

# The Spotting Scopes from Carl Zeiss. Diascope 65 T\* FL and 85 T\* FL.



## Technical data

	Diascope 65 T* FL		Diascope 85 T* FL			
	Straight viewing	Angled viewing	Straight viewing	Angled viewing		
Catalog no.	528002	528012	528003	528013		
Weight	38.80 oz. (2.43 pounds)		51.15 oz. (3.20 pounds)			
Length	11.81"		13.58"			
Height	4.13"		4.13"			
Width	3.15"		3.82"			
Objective lens diameter	65mm		85mm			
Shortest focusing distance	13.1'		16.3'			
	Eyeiece 23x	Eyeiece 30x	Vario eyepiece	Eyeiece 30x	Eyeiece 40x	Vario eyepiece
Magnification	23x	30x	15–45x	30x	40x	20–60x
Focal length f (mm)	16.7	12.8	25.1–8.4	16.7	12.8	25.1–8.4
Field of view at 1,000 yards	156'	120'	168'–78'	120'	90'	129'–60'
Twilight factor	38.7	44.2	31.2–54	50.5	58.3	41.2–71.4

	Eyeiece <sup>1)</sup> 23x/30x	Eyeiece <sup>2)</sup> 30x/40x	Vario eyepiece <sup>3)</sup> 15–45x/20–60x
Catalog no.	528018	528019	528020
Diameter of exit pupil	2.8mm	2.1mm	4.3–1.4mm
Weight	8.10 oz.	8.10 oz.	11.64 oz.
Length	3.43"	3.03"	3.90"
Diameter	1.89"	1.89"	2.20"

1) 23x for Diascope 65 T\* FL and 30x for Diascope 85 T\* FL.  
2) 30x for Diascope 65 T\* FL and 40x for Diascope 85 T\* FL.  
3) 15–45x for Diascope 65 T\* FL and 20–60x for Diascope 85 T\* FL.

**Carl Zeiss Sports Optics**  
13005 N. Kingston Ave.  
Chester, VA 23836 USA  
1-800-441-3005  
www.zeiss.com



THE EVOLUTION OF OPTICS

## Zeiss Diascope 65 T\* FL and 85 T\* FL. Leading-edge optics for the ultimate in image quality.

For more than 155 years now, Carl Zeiss has been building world renown binoculars and riflescopes thanks to their unique, trend-setting quality and technology. With countless pioneering achievements Carl Zeiss has played a key role in leading *the evolution of optics*. Like many products before them, the four new Zeiss spotting scopes represent the absolute state-of-the-art precision in optical technology.

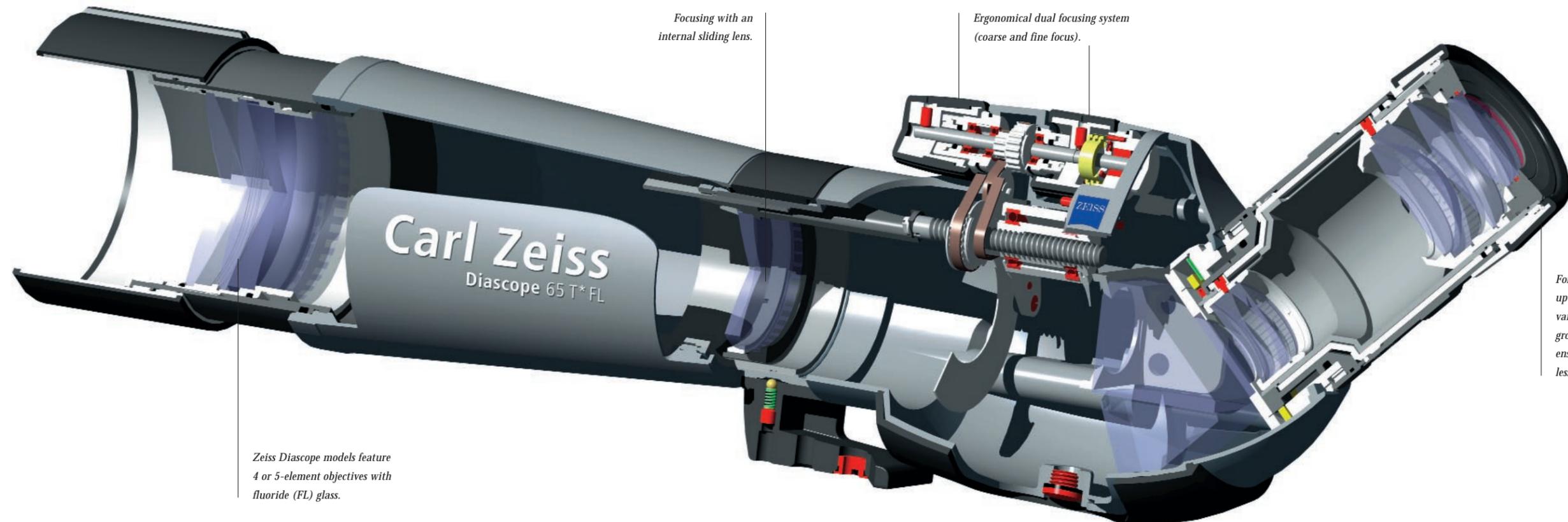
The Zeiss Diascope models offer the viewer excellent recognition of even the finest detail over long distances—undoubtedly the most important function of a spotting scope. Other benefits include their practical length, favorable weight, and easy,

