



# **APO-SKOPAR 90mm F2.8 VM**

INSTRUCTION MANUAL

Voigtländer VM-mount lenses cover the full frame format and are manually controlled lenses. The user sets the focus and aperture. They are designed to be used on both rangefinder film cameras and digital cameras with M-type lens mount. They can also be used on mirrorless cameras with appropriate adapters.

### Features of Voigtländer VM-mount lens

- VM-mount
- Full frame format
- Smooth focus for precise focusing
- All metal construction

## Tips for lens care and safety

These tips are to protect the user from injury or damaging the lens.



**WARNING**

If the user ignores this warning sign and uses the equipment the wrong way serious injuries and even death might be the result.



**CAUTION**

If the user ignores this caution sign it might result in injury and/or damage the equipment.

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**WARNING**

Never look directly at the sun with a telephoto lens as this can damage your eyes.



**CAUTION**

Keep the lens, camera and accessories out of reach of children.



**CAUTION**

Store the lens away from direct sunlight and always store the lens with lens-cap on. Failure to do so can create a fire hazard.

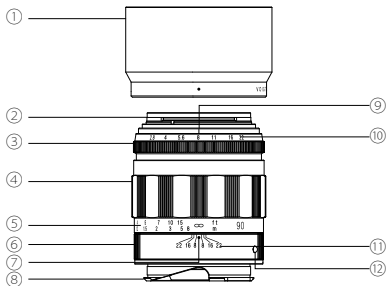
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Never touch the lens surface. In case it is dirty or dusty use commercial lens cleaner or appropriate lens cleaning cloth.

## Description of Parts

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- ① Lens Hood
- ② Filter Ring
- ③ Aperture Ring
- ④ Focus Ring
- ⑤ Distance Scale
- ⑥ Depth of Field Ring
- ⑦ Distance Index
- ⑧ Mount
- ⑨ Aperture Index
- ⑩ Aperture Scale
- ⑪ Depth of Field Scale
- ⑫ Mount Index



## ● How to attach/detach the lens

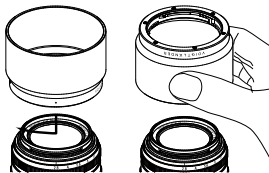
Please refer to the instruction manual for your camera for how to attach/detach the lens. Please hold the Depth of Field Ring ⑥ to attach/detach the lens. To attach/detach the lens while holding other parts of the lens barrel may damage the lens.

## ● Attaching Hood

Attach the lens hood by lining up the white dot on the lens hood ① with the aperture indicator mark ⑨ and then turn the lens hood clockwise until it stops.

Remove the lens hood by rotating it anti clockwise.

The lens hood can also be attached in the reverse position to improve portability and storability.



## ● Rangefinder coupling

Coupled focusing range of this lens is  $\infty \sim 0.9\text{m}$ . However, rangefinder coupling range will be different depending on the rangefinder mechanism of the camera used.

### ● Attaching Filter

Screw the filter (Ø39mm) to the front of the lens.

### ● Attaching Mount Adapter

This lens can be used with below mentioned Voigtländer accessories.

VM-E Mount Adapter II

VM-E Close Focus Adapter

VM-X Close Focus Adapter

VM-Z Close Focus Adapter

## ● Specifications

Product Name	APO-SKOPAR 90mm F2.8
Focal Length	90mm
Maximum Aperture	F2.8
Minimum Aperture	F22
Lens Construction	7 groups 7 elements
Angle of View	27.4°
Aperture Blade	10
Rangefinder Coupling	$\infty$ ~ 0.9m
Minimum Focus	0.9m
Filter	Ø39mm
Maximum Diameter	Approx. Ø53.0mm
Length	Approx. 60.0mm
Weight	Approx. 250g
Mount	VM-mount
Supplied Accessories	Lens Hood, Front Cap, Rear Cap

\* Specification and information is subject to change without notice.