ESCHENBACH

Vision
Technology
Products

2022 / 2023

A GLOBAL BRAND WITH TRADITION

Since its establishment in 1913, Eschenbach Optik has been combining traditional business values with modern innovative flair. Within a century Eschenbach Optik has become one of the leading suppliers of optical products - both in Germany and abroad. The product range extends from eyewear frames and sunglasses, to binoculars and right through to magnifiers, reading glasses and special vision aids.

With subsidiaries in twelve countries, more than 30 international trade partners and over 530 employees throughout the world, today Eschenbach Optik has a global presence.

VISION TECHNOLOGY PRODUCTS

In this catalogue you will find our extensive range of magnifying vision aids. The term "Vision Technology Products" stands for innovative research and development, modern technologies, as well as precision production methods - and a level of quality which meets the very highest demands in terms of optimum optical performance, reliability and intuitive operation.

The diversity of our range of magnifying vision aids allows you to provide your customers with the optimum solution for meeting all their everyday vision requirements.

LOW VISION
In our catalogue you will therefore find a wide range of products to meet the highly diverse needs of those suffering from visual impairment, making their daily life so much easier and therefore enabling them to regain maximum independence and maximum quality of life.

EASY VISION
As we get older, our vision deteriorates and this is something that happens to everyone. From the age of 60, this change becomes increasingly noticeable and sometimes even the best corrective eyewear is not enough.

MADE IN GERMANY

From the initial concept right through to the finished product - Eschenbach Optik carries out all of this work at its site in Nuremberg and this is how we are able to guarantee exceptional brand quality.

MADE IN
GERMANY

With the "Easy Vision" concept from Eschenbach Optik, additional, innovative optical products are able to compensate for the visual impairment and relaxed vision is once again possible.

SALES SUPPORT
On pages 75 to 87, you can find our range of sales support products – including versatile displays and attractive presentation systems. Ask your representative about further advertising opportunities.

DETAILED INFORMATION
The "Technical Information" section contains a summary of technical specifications and you can find information on visual impairment in the "Information" section.

INDIVIDUAL LENS RANGE
Single vision or multifocal spectacle lenses with corrections to suit specific individual requirements, cut-off filters with individual strengths and reading glasses with individually adapted high additions can be found in the separate "Individual Lens Range" catalogue.

CONTENTS

ELECTRONIC VISION AIDS

HIGH QUALITY TECHNOLOGY FOR BRILLIANT VISION.

visolux DIGITAL HD

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ELECTRONIC VISION AIDS

WHEN SPECTACLES ALONE ARE NO LONGER SUFFICIENT

Electronic low vision aids from Eschenbach Optik offer you cleverly conceived solutions to maintain your usual visual comfort. In addition to a brilliant image display, these devices are lightweight, have an ergonomic design and high functionality to ensure intuitive operation.

vario DIGITAL FHD

VISION AT ITS BEST

The vario DIGITAL FHD and vario DIGITAL FHD Advanced portable desktop video magnifiers combine exceptional, true colour image quality with innovative design, a user-friendly specification, intuitive operation and excellent value for money.

visolux DIGITAL

SPLENDID – DOWN TO THE FINEST DETAIL

With 2x to 22x magnification and a non-reflective 7- or 12-inch display, visolux DIGITAL offers optimum comfort. Depending on the model, it accommodates up to two newspaper columns without having to be moved across the reading material, and when connected to a television offers the functionality of a screen-reading device.

mobilux® DIGITAL Touch HD

PREMIUM MAGNIFYING GLASS

For on the move and at home: this innovative magnifier is portable and when connected to a computer offers the functionality of a screen-reading device. The non-reflective 4.3 inch display ensures relaxed reading - operation takes place via touchscreen.

smartlux® DIGITAL

THE ELEGANT MAGNIFIER FOR BRILLIANT VISION

Handy and mobile: With its non-reflective 5 inch display, this electronic magnifier provides the optimum image. The adjustable stand enables the magnifier to be hand-held, fully extended or half extended for writing.

vario DIGITAL FHD

VISION AT ITS BEST

The vario DIGITAL FHD and vario DIGITAL FHD Advanced portable desktop video magnifiers offer maximum reading comfort with any reading material. Their flexible design, modern specification and intuitive operation provide exceptional support for leisure, work or university.

vario DIGITAL FHD   NEU

16591

NEU

16592

- High-definition camera with optical digital zoom
- Large magnification range from 1.3 x to 45 x (16" display) and 1.6x to 100x (22" display).
- Non-reflective LCD TFT screen in 15.6" format
- Pin sharp, true colour image in full HD resolution
- Fast autofocus ensures perfect reading comfort at all times
- The autofocus can be switched off to make it even easier to write under the camera
- Large field of view of 265 mm (16") and 546 mm (22")
- Powerful LED lights
- Optional orientation guides with a reading line or mask
- Speedy orientation thanks to an overview display
- User-friendly menu with adjustment options to suit your individual needs
- Clear voice output for all menu stages (can be switched off)
- 14 contrast-enhanced false colour modes
- Photo function with option of saving photos on inserted SD card (can be switched off)
- Stable, robust and ergonomic
- The tilting camera makes it easier to carry out handicraft work and enables you to read the upper area of the reading material more easily
- The camera has a cover to protect against dust and dirt
- Users can carry out software updates and resets themselves+C8
- USB Type C port for data transmission
- Weight: 6.3 kg (16") and 8,9 kg (22")
- Included in delivery: USB Type C cable, 8 GB SD card, universal charging device for worldwide use, microfibre case

CUSTOMER BENEFITS

- Best image quality
- Very large field of view and true colour image reproduction
- Portable use thanks to the user-friendly folding mechanism and ergonomic handle
- Simple to use
- Intuitively positioned operating buttons and dials
- Simple menu navigation
- Smooth zoom in even steps
- Homogeneous and shadow-free illumination is provided by LEDs in the base arm and on the underside of the monitor.
- High level of mechanical stability to protect against vibration

| 15.6" 16:9 | 1.3 – 45 x | 6.3 kg |
| 21.5" 16:9 | 1.6 – 100 x | 8.9 kg |

165916
1659161
1659162
1659163

NEU

165922
1659221
1659222
1659223

vario DIGITAL FHD Advanced NEU

vario DIGITAL FHD Advanced has additional functions to provide even better reading comfort:

- Dynamic Line Scrolling: the reading area can be moved horizontally and vertically in the display
- Incl. remote control for even greater operating comfort
- Additional HDMI input for connection to an external camera with live image transmission
- Thanks to its flexible design, the device can also be used as a mirror
- Depending on specification, incl. lithium ion rechargeable battery and/or X/Y table
- Weight 16":6.3 kg (incl. rechargeable battery: 6.6 kg, incl. X/Y table:10 kg)
- Weight 22": 8.9 kg (incl. rechargeable battery: 9.2 kg, incl. X/Y table: 11.9 kg)
- Included in delivery: remote control, HDMI cable, USB Type C cable, 8 GB SD card, universal charging device for worldwide use, microfibre case

Also available with the following options:
X/Y table
- Movable cross table for even greater comfort when reading
- Stable and ergonomic
- Individual adjustment thanks to horizontal and vertical brakes

Rechargeable battery
- Even more versatile to use thanks to battery operation
- Operating time 4.5 hours (16") and 2,5 hours (22")
- Charging time: 3.5 hours

Accessories:
1659109 vario DIGITAL Bag
- Padded carry bag (suitable for all versions)
- With carrying handle and carrying strap
- Space for charging cable, remote control and other accessories

Item	Description	Model
16591/ 16592	vario DIGITAL FHD	16"/ 22" without rechargeable battery, without rechargeable battery, without XY table
165916/ 165922	vario DIGITAL FHD Advanced	16"/ 22" Advanced, without rechargeable battery, without X/Y table
1659161/ 1659221	vario DIGITAL FHD Advanced TB	16"/ 22" Advanced, with rechargeable battery, with X/Y table
1659162/ 1659222	vario DIGITAL FHD Advanced B	16"/ 22" Advanced, with rechargeable battery, without X/Y table
1659163/ 1659223	vario DIGITAL FHD Advanced T	16"/ 22" Advanced, without 6.3 rechargeable battery, with X/Y table

For technical information please refer to page 88.

| 15.6" 16:9 | 1.3 – 45 x | 6.3 – 9 kg |
| 21.5" 16:9 | 1.6 - 100x | 8.9 – 12 kg |

visolux DIGITAL

SPLENDID – DOWN TO THE FINEST DETAIL

visolux DIGITAL HD and visolux DIGITAL XL FHD combine modern and user friendly features, ergonomic design, intuitive ease of use and a sensible range of functions in the two most popular display sizes.

visolux DIGITAL

- High-contrast and true-to-detail, high resolution digital camera with a specially calculated lens
- Generous depth of field for variable viewing distances
- High magnification range from 2 x to 22 x (magnification on a 40-inch TV, for instance, approx. 12 x to 125 x)
- Non-reflective active matrix TFT LCD screen
- 16:9 widescreen format
- 14 contrast-enhanced false colour modes can be selected
- Dynamic Line Scrolling (DLS)
- Powerful automatic exposure to compensate for ambient light
- Optical orientation aid with reading line or mask that can be activated
- Clearly arranged, easy to sense direct keys
- Graphical menu for advanced functions
- Stand with ergonomic tilt angle
- Camera mounted centrally under housing and positioning aid perceptible on housing
- Photo function with storage facility on inserted SD card (defeatable)
- USB type-C port for image feed to the computer (PC and Mac)
- HDMI port for simultaneous display of the live image on an external display (TV, monitor or projector)
- Long operating time, short charging time
- Supplied with an adapter for EU, GB, US and AUS
- Delivery includes HDMI cable, USB type-C cable, 8 GB SD card, lanyard, microfibre cloth and hard foam case

CUSTOMER BENEFITS

- Best imaging quality and operability
- Pleasant reading position
- Secure placement and guidance
- Wide field of view and true-to-life colour reproduction
- Accommodates an entire newspaper column
- Numerous false colour combinations can be selected
- Intuitive operation
- Ideal solution when on the go or at home
- Light-weight, compact, robust and sustained mobile use
- Can also be used as a screen reader

Dynamic Line Scrolling (DLS)
- Shift the reading area in the display at the touch of a button
- No horizontal movement of the reader across the reading material is necessary
- No loss of orientation even when high magnification is used

16551

16521

visolux DIGITAL XL FHD

- The proven concept of visolux DIGITAL now also in the 12-inch category
- Almost 30 cm screen diagonal but weighing only one kilo
- The perfect size for stationary, hand-guided applications and still portable
- Writing under the device is possible
- Operation via direct keys or the touchscreen (defeatable)
- Dynamic Line Scrolling enables vertical movement of the reading area
- Easily understood speech output of all menu steps (defeatable)
- Additional HDMI input for connecting an external camera with live image feed
- Practical charging via the USB type-C port
- Lithium-polymer battery for up to 2.5 hours of operation

Accessories:
1655108 visolux DIGITAL XL FHD Bumper
- Perfect all-round protection
- More secure grip

1655109 visolux DIGITAL Bag
- Room for 4- to 12-inch low vision aids incl. accessories
- Everything always secure, orderly and close at hand
- High quality design

1655105 visolux DIGITAL XL FHD Base
- Foldable stand
- Increases the distance away and thus extends the image region and reduces the magnification
- Allows writing and manual work under the display

visolux DIGITAL HD

- Most easy to use with best imaging quality in the popular 7-inch category
- 18 cm screen diagonal but weighing only 460 g
- Perfect size for use at home or on the go
- Additional orientation aid with ergonomic grip zones
- Intuitive operation via clearly arranged and easy to sense direct keys
- Lithium-ion battery for up to 3.5 hours of operation

Accessories:
1652105 visolux DIGITAL HD Base
- Increases the distance away and thus extends the image region and reduces the magnification
- Allows writing and manual work under the display

1652108 visolux DIGITAL HD Bumper
- Perfect all-round protection
- More secure grip

16511

mobilux® DIGITAL Touch HD

- Display: non-reflective 4,3" LCD
- Intuitive operation via touchscreen
- HD camera for maximum definition and optimum contrast
- Generous depth of focus for variable viewing distances
- Screen-reading function via computer monitor
- Stable support surfaces for different uses:
  - placed on the reading material for tremble-free image when reading lengthier texts
  - hand-held for orientation on the reading material and for headings
  - can be tilted for comfortable viewing angle
- 4 to 15 x magnification (hand-held at a distance of 5 cm approx. 1.9 to 4.5 x)
- 5 viewing modes: true colour, contrast-enhanced black/white, white/black, black/yellow and yellow/black
- Line orientation (reading line) for improved continuity of reading
- LCD brightness can be dimmed in the case of a high level of glare sensitivity
- Image capture function for storing images on preinstalled SD card
- The possibility of transferring images onto the computer via USB
- The distance can be increased and the display range consequently extended, as well as the magnification level reduced, when the supplied stand is used
- LED light can be switched off for use on shiny surfaces
- Automatic shut-off if the device has not been used for approx. 3 minutes to ensure low power consumption
- Weight: 230 g
- Rechargeable battery running time: 2.5 to 3 hours, charging time approx. 2 hours
- Lithium ion rechargeable battery
- Mains voltage requirement for battery charger: 110 V to 240 V, 50 to 60 Hz
- Supplied with adapter for EU, GB, US, AUS
- Supplied with stand, protective hard foam case, lanyard and cleaning cloth

CUSTOMER BENEFITS

- 2 in 1: handy reading device for when you're on the move plus simple screen-reading device for use at home
- Relaxed reading due to non-reflective, high contrast display
- Easy orientation and reading as the HD camera is positioned centrally under the display
- Simple, intuitive operation via touchscreen with clearly recognisable symbols
- You can write under the reading device when it is in the tilted position

1.9 – 15 x	4.3" 16:9	230 g	Display/Optoform

The appropriate display is available as an option on page 85.

For technical information please refer to page 87.

16502

smartlux® DIGITAL NEU

- The elegant magnifier for brilliant vision
- New design for better grip and clearly visible buttons
- Improved optics with high image sharpness even at high magnifications and in motion
- Reflection-free, true-colour 5-inch LC display
- - Better orientation in the image with 3x start magnification
- Up to 15x magnification
- Extended field of view (35 mm)
- Stepless or incremental magnification with two haptic buttons
- Integrated stand which can be adjusted for 3 different uses:
   - stand fully retracted for hand-held use
   - stand fully extended for placing on reading material
   - stand partially extended for writing or working hands-free under the display
- Individual function selection in the menu:
   - Overview function
   - Height-adjustable reading line
   - 14 contrast-enhanced false colour modes selectable
   - Adjustment of display and LED brightness, LEDs can be individually
      switched off
   - Menu setting for right and left-handed users
   - Blue light filter
- Photo function with extended, internal device memory
- Screen reading function with additional HDMI output for connection to existing screen
- USB port for transferring pictures to a computer
- USB-C charging function
- Weight: 240 g
- Large RESET button, in a protected position under the folding stand
- Rechargeable battery running time: approx. 3 hours, charging time approx. 3.5 hours
- Lithium ion rechargeable battery
- Supplied with adapter for EU, GB, US, AUS
- Comes supplied with a lanyard for wearing and a protective rigid foam case

CUSTOMER BENEFITS

- ✛ Easy operation and best image quality
- ✛ Optimum grip in the hand due to its ergonomic design
- ✛ Extra large field of view due to non-reflective 5″ LCD and high magnification range
- ✛ Variable use: hand-held for mobile use, upright for reading and standing for writing
- ✛ Stepless or gradual magnification with haptic and central buttons
- ✛ Customisable additional functions
- ✛ Can also be used as a screen reader

3 - 15 x | 5″ 16:9 | 240g | Display/Optoform

The appropriate display is available as an option on page 82.

For technical information please refer to page 90.

Accessories:
1650208 smartlux® DIGITAL Bumper
- Perfect all-round protection
- More secure grip

1650203 smartlux® DIGITAL HDMI cable
- Connecting cable for connecting the smartlux® DIGITAL to an HDMI-capable screen (type A connection)

1650204 smartlux® DIGITAL Handle
- Supported grip for ambidextrous guidance using the handle
- Very stable and light in weight

HAND-HELD MAGNIFIERS
AND
READING MAGNIFIERS

OPTIMUM VISION COMFORT –
ALWAYS READY TO HAND.

