40 (more holds)	750; 850	Life, NoRec.		4-24x	31-5	56	8-2.3	Y	113	0.1 mil	10 mil	MIL =	=MIL	FFP ¹⁴ Thick O/S Posts	D, N, Grid	?	34	27.5 780g	14.3" 36c	0-Stop with 68moa Limit Locking Turrets
Brand: Series Part No.	Price: Low; Mfctr.'s in US \$	Warranty	Springer-Related	Magnification	FoV = Field of View @ 100y (ft)	Obj. Dia (mm)	Exit Pupil (mm)	IR Y, N	Max. Elev. Adjmt. (MOA)	1 click =	1 T. Turn =	Turrets in:	Reticle in:	FFP Thick O/S Posts? - SFP (Calibration)	Enough Dots, No's, Grid CenterDot	Line Thickness	Tube Diameter	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
*in 2019, some 2020, 2021, 2022																				

Notes About Different Scopes – N1, N2, N3, etc.:

N1: Sightron ExacTrack turret adjustment system: Though the turrets of the indicated scope are capped, they are made for *dialing*, because they use the same ExacTrack turret adjustment system as the uncapped scopes of the following series (as of the 2012 and 2022 catalog): S-TAC | SVIII [S8] | S6 | SV [S5] | SIII [S3] | SII [S2] | SII Big Sky

Reticles: Footnotes: Links for Views or Videos of FFP Reticles at Different Magnifications