fast handling. These attributes are vital while tracking game in extreme terrains and conditions.

The outstanding image quality of the new Zeiss Diascope spotting scopes has been achieved through the combination of the Advanced Optical System (AOS), extra low dispersion fluoride (FL) glass and T\* multi-layer coating. This provides the objective lenses with Superachromatic properties. This means a very bright image thanks to the high light transmission of the optical system, extended viewing time during dawn and dusk, crisp image as a result of high contrast, natural color rendition down to even the finest nuances, and virtually no color fringes.



Razor-sharp definition over the entire focusing range guarantees excellent recognition of detail. These are qualities that guides, explorers, competition shooters and hunters rightly expect from a Zeiss spotting scope—and they are precisely what Zeiss delivers with the Diascope models. Reliable sealing against dust and water, nitrogen filling to prevent internal fogging and a sturdy mechanical system ensure that users enjoy these outstanding qualities for a very long time to come.



*Zeiss Diascope models feature 4 or 5-element objectives with fluoride (FL) glass.*

*Focusing with an internal sliding lens.*

*Ergonomical dual focusing system (coarse and fine focus).*

*For observation in a steep upward direction, from a low vantage point or from the ground, angled viewing ensures greater comfort and less fatigue.*

See the world in close-up with the Zeiss Diascope 85 T\* FL and the 20x-60x Vario eyepiece.

With the Vario eyepiece set to 60x magnification, you will see an object 326 yards in the distance as if it were just 16.3 feet away — with a clarity, definition and brilliance that are nothing short of spectacular. Heat mirage over the landscape or haze are the only conditions that can blur your view. At the shortest focusing distance of 16.3 feet the Zeiss Diascope becomes a powerful "tele-magnifier," allowing you to experience the fascinating world of small game in close-up — without disturbing them.

The new Zeiss Diascope 85 T\* FL is in a class all its own in every respect. With its excellent weight/performance ratio — it tips the scales at just under 3.20 pounds — and a length of only 13.58 inches, it will certainly be no hindrance to you while out trekking. Like all Diascope models, it features a dual



*The practical and secure bayonet connection allows eyepiece change in a matter of seconds.*

wheel which allows fast focusing and, if required, separate fine focusing — all with just one hand.

The robust, water and dust-proof casing, made of a corrosion-resistant light metal alloy, ideally protects the Diascope when used in rough terrain, safaris or tropical landscapes. Rapid changes in temperature have no influence on its optical

performance: the nitrogen filling prevents fogging of the lens elements inside the casing. Perfect function is guaranteed at temperatures between  $-2^{\circ}\text{F}$  and  $+131^{\circ}\text{F}$ .

In extreme outdoor environments the Diascope units are designed with a non-slip rubber area for maximum grip and durability. The extendable sunshade protects the objective lens from rain in adverse conditions and reduces solar glare. The sunshade also features a special aid for rapid sighting of the object to be observed. To minimize vibrations during viewing, the tripod bracket on the scope has been generously dimensioned. The bracket can be turned to the right and left, with click-stop positions at  $45^{\circ}$  and  $90^{\circ}$ , and it can be locked continuously.

- With a length of just 13.58 inches and a weight of only 3.20 pounds, it will never be a hindrance when you are out and about.
- The sturdy housing offers protection against mechanical impact, moisture, and extreme temperatures.