3.5x 100 250
made in Germany

LED

ESCHENBACH

CUSTOMER BENEFITS

✛ Magnification and illumination in a credit card format; the ideal size for any pocket

✛ Provides a brilliant image with optional illumination when you slide the lens out of its case

✛ Ultra-flat and lightweight design

✛ Compact case ensures safe storage

✛ Very economical: The light is only switched on when you slide the lens fully out of its case

✛ The LED light does not require changing. The tiny, extremely bright LED light used by Eschenbach Optik has a service life which is virtually unlimited

152111

152110   152122

easyPOCKET

- The tiny lens with powerful magnification
- Diffractive aspheric lens
- Illumination: ultra-flat SMD LED
- Product dimensions: 86 x 54 x 6 mm
- **Replacement battery:** Order No. 15471, requires 2 batteries

Item	Colour	Dimensions	Magnification	dpt
152110	black	50 x 45 mm	3.0 x*	8.0
152111	silver	50 x 45 mm	3.0 x*	8.0
152122	blue	50 x 45 mm	4.0 x	16.0

* Trade enlargement

PXM® 3 x / 4 x LED 2 x 2025 Display/Optoform

152211   152210

Can also be used as a stand magnifier.

easyPOCKET XL

- Compact hand magnifier with stand
- Diffractive aspheric, ultra-flat lens
- A flip-out stand enables it to be used as a stand magnifier
- Large homogenously illuminated field of view
- Illumination: bright, super-flat SMD-LED
- Magnification 2.5 x
- Product dimensions: 113.5 x 63 x 8.8 mm
- **Replacement battery:** Order No. 15473, requires 2 batteries

CUSTOMER BENEFITS

✛ Enlargement and light in a compact format

✛ Brilliant depiction with integrated illumination when pulling out the lens

✛ Magnifier can also be used as a stand with the integrated strap

✛ Large viewing area with super-flat lens

✛ Fits in any pocket thanks to the flat design and very low weight

✛ Case for safe storage

✛ Very economical: light only comes on when the lens is fully extended

✛ Bulb does not require changing: The LED optics used by Eschenbach has a virtually unlimited lifespan

Item	Colour	Dimensions	Magnification	dpt
152210	black	78 x 50 mm	2.5 x*	6.0
152211	silver	78 x 50 mm	2.5 x*	6.0

* Trade enlargement

PXM® 2,5 x LED 2 x 2032 Display/Optoform

15122

15113
15114

15112
151141
15115
15116

15117
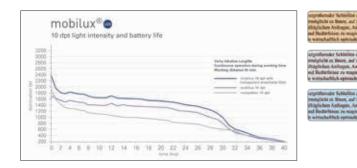151110
151112

reddot design award winner 2011

ILLUMINATED POCKET MAGNIFIERS

mobilux® LED

- Batteries are easy to change as the battery cover is easy to open and contact springs clearly indicate the battery position
- Improved comfort due to eyelet for lanyard
- The most suitable colour temperature and light intensity can be selected by attaching one of the three filters supplied
- The LED light does not require changing
  The LED light used by Eschenbach Optik has a service life of approx. 50,000 hours
- The battery life is up to 10 x longer in comparison to a conventional light
- Bright, even illumination provided by SMD LED and collimation optics
- Defined focusing distance: in the case of all aspheric magnifiers and reading magnifiers from Eschenbach Optik the focusing distance (aE: distance from the eye to the virtual image) is precisely 400 mm. The image can therefore be seen clearly with readers which have an addition of +2.5 dpt

Accessories:
See page 15 for mobase Order Nos. 1511001, -2, -3, -4
Lanyard Order No. 15981

CUSTOMER BENEFITS

- ⊕ Suitable for reading small print, e.g. in a telephone directory or on price tags
- ⊕ Simple to use – large, easy to operate light switch and eyelet for lanyard
- ⊕ Choice of 3 different lights colours via filters
- ⊕ The batteries are easy to change
- ⊕ A step-up converter controls the voltage for constant bright illumination over the whole lifetime of the battery
- ⊕ Incl. protective case for lens

Item	Dimensions	Magnification	dpt
15122	90 x 54 mm	3.0 x *	8.0
15112	Ø 60 mm	3.0 x	12.0
15113	75 x 50 mm	3.5 x *	10.0
15114	75 x 50 mm	4.0 x **	16.0
151141	Ø 60 mm	4.0 x	16.0
15115	Ø 58 mm	5.0 x	20.0
15116	Ø 58 mm	6.0 x	24.0
15117	Ø 35 mm	7.0 x	28.0
151110	Ø 35 mm	10.0 x	38.0
151112	Ø 35 mm	12.5 x	50.0

*   Commercial magnification
** Diffractive aspheric lens without cera-tec® coating

mobilux®
10 dpt light intensity and battery life

Verko Alkaline Longlife
Continuous operation during working time
Working distance 50 mm

PXM® cera-tec® coating 3–12.5 x LED

2 x AA Step Up Display/Optoform

The appropriate display is available as an option on page 87.

1511001 + 15113
flat position

1511001 + 15113
upright position

mobase

- High quality stand for mobilux® LED
- Can be used in two positions: laid flat for reading or standing for working
- Individual design for every mobilux® LED ensures the exact viewing distance
- Practical plug-in function for easy conversion to handheld use

CUSTOMER BENEFITS

✛ Tremble-free image when reading and working with the mobilux® LED
✛ Leaves both hands free for reading and working with the mobilux® LED
✛ Easy to use due to practical means of attachment
✛ Ensures that the correct distance of use can be maintained
✛ Can be attached to a swan neck stand to allow flexible adjustment of the mobilux® LED (only mobase 1511003)

Item	For mobilux® LED	Magnification
1511001	15112, 15113, 15114, 15122, 151141	3.0 x, 3.5 x, 4.0 x
1511002	15115, 15116	5.0 x, 6.0 x
1511003	15117	7.0 x
1511004	151110, 151112	10.0 x, 12.5 x

Four different mobase designs available for all ten mobilux® LED models:

1511001

1511002

1511003

1511004

Special feature of mobase 1511003:
Stand with additional $1/4$" thread. This enables it to be screwed onto a standard flexible tripod. The stand enables you to freely adjust the distance of use and it can be used with all mobilux® LED magnifiers.

The magnifications are printed on each mobase model for which the specific stand is designed.

Example image of a conventional stand. Only available as an optional extra. This is not an Eschenbach accessory.

1511003

266850

266860

266875

266885

2668950

mediplan ERGO

• Edge-to-edge aberration-free image

CUSTOMER BENEFITS

✛ Edge-to-edge distortion-free image
✛ Ideal for reading and looking at pictures for long periods of time
✛ Comfortable to use due to the ergonomically shaped handle
✛ Aplanatic reading magnifiers provide an edge-to-edge distortion-free image which makes them especially suitable for those suffering from a loss of central vision

Item	Dimensions	Magnification	dpt
266850	Ø 50 mm	4.5 x*	14.0
266860	Ø 60 mm	3.8 x*	11.3
266875	Ø 75 mm	2.9 x*	7.4
266885	Ø 85 mm	2.4 x*	5.6
2668950	90 x 50 mm	2.7 x*	7.0

* Trade enlargement

PXM®   DUPLEX   2.4–4.5 x   Optoform

265550

2655750

265560

2655150

265570

2655175

ASPHERIC READING MAGNIFIERS

aspheric II

- Particularly suitable for reading and looking at pictures with adequate ambient lighting (suitable lights can be found on page 36 to 37)
- Round-the-neck cord supplied

Accessories:
- Black real leather case. The item numbers for the corresponding cases are given in the table
- Lanyard Order No. 15981

285550
285560
285570

2855750
2855150
2855175

CUSTOMER BENEFITS

✛ High magnification with a large visual field
✛ Concealed eyelet in the end of the handle for round-the-neck cord

Item	Dimensions	Magnification	dpt	Order No. for case
265550	Ø 50 mm	6.0 x	24.0	285550
265560	Ø 58 mm	5.0 x	20.0	285560
265570	Ø 70 mm	4.0 x	16.0	285570
2655750	75 x 50 mm	3.5 x*	10.0	2855750
2655150	100 x 50 mm	3.0 x*	7.6	2855150
2655175	100 x 75 mm	2.8 x*	7.0	2855175

* Trade enlargement

PXM®   cera-tec coating   2.8–6.0 x   Optoform

264265

264280

2642100

2642120

2642840

2642150

26421255

BICONVEX MAGNIFIERS & READING MAGNIFIERS

economic

• Plano-convex additional lens with 5 x magnification in handle

CUSTOMER BENEFITS

✥ Suitable for tasks which require a low or medium level of magnification
✥ An additional high-magnification lens enables small details to be read
✥ Transparent plastic frame ensures easy orientation on the reading material
✥ With eyelet in the end of the handle for round-the-neck cord which is supplied
✥ The biconvex reading magnifiers offer a large visual field in a medium magnification range

Item	Dimensions	Magnification	dpt
264265	Ø 65 mm	3.0 x*	7.7
264280	Ø 80 mm	2.3 x*	5.4
2642100	Ø 100 mm	2.0 x*	4.1
2642120	Ø 120 mm	1.9 x*	3.4
2642840	80 x 40 mm	2.4 x*	5.7
2642150	100 x 50 mm	2.0 x*	4.0
26421255	120 x 55 mm	1.85 x*	3.3

* Trade enlargement

PXM® | DUPLEX | 2–3 x | Optoform

261465

261480

2614840

2614150

visomed

• Transparent lens frame

CUSTOMER BENEFITS

✥ Transparent plastic frames ensure excellent orientation on the reading material

Item	Dimensions	Magnification	dpt
261465	Ø 65 mm	3.0 x*	7.4
261480	Ø 80 mm	2.25 x*	5.3
2614840	80 x 40 mm	2.25 x*	5.3
2614150	100 x 50 mm	2.0 x*	3.9

* Trade enlargement

PXM® | 2.0–2.9 x | Optoform

2612401

2612801

2612601

26129501

Great value, high-quality magnifiers with additional lens in the handle

- Plano-convex additional lens with 5 x magnification integrated in the handle

CUSTOMER BENEFITS

✢ Excellent orientation on reading material due to transparent frame
✢ Eyelet in the handle for round-the-neck cord
✢ With additional high magnification lens in the handle for recognising details
✢ Suitable for large visual fields with a medium level of magnification

Item	Dimensions	Magnification	dpt	Packaging unit
2612401	Ø 45 mm	3.25 x*	9.0	contains 6
2612601	Ø 60 mm	2.7 x*	6.7	contains 6
2612801	Ø 80 mm	2.3 x*	5.3	contains 6
26129501	90 x 50 mm	2.0 x*	4.0	contains 3

* Trade enlargement

PXM® 1.5–3.25 x Display/Optoform

The appropriate display is available as an option on page 87.

2677

2678

ROUND-THE-NECK MAGNIFIERS

maxiPLUS/economy

- Transparent frame for shadow-free magnification
- Non-slip foam rubber pads on the feet ensure a secure position
- Individually packaged and includes round-the-neck cord

Additional product feature of maxiPLUS (2678):

- Large rectangular lens with 2 x magnification and separate additional lens with 4 x magnification for particularly detailed work

CUSTOMER BENEFITS

✢ Ideal for those fine motor tasks that require two hands such as knitting or handicrafts
✢ The round-the-neck cord can be adapted to suit individual requirements

Only for maxiPLUS (2678):

✢ The additional lens enables the user to see extremely small details

Item	Dimensions	Magnification	dpt
2677	Ø 100 mm	2.0 x*	3.2
2678	100 x 140/Ø 35 mm	2.0 x/4.0 x*	2.6/11.2

* Trade enlargement

PXM® 2x/4x Optoform

21361

21362

PENDANT MAGNIFIERS

- The light metal frame has an elegant finish
- Available in a gold-plated or chrome-plated finish
- Chain with a length of approx. 70 cm
  is included in delivery

CUSTOMER BENEFITS

✛ Can be worn as a pendant necklace and is always ready
  to use whenever you need it, providing you with quick
  and discreet magnification

Item	Colour	Dimensions	Magnification	dpt
21361	gold-plated	Ø 40 mm	3.5 x*	10.0
21362	chrome-plated	Ø 40 mm	3.5 x*	10.0

* Trade enlargement

 Silikat 3.5x

1711

SLIDE-OUT MAGNIFIERS

designo

- The sliding case provides optimum lens protection

CUSTOMER BENEFITS

✛ Very small, slimline and handy
✛ Ideal when you want to magnify small print quickly
  and comfortably
✛ In protective sliding case, ideal for carrying in the trouser
  pocket or handbag

Item	Dimensions	Magnification	dpt
1711	Ø 30 mm	5.0 x	20.0

 PXM® 5x

172116
172146
172156

CUSTOMER BENEFITS

✛ Wide field of view with ultra-slim lens
✛ Handy credit card format
✛ Leather case protects lens from being scratched
✛ Ideal for on-the-go use when small print needs magnifying
  swiftly and easily

visoPOCKET

- Diffractive aspheric lens
- Modern and exquisite design
- High quality leather
- Available in three colours

Item	Dimensions	Magnification	dpt	Colour	Material
172116	74 x 48 mm	2.5 x*	6.0	red	Leder
172146	74 x 48 mm	2.5 x*	6.0	brown	Leder
172156	74 x 48 mm	2.5 x*	6.0	black	Leder

* Trade enlargement

 PXM® 2.5x Display/Optoform

classic

- Folding magnifier in timeless, classic design
- Available in the following lens diameters: 30 mm, 50 mm and 60 mm (see table)
- The table also shows the colours available

CUSTOMER BENEFITS

- Small, handy and compact
- Fits easily into any handbag or trouser pocket
- Leather case protects the lens from being scratched
- Available in many different colours and sizes

1740130 1740150 1740160
         1740250 1740260
         1740450 1740460
1740530 1740550 1740560

Item No.	Item No.			Colour	Material
	Ø 30 mm 24.0 dpt 6.0 x	Ø 50 mm 10.0 dpt 3.5 x	Ø 60 mm 10.0 dpt 3.5 x		
17401-	30	50	60	burgundy red	leather
17402-		50	60	pine green	leather
17404-		50	60	nutria brown	leather
17405-	30	50	60	black	leather
17521-		50	60	crimson	leather
17525-		50	60	royal black	leather
17528-		50	60	bronzite brown	leather

* Trade enlargement

PXM®   Super-DUPLEX   3.5 x / 6.0 x   Optoform

1752150 1752160
1752550 1752560
1752850 1752860

CUSTOMER BENEFITS

- Great value for money, practical and sturdy
- A variety of cases is available in leather

Item	Dimensions	Magn.	dpt	Colour	Material
173013	Ø 45 mm	3.5 x*	10.0	vermillion	leather
173023	Ø 45 mm	3.5 x*	10.0	silver	leather
173033	Ø 45 mm	3.5 x*	10.0	blue	leather
173053	Ø 45 mm	3.5 x*	10.0	black	leather

* Trade enlargement

PXM®   3.5 x

173013 173033
173023 173053

economy

- Folding magnifier in a trouser pocket format
- Supplied in a pack of 3
- The available colours are outlined in the table

152097

mobilent LED

- Extremely compact, high-magnification folding magnifier
- Economical LED light integrated in housing
- Colour temperature: approx. 6000 K
- Colour rendering index: CRI 88
- Illumination level: approx. 300 lx
- Battery: 1x CR 2032, battery service life up to 10 hours
- The plastic housing securely encloses the lens
- Incl. lanyard for wearing around the neck

152094

CUSTOMER BENEFITS

✛ The ideal illuminated magnifier for when you're on the move: high-magnification, small and handy; suitable for wearing around the neck, for use as a hand-held magnifier and fits in a trouser pocket

✛ The lanyard is threaded through the battery cover so that the battery cover cannot be lost when the lanyard is used

Item	Colour	Dimensions	Magnification	dpt
152094	white	Ø 35 mm	4.0 x	16.0
152097	white	Ø 35 mm	7.0 x	28.0
1520910	white	Ø 35 mm	10.0 x	38.0

1710910

171097

171094

mobilent

- High magnification folding magnifiers
- The plastic case encloses the lens and is dust-tight
- Incl. lanyard to hang around the neck

CUSTOMER BENEFITS

✛ The ideal magnifier for handbag and trouser pocket or for wearing around the neck

✛ high magnification, small and handy

Item	Colour	Dimensions	Magnification	dpt
171094	white	Ø 35 mm	4.0 x	16.0
171097	white	Ø 35 mm	7.0 x	28.0
1710910	white	Ø 35 mm	10.0 x	38.0

2031

2032

2034

combiPLUS

- The practical all-rounder for multi-use
- Supplied with a fine grain black leather case with soft inner lining to protect the lens

Item	Dimensions	Magnification	dpt	Order No. for spare case
2031	100 x 50 mm	2.6 x*	6.3	20211
2032	100 x 75 mm	2.8 x*	7.0	20221
2034	75 x 50 mm	3.5 x*	10.0	20201

* Trade enlargement

CUSTOMER BENEFITS

✛ Can be used as a hand-held magnifier with fold-out handle
✛ Can be used as a stand magnifier: fold-out metal feet enable the lens to be tilted for a comfortable viewing angle
✛ Suitable for reading, writing and handicrafts
✛ Includes protective case

PXM® cera-tec® coating 2.6–3.5 x Optoform

STAND MAGNIFIERS
AND
READING MAGNIFIERS

STABLE SOLUTIONS
FOR BRIGHT MAGNIFICATION.

visolux⁺

- A plus in visual comfort
- Even, bright and glare-free illumination provided by two SMD LEDs
- Integrated, preselectable orange filter for second warm colour temperature
- Hard foam case included

1566

CUSTOMER BENEFITS

⊕ Comfortable to use due to ergonomic tilted lens and compact design
⊕ Incredibly large field of view with 3 x magnification
⊕ 2 different colour temperatures for even, glare-free illumination of the reading material
⊕ Light automatically switches off after 30 minutes to prevent unnecessary power consumption

Item	Dimensions	Magnification	dpt
1566	100 x 75 mm	3.0 x	12.0

PXM®   cera-tec® coating   3x   2 x LED   30 min.   3xAA   Display/Optoform

The appropriate display is available as an option on page 85.

scribolux

- Push-button switch for easy on/off operation
- Automatic light-off function after 30 minutes to avoid unnecessary power consumption
- High level of image brightness and large visual field
- Distance lens – supporting surface: 7.5 cm (apex of lens)
- In the case of all aspheric magnifiers and reading magnifiers from Eschenbach Optik the focusing distance (a_E: distance from the eye to the virtual image) is precisely 400 mm. The image can therefore be seen clearly with readers which have an addition of +2.5 dpt
- Supplied with microfibre pouch to protect the lens. The pouch can also be used for cleaning the lens

156512

CUSTOMER BENEFITS

⊕ Plenty of space for writing under the lens as the lens is positioned at a spacious distance from the supporting surface and the magnifier base has an open design
⊕ Easy to move across the reading material
⊕ With comfortable tilted lens
⊕ Bright, even and glare-free illumination
⊕ Leaves both hands free for carrying out tasks under the scratch-resistant lens without shadowing

Item	Dimensions	Magnification	dpt
156512	100 x 75 mm	2.8 x*	7.0

* Trade enlargement

Accessories:
Hard foam case for safe transport
Order No. 15651209

PXM®   cera-tec® coating   2.8 x   LED   30 min.   3xAA   Display/Optoform

The appropriate display is available as an option on page 85.

system varioPLUS

- Details relating to magnification/dioptre value/recommended eye-lens distance are stated on all magnifier heads
- Bright, even illumination of the reading text provided by enclosed magnifier heads made from a light material
- To achieve a uniform reading distance, Eschenbach Optik recommends using the system varioPLUS in combination with a reading stand (Item No. 1605, see page 70)

CUSTOMER BENEFITS

✛ Particularly suitable for reading over long periods of time and for users who cannot hold magnifiers freely (e.g. age-related shaking or Parkinson's disease)

✛ Magnifier heads with a diameter greater than 58 mm (15539-, 15549-, 15599-) are fitted with a retractable red reading line for easier line orientation and increased reading speed

✛ The rectangular magnifier heads (15806-, 15826-) are equipped with a supplementary swivel lens for additional magnification

✛ Choice of 3 different colour temperatures via filters

1599144

Battery handle, LED:
- LED illumination
- LEDs have an unlimited service life and do not require changing, extremely economical to use
- Easy to change, attachable filters provide a choice of three different colour temperatures
- Step-up converter for even, consistently bright illumination

| 2 x LED | | 2x Baby | Step Up | Optoform |

155773	155774
155073	155074
155173	155174
155273	155274
155393	155394
155493	155494
155993	155994

158173	158174
158063	158064
158263	158264

Example of item number formation

Reading line   Additional lens

Item		Dimensions	Magnification	dpt	Additional features	Case
155773**	155774***	Ø 35 mm	12.5 x	50.0	–	15601
155073**	155074***	Ø 35 mm	10.0 x	38.0	Incl. attachable measurement scale, graduation 0.5 mm and 1/64 inch	15601
155173**	155174***	Ø 35 mm	7.0 x	28.0	–	15601
155273**	155274***	Ø 50 mm	6.0 x	24.0	–	15601
155393**	155394***	Ø 58 mm	5.0 x	20.0	With retractable red reading line	15602
155493**	155494***	Ø 70 mm	4.0 x	16.0	With retractable red reading line	15602
155993**	155994***	Ø 80 mm	3,0 x	12.0	With retractable red reading line	15602
158173**	158174***	100 x 50 mm	3.9 x*	11.4	Aplanatic with ergonomic tilting lens	15603
158063**	158064***	100 x 50 mm	3.0 x*	7.6	With additional swivel lens, 4 dpt, 450 nm cut-off filter, ergonomic, tiltable magnifier head, with ergonomic tilting lens	15603
158263**	158264***	100 x 75 mm	8 x*	7.0	With retractable red reading line, 4 dpt, 450 nm-cut-off filter, ergonomic, tiltable magnifier head, with ergonomic tilting lens	15603

* Trade enlargement

** Magnifier head, without handle   *** with battery handle 1599144

Accessories:
- Case

15601
15602
15603

For technical information please refer to page 92.

visomax

- With attachable additional lens for an even larger visual field
- Can be used with magnifying ruler 2606 (see page 31)
  Total magnification with magnifying bar 5.6 x

CUSTOMER BENEFITS

✛ Enables you to write under the lens
✛ Comfortable working position at a pleasant viewing distance
✛ Comfortable, infinitely variable angled viewing
✛ Large, rectangular visual field

263611

Item	Dimensions	Magnification	dpt	Magn. without additional lens
263611	100 x 75 mm	3.8 x*	11.0	7.0 dpt 2.8 x*

* Trade enlargement

1586141
1586201
1586281

158614
158620
158628

powerlux

- The new generation of illuminated magnifier
- Available in warm and cold white colour temperature
- 2 SMD LEDs are positioned opposite each other to provide shadow-free illumination
- Supplied with protective hard foam case
- Economical power consumption due to automatic switch-off function which turns the powerlux off after 30 minutes

PXM® | cera-tec® coating | 3.5–7 x | 2 x LED
30 min. | 3xAA | | Display/Optoform

The appropriate display is available as an option on page 85.