- Note: Sometime in 2022 I began to save some reticle links in the following web archive, so that even if manufacturers or seller deleted the webpage or changed the URL, the link was still accessible through the archive, here:
<https://archive.org/web/web.php>
- Note on more detailed reticle diagrams:
 - Athlon: Each scope on their homepage includes detailed diagrams: <https://athlonoptics.com>
 - Discovery: many scopes reticles are listed here: <https://discoveryoptics.co.uk/reticles/>
- ¹ Vector: Taurus: 3-18x50 FFP: Reticle at all magnifications: @ 7:59min:
<https://www.youtube.com/watch?v=SOOdqEcXgU4>
- ² Blackhound: 4-14x44 FFP: Reticle at min. and max. magnification:
 - Alpha MIL reticle (like in the 6-24x50, the Blackhound page has an error here, and like the MOA and the 6-24x50 FFP – the 4-14x44 FFP most likely has the thick posts:
<https://www.blackhoundoptics.com/product/genesis-6-24x50-ffp-mil>
 - Ascent MOA reticle: <https://www.blackhoundoptics.com/product/genesis-6-24x50-ffp-moa/>
- ³ Primary Arms: Silver Series: 3-18x50 FFP: Apollo 6.5CM MIL Grid reticle: Reticle at min. and max. magnification:
<https://www.primaryarms.com/pa-3-18x50mm-illuminated-ffp-rifle-scope-with-acss-apollo-6-5cm-reticle>
- ⁴ Primary Arms: Silver Series: 4-14x44 FFP:
 - R-Grid 2B reticle: <https://www.primaryarms.com/slx3-5-4-14x44mm-first-focal-plane-rifle-scope-with-illuminated-r-grid-2b-reticle>
 - MIL-DOT reticle: <https://www.primaryarms.com/primary-arms-4-14x44mm-riflescope-mil-dot-pa4-14x44>
 - ARC-2-MOA reticle: <https://www.primaryarms.com/primary-arms-4-14x44mm-ffp-riflescope-arc-2-moa-reticle>
- ⁵ Hawke: Sidewinder SF FFP [No. 17410]: 4-16x50: Reticle at min. and max. magnification:
<https://us.hawkeoptics.com/sidewinder-30-sf-ffp-riflescopes.html>
- ⁶ Falcon: S18i 3-18x50 FFP: Reticle at all magnifications: @ 2:06min:
<https://www.youtube.com/watch?v=RGmnOFp2fUU>
- ⁷ Athlon: Talos BTR 4-14x44 FFP: APLR2 MIL Grid: Reticle at min. and max. magnification:
<https://athlonoptics.com/product/rifle-scopes-talos-btr-4-14x44-aplr-ffp-ir-mil>
- ⁸ Athlon: Midas TAC 4-16x44 FFP: APRS2 MIL: Reticle at min. and max. magnification:
<https://athlonoptics.com/product/midas-tac-4-16x44-mil/>
- ⁹ Discovery: HD: 4-20x50 SFIR FFP: Reticle at all magnifications: @ 2:42min:
https://www.youtube.com/watch?v=C1qBt7yg_ek
- ¹⁰ Monstrum: FFP-G1: 4-14x44: (No. FFPS41444-M): Reticle at min. and max. magnification:
https://web.archive.org/web/20191122043510/https://cdn11.bigcommerce.com/s-r7nbep7374/images/stencil/1280x1280/products/252/2002/MONSTRUM-TACTICAL-4-14X44-FFP-FIRST-FOCAL-PLANE-RIFLE-SCOPE-FFPS-HUNTING-AR-15-LR-3083_95364.1551303891.jpg?c=2
- ¹¹ Arken: SH4: 4-14x44 FFP: Reticle at all magnifications: 2:53min:
<https://www.youtube.com/watch?v=VpJRPnOOqso>
- ¹² Shepherd: BRS: 4-16x44 FFP: Reticle at min. and max. magnifications:
 - BRS-MIL Ret.: <https://shepherdsopes.com/wp-content/uploads/2020/04/4-16x44-BRS-MIL-Reticle.jpg>
 - Also: <https://shepherdsopes.com/wp-content/uploads/2021/03/BRS-4-16-IR-Mil-Instructions.pdf>
 - BRS-MOA Ret.: <https://shepherdsopes.com/wp-content/uploads/2020/04/4-16x44-BRS-MOA-Reticle.jpg>
- ¹³ Vector: Continental 34mm: 3-18x50: Reticle at min. and max. magnifications:
<https://www.vectoroptics.com/data/uploads/2020/06/22/1592831083.jpg>
- ¹⁴ Vector: Continental 34mm: 4-24x56: Reticle at all magnifications: @ 1:27min:
<https://www.youtube.com/watch?v=ceLSb2gkmbk>
<https://www.vectoroptics.com/data/uploads/2020/06/22/1592831142.jpg>
- ¹⁵ Vector: Taurus: 4-24x50 FFP: Reticle at min. and max. magnification: @ 0:37min (play at slowest playback speed, the min. magnification will be shown only for a *split second* – but shows how thin the outside post really are, they are not really “medium”:
<https://www.youtube.com/watch?v=rZRVuR5-398>
- ¹⁶ Discovery: HD/34mm: 3-18x50 FFP: Reticle at all magnifications: 0:35min:
<https://www.youtube.com/watch?v=2PZWxlWHfPc>
- ¹⁷ Vector: Veyron: 4-16x44 FFP: Reticle at all magnifications: @ 3:20min and at @ 17:18min to 18:05min:

