

# Scope Specs Table

**For e.g.: 6-24x | 5-30x**

**Bottom Magni. = 6x or lower**

**Top Magni. = 24x or higher**

**with 10y-Side Parallax**

**Exposed Turrets**

**Holdoff Reticle**

**FFP**

**Under \$900**

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## **Requirements for this Table** (a few exceptions are included)

Bottom magnification = 6x or lower

Top magnification = 24x or higher

Minimum Parallax = 10 yards or less

Side Parallax Adjustment

Turrets = Exposed

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

FFP = Front Focal Plane

Price = under \$900

## **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, turret turn counter, numbers on the hash lines of the reticle), 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 on the higher end of the spectrum of “under \$900”), 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.

**FFP** = 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

*Price \$ Low* = lowest prices in US dollars I found in 2019 (some 2020) [additional price separated by a *comma* , – and separated by a *semicolon* ; from the manufacturer's price]

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

*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

*FoV* = Field of View (in ft at 100y): 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 target shooting*. The color coding is based on my very personal, unabashedly subjective estimation that *for my kind of hurried close range shooting* I'd like to have a FoV of at least 3ft at 10y (which translates to 30ft @100y in the scope specs, color coded black). The color coding 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 significant differences in FoV between scopes with the same magnification range.

**42ft or more** | **41-36ft** | 35-30ft | **29-23ft** | **22-17ft** | **16ft or less**

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

*Reticle, Ret.:* **D** = "dots" = enough dots or hash lines on the crosshairs for holdoffs

