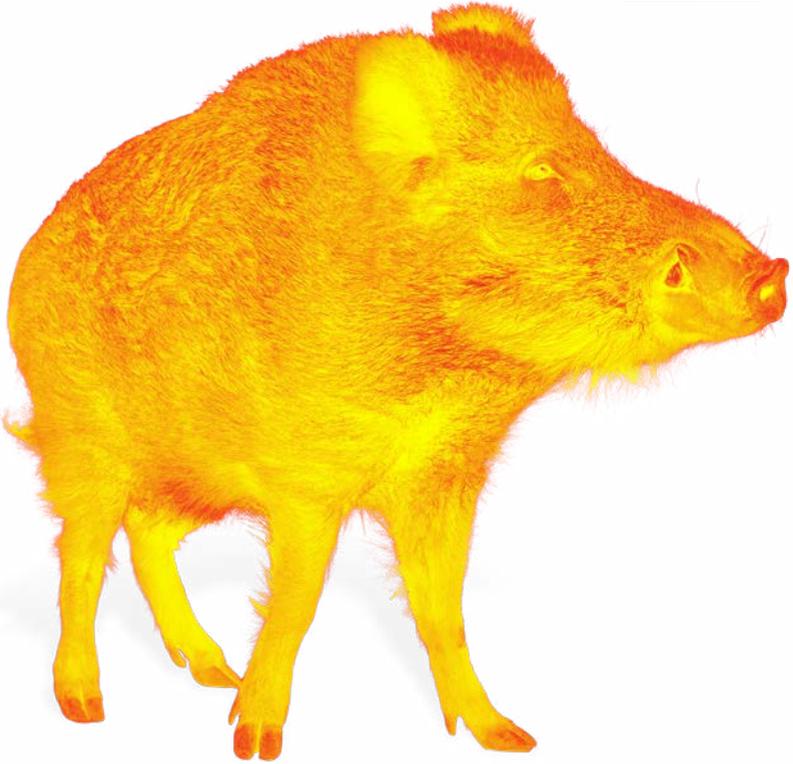


LIEMKE
THERMAL OPTICS



LIEMKE

LEADING IN IMAGE QUALITY

CATALOGUE **2021**

INNOVATION. QUALITY. SERVICE.
by LIEMKE

THE FASCINATION OF THERMAL IMAGING



Dear Esteemed Customer,

In maintaining our claim to consistently provide you with cutting-edge thermal imaging optics, the products you will soon discover in our new program all feature state-of-the-art technology and outstanding performance parameters.

With our promise to service and return your optics within ten working days after we have received your device, and our product guarantee of up to three years, we thank you for your trust and wish you excellent hunting!

Your LIEMKE Team!

WHY LIEMKE?

Liemke`s innovative thermal optics are leaders in image quality!



1 LIGHTWEIGHT

through use of ultra-light high-performance components encased in a compact housing.

2 SHARPEST DETAILS

through implementation of cutting-edge 12 ie. 17 Micron VOx detectors.

3 TOUGH

due to ceramic-reinforced VOx detectors.

4 LONG OPERATING TIMES

for up to 15 hours with the powerful rechargeable Lithium-ion batteries.

5 WORRY-FREE SERVICE

covering up to 3 years warranty and service in Germany.

BENEFITS OF THERMAL IMAGING

Why does it pay off to purchase thermal imaging optics? Four good reasons that speak for this technology:

1 OVERVIEW

By day or night, you can see whether newborns are together with their mother without any disturbing reflections in the vegetation.

2 WIDE VIEWING ANGLE

You can identify game faster and at greater distances.

3 WEAR-FREE

Thermal image detectors are not subject to wear and tear due to use.

4 COST-EFFICIENT

You get the highest possible quality available on the market for each area of use.