For technical information please refer to page 92.

CUSTOMER BENEFITS

- Very simple to use, the ergonomic design promotes intuitive movement on the reading material
- Automatic switch-off function, preserves battery life
- Very comfortable to hold in the hand
- Consistently bright and glare-free illumination
- Ideal for people with visual impairment who appreciate award-winning design
- Suitable for both left and right handers

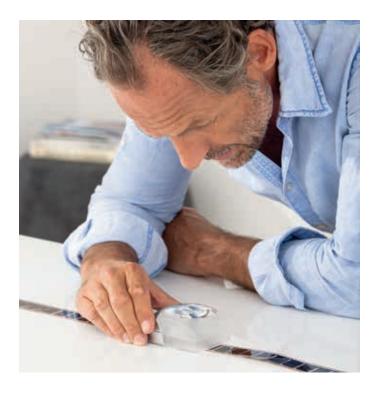| Item	Dimensions	Colour temperature	Magnification	dpt
158614	Ø 58 mm	8,000 K	3.5 x	14.0
1586141	Ø 58 mm	3,000 K	3.5 x	14.0
158620	Ø 58 mm	8,000 K	5.0 x	20.0
1586201	Ø 58 mm	3,000 K	5.0 x	20.0
158628	Ø 58 mm	8,000 K	7.0 x	28.0
1586281	Ø 58 mm	3,000 K	7.0 x	28.0

143830

menas LUX

- Illuminated stand magnifier with fixed magnification
- Object and image position virtually on the same level
- Height 45 mm

CUSTOMER BENEFITS

✢ Ultra-flat design with a large visual field
✢ Large, variable distance of use (eye-lens)
✢ The integrated light makes it ideal even in very poor light
  conditions
✢ A step-up converter controls the voltage for constant bright
  illumination over the whole lifetime of the battery

Item	Dimensions	Magnification	SMD-LED	Batteries
143830	Ø 63 mm	3.0 x	•	1 x AA

| | PXM® | 3 x | LED | 1 x AA | Step Up | Optoform |

14388

menas ZOOM

- Infinitely adjustable magnification
- Object and image position virtually on the same level

CUSTOMER BENEFITS

✢ Ultra-flat design with a large visual field
✢ Large, variable distance of use (eye-lens)
✢ Suitable for different sizes of print with infinitely
  adjustable magnification

Item	Dimensions	Magnification
14388	Ø 65 mm	2.2 x-3.4 x

| | PXM® | 2.2–3.4 x |

1436

1426

PXM®   1:1.8–1.2.2 x

makroPLUS Aspheric

● Object- and image position virtually on the same level

CUSTOMER BENEFITS

✛ Tremble-free, bright image
✛ Comfortable, tilted view allows relaxed reading position
✛ Item Number 1436 allows entire newspaper columns to
   be read

Item	Dimensions	Magnification
1426	65 x 36 x 46 mm	1:1.8
1436	90 x 35 x 70 mm	1:2.2

143611

143621

makrolux

● Push-button switch for easy on/off operation
● Automatic light-off function after 30 minutes to avoid unne-
  cessary power consumption
● Includes bright LED light
● Object and image position virtually on the same level

CUSTOMER BENEFITS

✛ Tremble-free, bright image
✛ Comfortable, tilted view allows relaxed reading position
✛ Item Nos. 143611 and 143621 enable to read full newspaper
   columns
✛ With excellent LED illumination right up to the edges
   of the magnifier

Item	Dimensions	Magn.	SMD-LED	Batteries
143611	90 x 55 x 82 mm	1:2.2	•	3 x AA
143621	90 x 63 x 90 mm	1:3.6	•	3 x AA

1:2.2–1:3.6 x   LED   30 min.   3 x AA   Display/Optoform

The appropriate display is available as an option on page 82.

1421

1420

1424

BRIGHT FIELD MAGNIFIERS

- A high level of image brightness
- The image has double the surface brightness in comparison to ambient light conditions
- By approaching the object, a magnification level of up to 6 x can be achieved by means of the accommodative power
- All Eschenbach Optik bright-field magnifiers are supplied in a microfibre pouch which can also be used to clean the magnifiers
- Magnification 1:1.8
- Object and image position are virtually on the same level

CUSTOMER BENEFITS

⊹ „Tremble-free" image as the bright field magnifiers are placed directly on the reading material
⊹ Very handy and compact
⊹ Due to their high accommodation capacity, these bright field magnifiers are particularly suitable for children to support the remaining visual acuity
⊹ Bright field magnifiers are also ideal as combination magnifiers (in combination with high addition or systems with reading caps)

Example:

High addition 6 dpt	*= 1.5 x*
+ Bright field magnifier	*= 1.8 x*
Total magnification	*= 2.7 x*

With a bright field magnifier the reading distance of 18 cm (6 dpt) remains the same with double the magnification!

Item	Dimensions	Magnification	Details
1420	Ø 65 mm	1:1.8	-
1421	Ø 65 mm	1:1.8	Incl. red guide line (removable)
1424	Ø 45 mm	1:1.8	Extremely light

The combination of a bright-field magnifier and reading glasses doubles the magnification at the same reading distance.

[Silikat] [1:1.8 x] [Optoform]   **1424** [PXM®] [1:1.8 x] [Optoform]

2608

2605

2606

MAGNIFYING RULERS

- Magnifying rulers only magnify in one direction, the height of the letters is therefore increased but the width remains the same

CUSTOMER BENEFITS

⊹ The generous width and the red guide line make it easier to read tables
⊹ As they only magnify in one direction, they allow strainfree reading over long periods of time

Item	Dimensions	Magnification	Details
2605	200 x 25 mm	1:1.8	• With grip bar • Incl. red guide line
2606	122 x 26 mm	1:2.0	• Incl. red guide line • Higher magnification due to aspheric surface • Scratch-resistant underside • Can also be used with visolux large field magnifiers (Item Number 263611, page 27)
2608	250 x 35 mm	1:1.8	• Incl. red guide line

[PXM®] [1:1.8 x]   **2606, 2608** [PXM®] [1:2.0 x] [Optoform]

2781

27815

Illumination strength

READING MAGNIFIERS

varioLED flex

- Ø 76 mm/6 dpt/2.5 x magnification
- Aspheric PXM® lightweight lens, cera-tec® coated for a distortion-free image with edge-to-edge sharpness
- Switch between ring illumination and segment illumination for examining surfaces
- Illumination near point for shadow-free illumination: 3.5 cm
- Illumination level: approx. 6,000 lx (at a working distance of 150 mm)
- Provides full illumination power immediately
- Gooseneck design with protective cover for improved hygiene
- Secured via table clamp
- Supplied with power adapter for EU, GB, US
- Cable length: 2.5 m

CUSTOMER BENEFITS

- ✛ Segment switching = provides a choice between shadow-free LED ring illumination and segment illumination for improved inspection of different surface structures
- ✛ As it is lightweight, compact and highly flexible this stand magnifier is extremely versatile
- ✛ Optimum swivel range of magnifier head due to gooseneck stand in combination with biaxial lens mounting
- ✛ Comfortable positioning due to ergonomic „magnifier grip"
- ✛ Economical due to low power consumption

Item	Dimensions	Stand length	Magnification	dpt
2781	Ø 76 mm	350 mm	2.5 x*	6.0
27815	Ø 76 mm	600 mm	2.5 x*	6.0

* Trade enlargement

Accessories:
27819 Table base for 2781
- Steel, black finish, weight 2 kg
- Not suitable for Item 27815

	PXM®	cera-tec coating	2.5 x	LED	9.000 K
Ra > 80	260 lm	50.000 h	110–220V 50–60 Hz	4.4 W	

27773
27776

varioLED⁺

- Shadow-free ring illumination made up of 84 long life high performance LEDs
- Switch between ring illumination and segment illumination
- Illumination levels (ring illumination, 200 mm): 6000 lx, 3500 lx, 2400 lx – provides full illumination power immediately
- Hinged lens cover to protect against dust and sunlight (lens cover can also be easily removed)
- Supplied with table clamp for table thicknesses of 18 to 74 mm and mains adapter for EU, US, GB
- Protection class: Device IP40, mains adapter IP20

CUSTOMER BENEFITS

- ⊹ Shadow-free and flicker-free illumination
- ⊹ Light output has three dimming levels (40%, 60%, 100%)
- ⊹ Can be used with distance and near vision glasses
- ⊹ Minimum power consumption due to low power requirement of the LED

Item	Dimensions	Magnification	dpt
27773	Ø 132 mm	1.9 x*	3.55
27776	Ø 132 mm	2.5 x*	6.0

* Trade enlargement

PXM® cera-tec® coating 1.9/2.5 x 84 x LED 6,500 K

Ra >85 1,000 lm 50,000 h EEI A

27729

Accessories:
27729 Table base

- Cast iron, 260 mm Ø, weight 6 kg
- Suitable for stand magnifiers 27773, 27776

LIGHT

INDIVIDUAL ILLUMINATION.
RADIANT DIVERSITY.

16042

16042
as an accessory with maxDETAIL, laboCOMFORT headband magnifier and combi-plus magnifying reader

headlight LED

- Small, lightweight and compact LED light.
- Precise, glare-free light focusing by means of CPC optics (Compound Parabolic Concentrator)
- Power supply via handy, compact battery housing and cable. incl. practical cable rewind
- Very flexible cable, can be easily attached to the temple with an additional adapter
- Constant illuminance throughout the entire Battery life
- Illumination strength:
  approx. 3,200 lx in 250 mm, 1,200 lx in 400 mm.
- Illumination period: approx. 8 hours in normal mode, approx. 14 hours in eco mode.
- Hard foam case included.
- Lamp housing:
  Dimensions: 32 x 20 x 34 mm, Tilting range: vertical
  Weight: 11 g.
- Battery housing:
  Dimensions: 90 x 55 x 29 mm (without clip). 1m cable length.
  Weight: 60 g (without batteries).

160421
with a carrier system for those who don't wear glasses

160422
with clip for spectacle wearers

162452
with maxDETAIL

CUSTOMER BENEFITS

✛ The light can be tilted vertically into the required position.
✛ Shadow-free and flicker-free illumination.
✛ Battery housing can be comfortably carried on the belt or in the shirt pocket.
✛ Low energy consumption as the light is optimised for use with rechargeable batteries.

CPC PXM® 2 x LED 8.000 K 3 x AA

16034

pure vision LED

- Colour: silver/anthracite
- Illumination level: approx. 2400 lx (distance 30 cm)
- Colour rendering index: CRI > 85
- Height: min. 32 cm up to max. 52 cm

CUSTOMER BENEFITS

- ✚ Easy to operate, tactile switch
- ✚ Large, comfortable distance that is adjustable to reading material
- ✚ Stable arm with flexible, freely adjustable lampshade
- ✚ Uniform illumination with no cast shadow
- ✚ Very convenient as no need to change the bulb

| LED | 5000 K | Ra > 85 | ≥ 400 lm | 40.000 h | EEI G (A-G) | 230V 50Hz | 8 W |

16030

pure visionLED XL

- Colour: silver/anthracite
- Illumination level: approx. 2400 lx (distance 30 cm)
- Colour rendering index: CRI > 85
- Height: min. 117 cm up to max. 151 cm

CUSTOMER BENEFITS

- ✚ The ideal lamp for reading in a chair
- ✚ The lampshade can be adjusted in relation to the reading material for comfortable and glare-free reading
- ✚ Easy to operate, tactile switch
- ✚ Uniform illumination with no cast shadow
- ✚ Very convenient as no need to change the bulb

| LED | 5000 K | Ra > 85 | ≥ 400 lm | 40.000 h | EEI G (A-G) | 230V 50Hz | 8 W |

economy visionLED

- Colour: white
- 3 colour temperatures (2800 K, 3850 K, 4900 K) selectable
- 5 illumination levels selectable
- Height: approx. 33 cm

CUSTOMER BENEFITS

⊹ Even illumination with no cast shadow
⊹ Colour temperature and illumination level can be adjusted independently as required
⊹ Portable as it can be used with a 5 V power bank (not included in the scope of delivery)
⊹ Very convenient as no need to change the bulb

16036

Artikel	2800 K	3850 K	4900 K
Stufe 1	359 lx	1175 lx	880 lx
Stufe 2	285 lx	928 lx	685 lx
Stufe 3	213 lx	680 lx	500 lx
Stufe 4	145 lx	450 lx	342 lx
Stufe 5	75 lx	228 lx	172 lx

(Values stated for 25 cm distance)

| LED | 2.800 K - 4.900 K | Ra >80 | 20 bis 290 lm | 25.000 h | EEI G (A-G) | 230V 50Hz | 4 W |

basic visionLED

- Colour: white
- Colour temperature: approx. 5000 K
- Illumination level: approx. 1700 lx (distance 30 cm)
- Voltage: Input AC 100 ~ 240 V, Output DC 24 V
- Height: approx. 40 cm

CUSTOMER BENEFITS

⊹ Tactile switch in stand
⊹ Stable arm with flexible, freely adjustable swan neck sections on stand and head
⊹ Uniform illumination with no cast shadow
⊹ Very convenient as no need to change the bulb

16038

| LED | 5.000 K | Ra >80 | 360 lm | 40.000 h | EEI G (A-G) | 230V 50Hz | 5 W |

FILTERS

LESS GLARE.
MORE CONTRAST.

FILTERS

Glare protection

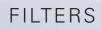Site glare protection

Ventilation slot

ambelis

- Improved colour sensitivity and minimisation of glare by blocking short-wave, high energy light components in the blue part of the spectrum
- Available in the am Drive filter variant suitable for driving or in the am Classic variant
- Available in tint levels am 15, am 65, am 85, am 50-15, am 75P (polarising), am active (photochromic only in filter variant am Classic)
- Available in various frame models or as clip-ons – a suitable case is always included
- Spectacle frames with extra deep edge to block incident light from above
- Widely set temple with transparent side glare guard allows sideways orientation
- Side Ventilation slot between temple and middle section prevents fogging of the lenses
- 100 % UV protection and up to 99 % blue absorption

CUSTOMER BENEFITS

- ✛ All-round protection for the eyes against the harmful rays of the sun and against unpleasant glare
- ✛ Improved contrast vision
- ✛ Attractive design that makes ambelis look like sunglasses
- ✛ Improved colour recognition in comparison to conventional cut-off filter eyewear
- ✛ Ideal for spending long periods outdoors, winter sports, for eyes that are sensitive to glare, for retinal disease and following cataract operations

Ideal for spectacle wearers: ambelis XL is intended for wearing over the correction frame.

| am 15 | am 65 | am 85 | am 50/15 | am 75P | am active |

| am 15 Drive | am 65 Drive | am 85 Drive | am 50-15 Drive | am 75P Drive |

Important for motorists: The am Drive filter variant meets the requirements for driving according to DIN EN ISO 12312-1.

ambelis filter lenses have an additional cut-off filter. Besides UV light, they absorb short-wave, high energy components of visible blue light. Contrast vision is therefore improved and unpleasant glare is reduced.

ambelis is available with a variety of tints to suit any light conditions. The details relating to the filter lenses refer to the tint which is applied to the base filter.

without ambelis

with ambelis

CR 39   Display/Optoform

The appropriate display is available as an option on page 86.