**N** = "numbers" = the dots or hash lines are numbered for quicker holdoffs

**Grid** = the reticle is a grid style ("Christmas tree style"), for simultaneous elevation *and* windage holdoffs

**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

*in 2019	Price* \$ Low; Mfctr.'s	Warranty	Springer-Rated	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:	Thick O/S Posts? FFP — SFP Calibration at ?	Enough Dots, No's	Line thickness	1" or 30mm	Weight (oz) (g)	Length (inch) (cm)	Misc. + Reviewers' "Comments"
Vector: Tourex <small>No. SCFF-19</small>	?; 280	5y, Rec.		6-24x	18-5	50	8-2.1	Y	50	¼ moa	15 moa	MOA =	=MOA	FFP <sup>17</sup> Thick O/S Posts	D, N but 4, 12, 20, 28, 36	?	30	26.3 745g	14.3" 37c	Zero stop turrets
Vector: Marksman 6-24x50 <small>(not the 6-25x50, SCFF-11) No. SCFF-26</small>	?; 230	5y, Rec.		6-24x	17-5	50	8-2.1	N O	60	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>16</sup> No Thick Posts	D, N, Grid but not so great	?	30	24.7 700g	14.2" 36c	Locking turrets
MTC: King Cobra F1 <small>No. —</small>	446,629 —	Life <sup>300</sup> R. 0.Own		6-24x	16-4	50	?	Y	38 (??)	0.1 mil	5 mil	MIL =	=MIL	FFP <sup>18</sup> No Thick Posts	D		30	26.3 746g	14.4" 37c	Locking Turrets Magnify. Lens Cap
Hawke: Airmax 30 FFP SF <small>No. 13352</small>	?; 589	Life, R. 0.Own	Yes!!	6-24x	21-5	50	8-2.1	Y	57	0.1 mil		MIL =	=MIL	FFP w/ odd spacing No Thick Posts	D	?	30	27.0 765g	14.9" 38c	Capped Turrets! BUT Clickable
Aztec: Emerald FFP [not SFP!]	540; —	Life	Yes!!	5.5-25x	19-4	50	?	Y	c. 40?	¼ moa	15 moa	MOA =	=MOA	FFP <sup>19</sup> Thick O/S Posts	D, N small Grid	?	30	25.4 720g	14.4" 37c	"Low DoF"
ACME Machine	?; 300			6-24x		50	8-2.1	Y	60	0.1mil or ¼mo	??mil or 12moa	MIL = or MOA =	=MIL or =MOA	FFP <sup>20</sup> Thick O/S Posts	D		30	28.5 808g		Parallax is 10y. T. Turn Counter
Discovery: VT-3: 6-24x50 SFAI FFP <small>No. 170602</small>	?; 290	3y		6-24x	19-5	50	?	N O	50	⅙ moa	7.5 moa	MOA =	=MOA	FFP Thick O/S Posts	D, N, Person Ranging	?	30	26.7 758g	14.7" 37c	Angle Indicator Locking Turrets
Discovery: VT-T: 6-24x50 SFVF FFP <small>No. 170503</small>	207; 350	3y		6-24x	19-5	50	?	N O	60	0.1 mil	6 mil	MIL =	=MIL	FFP Thick O/S Posts	D, N	?	30	26.1 740g	14.7" 37c	w/Phone Adaptor Locking Turrets
Nikko: Diamond FFP 30 •w/ PRR reticle •w/ Skeleton HMD reticle <small>No. NSFFP62450PRR No. NSFFP62450HMD</small>	300; ?	Life, 0.Own		6-24x	19-5	50		Y	50	0.1 mil	6 mil	MIL =	=MIL	FFP Thick O/S Posts	D, N D, —	.05 <sup>mi</sup> .17 <sup>mo</sup>	30	24.0 680g	14.2" 36c	Locking Turrets
Nikko: Diamond FFP 34 •w/ PRR Ret. •w/ Skeleton HMD Ret. <small>No. NSFFP3462450PRR</small>	430; ?	Life, 0.Own		6-24x	21-5	50		Y	80	0.1 mil	6 mil	MIL =	=MIL	FFP O/S Posts: •Thick •Medium	D, N D, —	.05 <sup>mi</sup> .17 <sup>mo</sup>	34	26.5 750g	14.2" 36c	Locking Turrets
Optisan: EVX, Gen. 2: 6-24x50 F1 •w/ IR <small>No. 37583</small>   •w/o IR No. <small>37534</small>	?; 560	Life		6-24x	19-6	50	8-2.1	Ei th er	50	0.1 mil	4.8 mil or 5 mil	MIL =	=MIL	FFP <sup>21</sup> Med. Thick Posts	D, (N)	?	30	26.5 751g	14.8" 38c	Locking Turrets
Vector: Counterpunch: <small>No. SCFF-03A</small> Discontinued	?; 249	5y, Rec.		6-25x	19-6	56	9-2.4	Y	70	¼ moa	6 mil	MOA =	=MOA	FFP too small	?	?	30	32.3 917g	15.6" 40c	
Vector: Counterpunch: <small>No. SCFF-03C</small> Discontinued	?; 249	5y, Rec.		6-25x	19-5	56	9-2.4	Y	70	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>15</sup> Thick O/S Posts	D	?	30	32.4 917g	15.5" 40c	
Vector: Taurus <small>No. SCFF-14</small>	?; 449	Life, NoRec.		5-30x	20-3	56	11-1.8	Y	40	0.1 mil	6 mil	MIL =	=MIL	FFP <sup>14</sup> No Thick Posts	D, N	?	30	28.7 813g	15.6" 40c	Parallax 17y (20y stated)
Riton (US): X3 Conquer <small>No. 019962527661</small>	442; 650	Life, NoRec		6-24x	17-4	50	8-2.1	Y	70	0.1 mil	6 mil	MIL =	=MIL	FFP Thick O/S Posts	D, N, Grid	.045 <sup>mi</sup> .15 <sup>mo</sup>	30	27.1 768g	14.1" 36c	Zero Stop
Riton (US): Mod. 5 [not X5!]: Gen. 2: IR FFP <small>No. 019962523960</small>	420; 570	Life, NoRec		6-24x	17-4	50	8-2.1	Y	70	¼ moa	15 moa	MOA =	=MOA	FFP Thick O/S Posts	D	?	30	30.0 850g	14.0" 35c	Locking turrets
Blackhound (US): 6-24x50 FFP	?; 400	Life, Anyb.	?	6-24x	16-4	50	?	Y	70	0.1mi or ¼mo	5 mil or 15mo	MIL = or MOA =	=MIL or =MOA	FFP <sup>9</sup> Thick O/S Posts	D, N	?	30	27.5 780g	14.1" 36c	T Turn Counter
Athlon: Argos BTR •w/ MIL Ret. •w/ MOA Ret. <small>No. 214061 No. 214060</small>	297; 445	Life, NoRec.		6-24x	17-4	50	8-2.1	Y	60 (a user reported 70)	0.1mi or ¼mo	5 mil or 12mo	MIL = or MOA =	=MIL or =MOA	FFP <sup>13</sup> Thick O/S Posts	D, N, Grid	.02 <sup>mi</sup> .07 <sup>mo</sup> .04 <sup>mi</sup> .14 <sup>mo</sup>	30	29.6 835g	14.1" 36c	T. Turn Counter "Tracks, Wide DoF, small Eye Box"
Vortex: Diamondback Tactical •w/ MIL Ret. •w/ MOA Ret. <small>No. DBK-10029 No. DBK-10028</small>	400, 300; 500	Life		6-24x	18-4	50	8-2.1 calculated	N O	65	0.1mi or ¼mo	6 mil or 15mo	MIL = or MOA =	=MIL or =MOA	FFP <sup>8</sup> Thick O/S Posts	D, N, Grid	.03 <sup>mi</sup> .12 <sup>mo</sup>	30	24.6 697g	14.3" 36c	"Repeatable Clicks" "small Eyebow"