REALITY

WHITE HOT MODE

COLOR MODE

BENEFITS

4 - 5

THERMAL OPTICS RECOMMENDED USES

FOREST

FOREST / FIELD

FIELD

KEILER-13^{PRO} Range: 459 m

KEILER-18^{PRO} Range: 671 m

KEILER-25 LRF Range: 1,250 m

KEILER-25 LRF^{PRO} Range: 1,250 m

KEILER-35^{PRO} Range: 1,235 m

KEILER-36^{PRO} Range: 1,235 m

CHALLENGER-15 Range: 530 m

KEILER-50^{PRO} Range: 1,765 m

MERLIN-13 Range: 650 m

CHALLENGER-35 Range: 1,235 m

MERLIN-35 Range: 1,235 m

MERLIN-42 (2020) Range: 1,482 m



0 - 500 m

500 - 750 m

750 - 1,800 m

KEILER FAMILY COMPACT AND ROBUST

The design and features of each KEILER allow for a wide range of applications. Heat sources can be displayed in different color modes and the image can be digitally enlarged when needed.

Image files can be transferred by cable, or depending on the model, be transmitted live per WiFi to an Android® or IOS® device and recorded.

The KEILER optics are IP67 certified, protecting them against dust and rain. The PRO series products are equipped with a powerful VOx detector. All Keiler have an LCOS display.

The internal rechargeable battery provides a continuous operating time of at least four hours (KEILER-13 PRO / 18 PRO, ten hours), and of course each KEILER can be operated and charged via an external USB power source.

The frame rate for all KEILER optics is 50 Hz.

The warranty is 3 years.



KEILER-13 PRO
(Forest)



KEILER-18 PRO
(Forest / Field)



KEILER-25 LRF
(Forest / Field)



KEILER-25 LRF PRO
(Forest / Field)



KEILER-35 PRO (2020)
(Forest / Field)



KEILER-36 PRO (2020)
(Field)



KEILER-50 PRO
(Field)

MODEL	KEILER-13 PRO	KEILER-18 PRO	KEILER-25 LRF
Recommended use	Forest	Forest / Field	Forest / Field
Objektive lens (ø in mm)	13	19	25
Detector material	VOx Ceramic	VOx Ceramic	VOx Ceramic
Detector resolution (pixels)	240x180	384x288	384x288
Shutter / calibration	auto / manual	auto / manual	auto / manual
Display resolution (pixels)	720x540	720x540	1,280x960
Optical magnification	1.2	1.4	1.5
Focus	fix	fix	manual
Zoom digital	2x	2x	1x-4x
Field of view	18x13°	19x15°	10.5x7.9°
Field of view width at 100m in m	31	34	18
Pixel FOV (mRad)	1.3	0.9	0.48
Weight (g)	330	340	320
Recording function	no	no	yes
Live WiFi	no	no	yes
Detection range (m)	459	671	1,250

KEILER-25 LRF PRO	KEILER-35 PRO (2020)	KEILER-36 PRO (2020)	KEILER-50 PRO (2020)
Forest / Field	Forest / Field	Field	Field
25	35	35	50
VOx Ceramic	VOx Ceramic	VOx Ceramic	VOx Ceramic
640x512	384x288	640x512	640x512
auto / manual	auto / manual	auto / manual	auto / manual
1,280x960	1,280x960	1,280x960	1,280x960
1.5	3.5	2.5	2.8
manual	manual	manual	manual
1x-4x	2x / 4x	2x / 4x	2x / 4x
17,5x14°	7x6°	12x9°	9x7°
20	13	22	15
0.48	0.34	0.34	0.24
320	420	450	520
yes	yes	yes	yes
yes	yes	yes	yes
1,250	1,235	1,235	1,765

MERLIN FAMILY MULTIFUNCTIONAL OPTICAL ATTACHMENTS

The products in the MERLIN Family can either be hand-held or used as an attachment on daylight optics.

Depending on the model, the MERLIN products have an integrated compass, inclinometer and stadiametric rangefinder.

Image data can be recorded via cable. Power is supplied by replaceable batteries that last for at least four hours of continuous operation, or via an external USB power cable.

For optimum image sharpness, the lens can be focussed manually.

The warranty is 3 years.