Eyewear and clip-ons

- Glazed with ambelis plano glass of various filter variants
- The description relates to the absorption of the additional tint overlay on the base filter. It does not correspond to the light transmittance of the combined filter
- Eyewear supplied in hard foam case
- Clip-ons supplied in soft case with belt clip

ambelis XL, large

ambelis XL, large

- Ideal for spectacle wearers to wear over the designated prescription frame
- Owing to the disk size, not intended for individual glazing
- Important for motorists: Filter variant am Drive meets the requirements on spectacle lenses for driving

1663365

ambelis
Classic, large

ambelis
Classic, large

ambelis
Ladies, large

ambelis
Ladies, small

ambelis
Men

ambelis
Sport, small

ambelis
Sport, large

Frame	Features	Filter variant	Characteristics	Frame colour	Material	Side window colour
Classic frame, small	–	am Classic	temples can be shortened	havanna, gloss	TR 90	orange-yellow
		am Drive	temples can be shortened	havanna, gloss	TR 90	green-yellow
Classic frame, large	–	am Classic	temples can be shortened	havanna, gloss	TR 90	orange-yellow
		am Drive	temples can be shortened	havanna, gloss	TR 90	green-yellow
Ladies' frame	with adjustable pad arms	am Classic	temples can be shortened	black, gloss	TR 90	orange-yellow
		am Drive	temples can be shortened	brown, gloss	TR 90	green-yellow
Men's frame	spring hinges with adjustable pad arms	am Classic	temples can be shortened	black, gloss	TR 90	orange-yellow
		am Drive	temples can be shortened	black, gloss	TR 90	green-yellow
am Sport frame, small	–	am Drive	temples can be shortened	brown, matt	St. steel	green-yellow
am Sport frame, large		am Drive	temples can be shortened	anthracite, matt	St. steel	green-yellow
XL frame, small	–	am Classic	–	havanna, matt	TR 90	orange-yellow
		am Drive	–	havanna, matt	TR 90	green-yellow
XL frame, large	–	am Classic	–	havanna, matt	TR 90	orange-yellow
		am Drive	–	havanna, matt	TR 90	green-yellow
Clip-ons	–	am Classic	–	–	–	–
		am Drive	–	–	–	–

Lenses

ambelis am 15 Classic / am 15 Drive

- Cut-off filter with 15 % tint overlay

Recommended use:
- Indoors in the case of a high level of glare sensitivity
- Outdoors when the sky is cloudy
- Outdoors in the case of a low level of glare sensitivity

ambelis am 65 Classic / am 65 Drive

- Cut-off filter with 65 % tint overlay

Recommended use:
- Indoors in the case of a high level of glare sensitivity
- Outdoors in cloudy to clear weather
- Outdoors in the case of a medium level of glare sensitivity

ambelis am 75P Classic / am 75P Drive

- Cut-off filter with polarized 75 % tint overlay
- Strong reduction in reflection and additional contrast enhancement through polarisation

Recommended use:
- Indoors in the case of a high level of glare sensitivity
- Outdoors in the case of a high level of glare sensitivity
- Outdoors in bright weather, sunshine
- Outdoors on the water, in snow

ambelis am 85 Classic / am 85 Drive

- Cut-off filter with 85 % tint overlay

Recommended use:
- Outdoors in sunshine
- Outdoors in the case of a very high level of glare sensitivity

ambelis am 50-15 Classic / am 50-15 Drive

- Cut-off filter with graded 50-15 % tint overlay

Recommended use:
- Indoors in the case of a medium to high level of glare sensitivity
- Outdoors in cloudy to clear weather
- Outdoors in the case of a low to medium level of glare sensitivity
- Ideal for reading indoors and outdoors

ambelis am active

- Photochromic lenses with additional cut-off filter
- Darkening according to the level of sunlight

Recommwended use:
- Owing to the self-tinting property are ideal for indoor or outdoor use
- For moderate to high sensitivity to glare

	Filter variant	am 15	am 65	am 85	am 50-15	am 75P	am active
Filter category	am Classic	1	2	3	2	2	1/3*
	am Drive	1	2	3	2	2	–
Luminous transmittance	am Classic	ca. 50 %	ca. 35 %	ca. 15 %	ca. 35 %	ca. 20 %	ca. 55 %/15 %*
	am Drive	ca. 50 %	ca. 35 %	ca. 15 %	ca. 30 %	ca. 25 %	–
Blue light absorption	am Classic	ca. 98 %	ca. 96 %	ca. 99 %	ca. 98 %	ca. 96 %	ca. 97 %/99 %
	am Drive	ca. 95 %	ca. 96 %	ca. 98 %	ca. 97 %	ca. 96 %	–
Suitable for wearing whilst driving	am Classic	⊠	⊠	⊠	⊠	⊠	⊠
	am Drive	⊠	⊠	⊠	⊠	⊠	–

⊠ not suitable for driving in accordance DIN EN ISO 12312-1   ⊠ suitable for driving, not suitable for driving at night in accordance with DIN EN ISO 12312-1

Note: ambelis are also available with individual lens strengths.   * brightened / darkened

Size	Frame, unglazed	am 15	am 65	am 85	am 50-15	am 75P	am active
54-16-135	16635416	1663115	1663165	1663185	166315015	1663175P	–
54-16-135	16645416	1664115	1664165	1664185	166415015	1664175P	–
57-16-135	16635716	1663215	1663265	1663285	166325015	1663275P	–
57-16-135	16645716	1664215	1664265	1664285	166425015	1664275P	–
56-15-130	16635615	1663415	1663465	1663485	166345015	1663475P	166341580
54-15-130	16645415	1664415	1664465	1664485	166445015	1664475P	–
58-16-130	16635816	1663515	1663565	1663585	166355015	1663575P	166351580
58-16-130	16645816	1664515	1664565	1664585	166455015	1664575P	–
56-17-135	16665617	1666115	1666165	1666185	166615015	1666175P	–
59-16-135	16665916	1666215	1666265	1666285	166625015	1666275P	–
61-12-145	–	1663815	1663865	1663885	166385015	1663875P	166381580
61-12-145	–	1664815	1664865	1664885	166485015	1664875P	–
65-12-145	–	1663915	1663965	1663985	166395015	1663975P	166391580
65-12-145	–	1664915	1664965	1664985	166495015	1664975P	–
60-11	–	1663315	1663365	1663385	166335015	–	–
60-11	–	1664315	1664365	1664385	166435015	–	–

16618527

16619527

CUT-OFF FILTER EYEWEAR

asensys XL

- 100% absorption of UV light and high energy, short-wave components of visible light depending on position of cut-off filter
- Lenses available with 450 nm, 511 nm, 527 nm and 550 nm cut-off filters
- Non-polarising or polarising lenses can be supplied
- Spectacle frame for pulling over the normal prescription glasses
- Complete protection against glare due to deep frame edge lying close to the head and wide temples
- Good sideways orientation through windows in the temples
- Side temple windows matched to the particular lens cut-off filter
- Two frame sizes available
- Hard foam case included
- All cut-offs are suitable for use during PUVA therapy

CUSTOMER BENEFITS

- ☩ Enhances contrast vision
- ☩ Protects against glare in cases of raised sensitivity to glare
- ☩ Frame with complete all-round protection against glare
- ☩ Are worn over one's own prescription spectacles

Ideal for wearing over one's own spectacles

Cut-off	450 nm, non-polarised	511 nm, non-polarised	527 nm, non-polarised	550 nm, non-polarised
Luminous transmittance	approx. 85 %	approx. 60 %	approx. 43 %	approx. 30 %
Filter category	0	1	1 to 2	2
Suitable for wearing whilst driving	🚗	⊠	⊠	⊠
Small frame (61-12-140)	16618450	16618511	16618527	16618550
Large frame (65-12-140)	16619450	16619511	16619527	16619550

450 nm
511 nm
527 nm
550 nm

Cut-off	450 nm, polarised	511 nm, polarised	527 nm, polarised	550 nm, polarised
Luminous transmittance	approx. 30 %	approx. 15 %	approx. 13 %	approx. 9 %
Filter category	2	3	3	3
Suitable for wearing whilst driving	⊠	⊠	⊠	⊠
Small frame (61-12-140)	16618450P	16618511P	16618527P	16618550P
Large frame (65-12-140)	16619450P	16619511P	16619527P	16619550P

450P nm
511P nm
527P nm
550P nm

🚗 unconditionally suitable for driving according to DIN EN ISO 12312-1   ⊠ not suitable for driving in accordance DIN EN ISO 12312-1
⊠ suitable for driving, not suitable for driving at night in accordance with DIN EN ISO 12312-1

- Optical efficiency: ±0 dpt
- The lenses have screw attachment, they are not riveted
- Supplied with soft case

1662450
1662450P

1662511
1662511P

1662527
1662527P

1662550
1662550P

CLIP-ONS

asensys

- Contrast enhanced vision and reduction in glare through absorption of the short-wave, energy-rich ultraviolet and blue components of the spectrum
- The use of cut-off filters is recommended in particular for conditions such as retinitis pigmentosa, macular degeneration, albinism, optic atrophy, aphakia
- The contrast-enhancing cut-off filter clip-ons are attached to the correction frame and can simply be flipped up where necessary

CUSTOMER BENEFITS

✛ For reducing glare in the case of increased glare sensitivity.

✛ For contrast enhancement.

Item	Cut-off	Trans-mission	Filter Cat.	Suitable for wearing whilst driving
1662450	450 nm	85 %	0	🚗
1662450P	450 nm, polarised	30 %	2	⊠
1662511	511 nm	60 %	1	⊠
1662511P	511 nm, polarised	15 %	3	⊠
1662527	527 nm	43 %	1 to 2	⊠
1662527P	527 nm, polarised	13 %	3	⊠
1662550	550 nm	30 %	2	⊠
1662550P	550 nm, polarised	9 %	3	⊠

CR 39   Display/Optoform

29261 29262 29263

Polarised clip-on sunglasses

- UV 400 – 100 % UV protection
- Polarised
- High quality design
- Supplied with soft case
- Suitable

CUSTOMER BENEFITS

✛ Polarisation makes them particularly suitable for watersports (sailing, fishing)

✛ The quick solution for clipping onto eyewear frame

✛ Ideal when you don't want to wear a separate pair of sunglasses

Item	Colour	Transmission	Filter Cat.	Clip-On
29261	brown	approx. 15 %	3	Flip-Up-System
29262	grey	approx. 15 %	3	Flip-Up-System
29263	green	approx. 15 %	3	Flip-Up-System

Tri-Acetat

acunis

COMFORT LENSES FOR MIGRAINE-RELATED SENSITIVITA TO LIGHT

The retinal ganglion cells (ipRGC) are held responsible for photophobia, which is often associated with migraine, among other things[1]. They are the main conductors of the eye's (non-image-forming) light regulation to the brain[1] and have their sensitivity maximum at approx. 484 nm[2].

This is where the pink-coloured acunis comfort lenses come in: they have been specially developed for use in cases of hypersensitivity to light stimuli and reduce in particular the transmission of the blue-green wavelength range (480 nm to 520 nm): namely the range to which migraine patients also react particularly sensitively or which is perceived as particularly unpleasant in migraine-related photophobia. By concentrating on the wavelength range around 484 nm, it is also possible to prevent the eyes from adapting to the ambient conditions.

1. McAdams H, Kaiser EA, Igdalova A, Haggerty EB, Cucchiara B, Brainard DH, Aguirre GK. Selective amplification of ipRGC signals accounts for interictal photophobia in migraine. Proc Natl Acad Sci U S A; 117(29):17320-17329.
2. Digre, Kathleen B. (2010): Photophobia and the melanopsin retinal ganglion cell: a connection?, Präsentation: North American Neuro-Ophthalmology Society Annual Meeting. Available online at: https://collections.lib.utah.edu/ark:/87278/ (18.03.2021)

Model	Properties	Frame colour	Material	Size	Frame, unglazed	ac 25	ac 50	ac 75
Metal frame, small	Temples can be shortened	brown, matt	St. steel	56-17-140	16155617	1615325	1615350	1615375
Metal frame, large	Temples can be shortened	anthracite, matt	St. steel	59-16-140	16155916	1615425	1615450	1615475
Plastic frame, panto	Temples can be shortened	havana, matt	TR90/ st. steel	53-20-140	–	16156325	16156350	16156375
Plastic frame, square	Temples can be shortened	Black, matt	T15/ st. steel	54-18-140	–	16156425	16156450	16156475
XL frame, small	–	havana, matt	TR90	61-12-145	–	16618125	16618150	16618175
XL frame, large	–	havana, matt	TR90	65-12-145	–	16619125	16619150	16619175
Clip-ons	–	–	–	60-11	–	16156125	16156150	16156175

acunis

- Protect against unpleasant glare
- Reducing in particular the transmission of the wavelength range around 484 nm, which is perceived as particularly unpleasant in cases of migraine-induced light sensitivity
- In contrast to conventional sunglasses, your eyes adjust less to "seeing in the dark" with acunis lenses and are less dazzled when you take your glasses off
- Available in three tint levels – 25%, 50% and 75% – depending on the intended use and the intensity of glare experienced
- Protect against UV radiation and can be used when driving according to DIN EN ISO 12312--1.

- Available in various frame models and sizes or as a clip-on.
- Also available as an XL frame to put over your own prescription frame. Special anti-glare frames with an extra deep rim at the top and wide temples with side windows.
- Supplied with matching case.
- The metal frames small and large are also available unglazed for glazing with individual strengths.

CUSTOMER BENEFITS

✛ Comfort lenses for migraine-related sensitivity to light
✛ acunis lenses filter out that component of light that is perceived as unpleasant

161599
acunis test box
for testing the suitable filter
in familiar surroundings at home.
Contents each 1x:
Clip-on, acunis 25 % tinting
Clip-on, acunis 50 % tinting
Clip-on, acunis 75 % tinting

	ac 25	ac 50	ac 75
Filter category	1	1	2
Light transmission level	Approx. 75%	Approx. 50%	Approx. 25%
Blue light absorption	Approx. 30%	Approx. 50%	Approx. 80%
Suitability for driving	⊠	⊠	⊠

⊠ not suitable for driving in accordance with DIN EN ISO 12312--1
⊠ suitable for driving, not suitable for night driving in accordance with DIN EN ISO 12312

MR 8   Display   The appropriate display is available as an option on page 86.

Metal frame, small

Plastic frame, panto

XL frame, small

Metal frame, large

Plastic frame, square

XL frame, large

Clip-ons

READING
AIDS

READING ACCESSORIES
FOR MAXIMUM VISION COMFORT.

29181-

29183-
29184-
29185-

ready2read

- A practical reading accessory for when you're on the move
- Equipped with a comfortable spring mechanism to unfold the lens. If not in use the lens is folded back into the protective case
- In different colours or in an ornamental design

CUSTOMER BENEFITS

- ✛ Small, handy reading accessory for holding in front of the eyes. Fits in any pocket or larger purse
- ✛ Includes a stretch band for attaching the ready2read to a key ring, ensuring it's always at hand and ready to use
- ✛ Can be used with just one hand

Item	dpt	Item	dpt	Colour
29181-15	1.50	29181-25	2.50	black
29183-15	1.50	29183-25	2.50	orange with ornamental design
29184-15	1.50	29184-25	2.50	green with ornamental design
29185-15	1.50	29185-25	2.50	blue with ornamental design

PXM®

29161-
29162-

clip&read

- Mini readers with anti-slip pads to ensure they sit securely at the temples
- Available in 1.5 dpt and 2.5 dpt
- Colours: ice grey and dark red
- With case, incl. mobile connector and adhesive Velcro dots for attaching the case to a camera or bike

The reading aids on pages 45 to 47 are only for emergency use, as a spare or additional pair of spectacles for near vision. They are only intended for short term use and are not suitable for driving.

CUSTOMER BENEFITS

- ✛ Ideal for reading mobile phone and camera displays
- ✛ Ultra-small, ultra-light, handy, great value for money, discreet and always ready at hand
- ✛ Can be attached to a mobile phone, digital camera or clipped on to a pocket

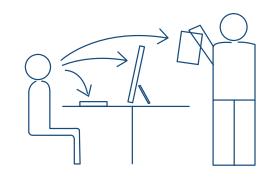| Item	dpt	Colour	Item	dpt	Colour
29161-15	1.50	dark red	29161-25	2.50	dark red
29162-15	1.50	ice grey	29162-25	2.50	ice grey

PXM®

29050-

Item	Colour	dpt
29050-10		1.00
29050-15	gun matt	1.50
29050-20		2.00
29050-25		2.50
29050-30		3.00

miniframe2

- Ready-to-wear readers in 5 different optical base values
- A strength which decreases upwards by 1 dioptre from the lower edge to the upper edge of the lens
- Sophisticated, classically elegant design
- Ideal as an entry-level model or as a spare or additional pair of glasses

CUSTOMER BENEFITS

✛ An extended field of vision in comparison to conventional single vision readers

PXM®   PD 63 mm   Display   The appropriate display is available as an option on page 87.

29080-

Item	Colour	dpt
29080-10		1.00
29080-15	gun matt	1.50
29080-20		2.00
29080-25		2.50
29080-30		3.00

miniframe2 SUN

- Optical characteristics the same as miniframe2, but in addition:
  - 85% grey tint,
  - Filter Category 3,
  - 100% UV protection

CUSTOMER BENEFITS

✛ Extended field of vision in comparison to conventional single vision reading glasses
✛ No glare in sunlight due to tinted lenses

PXM®   PD 63 mm   Display   The appropriate display is available as an option on page 87.

29131-

29132-

Ready readers

- Rimless readers
- Available in 2 different colours
- Strengths from 1.0 dpt to 4.0 dpt in 0.5 dpt increments
- Plastic temples

CUSTOMER BENEFITS

- ✛ Inc. high quality case in frame colours, with zip
- ✛ Discreet, contemporary design
- ✛ Adjustable pad arms with soft pads

	Item-No.	Frame	Colour	Strengths
Women	29131-	plastic	purple	-10/-15/-20/-25/-30/-35/-40
Men	29132-	plastic	anthracite	-10/-15/-20/-25/-30/-35/-40

PXM® PD 62 mm Display The appropriate display is available as an option on page 87.

miniframe BIFO

- Ready-to-wear readers with +3.0 dpt and additional close-up segment
- Additional close-up segment: +4.5, +6.0 or +7.5 dpt
- Sophisticated, classically elegant design

PXM® Display The appropriate display is available as an option on page 87.

29060-

CUSTOMER BENEFITS

- ✛ Easy Vision: readers with an additional close-up segment for small print or for reading details during hobby work
- ✛ Low Vision: readers for orientation on the reading material and for reading using the additional close-up segment
- ✛ Relaxed vision in both lens segments even at a short distance of use

For reading normal text size: +3 dpt

For reading small print or for intricate work: +4.5 dpt, +6.0 dpt or +7.5 dpt

Item	Colour	dpt
29060-34	gun matt	+3.00/+4.50
29060-36		+3.00/+6.00
29060-37		+3.00/+7.50

168131
168141
168151
168161

noves MONO

- High-magnification monocular spectacle magnifiers for magnification requirements from 3 x to 6 x
- Extremely thin lenses due to diffractive magnification structures located and protected on the inside of the lenses
- Lens thickness: only 4.5 mm
- Weight: only 20 g
- Opposite lens is frosted
- The spring-hinged frame has adjustable temples, soft pads and easily adjustable pad arms
- Included in delivery: matt lens, magnifying lens, frame, case

Note: The lenses are not fitted in the frame when delivered. The custom-made lenses are inserted into the frame by the dispenser on-site according to customer requirements.