<https://www.youtube.com/watch?v=gXEKU27mXtQ>

- ¹⁸ Nikko: Diamond FFP: Nikko's *Skeleton HMD* reticle is used in several scopes and it does not have thick outside posts; the double lines used are just as thin as the rest of the reticle. Here is an example of the *Skeleton HMD* reticle, in the Diamond FFP 30mm 6-24x50: Reticle at different magnifications: 6x: @ 13:44min | 16x: @ 14:14min | 24x: 14:31min:
https://www.youtube.com/watch?v=VOy2IWN7N_c
- ¹⁹ Optisan: EVX 4-16X44F1 (MIL-F1MH16): Reticle at all magnifications: @ 4:36min
<https://www.youtube.com/watch?v=K1yoMv-VP2Y>
- ²⁰ Monstrum: FFP-G3: 4-14x44 No. G3F41444: Reticle at min. and max. magnification:
https://cdn11.bigcommerce.com/s-r7nbep7374/images/stencil/1280x1280/products/454/2468/Type-H-reticle_4-14x44_99131.1570125176.jpg?c=2
- ²¹ Discovery: VT-3: 4-16x50 FFP: Reticle at all magnifications (the operator of the camera sometimes does not achieve to focus the camera on the reticle, but after about a minute he gets it focused even at low magnification): @ 18:13min and 23:38min
<https://www.youtube.com/watch?v=5NIOfltFLZc>
- ²² Swampfox: Kentucky Long: 3-18x50 FFP:
Cf. the other models of this series that have the same six-fold magnification range, resulting in the same ratio of reticle increase/decrease:
Kentucky Long: 5-30x56 FFP: MOA Reticle: Reticle at all magnification: @ 3:16min:
<https://www.youtube.com/watch?v=riYsEFSXYyw>
and the very similar Swampfox: Kentucky Long: 2-12x44 FFP: MOA: Reticle at 2x and at 12x(?):
<https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAXfL.AC.SL1500.jpg>
<https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC.SL1500.jpg>
- ²³ Swampfox: Kentucky Long: 4-24x50 FFP:
Cf. the other models of this series that have the same six-fold magnification range, resulting in the same ratio of reticle increase/decrease:
Swampfox: Kentucky Long: 5-30x56 FFP: MOA Reticle: Reticle at all magnification: @ 3:16min:
<https://www.youtube.com/watch?v=riYsEFSXYyw>
And also: Swampfox: Kentucky Long: 2-12x44 FFP: MOA: Reticle at 2x and at 12x(?):
<https://images-na.ssl-images-amazon.com/images/I/71%2B5YMUAXfL.AC.SL1500.jpg>
<https://images-na.ssl-images-amazon.com/images/I/71aX%2BZ5aDFL.AC.SL1500.jpg>
- ²⁴ Swampfox: Warhawk: 4-20x50 FFP:
Currently no reticle images of this particular scope. However, cf. the Swampfox Warhawk 5-25x56 FFP: MOA Reticle: at 5x: @ 1:04min (very briefly, use slo-mo, or pause it):
<https://www.youtube.com/watch?v=fFh5jleVgxE>
Cf. also the same reticle in the Kentucky Long models (several videos available; however the Warhawk has only a five-fold magnification range, as opposed to the Kentucky Long's six-fold, which means the reticle will increase/decrease 17% less).
- ²⁵ Swampfox: Warhawk: 3-15x50 FFP:
Currently no reticle images of this particular scope. However, cf. the Swampfox Warhawk 5-25x56 FFP: MOA Reticle: at 5x: @ 1:04min (very briefly, use slo-mo, or pause it):
<https://www.youtube.com/watch?v=fFh5jleVgxE>
Cf. also the same reticle in the Kentucky Long models (several videos available; however the Warhawk has only a five-fold magnification range, as opposed to the Kentucky Long's six-fold, which means the reticle will increase/decrease 17% less).
- ²⁶ Hawke: Frontier 30 FFP: 5-15x50, Mil Pro 15x Reticle [No. 18520]:
No video found so far, however, cf. the link below for the same reticle in an FFP scope (4-20x), however there the reticle has to cover a 5-fold magnification range and thus will be much smaller at the bottom end of the magnification, and much larger at the top end than the present 3-15x scope that only has a 3-fold magnification range.
Hawke: Frontier 30 FFP: 4-20x50, Mil Pro 20x Reticle [No. 18530]c: at 4x to 20x: @ 7:55min | And illuminated at night and during daylight: @ 9:09min:
<https://www.youtube.com/watch?v=E9SLP7RiaWg>
- ²⁷ Hawke: Frontier 30 FFP: 4-20x50, Mil Pro 20x Reticle [No. 18530]: at 4x to 20x: @ 7:55min | And illuminated at night and during daylight: @ 9:09min:
<https://www.youtube.com/watch?v=E9SLP7RiaWg>