MODEL	MERLIN-13	MERLIN-35	MERLIN-42 (2020)
Recommended use	Forest / Field	Forest / Field	Field
Objektive lens	13	35	42
Detector material	VOx Ceramic	VOx	VOx Ceramic
Detector resolution (Pixel)	256x192	384x288	384x288
Shutter / calibration	auto / manual	auto / manual	auto / manual
Display resolution (Pixel)	1.024x768	1.024x768	1.280x960
Optical magnification	1	1	1
Focus	fix	manual	manual
Zoom digital	-	-	-
Field of view	13,5x10°	11x8°	9x7°
Field of view width at 100 m in m	24	19	16
Pixel FOV (mRad)	0,92	0,5	0,4
Weight (g)	130	480	420
Recording function	no	yes	yes
Live WiFi	no	yes	no
Detection range(m)	650	1.235	1.482



(Forest / Field)

MERLIN-13

Currently the smallest and lightest multi-functional thermal imaging device.

The new MERLIN-13 device features the new 12 µm VOx ceramic detector and an ultra-compact design. With a total weight of less than 140 g and its simplicity, the MERLIN-13 sets new standards. The 13 mm front lens combined with the 12 µm pixel pitch, provides a field of view of 24 m at 100 m and a detection range of 650 m.

MERLIN-35

This device impresses with its robust aluminium housing and very simple operation.

Developed for use in rough environments, the IP67 protection class keeps the MERLIN-35 safe against heavy rain. With its VOx detector and the manually focusable 35 mm front lens, the MERLIN-35 is perfect for universal applications in forests or open terrain.



(Forest / Field)

MERLIN-42 (2020)

The multi-functional power pack

The powerful VOx detector and OLED display in XGA format (1,280 x 960 pixels) deliver high-contrast and sharp images. The 42 mm objective lens provides a detection range of up to 1,482 m.



(Field)

LIEMKE CLIP-ON MOUNT



The Liemke KA-MC clip-on mount has been specially developed to attach thermal imaging front attachments to day optics.

The clip-on mount has a very low profile to enable a precise and stable mounting of front attachments to day optics.

The wide, rubber-coated inner surface of the clamp adapter ensures a stable hold while simultaneously protecting the outer coating of your day optics.

The KA-MC clip-on mount is available in sizes from 30 - 65 mm.

The new Blaser thermal clip-on mount BL30 (M30x1 thread), BL43 (M43x0.75 thread) and BL52 (M52x0.75 thread) are specified for Liemke thermal clip-on devices Merlin-13, Merlin-35 and Merlin-42.



A reliable connection to the riflescope is of crucial importance for a consistent and repeatable point of impact when hunting with a thermal clip-on device. The new Blaser thermal clip-on mounts are extremely easy to operate.

Thanks to a recoil lug, which needs to be installed onetime into the inner rail of the Blaser riflescope 1-7x28iC, the constant positioning of the thermal clip-on device is guaranteed. When the clamping lever is closed, the thermal clip-on mount is additionally locked on the scope tube. This ensures the highest level of repeatable accuracy even when the thermal clip-on device is frequently attached or detached.

CHALLENGER FAMILY POWERFUL HUNTING COMPANIONS

The CHALLENGER optics convince with an unbeatable price-performance ratio. Thanks to the VOx detector technology, the CHALLENGERS offer a proven and robust alternative to the KEILER optics.

Image files can be transferred by cable to an external recording device, or transmitted per WiFi to a smartphone or tablet up to 25m away.



CHALLENGER - 15
(Forest)