*The Zeiss Diascope for straight viewing. The focusing system with two wheels for coarse and fine focusing is in an ergonomically correct position above the gripping area.*

*Take your pick: the Zeiss Diascope models for straight or angled viewing are suitable for practically any viewing purpose, whether from your bench or through a blind against a tree.*



*In conjunction with the Diascope 85 T\* FL, the Vario eyepiece allows magnifications of up to 60x.*

## Zeiss Diascope 65 T\* FL – Small size, big performance.

Like its big brother, this compact spotting scope contains a technologically advanced optical system, providing the same outstanding image quality, and meeting the needs of even the most demanding hunter. The compact design has been achieved by the use of an objective lens with a shortened focal

length and a diameter of 65 mm. With a length of just 11.81 inches and a weight of only 2.43 pounds, it is ideal for observation in locations with long approach routes. The lower weight allows the use of a lighter tripod.

- **The outstanding image quality of the Zeiss Diascope 65 T\* FL has to be seen to be believed.**
- **With a length of just 11.81 inches and a weight of only 2.43 pounds, it is tailor-made for use in the mountains or for remote areas with limited access.**



*Their compact design and low weight make the Zeiss Diascope ideal for use in terrain from the North American Rockies to the safaris of Africa.*



### Short length.

The short length of all Diascope models has been made possible by the Zeiss Advanced Optical System (AOS). Superior Schott glass materials not containing lead or arsenic in combination with state-of-the-art thin lens technology all play their part in reducing the length of the scope. In combination with the Superachromat objective lenses, the internal focusing mechanism in the Diascope models forms a “tele-system”. This again permits a considerably shorter design than in traditional systems. The result of these benefits is a spotting scope that is easier to transport and lighter to carry—all with the legendary optical performance you expect from Zeiss and another milestone in *the evolution of optics*.

### Fascinating insights: the near range.

The spotting scopes from Carl Zeiss can do a lot more than let you see very distant objects close-up in astounding detail. With the shortest focusing distance of 16.3 or 13.1 feet, you can immerse yourself in the fascinating microcosm of insects and small dormant game, giving you new insights into an otherwise hidden world.



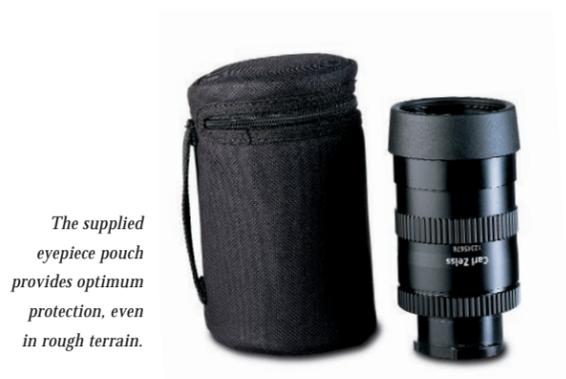
## Three Zeiss eyepieces – the right one for every requirement.

Two super wide-angle, fixed magnification eyepieces and one Vario eyepiece are available for the Diascope 85 T\* FL and 65 T\* FL models, providing you with practical combination possibilities. Together with the Diascope spotting scopes, the eyepieces form a high performance optical system.

Spectacle wearers can also fully enjoy the exceptionally large fields of view. Lockable, push-pull eyecups guarantee the correct eye relief every time, with or without glasses.

Wide fields of view are also guaranteed by the Vario eyepiece, even at low magnifications. This offers you diverse viewing ranges. Start by finding the object you want to view and then zoom in on the detail of interest at incredible speed. During this process both the image definition and the position

of the exit pupil, and therefore also the full field of view for spectacle wearers, remain unchanged. The eyepieces feature a bayonet mount with a safety catch for rapid change — even in rough terrain.



*The supplied eyepiece pouch provides optimum protection, even in rough terrain.*



### Magnification range in the Diascope 65 T\* FL models with the Vario eyepiece.



15 x      30 x      45 x

Many years of experience have shown that the magnification range between 15x and 45x is frequently used by professional guides and hunters.

### Magnification range in the Diascope 85 T\* FL models with the Vario eyepiece.



20 x      40 x      60 x

For the outstanding recognition of even the finest detail at very large distances, the Diascope 85 T\* FL models together with the Vario eyepiece are the ideal solution.

► Tip: Always focus Vario eyepieces at highest magnification.