CUSTOMER BENEFITS

- ✛ Monocular reading glasses with magnifying lenses and visually appealing, discreet design. The thickness of the lens is only 4.5 mm and this means that the lens strength is inconspicuous
- ✛ This ensures a high level of acceptability when wearing in public e.g. for reading the menu in a restaurant
- ✛ The half-eye design facilitates orientation above the eyewear

Item	Colour	Magnification	Working distance approx.
168131	gold matt	3 x, 12 dpt	83 mm
168141	gold matt	4 x, 16 dpt	65 mm
168151	gold matt	5 x, 20 dpt	50 mm
168161	gold matt	6 x, 24 dpt	42 mm
1681331	gun matt	3 x, 12 dpt	83 mm
1681341	gun matt	4 x, 16 dpt	65 mm
1681351	gun matt	5 x, 20 dpt	50 mm
1681361	gun matt	6 x, 24 dpt	42 mm

PXM® | cera-tec coating | 3–6 x | 41–22 | 20 g

Half-eye frames

168134122

- Metal frame, monel
- Temple material: cellulose-acetate
- Colour: gun matt
- Well adjustable bridge arms
- Shortenable temples with spring hinges
- Dimensions: 41–22 mm

16814122

- Metal frame, monel
- Temple material: cellulose-acetate
- Colour: gun matt
- Well adjustable bridge arms
- Shortenable temples with spring hinges
- Dimensions: 41–22 mm

168054122

- Acetate frame
- Colour: light grey
- Dimensions: 41–22 mm

168014   168015   168016
168018   1680110

HIGHER ADDITIONS

prismatic BINO comfort

- Binocular readers with a higher addition and prismatic convergence support
- Available as metal or plastic frame (Material CR39)
- Eschenbach Optik prismatic bino is available in five different strengths with convergence-supporting prisms corresponding to the respective strength
- Not only achieves outstanding results but also looks good – stylish design means high level of acceptability
- The spring-hinged frame has adjustable temples, soft pads and easily adjustable pad arms
- Supplied in a robust hard shell case
- The use of the plastic frame is particularly recommended for higher thicknesses, as the glass thickness is better concealed in this frame.

Note: The distance values should lie within a range of ± 1 dpt (sphere, cylinder). (In the case of greater variances in distance values, we recommend that the prismatic half-eye glasses are individually fitted using aensys.

CUSTOMER BENEFITS

⊹ Relaxed binocular vision with high magnification

Item	Colour	Magnification	dpt	Working distance approx.
168014	gold matt	1.00 x	4.0	250 mm
168015	gold matt	1.25 x	5.0	200 mm
168016	gold matt	1.50 x	6.0	165 mm
168018	gold matt	2.00 x	8.0	125 mm
1680110	gold matt	2.50 x	10.0	100 mm
168054	light-grey	1.00 x	4.0	250 mm
168055	light-grey	1.25 x	5.0	200 mm
168056	light-grey	1.50 x	6.0	165 mm
168058	light-grey	2.00 x	8.0	125 mm
1680510	light-grey	2.50 x	10.0	100 mm

CR 39   1–2.5x   41–22

16824   16825
16826   16828
168210

noves BINO

- Magnifying readers with prismatic convergence support for magnification requirements of up to 2.50 x
- The lenses have a very subtle appearance. They have a uniform thickness of 4 mm, regardless of the optical power
- Maximum protection of lenses against mechanical influences and dust is provided by high-precision, diffractive nanostructures on the insides of the lenses
- The half-eye design facilitates orientation above the eyewear
- Weight: only 18 g.
- The spring-hinged frame has adjustable temples, soft pads and easily adjustable pad arms
- Supplied in a robust hard shell case

CUSTOMER BENEFITS

⊹ Relaxed binocular vision with high magnification
⊹ These exceptionally discreet and thin lenses are particularly suitable for high optical powers

Item	Colour	Magnification	dpt/ Prism	Working distance approx.
16824	gold matt	1.00 x	4.0/5 △	250 mm
16825	gold matt	1.25 x	5.0/6 △	200 mm
16826	gold matt	1.50 x	6.0/7 △	165 mm
16828	gold matt	2.00 x	8.0/9 △	125 mm
168210	gold matt	2.50 x	10.0/11 △	100 mm
168236	gun matt	1.50 x	6.0/7 △	165 mm
168238	gun matt	2.00 x	8.0/9 △	125 mm
1682310	gun matt	2.50 x	10.0/11 △	100 mm

PXM®   cera-tec coating   1–2.5x   41–22   18g

Example of use

Accessories:

164321

16431-

The UniVision®
Hyperocular system

- Easy application – the adhesive tape ring enables easy correction of the lens position before the lens is attached permanently to the spectacle lens
- Cost-efficient – more favourably priced than other hyperocular systems offering comparable magnification
- Easy to change – if there is a change in the refraction or addition requirements, the lens can be quickly and easily attached to a new lens or replaced by a stronger lens
- Anti-scratch coating – the front of the lens has antiscratch coating for protection during everyday use

CUSTOMER BENEFITS

✠ Discreet appearance – with a diameter of only 22 mm and the transparent tape ring, the UniVision® lens is barely noticeable
✠ Ultra-light – the lens weighs only 1 gram
✠ Can be used immediately – the lens is fitted onto the spectacle lens on-site, the customer therefore does not need to wait for the delivery of special lenses

16431 UniVision® Hyperocular Applicator Kit
Contents:
- 10 UniVision® lenses in the following strengths: +6.0 dpt, +8.0 dpt, +10.0 dpt, +12.0 dpt, +16.0 dpt, +20.0 dpt, +24.0 dpt, +28.0 dpt, +32.0 dpt, +36.0 dpt
- 1 UniVision®-applicator kit
- 6 trial lenses in the following strengths: +12.0 dpt, +16.0 dpt, +20.0 dpt, +24.0 dpt, +28.0 dpt, +32.0 dpt

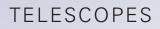**164321 UniVision® Replacement Applicator Kit**
Contents:
- 3 tape rings
- 1 tape applicator
- 1 lens suction cup

164322 UniVision® Replacement Tape Rings
Contents:
- 5 tape rings

Item	dpt	Item	dpt	Item	dpt
16431-6	6.00	16431-8	8.00	16431-10	10.00
16431-12	12.00	16431-16	16.00	16431-20	20.00
16431-24	24.00	16431-28	28.00	16431-32	32.00
16431-36	36.00				

PXM®   1.5–10x   1g

TELESCOPES

MAGNIFICATION SYSTEMS
FOR EVERY OCCASION.

162411

maxTV®

- Extremely comfortable to wear
- Easy adjustment of dioptre compensation: ±3.0 dpt, right/left can be separately adjusted, cylinder correction not possible
- Temples can be adjusted without having to be warmed
- PD range: 60 to 68 mm
- Main distance of use: 3 m
- Supplied in hard foam case

CUSTOMER BENEFITS

⊕ Enables you to see the TV in double the size – particularly important when viewing small screens
⊕ Relaxed viewing at any distance through individual focusing
⊕ Comfortable to wear and will not slip down during use due to easily adjustable temples
⊕ Ideal for reading subtitles and all text on the screen

| | PXM® | 2.1 x | 18°= 1/3 m | PD 60-68 mm | 49 g | | Display/Optoform |

The appropriate display is available as an option on page 85.

maxEVENT

- Special vision aid for using at public events such as the theatre, musicals, concerts, the cinema and also in stadiums
- Extremely comfortable to wear
- Temples can be adjusted without having to be warmed
- Very high PD tolerance range of 60 to 68 mm
- Easy adjustment of dioptre compensation: -2.25 to +3.75 dpt, right/left can be separately adjusted, cylinder correction is not possible
- Reflective objective lenses
- Supplied in hard foam case

| | PXM® | 2.1 x | 18°= 320/1,000m | PD 60-68 mm | 49 g | |

162431

CUSTOMER BENEFITS

⊕ Allows the user to get closer to the action on the stage at concerts, the theatre, the opera, musicals and many other events
⊕ This vision aid will ensure you don't miss out on any detail or any movement on-stage

162451

CUSTOMER BENEFITS

⊕ Both hands are kept free for carrying out intricate work, handicrafts or reading
⊕ Comfortable working distance and large visual field; lightweight, contemporary design
⊕ Modern, practical design

maxDETAIL

- For demanding detailed work
- Easy adjustment of dioptre compensation: ±3 dpt, right/left can be separately adjusted, cylinder correction not possible
- Easily adjustable temples (can be adjusted without warming)
- Large PD range 60 to 68 mm
- Working distance approx. 40 cm
- Supplied in hard foam case

| | PXM® | 2 x | 18°= 13/40 cm | PD 60-68 mm | 49 g | | Optoform |

162421

Example of use

maxTV® Clip

- Galilean clip-on system with flip-up lenses
- For clipping onto the existing prescription eyewear
- PD range: 60 to 68 mm
- Main distance of use: 3 m
- Supplied in hard foam case

New: With a new clip for improved ease of use.

CUSTOMER BENEFITS

- Specially designed for spectacle wearers
- Enables you to see the TV in double the size – particularly important when viewing small screens
- Ideal for reading subtitles and all text on the screen

| | PXM® | 2x | PD 60-68 mm | 23 g | | Display/Optoform |

162461

Example of use

maxDETAIL Clip

- For demanding detailed work
- Galilean clip-on system with flip-up lenses
- Working distance of approx. 35 cm
- PD range: 60 to 68 mm
- Adjustable lens height
- 5 height settings possible
- Supplied in hard foam case

New: With a new clip for improved ease of use.

CUSTOMER BENEFITS

- Specially designed for spectacle wearers
- Both hands are kept free for carrying out intricate work, handicrafts or reading
- Large visual field and comfortable working distance

| | PXM® | 2x | PD 60-68 mm | 23 g | | Optoform |

1634
16344

teleMED/ridoMED

- Coated lens system
- Adjustment of pupillary distance of 54 to 74 mm
- Lens diameter: 23 mm
- Focusing/dioptre compensation adjusted individually for each eyepiece
- Ocular-side additional correction is possible, e.g. cylinder correction
- Sturdy carrier frame made from glass fibre reinforced, black plastic
- Comfortable, easily adjustable saddle bridge
- Supplied in black zippered case

	Silicate		PD 54-74 mm		
		2.5–4 x		70 g	

16362
16363
16364

teleMED

Item	Magnification	Working distance	Visual field
1634	3.0 x/binocular	70 cm up to ∞	160 m/1,000 m
16344	4.0 x/binocular	78 cm up to ∞	130 m/1,000 m

ridoMED

With convergence angles to suit the respective working distances.

Item	Magnification	Working distance	Visual field
16362	2.5 x/binocular	approx. 350 mm	75/350 mm
16363	3.0 x/binocular	approx. 200 mm	54/200 mm
16364	4.0 x/binocular	approx. 250 mm	35/250 mm

1631

Supplied without monocular

UNIVERSAL CARRIER SYSTEM

uniADAPT

- Enables Keplerian systems to be quickly and easily mounted onto the carrier frame

- Carrier system made from black, glass fibre reinforced plastic
- Height adjustable, soft bridge
- Easily adjustable pupillary distance of 54 to 74 mm
- Supplied with 2 fixed monocular mounts, rubber blind cap, attachable rubber temple ends and zippered case
- The monocular mounts are set at infinity in relation to each other

35 g	

1691

Case for special vision aids

- For storing Galilean and Keplerian systems which have been mounted onto the carrier frame
- Artificial leather case with zipper fastening
- A foam rubber insert ensures that the mounted systems can be safely stored and protects them from impacts

16731

16732

16733

16734

167302

167303

Focusable Keplerian Systems

- Can be used as a hand-held monocular in combination with finger ring (Order No. 16711)
- Can be used as a spectacle mounted telescope
- High level of light transmission and image brightness
- Small, lightweight and inconspicuous
- High quality, dust-proof metal housing
- Very short near point
- With an intermediate adapter can be used with reading caps 16210-162116 (see page 59)
- Roof prism system with multicoating
- Supplied with: carrying cord, case
- Compatible with adapter system 1625 (see page 61)

CUSTOMER BENEFITS

✢ Ideal for use when you're on the move (with finger ring)
✢ Can also be used in a system carrier frame

Item	Magnification Distance/Near	Visual field distance Visual field near	Visual angle Distance/Near
16731 2.8 x 9	2.8 x/3.4 x	220 m/1,000 m 26 mm/150 mm	12.5°/10°
16732 4.2 x 10	4.2 x/5.5 x	175 m/1,000 m 25 mm/200 mm	10°/7.2°
16733 4.2 x 12	4.2 x/5.0 x	220 m/1,000 m 32 mm/200 mm	12.5°/9.2°
16734 6.0 x 16	6.0 x/7.6 x	175 m/1,000 m 26 mm/250 mm	10°/6°

For technical information please refer to page 91.

Accessories:
167302 Reading cap adapter
- With this intermediate adapter ring, the monoculars 16731 and 16732 can be used with the reading caps 16210-162116 (see page 59)

167303 Reading cap adapter
- With this intermediate adapter ring, the monoculars 16733 and 16734 can be used with the reading caps 16210-162116 (see page 59)

16711 viso-quick finger ring
- The finger ring ensures inconspicuous use and provides stability when used as a handheld monocular
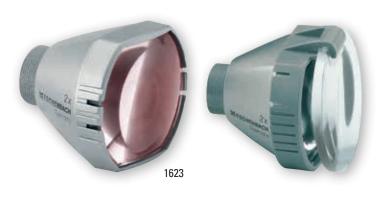
System carrier frame

- Special frame for holding optical systems
- Very light and sturdy titanium frame
- Soft, adjustable, silicon saddle bridge
- Spring-hinged, rubberised „golf club" temple ends
- Demo lenses with grid for simple centering of the lenses
- Temples 150 mm, can be shortened

16934916
16935116
16935218

Item	Size	Weight
16934916	49-16-150	11 g
16935116	51-16-150	11 g
16935218	52-18-150	11 g

Silicate · 2.8–6 x / 3.4–7.6 x

1623

Example of use

Accessories: 162301

16230 16233 16234
16235 16236 16238
162310 162312

1630

GALILEAN SYSTEMS

- The Galilean systems Galilei 2.0 GF, Galilei 2.2 x and Galilei 2.5 x are mounted on the system carrier frame for use
- The Galilei systems are installed using the 1625 adapter system (see page 59)

Galilei 2.0 GF

- The Galilean system is set at infinity, reading caps are used for reading (see table)
- Ocular and objective lenses have a high-quality, anti-reflection hard coating
- Field of view 22°

CUSTOMER BENEFITS

- ✛ Large visual field, ideal for fluent reading
- ✛ Also suitable for watching television
- ✛ Lightweight therefore very comfortable to use
- ✛ Not affected by age-related shaking due to low system magnification and large visual field

Item	Magnification	Working distance	Visual field*
1623	2.0 x	∞	380 m / 1,000 m
1623 + 16233	1.5 x	approx. 330 mm	130 mm
1623 + 16234	2.0 x	250 mm	100 mm
1623 + 16235	2.5 x	200 mm	80 mm
1623 + 16236	3.0 x	167 mm	66 mm
1623 + 16238	4.0 x	120 mm	48 mm
1623 + 162310	5.0 x	100 mm	40 mm
1623 + 162312	6.0 x	83 mm	34 mm

* The figures stated for visual field are average values. They will vary depending on the distance from the eye to the eyepiece. Further information can be found on page 91.

Item	Reading cap
162301	Reading cap ring for fitting lens with an individual power (not shown).
16230	Frosted lens
16233	Reading cap 3.0 dpt
16234	Reading cap 4.0 dpt
16235	Reading cap 5.0 dpt
16236	Reading cap 6.0 dpt
16238	Reading cap 8.0 dpt
162310	Reading cap 10.0 dpt
162312	Reading cap 12.0 dpt

- Reading caps are easy to use: they can simply be flipped up out of the way without being removed
- The reading caps +3 dpt/+4 dpt/+5 dpt are also suitable for binocular use when used with the corresponding convergence adapter

1630 Fitting case
The contents of the fitting case will enable you to test most of the adjustments for close range and distance which this system allows.
Contents: 2 x 1623 with trial frame adapters, 1 each of: 16230, 16233, 16234, 16235, 16236, 16238, 162310, 162312

162510 Fitting instructions

Galilei 2,2 x

- Excellent optical imaging quality
- The Galilean system is set at infinity, reading caps are used for reading (see table)
- Weight 16 g, with reading cap 22 g
- High quality, silicate lenses, MgF$_2$ coated
- Field of view 14°

CUSTOMER BENEFITS

- Ideal for watching television
- For reading printed text (newspapers, bank statements, TV guides, telephone directories, etc.)
- Lightweight therefore very comfortable to use

Item	Magnification	Visual field*	Working distance
1621	2,2 x	250 m/1.000 m	∞

Silicate | 2.2 x (~8.8 x) | 16 g

Galilei 2,5 x

- Easy to adjust
- The Galilean system is set at infinity, reading caps are used for reading (see table)
- Ocular and objective lenses have a high-quality, anti-reflection hard coating
- Field of view 13°

CUSTOMER BENEFITS

- Ideal for watching television and reading (in combination with reading caps)
- Simple to use due to large visual field
- Ultralight, only 11 g – therefore extremely comfortable to use

Item	Magnification	Visual field*	Working distance
16225	2.5 x	230 m/1,000 m	∞

PXM® Silicate | cera-tec® coating | 2.5 x (~10 x) | 11 g

Reading caps

162101

16210 16213
16214 16215

16216 16218
162110 162112
162116

- Reading caps for Galilei 2.2 x and Galilei 2.5 x

162101 Reading cap ring for fitting lens with an individual power (x 2)
16210 Frosted lens

16213 Reading cap 3.0 dpt	**16214** Reading cap 4.0 dpt
16215 Reading cap 5.0 dpt	**16216** Reading cap 6.0 dpt
16218 Reading cap 8.0 dpt	**162110** Reading cap 10.0 dpt
162112 Reading cap 12.0 dpt	**162116** Reading cap 16.0 dpt

- The reading caps +3 dpt/+4 dpt/+5 dpt are also suitable for binocular use (close-up).