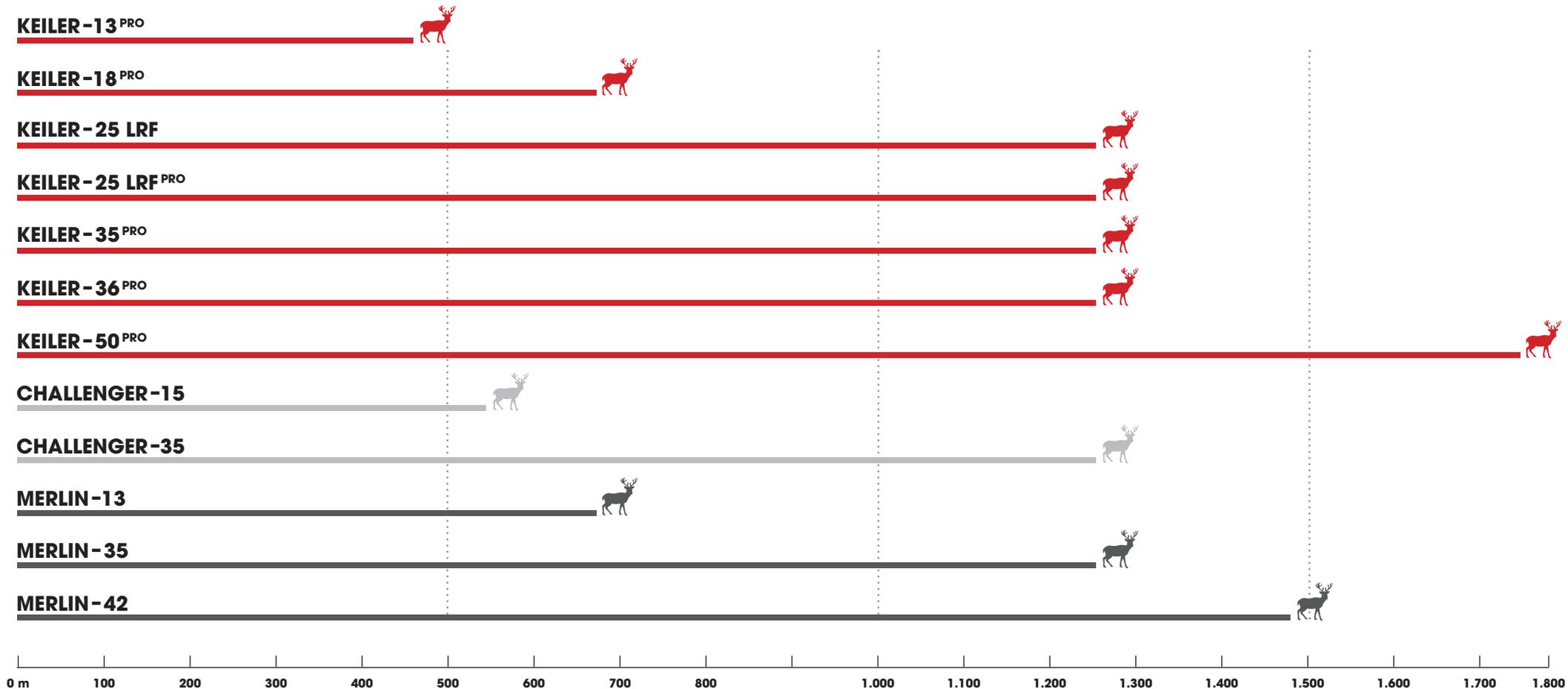


CHALLENGER - 35
(Forest / Field)

MODEL	CHALLENGER - 15	CHALLENGER - 35
Recommended use	forest	forest / field
Objektive lens	15	35
Detector material	VOx	VOx
Detector resolution (pixels)	384x288	384x288
Shutter / calibration	auto / manual	auto / manual
Display resolution (pixels)	720x560	1,024x768
Optical magnification	0,7	2,5
Focus	auto / manual	auto / manual
Zoom digital	2x / 4x	2x / 4x
Field of view	25 x 18°	11 x 8°
Field of view width at 100 m in m	44	19
Pixel FOV (mRad)	1.1	0.5
Weight (g)	270	510
Recording function	yes	yes
Live WiFi	yes	yes
Detection range (m)	530	1,235

LIEMKE THERMAL OPTICS DETECTION RANGE COMPARISONS

(according to Johnson)



Johnson criteria: The following values are used to determine the minimum required resolution (pixel on target), so that the viewer can identify the object with a probability of 50%.

Detection: Object is detected: 3 pixels

Recognition: Distinguish (person / car): 8 pixels

Identification: Distinguish (female / male): 15 pixels

Detector carrier materials:
ASi Amorphous silicone
VOx Vanadium oxide

Image formats:
VGA 640 x 480 pixels
SVGA 800 x 600 pixels
XGA 1,024 x 768 pixels
QVGA 1,280 x 960 pixels

OLED Organic light emitting diode
AMOLED Active Matrix OLED
LCOS Liquid Crystal on Silicon

Pixel FOV Size of a pixel squared, value x 10 = cm
mRad Milliradian
IP66 Protection against strong jets of water

Note: Pixel pitch and lens size are decisive.
The smallest pixel pitch is decisive for attaining the best image sharpness.



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