- ²⁸ Shepherd: BRS: 3-18x50 FFP: Reticle at min. and max. magnifications:
BRS-MIL Ret.: [not found yet]
BRS-MOA Ret.: https://shepherdsopes.com/wp-content/uploads/2020/04/Reticle_BRS_MOA.jpg
Also: <https://shepherdsopes.com/wp-content/uploads/2021/03/BRS-3-18-Instructions.pdf>
- ²⁹ Element: Helix: 4-16x44 FFP: MIL and MOA Ret.: Reticle at min. and max. magnifications: In the *Manual* on the webpage, pp. 15-16:
<https://element-optics.com/wp-content/uploads/2021/07/HELIX-4-16x44-FFP-MANUAL-.pdf>
- ³⁰ Discovery: ED: 3-15x50 SFIR FFP: Reticle at all magnifications:
@ 3:04min (2018-06): <https://www.youtube.com/watch?v=kdIDJIPEUtE>
@ 1:04min (2019-01): https://www.youtube.com/watch?v=2fYkPggy_o
- ³¹ Hawke: Frontier 34 FFP: 3-18x50, Mil Pro Ext. Reticle [No. 18620]: Reticle at all magnifications, illuminated:
@ 2:02min:
<https://www.youtube.com/watch?v=3ztkBiv4lk>
- ³² Athlon: Ares ETR UHD 3-18x50 FFP:
APRS6 MIL Ret.: Reticle at min. and max. magnification: <https://newsite.athlonoptics.com/product/ares-etr-3-18x50-aprs6-ffp-ir-mil-uhd/>
APLR6 MOA Ret.: Reticle at min. and max. magnification: <https://newsite.athlonoptics.com/product/ares-etr-3-18x50-aplr6-ffp-ir-moa-uhd/>
- ³³ Riton: 7 Conquer: 3-18x50 FFP:
Reticle Subtensions:
T3 MIL Ret.: <https://ritonoptics.com/wp-content/uploads/2019/12/7Conquer3-18x50.RitonOptics.ReticleSubtensions.jpg>
PSR MIL Ret.: <https://ritonoptics.com/wp-content/uploads/2019/12/7-Conquer-3-18x50-PSR-PSR-02.jpg>
- ³⁴ Element: Titan: 3-18x50 FFP:
MIL APR-2D Ret.: Reticle at all magnifications: @ 14:11min and IR @ 8:17min
<https://www.youtube.com/watch?v=NY5K9qED3RU>
Reticle at min. and max. magnification: Brochure p. 15:
https://element-optics.com/wp-content/uploads/2022/07/5x7-TITAN-3-18x50-MANUAL_lr.pdf
MOA APR-2D Ret.: Reticle at min. and max. magnification: Brochure p. 16:
https://element-optics.com/wp-content/uploads/2022/07/5x7-TITAN-3-18x50-MANUAL_lr.pdf
- ³⁵ Meopta: Optica6: 3-18x56 RD FFP: Reticle Subtensions:
https://www.meoptasportsoptics.com/Aton/FileRepository/aton_file_repository_HtmlEditorRepositoryDoc/Root/Reticles/reticle-MRad1-RD.pdf
- ³⁶ Arken: EPL4: 4-16x44 FFP:
MIL VHR: Reticle Subtensions:
https://www.arkenopticsusa.com/_ipx/w_1920,q_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cfd12962abab2540216-4005x4005.png%3Fauto%3Dformat%3Furl=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2Fdaa6661e721237bec2a01cfd12962abab2540216-4005x4005.png%3Fauto%3Dformat&w=1920&q=100
MOA VHR: Reticle Subtensions:
https://www.arkenopticsusa.com/_ipx/w_1920,q_100/https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat%3Furl=https%3A%2F%2Fcdn.sanity.io%2Fimages%2Fu57cw5zd%2Fproduction%2F3917883977bc6e2f37f55eab92830f303f99d20d-4005x4005.png%3Fauto%3Dformat&w=1920&q=100
- ³⁷ Apex: The Hunter 3-15x44: Reticle at 15x:
<https://apexoptics.co/hunter3-15/#reticle>