Item	Magnification		Visual field*		Working distance
1621/16225	2.2 x	/ 2.5 x	250 m/ 1,000 m	/ 230 m/ 1,000 m	∞
+ 16213	1.65 x	/ 1.9 x	67 mm	/ 64 mm	330 mm
+ 16214	2.2 x	/ 2.5 x	54 mm	/ 48 mm	250 mm
+ 16215	2.75 x	/ 3.15 x	44 mm	/ 38 mm	200 mm
+ 16216	3.3 x	/ 3.75 x	35 mm	/ 32 mm	167 mm
+ 16218	4.4 x	/ 5.0 x	25 mm	/ 24 mm	125 mm
+ 162110	5.5 x	/ 6.25 x	22 mm	/ 19 mm	100 mm
+ 162112	6.6 x	/ 7.5 x	18 mm	/ 16 mm	83 mm
+ 162116	8.8 x	/ 10.0 x	14 mm	/ 12 mm	63 mm

* The figures stated for visual field are average values. They will vary depending on the distance from the eye to the eyepiece. Further information can be found on page 91.

Silicate | cera-tec® coating | 6 g

16321

Galilean Fitting Case

Contents:

1619	Trial frame adapters (3 assembled)
1621	Galilei 2.2 x (2 pieces)
16225	Galilei 2.5 x
16210	Frosted lens
16213	Reading cap 3 dpt
16214	Reading cap 4 dpt
16215	Reading cap 5 dpt
16216	Reading cap 6 dpt
16218	Reading cap 8 dpt
162110	Reading cap 10 dpt
162112	Reading cap 12 dpt
162116	Reading cap 16 dpt
162510	Fitting instructions

Galilean and Keplerian fitting case

Contents as per 16321, but also including:

1619	Trial frame adapters (two)
16731	Keplerian monocular 2.8 x 9
16732	Keplerian monocular 4.2 x 10
16733	Keplerian monocular 4.2 x 12
16734	Keplerian monocular 6.0 x 16
16711	viso-quick finger ring
167302	Adapter for reading caps for 16731 and 16732
167303	Adapter for reading caps for 16733 and 16734

The contents of the fitting cases will enable you to carry out adjustments for distance and near vision with the Galilean systems 1621 and 16225, as well as the Keplerian systems 16731, 16732, 16733 and 16734.

1632

1625

Mounting Kit

- The 1625 Mounting Kit enables all Eschenbach Optik telescopic systems, both Galilean and Keplerian, to be mounted into any special frame
- The main features of the 1625 Mounting Kit are the carrier lenses made from CR 39, together with the corresponding convergence adapters for working distances of 200 mm, 250 mm, 330 mm and an adapter for distance tasks
- The convergence adapters allow binocular use in the distance range, as well as in a variety of close-up ranges
- The mounting kit is suitable for monocular and binocular use in both the distance and close-up ranges
- If an adjustment error occurs (incorrectly determined visual centre) minimal expense is incurred as only the carrier disks need to be reground

Contents:

Quantity Item

1	Fitting brochure
6	Carrier disks
2	Centering inserts for grinding the carrier disks
2	Adapters for infinite distance use
2	Convergence adapters for 200 mm (binocular)
2	Convergence adapters for 250 mm (binocular)
2	Convergence adapters for 330 mm (binocular)

Small mounting components:

6 x	Spacer washers (0.5 mm, 1.0 mm, 2.0 mm)
6	Lock rings for securing the monoculars
2	Holding rings with adhesive ring for the use of correction lenses
1	Lens former for correction lens
1	Socket
2	Adapters for trial frame

Order No. for reordering:

Order No.	Quantity/Description	
1619	2	Adapters for the trial frames
1622	2	Holding rings for the use of correction lenses
16221	1	Lens former for correction lens and
	4	replacement adhesive rings
16261	2	Carrier lenses,
	2	adapters for infinite distance use,
	2	centering inserts
16262	2	Carrier lenses,
	2	convergence adapters for 200 mm,
	2	centering inserts
16263	2	Carrier lenses,
	2	convergence adapters for 250 mm,
	2	centering inserts
16264	2	Carrier lenses,
	2	convergence adapters for 330 mm,
	2	centering inserts
16265	6	Carrier lenses
16266	6	Adapters for infinite distance use

1627 Small mounting components, consisting of:

	6 each of:	spacer washes (0.5 mm, 1.0 mm, 2.0 mm),
	6	lock rings,
	2	Holding rings with adhesive ring for correction lens
1628	1	Mounting tool: socket
16715	6	Lock rings

1674832

1674820

- A handheld monocular, stand microscope and stand magnifier
- Keplerian roof prism system, multi-coated
- High level of light transmission and image brightness
- Eyepiece cup can be inverted for protection
- Dustproof, light metal housing
- Magnification with mounted stand magnifier: 24 x
- Magnification stand magnifier alone: 3 x
- Supplied with carrying cord and case

varioPLUS

Silicate   8 x

Item	Magnification	Visual field	Visual angle	Working distance
1674820	8 x 20	125 m/1,000 m	7°	300 mm to ∞
1674832	8 x 32	140 m/1,000 m	8°	700 mm to ∞

4293616
4293816

- One-handed, easy to operate slide focus
- Keplerian roof prism system, multi-coated
- High level of light transmission and image brightness
- Rubberised housing
- Supplied with black leather case

club® M

Silicate   6/8 x

Item	Magnification	Visual field	Visual angle	Working distance
4293616	6 x 16	140 x 108 m/ 1,000 m	8° x 6.2°	1,000 mm to ∞
4293816	8 x 16	122 x 94 m/ 1,000 m	7° x 5.4°	1,000 mm to ∞

4294618

4294413

- Small, lightweight and inconspicuous
- The lens unit is stored safely in its own plastic housing and by pressing gently with the finger moves out into the viewing position
- Keplerian roof prism system, blue multi-coated lenses
- With carrying cord and case

microlux

Silicate   4/6 x

Item	Magnification	Near point	Focus	Dimensions
4294413	4 x	4 m	fixed focus	48 x 25 x 38 mm
4294618	6 x	2 m	slide focus	79 x 27 x 45 mm

HEADBAND
AND

PRACTICAL VISION AIDS
FOR HOBBIES AND WORK.

CLIP-ON MAGNIFIERS

164450
164451
164452
164453

- Lenses easily interchangeable
- Lens size: binocular 74.5 x 28 mm
- Lens clamp made from glass fibre reinforced plastic

laboMED

- Not suitable for spectacle wearers
- Discret metal frame, black matt finish
- Supplied with protective box
- Can also be used with monocular lens components

Item	Lens	Magnification	Working dist. approx.
164450	binocular	1.7 x*/2.5 dpt	400 mm
164451	binocular	2.0 x*/2.5 dpt	250 mm**
164452	binocular	2.5 x*/5.0 dpt	180 mm
164453	binocular	3.0 x*/7.75 dpt	130 mm

164817
164820
164825
164830

laboCOMFORT

- When not in use the shield can be simply lifted up out of the way
- Headband has an adjustable strap for individual height adjustment
- The headband magnifier can also be used by spectacle wearers
- Protection from dust, chips and sparks during grinding and and milling work
- Dark grey, enclosed plastic shield against diffused light and with an integrated lens bracket
- The headband magnifier can only be used with binocular lenses

CUSTOMER BENEFITS

- ✛ laboMED and laboCOMFORT leave both hands free for working
- ✛ Comfortable working distance even with a high level of magnification
- ✛ Ideal not just for work tasks but also for leisure and craft activities

* Trade enlargement
** Shorter working distance due to integrated convergence supporting prisms.

Item	Lens	Magnification	Working dist. approx.
164817	binocular	1.7 x*/2.5 dpt	400 mm
164820	binocular	2.0 x*/2.5 dpt	250 mm**
164825	binocular	2.5 x*/5.0 dpt	180 mm
164830	binocular	3.0 x*/7.75 dpt	130 mm

164617
164620
164625
164630

164640
164670

Example of use

laboCLIP

- Used with distance spectacles to achieve optimum image quality
- Lenses easily interchangeable
- Lens sizes: monocular Ø 40 mm, binocular 74.5 x 28 mm
- Lightweight
- Lens clamp made from glass fibre reinforced plastic
- Supplied with protective box

Zubehör:

16451	16452	16454
16453	16455	16457

Item	Lens	Magnification	Working dist. approx.
164617	binocular	1.7 x*/2.5 dpt	400 mm
164620	binocular	2.0 x*/2.5 dpt	250 mm**
164625	binocular	2.5 x*/5.0 dpt	180 mm
164630	binocular	3.0 x*/7.75 dpt	130 mm
164640	monocular	4.0 x*/16 dpt	55 mm
164670	monocular	7.0 x*/28 dpt	32 mm

Lenses, available separately

These lenses are also available separately under the following item numbers:

Item	Lens	Magnification	Working dist. approx.
16455	binocular	1.7 x*/2.5 dpt	400 mm
16451	binocular	2.0 x*/2.5 dpt	250 mm**
16452	binocular	2.5 x*/5.0 dpt	180 mm
16453	binocular	3.0 x*/7.75 dpt	130 mm
16454	monocular	4,0 x*/16 dpt	55 mm
16457	monocular	7.0 x*/28 dpt	32 mm

* Trade enlargement

** Shorter working distance due to integrated convergence supporting prisms.

CUSTOMER BENEFITS

- The laboCLIP system can be easily attached to the spectacle frame
- The laboCLIP leaves both hands free for working
- Comfortable working distance even with a high level of magnification
- Ideal not just for work tasks but also for leisure and craft activities

PXM®   1.7–7 x

164617	164620
164625	164630
164640	164670	Optoform

TECHNICAL MAGNIFIERS

PRECISION OPTICS.
COMPACT DESIGN.

Achroma
3x 6x 9
made in Germ

11547   115410

Precision scale magnifiers

- For technical professions, the printing industry, dermatology
- Distortion-free image with pinpoint clarity
- Fine focusing via easy-grip focusing ring
- Supplied with standard scale no. 115201, measuring range 20 mm, 1/10 mm graduation, size: 23 mm Ø
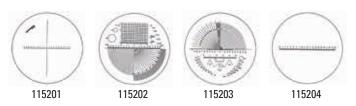- Housing made from glass fibre reinforced polyamide
- Supplied in a solid plastic box with space for other scales

Item	Magnification	dpt
11547	7 x	28.0
115410	10 x	40.0

Accessories:

115201   115202   115203   115204

Precision measuring scales for a variety of applications.
Order No. 115201, 115202, 115203, 115204

11514

11514 LED lighting unit
- For precision scale magnifiers 11547 and 115410
- Handle holds 2 batteries

155074

Measuring magnifier

- For technical professions, the printing industry, dermatology
- With measuring scale

Item	Specification	Magnification	dpt
155074	Battery handle, LED	10 x	38.0

11744

Tube microscopes

- Micromagnifier with illumination
- Suitable for inspecting a wide variety of surfaces such as metals, textiles, minerals, varnishes, etc

- The large adjustment range also makes it possible to accommodate the needs of users with significant vision defects
- A high level of brightness is achieved as a result of the large lens aperture. Additional illumination is not usually required in daylight conditions
- Precise focusing with adjustable wheel
- The light can be used when required
- Magnification 30 x, glass lenses
- With LED illumination

1254

1255

1256

1258

1259

LINEN TESTERS

Developed to meet the requirements of technical applications.

Metal precision linen testers

- Precision linen tester
- Brass frame, chrome-plated, silk matt finish

Item	Size	Magnification	Cut-out	Height
1254	Ø 11 mm	48 dpt/12 x	10 x 10 mm	23 mm
1255	Ø 12 mm	40 dpt/10 x	15 x 15 mm	27 mm
1256	Ø 15 mm	32 dpt/8 x	20 x 20 mm	33 mm
1258	Ø 20 mm	24 dpt/6 x	25 x 25 mm	42 mm
1259	Ø 28 mm	20 dpt/5 x	30 x 30 mm	53 mm

Silicate | 5–12 x

1270
1271
1272

12002
12003
12005

Plastic precision linen testers

- Linen tester with lateral scale
- Scale with mm graduation
- Black plastic housing

Item	Size	Magnification	Cut-out	Height
1271	Ø 12 mm	40 dpt/10 x	15 x 15 mm	28 mm
1272	Ø 16 mm	30 dpt/8 x	20 x 20 mm	35 mm
1270	Ø 28 mm	19 dpt/5 x	30 x 30 mm	53 mm

Accessories:

Cases are available as an optional accessory for the metal and plastic linen testers. The table below matches the item number of each linen tester with the item number of the matching case.

Order No. Linen Tester	Order No. Case
1254/1255/1271	12002
1256/1272	12003
1258/1259/1270	12005

PXM® | DUPLEX | 5–10 x

11869   118210

- Glass fibre reinforced, non-breakable polyamide body
- The body is dustproof when closed
- Glass lenses, size: 23 mm Ø

PRECISION FOLDING MAGNIFIERS

Plastic precision folding magnifiers

Item	Lens	Magnification	Lens size	Feature
11869	Achromatic, coated	3 x + 6 x = 9 x	Ø 23 mm	Distortion-free image
118210	Aplanatic	10 x	Ø 23 mm	Distortion-free image

 Silicate 3–10 x

118410
118420   1187

11766   11768   117610   117612

Metal precision folding magnifiers

- Matt chromium-plated brass body with eyelet
- Black painted metal lens frame

Item	Size	Lens	Magnification	Feature
118410	Ø 15 mm	Achromatic	10 x	Distortion-free image
118420	Ø 17 mm	Achromatic	20 x	
11766	Ø 21 mm	Aplanatic	6 x	Distortion-free image
11768	Ø 21 mm	Aplanatic	8 x	
117610	Ø 21 mm	Aplanatic	10 x	
117612	Ø 15 mm	Aplanatic	12 x	
1187	Ø 27 mm	Biconvex	4 x+6 x=10 x	

 Silicate 4–20 x

1130

Stone magnifier

- With air hole to prevent condensation
- Made from flame-retardant plastic, colour: anthracite

Item	Lens	Size	Magnification
1130	dual lens	Ø 13 mm	15 x

PXM® DUPLEX 15 x

11243   11245
11247   1124110

Watchmaker's magnifiers

- With air hole to prevent condensation
- Made from flame-retardant plastic, colour: anthracite

Item	Lens	Size	Magnification
11243	Plano-convex	Ø 25 mm	3.0 x/12.0 dpt
11245	Plano-convex	Ø 25 mm	5.0 x/20.0 dpt
11247	Plano-convex	Ø 25 mm	7.0 x/27.7 dpt
1124110	Aspheric	Ø 25 mm	10.0 x/40.0 dpt

PXM® DUPLEX 3–10 x

110910

Folding magnifiers

- Folding magnifier in durable, plastic case
- Small, compact and handy

Item	Magnification	Lens size
110910	10.0 x	Ø 23 mm

10 x

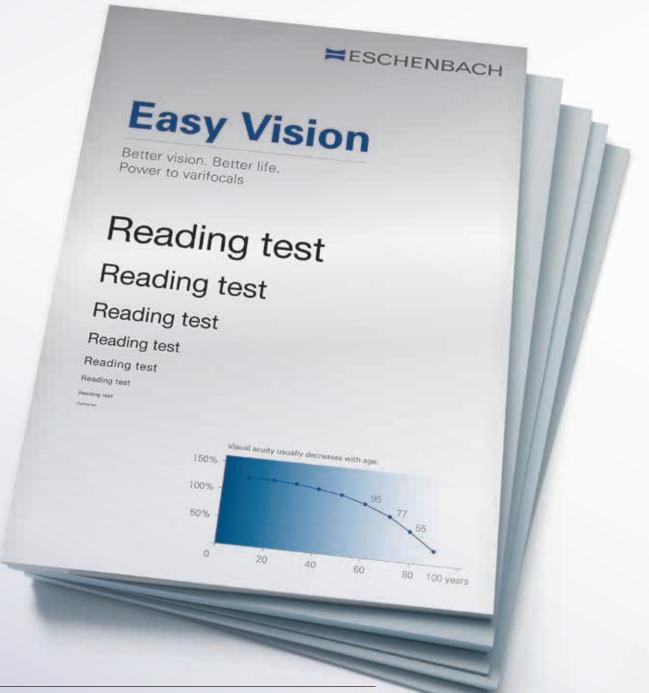2626   2628

1153

Stand magnifiers

- High magnification, e.g. for retouching work in photography
- Can also be used as a high magnification vision aid
- Open base for working under the lens (with the exception of 1153, which has a closed base)
- The transparent stand allows excellent illumination from all sides

Item	Lens	Size	Magnification
2626	Aspheric	Ø 50 mm	23.0 dpt/6.0 x
2628	Aspheric	Ø 35 mm	38.0 dpt/10.0 x
1153	Aplanatic	Ø 25 mm	28.7 dpt/8.0 x

PXM® cera-tec coating 6–10 x

ACCESSORIES AND

RESOURCE MATERIALS

COMPACT DESIGN.
ENORMOUS BENEFITS.

1605

- Material: birch wood
- 5 different angles of adjustment
- Edge stopper prevents slipping
- Supplied with clamp attachment for large papers

1605 +
16051

ACCESSORIES FOR SPECIALIST
VISION AIDS

Reading Stand

- The reading stand encourages an upright, orthopaedically correct posture and therefore prevents back pain
- When the reading stand is used in conjunction with a magnifying vision aid (e.g. system varioPLUS), an optimum angle of view and a uniform distance to the reading material are always achieved, as well as bright illumination of the field of view
- Guarantees stability and a tremble-free image
- Supporting surface area: 40 x 35 cm

Accessory for 1605:
16051 Guide rail

- Elderly people in particular often have problems guiding magnifiers across the reading material. The guide rail facilitates line orientation
- The guide rail can be secured at any height by means of a fixing screw
- Material: birch wood

1066

1067

Cleaning spray

- Special cleaning spray for optical surfaces, e.g. lenses and displays of electronic low vision aids
- Suitable for all screens (TFT, LED, LCD)
- Alcohol-free and non-smearing
- Liquid made in Germany
- Sales package with 2 x 30 ml cleaning spray and microfibre cloth
- Supplied in pack of 6

Disinfectant spray

- Water-based surface disinfectant spray with long-lasting effect for up to 10 days
- Suitable for all materials and optical surfaces
- Effective against bacteria, fungi and viruses
- Made in Germany
- Sales package with 100 ml disinfectant spray and microfibre cloth
- Supplied in pack of 6

1068

Bellows

- Bellows for contactless, gentle cleaning of optical surfaces – such as lenses, eyepieces, lenses and displays.
- Safely removes dust, dirt and other particles
- Valve for optimum blowing effect
- Easy to use thanks to ergonomic design
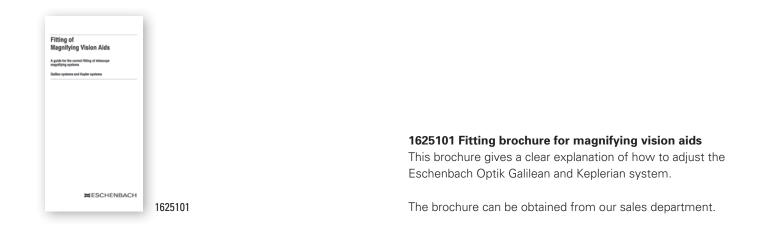- Supplied in a pack of 6

1069

Cleaning brush

- Tw-stage brush for particularly gentle cleaning of optical surfaces – such as lenses, eyepieces, lenses and displays
- Step 1: Short, firm bristles for cleaning stubborn dirt.
- Step 2: Long, soft bristles for cleaning large areas of loose particles
- Safely removes dust, dirt and other particles
- The soft bristles enable particularly gentle cleaning
- Microfibre cloth included
- Supplied in a pack of 6

1060203

Easy Vision Reading test

- Assists in the selection of the correct product use
- Provides supporting sales arguments for Easy Vision products
- For a test distance of 40 cm
- With a reading test for visual acuity of 0.1 to 1.0 on the reverse side
- With test texts from everyday life on the inside pages: small print on the move and at home
- Material: white, washable plastic, DIN A4

1625101

1625101 Fitting brochure for magnifying vision aids
This brochure gives a clear explanation of how to adjust the Eschenbach Optik Galilean and Keplerian system.