## Comparison of fields of view of Vario and fixed magnification eyepieces at different magnifications.

	Magnification	Vario eyepiece Field of view	Wide-angle eyepiece 23x Field of view	Increase	Wide-angle eyepiece 30x Field of view	Increase
<b>Diascope 65 T* FL Models</b>	15x	61.24yds				
	23x	<b>43.74yds</b>	<b>56.87yds</b>	<b>+ 30%</b>		
	30x	<b>36.75yds</b>			<b>43.74yds</b>	<b>+ 20%</b>
	45x	28.43yds				
	Magnification	Vario eyepiece Field of view	Wide-angle eyepiece 30x Field of view	Increase	Wide-angle eyepiece 40x Field of view	Increase
<b>Diascope 85 T* FL Models</b>	20x	47.0yds				
	30x	<b>33.68yds</b>	<b>43.74yds</b>	<b>+ 30%</b>		
	40x	<b>27.78yds</b>			<b>32.81yds</b>	<b>+ 20%</b>
	60x	21.87yds				

The above table shows the larger and hence more comfortable fields of view of the two wide-angle eyepieces compared to the Vario eyepiece. With the lower magnification wide-angle eyepiece, the increase in the field of view totals +30% compared to the Vario eyepiece. In the higher magnification wide-angle eyepiece the field of view is +20% larger than with the Vario eyepiece. This is an important reason for demanding users to purchase a wide-angle eyepiece in addition to the flexible Vario eyepiece.

## The Zeiss Diascope as a tele-lens with the photo adapter.



By taking photos of impressive landscapes or of an endangered species, you are not only documenting a very exciting experience, you are also recording something for posterity. This is all possible with the photo adapter for the Diascope which, with the appropriate connector, fits common 35mm SLR cameras.

**The small aperture and long focal length of the overall system make relatively long**

**exposure times necessary.** To avoid blurring, we recommend the use of a tripod or a stable support for the camera with the scope. The relative aperture is 1:12. With the Diascope 65 T\* FL, a focal length of 770 mm is achieved; in conjunction with the Diascope 85 T\* FL, the total focal length is 1000 mm.

Safely stored – but always ready for action.

Carl Zeiss has developed two different concepts for carrying and protecting the Diascope models: six covers, including carrying straps, are available to choose from:

- First: Two shoulder bags which accommodate either one of the two compact models with an objective lens diameter of 65 mm or one of the two high-power models with an objective lens diameter of 85 mm. Open the case, remove the scope, and attach it to a tripod or tree screw — what could be easier?
- Second: Four protective jackets which are tailor-made for each individual Diascope model. Also during use, these practical jackets (see photo on top right) reliably protect the scopes against external influences.



*Zeiss spotting scope in its protective jacket.*

- The shoulder bags allow you to carry the scopes easily around with you, even in difficult terrain.
- The scope jackets optimally protect the Diascope models and ensure that they are ready for action in next to no time.



*The functional bag made of robust Cordura material is the perfect container for transporting your scope.*

The Zeiss Diascope Spotting Scopes at a glance.

Diascope 65 T\* FL – the compact spotting scope.

Its 4-element objective system with fluoride (FL) glass has a focal length of 384 mm. With this spotting scope, the three eyepieces offer the following performance parameters:

- 23x magnification and 156' field of view at 1000 yards (wide angle)
- 30x magnification and 120' field of view at 1000 yards (wide angle)
- 15x to 45x magnification with the Vario eyepiece and an exceptionally large field of view of 168' to 78' at 1000 yards.

The shortest focusing distance is 13.1 feet. The thread for filter attachment measures M 67x0.75. The short length of 11.81 inches is ideal for comfortable transportation in a rucksack, and the weight of 2.43 pounds makes it easier to carry over long distances. A further benefit: the lower the weight of the spotting scope, the lighter the tripod can also be. The Diascope 65 T\* FL is available in two versions, one for straight and the other for angled (45°) viewing.

Diascope 85 T\* FL – the high power spotting scope.

Its 5-element objective system with fluoride (FL) glass has a focal length of 502 mm. With this scope, the following parameters are obtained with the three eyepieces:

- 30x magnification and 120' field of view at 1000 yards (wide angle)
- 40x magnification and 90' field of view at 1000 yards (wide angle)
- 20x to 60x magnification with the Vario eyepiece and an exceptionally large field of view of 129' to 60' at 1000 yards.

The shortest focusing distance is 16.3 feet. The filter thread measures M 86x1. With its large objective lens diameter and a length of 13.58 inches, this high power model is relatively compact and weighs a mere 3.20 pounds. This model is also available for straight or angled (45°) viewing.

▶ On all Diascope spotting scopes Zeiss grants the legendary Limited Lifetime Transferable Warranty.