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

- <sup>1</sup> Discovery: HD/34mm: 4-24x50 FFP: Reticle at all magnifications: @ 4.56min:  
<https://www.youtube.com/watch?v=DerSb0Y-d34>
- <sup>2</sup> Vector: Taurus: 5-30x56 FFP: Reticle at all magnifications: @ 10:04min:  
<https://www.youtube.com/watch?v=xV6m6OUR33c>
- <sup>3</sup> Discovery: HD/34mm: 5-30x56 FFP: *Illuminated* Reticle at all magnifications, but no *non-illuminated* view: @ 1:23min:  
<https://www.youtube.com/watch?v=31y22fzGb1M>
- <sup>4</sup> Discovery: HD: 5-25x50 FFP: *Illuminated* Reticle at all magnifications, but no *non-illuminated* view: @ 4:29  
<https://www.youtube.com/watch?v=SJZNGszt0E4>  
non-illuminated view: @ 2.35min: <https://www.youtube.com/watch?v=zR9mUevdVX0>
- <sup>5</sup> Athlon: Midas TAC: Reticle at min. and max. magnification:
  - MIL: APRS2 Reticle: <https://athlonoptics.com/product/midas-tac-6-24x50-aprs2-ffp-mil-scope/>
  - MIL Grid: APRS3 Reticle: <https://athlonoptics.com/product/midas-tac-6-24x50-aprs3-ffp-mil-scope/>
  - MOA: APLR4 Reticle: <https://athlonoptics.com/product/midas-tac-6-24x50-aplr4-ffp-moa-scope/>
- <sup>6</sup> Athlon: Helos BTR: Reticle at min. and max. magnification:
  - APMR MIL Grid: <https://athlonoptics.com/product/rifle-scopes-helos-btr/>
  - APLR2 MOA: <https://athlonoptics.com/product/rifle-scopes-helos-btr-3/>
- <sup>7</sup> Discovery: ED: 6-24x50 FFP: Reticle at all magnifications: @ 6.44min:  
<https://www.youtube.com/watch?v=1Ph66qud50M>
- <sup>8</sup> Vortex: Diamondback: 6-24x50 FFP: Reticle at all magnifications: @ 6.55min:  
<https://www.youtube.com/watch?v=weHwC3amwfE>
- <sup>9</sup> Blackhound: Genesis 6-24x50 FFP: Reticle at min. and max. magnification:
  - Alpha MIL reticle: Owner's Manual: <https://www.blackhoundoptics.com/product/genesis-6-24x50-ffp-mil/>
  - Ascent MOA reticle: <https://www.blackhoundoptics.com/product/genesis-6-24x50-ffp-moa/>
- <sup>10</sup> Hawke: Sidewinder 30 SF FFP [No. 17420]: Reticle at min. and max. magnification:  
<https://us.hawkeoptics.com/sidewinder-30-sf-ffp-riflescopes.html>
- <sup>11</sup> Falcon: S18i 3-18x50 FFP: Reticle at all magnifications: @ 2:06min:  
<https://www.youtube.com/watch?v=RGmnOFp2fUU>
- <sup>12</sup> Falcon: F30: 6-24x50 FFP: Reticle at 6x magnification (24x at the mfctr's webpage): @ 5:33min:  
<https://www.youtube.com/watch?v=swZJkEM76hw>
- <sup>13</sup> Athlon: Argos BTR: 6-24x50 FFP: Reticle at min. and max. magnifications:
  - APMR MIL reticle: <https://athlonoptics.com/product/argos-btr-gen2-6-24x50-apmr-ffp-ir-mil-copy/>
  - APLR2 MOA reticle: <https://athlonoptics.com/product/argos-btr-gen2-6-24x50-atmr-ffp-ir-moa-copy/>
- <sup>14</sup> Vector: Taurus: 5-30x56 FFP: Reticle at all magnifications: <https://www.youtube.com/watch?v=pQ82hBoSwdw>
- <sup>15</sup> Vector: Counterpunch: 6-25x56 FFP: Reticle at all magnifications:  
<https://www.youtube.com/watch?v=E9qIPzpxvTQ>
- <sup>16</sup> Vector: Marksman: 6-24x50 FFP: Reticle at all magnifications: @ 6:33min:  
<https://www.youtube.com/watch?v=BnLJLvXVSol>  
and @ 4.47min: <https://www.youtube.com/watch?v=nepYkyfjpng>
- <sup>17</sup> Vector: Tourex: 6-24x50 FFP: Reticle at various magnifications: @ 2.04min:  
[https://www.youtube.com/watch?v=zD-HN8uU\\_fo](https://www.youtube.com/watch?v=zD-HN8uU_fo)
- <sup>18</sup> MTC: King Cobra F1: 6-24x50 FFP: Reticle at all magnifications: @ 1:03min:  
<https://www.youtube.com/watch?v=4RjMgVRqTM4>
- <sup>19</sup> Aztec: Emerald: 5.5-25x50 FFP: Reticle at all magnifications: @ 4.21min:  
<https://www.youtube.com/watch?v=8GwntsJAuTU>
- <sup>20</sup> ACME Machine: 6-24x50 FFP: Reticle at 6x, 14x, and 24x magnifications: @ 1:55min:  
<https://www.youtube.com/watch?v=LCI2SM7G2t0>
- <sup>21</sup> Optisan EVX 6-24x50 FFP F1: Reticle at 6x, 15x, and 24x magnifications: @ 12:33min:  
<https://www.youtube.com/watch?v=RuXmjOLxwNw>