The brochure can be obtained from our sales department.

OPTIMUM PRESENTATION.
VISUALLY IMPRESSIVE.

SALES
SUPPORT

Exchangeable motif
189502

Exchangeable motif
189503

Exchangeable motif
189506

1895

PRESENTATION SYSTEM

Optoform IV

- High quality presentation and storage system for magnifiers, vision aids and other products from Eschenbach Optik
- The impressive specification makes this system the ideal solution for creating an eye-catching display of product highlights to promote sales and provides a practical merchandising tool for successful sales discussions with customers
- Elegant glass shelves immediately draw attention to the product highlights on open display
- In the illuminated display case an entire product tray can be clearly presented behind the protective glass panel
- A glazed section above the door now means that the top shelf can be easily viewed from the front
- The sophisticated design ensures high quality product presentation
- Enclosed main display unit with door ensures dust-free and safe storage of the trays
- Flexible tray system presents the product range in a clear and professional manner, ideal for demonstrating products to your customers
- Illuminated panel with interchangeable advertising image draws the attention of the customer to the product highlights.
- Display unit is equipped with casters - rear casters can be locked to guarantee stability

Material:
Wood effect, white, high gloss

Lighting:
LED strip incl. cable route, transformer with 230 V/50 Hz Europlug CEE 7/16)

Dimensions:
Total:
W 556 x D 450 x H 1820 mm
Main display unit:
W 556 x D 450 x H 860 mm
Upper display unit:
W 556 x D 98 x H 960 mm

Weight without product: approx. 60 kg

Number of trays supplied: 5

Accessories:
189501 Individual tray

Example of use only: supplied without insert and without products.

18376

mobilux®-LED tray

Contents: 1 each of: 15112, 15113, 15114, 15115, 15116, 15117, 151110, 151112
Also available: 183763 Tray insert

18810

Electronic I
Half-size display tray

Contents: 1 each of: 165011, 16511
Also available: 188023 Tray insert

18804

NEU

18807

188083

Electronic III
Half-size display tray

Contents: 1 x 16551
Also available: 188043 Tray insert

Electronic IV
Half-size display tray

Contents: 1 each of: 1 x 16502, 1 x 16511
Also available: 188073 Tray insert

Electronic V

Tabular insert 188083 suitable for 1x 16521 and 16502 each

18811

18812

18813

mobilux® LED
Half-size display tray

Contents: 1 each of: 15115, 15116, 15117, 151110, 151112
Also available: 188113 Tray insert

mobilux® LED
Half-size display tray

Contents: 2 each of: 15113, 15114
Also available: 188123 Tray insert

mobilux® LED easyPOCKET
Half-size display tray

Contents: 1 each of: 15113, 15114, 152110, 152111, 152122
Also available: 188133 Tray insert

18814

18815

18820

mobilux® LED/ mobase
Half-size display tray

Contents: 1 each of: 15113, 15115, 15117, 151110, 1511001, 1511002, 1511003, 1511004
Also available: 188143 Tray insert

mobilux® LED
Half-size display tray

Contents: 1 each of: 15122, 15114 , 2 x 15113
Also available: 188153 Tray insert

Stand Magnifiers
Half-size display tray

Contents: 1 each of: 143611, 143621, 156512, 1566
Also available: 188203 Tray insert

18823

system varioPLUS
Half-size display tray

Contents: 1 each of 1599144, 155773, 155073, 155173, 155273, 155373, 155493, 155993
Also available: 188233 Tray insert

18824

system varioPLUS
Half-size display tray

Contents: 1 each of 1599144, 158063, 158263, 158173
Also available: 188243 Tray insert

18825

Bright Field Magnifier/ Magnifying Rulers
Half-size display tray

Contents: 1 each of: 1420, 1421, 1424, 143830, 2606, 2608
Also available: 188253 Tray insert

18826

powerlux
Half-size display tray

Contents: 1 each of: 158614, 158620, 1586281
Also available: 188263 Tray insert

18830

laboMED/ laboCLIP
Half-size display tray

Contents: 1 each of: 162461, 164450, 164620, 16451, 16452, 16453, 16454, 16457
Also available: 188303 Tray insert

18831

maxTV®/ maxDETAIL
Half-size display tray

Contents: 1 each of: 162411, 162421, 162451, 162461
Also available: 188313 Tray insert

18833

18835

18836

easyPOCKET/ easyPOCKET XL
Half-size display tray

Contents: 1 each of: 152110, 152111, 152122, 152210, 152211
Also available: 188333 Tray insert

Folding Magnifiers Classic
Half-size display tray

Contents: 1 each of: 1752150, 1752160, 1752550, 1752560, 1752850, 1752860
Also available: 188353 Tray insert

Folding Magnifiers Classic
Half-size display tray

Contents: 1 each of: 1740130, 1740150, 1740160, 1740250, 1740260, 1740450, 1740460, 1740530, 1740550,1740560
Also available: 188363 Tray insert

18837

18840

188401

Folding Magnifiers
Half-size display tray

Contents: 1 each of: 152094, 152097, 1520910, 152110, 152111, 152122, 172116, 172146, 172156
Also available: 188373 Tray insert

ambelis-clip-ons
Half-size display tray

Contents: 1 each of: 1663315, 1663365, 166335015, 1663385
Also available: 188403 Tray insert
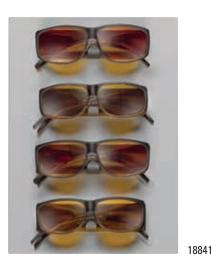
asensys-clip-ons
Half-size display tray

Contents: 1 each of: 1662450, 1662511, 1662527, 1662550
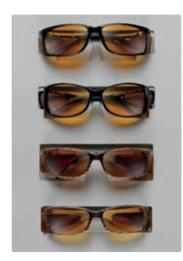Also available: 188403 Tray insert

188402

asensys-clip-ons
Half-size display tray

Contents: 1 each of: 1662450P, 1662511P, 1662527P, 1662550P
Also available: 188403 Tray insert

18841

ambelis XL
Half-size display tray

Contents: 1 each of: 1663865, 1663885, 1663915, 1663975P
Also available: 188413 Tray insert
The insert 188413 is suitable for all ambelis frames.

18842

ambelis
Half-size display tray

Contents: 1 each of: 1663165, 1663275P, 166345015, 166351580
Also available: 188423 Tray insert

28800

Biconvex Magnifiers
Half-size display tray

Contents: 1 each of: 2612401, 2612601, 2612801, 26129501
Also available: 288003 Tray insert

28801

visomed
Half-size display tray

Contents: 1 each of: 261465, 261480, 2614150, 2614840
Also available: 288013 Tray insert

28805

economic, angular
Half-size display tray

Contents: 1 each of: 26421255, 2642150, 2642840
Also available: 288053 Tray insert

28806

economic, round
Half-size display tray

Contents: 1 each of: 264265, 264280, 2642100
Also available: 288063 Tray insert

28810

aspheric II
Half-size display tray

Contents: 1 each of: 265550, 265570, 2655150, 2655750
Also available: 288103 Tray insert

28815

mediplan ergo
Half-size display tray

Contents: 1 each of: 266850, 266875, 266885, 2668950
Also available: 288153 Tray insert

28820

combiPLUS
Half-size display tray

Contents: 1 each of: 2031, 2032, 2 each of 2034
Also available: 288203 Tray insert

NEU

28826

Pendant magnifiers
Half-assortment

Contents: 1 x 2677, 1 x 2678 each
Also available: 2882603 Tray insert

Optoform small

Compact, flexible and portable – this high quality table top display is ideal for showcasing your magnifiers and low vision aids. The removable back wall with interchangeable show cards focuses the attention on the presentation surface featuring the highlight products. Two transparent inserts display further products. Flexible to use and light to transport, Optoform small is therefore ideal for promotional, exhibition and mobile sales stands.

1894
Example of use

Shop window display

Attractive, practical and variable - this high quality shop window display offers flexible product advertising and enables you to focus the customers' attention on current product highlights.

Further information can be obtained from your representative.
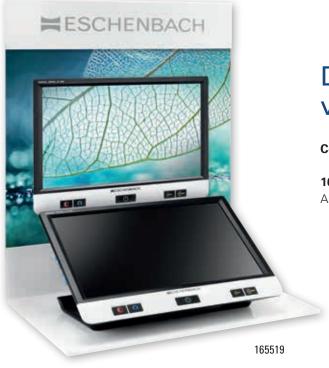

Exchangeable motif
189602

Exchangeable motif
189603

Exchangeable motif
189604

1896
Example of use

165519

Display
visolux DIGITAL XL FHD

Contents: 1 x 16551

16551907 Empty display
As 165519, but without contents

Standard display

Includes a variety of show cards. Further information
can be obtained from your representative.

87280

Exchangeable motif
87294

Exchangeable motif
87299

165219

Display visolux DIGITAL HD

Contents: 1 x 16521

16521907 Empty display
As 165219, but without contents

165119

Display mobilux® DIGITAL Touch HD

Contents: 1 x 16511

16511907 Empty display
As 165119, but without contents

165019

Display smartlux® DIGITAL

Contents: 1 x 16502

16501907 Empty display
As 165019, but without contents

152129

Display easyPOCKET

Contents: 2 each of: 152110, 152111, 152122

15212907 Empty display
As 152129, but without contents

15669

Display visolux+

Contents: 2 x 1566

1566907 Empty display
As 15669, but without contents

1565119

Display scribolux

Contents: 2 x 156512

156511907 Empty display
As 1565119, but without contents

1586209

Display powerlux

Contents: 1 each of: 158620, 158628

158620907 Empty display
As 1586209, but without contents

143629

Display makrolux

Contents: 1 each of: 143611, 143621

14362907 Empty display
As 143629, but without contents

1624119

Display maxTV®

Contents: 1 x 162411

162411907 Empty display
As 1624119, but without contents

Display visoPOCKET

Contents: 4 x 172156, 3 x 172146, 3 x 172116

1721907 Empty display
As 17219, but without contents

17219

Display ambelis

16639503 Empty display
incl. 2 x ambelis-Flyer (1 set = 10 pcs.)
without products

Display ambelis small

16639603 Empty display
incl. 2 x ambelis-Flyer
(1 set = 10 pcs.)
without products

Display acunis

16150902
Content: 1615375,
1615450, 16156350,
16156425,
incl. 1 x acunis flyer
(1 set = 10 pcs.)

Empty display 16150907
As per 16150902, but
without contents

1070

Display Cleaning accessories

1070
Content: 1 x 1066 (pack of 6)
1 x 1067 (pack of 6)
1 x 1068 (pack of 6)
1 x 1069 (pack of 6)

Empty display 107007
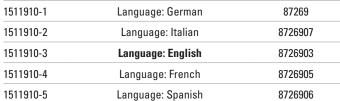As per 1070, but without contents.

The display has room for:
2 packs of bellows
3 packs of disinfectant spray
4 packs of cleaning spray
4 packs of cleaning brushes

Product display unit mobilux® LED

Contents Model I:
3 x 15113   1 x 15114
1 x 151141   2 x 15115
2 x 15117   1 x mobilux® LED-flyer (set of 5 pcs.)

Item	Display incl. Flyer	Flyer
1511910-1	Language: German	87269
1511910-2	Language: Italian	8726907
1511910-3	**Language: English**	8726903
1511910-4	Language: French	8726905
1511910-5	Language: Spanish	8726906

Contents Model II:
1 x 15112   2 x 15113   1 x 15114
1 x 151141   1 x 15115   1 x 15116
2 x 15122   1 x mobilux® LED-flyer (set of 5 pcs.)

Item	Display incl. Flyer	Flyer
1511920-1	Language: German	87269
1511920-2	Language: Italian	8726907
1511920-3	**Language: English**	8726903
1511920-4	Language: French	8726905
1511920-5	Language: Spanish	8726906

15119107 Empty display
As 1511910-1, -2, -3, -4, -5, but without contents

Display for reading magnifiers

Contents: 4 x 90 x 50 mm, 3 x Ø 80 mm,
3 x Ø 60 mm, 2 x Ø 45 mm

2612107 Empty display
As 26121, but without contents

26121

Universal display for readers

2900907
Example of use

On desktop video magnifier

	vario DIGITAL FHD Item No. 16591	vario DIGITAL FHD Advanced Item No. 165916	vario DIGITAL FHD Advanced TB Item No. 1659161	vario DIGITAL FHD Advanced B Item No. 1659162	vario DIGITAL FHD Advanced T Item No. 1659163
Display					
Size	15.6" / 39.6 cm	15.6" / 39.6 cm	15.6" / 39.6 cm	15.6" / 39.6 cm	15.6" / 39.6 cm
Format	16:9 widescreen	16:9 widescreen	16:9 widescreen	16:9 widescreen	16:9 widescreen
Type	LCD-TFT	LCD-TFT	LCD-TFT	LCD-TFT	LCD-TFT
Anti-reflection	• (matt)	• (matt)	• (matt)	• (matt)	• (matt)
Brightness dimmable	•	•	•	•	•
Features					
Magnification	1.3 x to 45 x	1.3 x to 45 x	1.3 x to 45 x	1.3 x to 45 x	1.3 x to 45 x
System resolution	Full-HD	Full-HD	Full-HD	Full-HD	Full-HD
Operating keys	9	9	9	9	9
Graphical menu	•	•	•	•	•
Menu with voice output	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)
Display options	(14 colour options)	(14 colour options)	(14 colour options)	(14 colour options)	(14 colour options)
Dynamic Line Scrolling (DLS)	–	•	•	•	•
Reading line/Reading blinds	•	•	•	•	•
Automatic exposure	•	•	•	•	•
Illumination defeatable	•	•	•	•	•
Live Cam function	–	•	•	•	•
Photo store function	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)
Tilting camera	•	•	•	•	•
Autofocus	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)
Writing under the display	•	•	•	•	•
Foldable and transportable	•	•	•	•	•
Interfaces					
SD card slot (incl. card)	•	•	•	•	•
USB port	•	•	•	•	•
HDMI input	–	•	•	•	•
Power port	•	•	•	•	•
Miscellaneous					
Mirror function	–	•	•	•	•
Software update	•	•	•	•	•
Reset key	•	•	•	•	•
Automatic shut-off	•	•	•	•	•
Integrated battery	–	–	• (Lithium-ion)	• (Lithium-ion)	–
Operating hours battery, approx.	–	–	4.5 hours	4.5 hours	–
Dimensions, approx.	37.8 x 46 x 13.2 cm	37.8 x 46 x 13.2 cm	43.5 x 50 x 16 cm	37.8 x 46 x 13.2 cm	43.5 x 50 x 16 cm
Weight, approx.	6,300 g	6,300 g	9,000 g	6,600 g	8,700 g
Delivery contents					
X/Y table	–	–	•	–	•
Remote control	–	•	•	•	•
HDMI cable	–	•	•	•	•
USB cable	•	•	•	•	•
SD card	• (8 GB)	• (8 GB)	• (8 GB)	• (8 GB)	• (8 GB)
Universal charger	• (100-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)
Travel mains adapter	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)
Operating instructions	• (printed)	• (printed)	• (printed)	• (printed)	• (printed)
Microfibre cloth	•	•	•	•	•
Optional accessories					
Bag (for transport)	•	•	•	•	•

• yes, available or possible   – no, not available or not possible

	vario DIGITAL 22 FHD Item No. 16592	vario DIGITAL 22 FHD Advanced Item No. 165922	vario DIGITAL 22 FHD Advanced TB Item No. 1659221	vario DIGITAL 22 FHD Advanced B Item No. 1659222	vario DIGITAL 22 FHD Advanced T Item No. 1659223
Display					
Size	21.5" / 54.6 cm	21.5" / 54.6 cm	21.5" / 54.6 cm	21.5" / 54.6 cm	21.5" / 54.6 cm
Format	16:9 widescreen	16:9 widescreen	16:9 widescreen	16:9 widescreen	16:9 widescreen
Type	LCD-TFT	LCD-TFT	LCD-TFT	LCD-TFT	LCD-TFT
Anti-reflection	• (matt)	• (matt)	• (matt)	• (matt)	• (matt)
Brightness dimmable	•	•	•	•	•
Features					
Magnification	1.6 x to 100 x	1.6 x to 100 x	1.6 x to 100 x	1.6 x to 100 x	1.6 x to 100 x
System resolution	Full-HD	Full-HD	Full-HD	Full-HD	Full-HD
Operating keys	9	9	9	9	9
Graphical menu	•	•	•	•	•
Menu with voice output	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)
Display options					
Dynamic Line Scrolling (DLS)	–	•	•	•	•
Reading line/Reading blinds	•	•	•	•	•
Automatic exposure	•	•	•	•	•
Illumination defeatable	•	•	•	•	•
Live Cam function	–	•	•	•	•
Photo store function	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)
Tilting camera	•	•	•	•	•
Autofocus	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)	• (defeatable)
Writing under the display	•	•	•	•	•
Foldable and transportable	•	•	•	•	•
Interfaces					
SD card slot (incl. card)	•	•	•	•	•
USB port	•	•	•	•	•
HDMI input	–	•	•	•	•
Power port	•	•	•	•	•
Miscellaneous					
Mirror function	–	•	•	•	•
Software update	•	•	•	•	•
Reset key	•	•	•	•	•
Automatic shut-off	•	•	•	•	•
Integrated battery	–	–	• (Lithium-ion)	• (Lithium-ion)	–
Operating hours battery, approx.	–	–	2.5 hours	2.5 hours	–
Dimensions, approx.	52 x 50 x 15 cm	52 x 50 x 15 cm	52 x 53 x 18 cm	52 x 50 x 15 cm	52 x 53 x 18 cm
Weight, approx.	8,900 g	8,900 g	11,900 g	9,200 g	11,600 g
Delivery contents					
X/Y table	–	–	•	–	•
Remote control	–	•	•	•	•
HDMI cable	–	•	•	•	•
USB cable	•	•	•	•	•
SD card	• (8 GB)	• (8 GB)	• (8 GB)	• (8 GB)	• (8 GB)
Universal charger	• (100-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)
Travel mains adapter	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)
Operating instructions	• (printed)	• (printed)	• (printed)	• (printed)	• (printed)
Microfibre cloth	•	•	•	•	•
Optional accessories					
Bag (for transport)	•	•	•	•	•

• yes, available or possible   – no, not available or not possible

On Electronic low vision aids

	visolux DIGITAL XL FHD Item No. 16551	visolux DIGITAL HD Item No. 16521	mobilux DIGITAL Touch HD Item No. 16511	smartlux DIGITAL Item No. 16502
Display				
Size	11" / 29.5 cm	7" / 17.9 cm	4.3" / 11.0 cm	5" / 12.7 cm
Format	16:9 widescreen	16:9 widescreen	16:9 widescreen	16:9 widescreen
Type	Active matrix TFT LCD with LED backlight	Active matrix TFT LCD with LED backlight	Active matrix TFT LCD with LED backlight	Active matrix TFT LCD with LED backlight
Anti-reflection	• (matt)	• (matt)	• (matt)	• (matt)
Brightness dimmable	•	•	•	•
Features				
Magnification	2.0 x to 22 x	2.0 x to 22 x	1.9 x to 12 x	3 x to 15 x
System resolution	Full-HD	HD	HD	WVGA
Operating keys	10	8	1	3
Graphical menu	•	•	•	–
Touchscreen operation	• (defeatable)	–	•	–
Menu with voice output	• (defeatable)	–	–	–
Display options	(16 colour options)	(14 colour options)	(4 colour options)	(14 colour options)
Dynamic Line Scrolling (DLS)	• (horizontal + vertical)	• (horizontal)	–	–
Reading line/Reading blinds	• / •	• / •	• / •	• / •
Automatic exposure	•	•	•	•
Illumination defeatable	•	•	•	•
Live dual-screen function	•	•	• (to PC)	•
Photo store function	• (defeatable)	• (defeatable)	•	•
Camera centrally mounted	•	•	•	•
Orientation aid on housing	•	•	–	–
Housing tiltable	–	–	•	–
Writing under the display	•	–	–	•
Stand can be folded out	• (two positions)	• (two positions)	–	• (three positions)
Positioning markers on stand	•	•	–	–
Interfaces				
SD card slot	•	•	•	–
USB port (PC and Mac)	• (Type C)	• (Type C)	• (Type Mini B)	–
HDMI output	•	•	–	•
HDMI input	•	–	–	–
Power port	• (via USB)	• (DC 9 V)	• (via USB)	• (via USB)
Miscellaneous				
Software update	•	•	•	•
Reset key	•	•	•	•
Automatic shut-off	•	•	•	•
Integrated battery	• (Lithium-polymer)	• (Lithium-ion)	• (Lithium-ion)	• (Lithium-ion)
Operating hours, approx.	2.5 hours	3.5 hours	3 hours	3 hours
Dimensions, approx.	29 x 20 x 4 cm	20 x 14 x 3 cm	21 x 7.5 x 4 cm	18.5 x 9 x 4.5 cm
Weight, approx.	1.050 g	460 g	230 g	240 g
Delivery contents				
Hard foam case	•	•	•	•
Lanyard	•	•	•	•
Microfibre cloth	•	•	•	•
HDMI cable	•	•	–	–
USB cable	•	•	•	•
SD card	• (8 GB)	• (8 GB)	• (4 GB)	–
PC software	–	–	• (on SD card)	–
Universal charger	• (110-240 V, 50-60 Hz)	• (110-240 V, 50-60 Hz)	• (110-240 V, 50-60 Hz)	• (100-240 V, 50-60 Hz)
Travel mains adapter	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)
Operating instructions	• (printed)	• (printed)	• (printed)	• (printed)
Optional accessories				
Base (stand)	•	•	•	–
Bumper (protective envelope)	•	•	–	•
Bag (for carrying)	•	•	•	•
Handle	–	–	–	•

• yes, available or possible   – no, not available or not possible

On Galilean and Keplerian Monoculars

Item No.	Magnification		Visual field values	Visual angle	Working distance in mm	Lens Ø in mm	Weight in g	Exit pupil in mm Ø/position at ∞ or 200 mm	Dioptre Compensation Dioptre
1621	2.20 x	Distance	*250 m / 1,000 m	14.0°	∞	23.0	16.0		
1621 + 16213	1.65 x	Near	*67 mm	12.0°	approx. 330	25.5	22.0		
1621 + 16214	2.20 x	Near	*54 mm	12.0°	250	25.5	22.0		
1621 + 16215	2.75 x	Near	*44 mm	12.0°	200	25.5	22.0		
1621 + 16216	3.60 x	Near	*35 mm	12.0°	167	25.5	22.0		
1621 + 16218	4.40 x	Near	*25 mm	12.0°	125	25.5	22.0		
1621 + 162110	5.50 x	Near	*22 mm	12.0°	100	25.5	22.0		
1621 + 162112	6.60 x	Near	*18 mm	12.0°	83	25.5	22.0		
1621 + 162116	8.80 x	Near	*14 mm	12.0°	63	25.5	22.0		
16225	2.50 x	Distance	*230 m / 1,000 m	13.0°	∞	25.0	11.0		
16225 + 16213	1.90 x	Near	*64 mm	11.0°	approx. 330	25.5	17.0		
16225 + 16214	2.50 x	Near	*48 mm	11.0°	250	25.5	17.0		
16225 + 16215	3.15 x	Near	*38 mm	11.0°	200	25.5	17.0		
16225 + 16216	3.75 x	Near	*32 mm	11.0°	167	25.5	17.0		
16225 + 16218	5.00 x	Near	*24 mm	11.0°	125	25.5	17.0		
16225 + 162110	6.25 x	Near	*19 mm	11.0°	100	25.5	17.0		
16225 + 162112	7.50 x	Near	*16 mm	11.0°	83	25.5	17.0		
16225 + 162116	10.0 x	Near	*12 mm	11.0°	63	25.5	17.0		
1623	2.00 x	Distance	*380 m / 1,000 m	22.0°	X	37.0	18.0		
1623 + 16233	1.50 x	Near	*110 mm	18.5°	330	42.0	24.0		
1623 + 16234	2.00 x	Near	*84 mm	18.5°	250	42.0	24.0		
1623 + 16235	2.50 x	Near	*72 mm	18.5°	200	42.0	24.5		
1623 + 16236	3.00 x	Near	*57 mm	18.5°	167	42.0	25.0		
1623 + 16238	4.00 x	Near	*45 mm	18.5°	125	42.0	25.5		
1623 + 162310	5.00 x	Near	*32 mm	18.5°	100	42.0	26.0		
1623 + 162312	6.00 x	Near	*30 mm	18.5°	83	42.0	26.5		
1634	3.00 x	Distance	*160 m / 1,000 m	9.5°	700 to ∞	23.0	70.0		approx. ± 5
16344	4.00 x	Distance	*130 m / 1,000 m	7.5°	780 to ∞	23.0	70.0		approx. ± 5
16362	2.50 x	Near	*75 m / 350 m	15.0°	approx. 350	23.0	70.0		approx. ± 5
16363	3.00 x	Near	*54 m / 200 m	12.5°	approx. 200	23.0	70.0		approx. ± 5
16364	4.00 x	Near	*35 m / 250 m	8.0°	approx. 250	23.0	70.0		approx. ± 5
16731	2.80 x / 3.40 x	Distance / Near	220 m / 1,000 m / 26 mm / 150 mm	12.5° / 10.0°	150 to ∞	9.0	28.0	3.2/13 / 2.8/10.5	± 9
16732	4.20 x / 5.50 x	Distance / Near	175 m / 1,000 m / 25 mm / 200 mm	10.0° / 7.2°	200 to ∞	10.0	29.0	2.4/13.5 / 2.2/9.5	± 40/-30
16733	4.20 x / 5.00 x	Distance / Near	220 m / 1,000 m / 32 mm / 200 mm	12.5° / 9.2°	200 to ∞	12.0	47.0	2.9/11.5 / 2.1/9.5	± 12
16734	6.00 x / 7.60 x	Distance / Near	162 m / 1,000 m / 26 mm / 250 mm	9.3° / 6.0°	250 to ∞	16.0	57.0	2.7/7 / 2.0/6	± 18
1674820	8.00 x	Distance	122 m / 1,000 m	7°	300 to ∞	20.0	75.0	2.5	± 24
1674832	8.00 x	Distance	136 m / 1,000 m	7.8°	700 to ∞	32.0	180.0	4.0	± 18
4293616	6.00 x	Distance	140 x 180 m / 1,000 m	8° x 6.2°	1,500 to ∞	16.0	65.0	2.7	
4293816	8.00 x	Distance	122 x 94 m / 1,000 m	7° x 5.4°	2,000 to ∞	16.0	65.0	2.0	
4294413	4.00 x	Distance	225 m / 1,000 m	12.7°	∞	13.0	46.0	3.25	
4294618	6.00 x	Distance	142 m / 1,000 m	8.1°	2,000 to ∞	18.0	78.0	3.1	

* In the case of Galilean systems, the effective visual field is dependent on the distance of the eye/eyepiece. The values stated for visual field are therefore average values. Technical specification is subject to change without prior notice. (The visual angle is measured at HSA 10 mm).

On system varioPLUS and powerlux

Technical information for fitting Eschenbach Optik system varioPLUS illuminated magnifiers and powerlux.

Product No.	Magnific.	Dioptre [D]=1/f	Lens size Ø/mm	Lens type	a_E	s mm	s^1 mm	e mm
system varioPLUS								
15577-	12.5 x	50.0	Ø 35	as	400	15.2	360	40
15507-	10.0 x	38.0	Ø 35	as	400	19.5	360	40
15517-	7.0 x	28.0	Ø 35	as	400	29.3	340	60
15527-	6.0 x	24.0	Ø 50	as	400	31.5	300	100
15539-	5.0 x	20.0	Ø 58	as	400	36.0	260	140
15549-	4.0 x	16.0	Ø 70	as	400	45.0	250	150
15599-	3.0 x	12.0	Ø 80	as	400	48.6	150	250
15806-	3.0 x *	7.6	100/50	as	400	59.3	150	250
15817-	2.9 x	11.4	100/50	as	400	46.0	200	200
15826-	2.8 x *	7.0	100/75	as	400	61.5	150	250
powerlux								
1586-14, -141	3.5 x	14.0	Ø 58	as	400	39.7	156	250
1586-20, -201	5.0 x	20.0	Ø 58	as	400	36.0	260	140
1586-28, -281	7.0 x	28.0	Ø 58	as	400	24.8	320	100

Optimal conditions of use

The optimum image quality of an **aspheric** lens is achieved by maintaining the recommended distances between the eye and the lens and the lens and the object viewed.

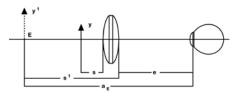| Lens size	Magnification (ISO/CEN)	Dpt.	📖 ← 🔍 ← 👁 mm	mm
35	12.5 x	50.0	15	40
35	10.0 x	38.0	20	40
35	7.0 x	28.0	29	60
50	6.0 x	24.0	31	100
58	6.0 x	24.0	31	100
58	5.0 x	20.0	36	140
58	4.0 x	16.0	44	150
70	4.0 x	16.0	45	150
60	4.0 x	16.0	44	150
60	3.0 x	12.0	49	250
75/50	4.0 x	16.0	44	180
75/50	3.5 x*	10.0	50	250
90/54	3.0 x*	8.0	45	250
100/50	2.9 x	11.4	46	200
100/50	3.0 x*	7.4	59	250
100/75	2.8 x*	7.0	61	250

* Trade enlargement

a_E = Eye-to-image distance
Y = Object
Y^1 = Image
e = Eye-to-lens distance
s = Lens-to-object distance
s^1 = Lens-to-image distance

Description of technical information on Eschenbach Optik illuminated magnifiers:

ESCHENBACH

3x 7,6 D 250

Magnification Dioptre e

General Technical Information:
All Vision Technology products from Eschenbach Optik comply with the applicable standards and directives of the European Union (EU) and the Federal Republic of Germany and therefore bear, where stipulated by law, the CE-symbol which is valid throughout Europe. This ensures that your customers receive a quality product which complies with the very latest quality standards.

Care instructions:
If the lens of your reading magnifier/illuminated magnifier requires cleaning, please pay attention to the following instructions: a soft cotton or linen cloth should be used for cleaning. The surface of the lens must only be gently wiped over. If the magnifier is very dirty then the cloth should be dampened with lukewarm water. **Never use alcohol-based solvents** or organic solvents for cleaning the lenses as these can damage the lenses.

SGS TÜV SAAR ISO 9001

Eschenbach Optik products have been awarded ISO 9001 certification and this is your guarantee of a high standard of quality.

Eye disease

Frequently asked questions concerning visual impairment

What is visual impairment?
A visual impairment exists when, despite applying the best corrective eyewear or contact lenses, vision is still impaired. Magnifying vision aids help the user to see better, despite visual impairment.

What are magnifying low vision aids?
Magnifying vision aids are defined as being all optical and electronic aids which compensate for the loss of vision by providing magnification of the images on the retina. Magnifying vision aids improve the quality of life of those suffering from visual impairment so that they are able to carry out their daily tasks more easily and without assistance.

What are the different levels of visual impairment?
According to this method, a person is considered to have a visual impairment when the visual acuity cc of the better eye is no more than 0.3 (30 % residual visual acuity). Severe visual impairment exists when the visual acuity is 0.05 (5 % residual visual acuity) or less. According to this categorisation, a person is considered to blind when their better eye has a visual acuity cc of no more than 0.02 (2 % residual visual acuity). An eye is considered to be blind if the visual field is reduced to an angle of below 5° (e.g. retinitis pigmentosa).

How does this become noticeable in everyday life?
For example, a visual acuity of 0.6 to 0.7 is sufficient for reading a telephone directory. A visual acuity of 0.4 to 0.5 is sufficient for reading a newspaper. A visual acuity of 0.1 is generally sufficient for a person to be able to orientate themselves outdoors in good light conditions.

What are the most common causes of visual impairment?
Visual impairment can affect anyone, although it mainly occurs amongst the elderly. The causes are also diverse and can differ from country to country.
The most common causes in our part of the world are agerelated macular degeneration (AMD), diabetic retinopathy which is becoming more prevalent, and other diseases such as detachment of the retina, cataracts and glaucoma.

What should be considered when advising those with visual impairment?
Even though many people with impaired vision are mainly interested in receiving help with reading, distance vision must also be tested. In the case of visual impairment, by determining the refraction, we can determine the required optical correction which will provide the best possible visual acuity (visual acuity cc). This is always the starting point for fitting magnifying vision aids. Please also note the information relating to this in brochure 162510.

How is the required magnification determined?
The magnification required for a vision aid is determined by the ratio between the desired visual acuity to the existing visual acuity using the best corrective eyewear.
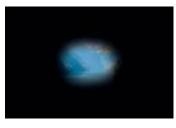

Normal vision

Central scotoma due to macular degeneration

only the peripheral part of the retina can be used for vision, whilst the macula, the area in the retina that is responsible for central vision, is destroyed.

Tunnel vision due to retinitis pigmentosa

As the rods in the retina die off, the field of view progressively narrows causing "tunnel vision". Retinitis pigmentosa can lead to blindness.

Reduced visual acuity due to diabetic retinopathy

Small sections of the retina do not function properly. In the advanced stage, these small sections grow together to form larger areas.

Cataract

Clouding of the lens leads to impaired vision and also to increased light sensitivity.

Glaucoma

Increased pressure in the eye leads to irreversible damage of the optic nerve. In chronic glaucoma, central vision can remain for a long time.

Lens Geometry

Aspheric lenses: allow a large lens diameter even with a high level of magnification and therefore a wide visual field. All aspheric reading magnifiers from Eschenbach Optik have a focusing distance aE (distance of the eye to the virtual image) of 400 mm. This provides a sharp image with reading glasses which have an addition of +2.5 dpt.

A **diffractive aspheric lens** has an additional diffractive structure for correcting chromatic aberrations.

Aplanatic lenses provide an image which is free from spherical aberration and has edge-to-edge sharpness.

Achromatic: the combination of two lenses of different diffractive strength for correcting chromatic aberration.

Meniscus/aspheric Lenses: a combination of meniscus lens and aspheric lens. Allows larger distances than comparable magnifications using other types of lenses and an image which has edge-to-edge sharpness.

Biconvex lens: simple lens with two convex (bulging outwards) spherical lens surfaces.

Planoconvex lens: a special type of convergent lens with only one convex surface, the second surface is flat.

CPC **Compound Parabolic Concentrator:** a special lens which collects and concentrates light/illumination optics.

Lens Material

PXM® **PXM®** This extremely lightweight and shatter-proof plastic used by Eschenbach Optik has special characteristics which provide maximum optical image quality. In combination with the cera-tec® hard coating, PXM® lenses have a level of scratch resistance which is similar to that of glass.

Silicate **Silicate** offers outstanding optical performance, as well as a high resistance to chemical and mechanical influences. Lenses manufactured from silicate are heavier than plastic lenses.

CR 39 **CR 39** is a very lightweight plastic that has been specially developed for spectacle lenses and offers excellent optical performance.

MR 8 **MR 8** is a very light-weight plastic with a higher refractive index specially developed for spectacle lenses.

Tri-Acetat **Tri-Acetat** rigid films not only offer a high level of elasticity and resistance to breakage, but also excellent optical performance and are therefore often used as the base films for polarised filter lenses, e.g. for polarised clip-ons.

PC **Polycarbonat (PC)** is extremely strong and hard, with a high level of resilience and due to its outstanding optical clarity and lightweight nature is used in particular for protective lenses in the optics field.

Lens coating

cera-tec® coating **cera-tec® hard coating:** the extremely resilient coating was specially developed in collaboration with the Fraunhofer Institute for Silicate Research (ICS) for our PXM® lenses.

DUPLEX **DUPLEX coating:** The antistatic coating of the lenses prevents fogging of the lenses.

Super-DUPLEX **Super DUPLEX coating:** Duplex with additional hard coating.

Illumination

Filament bulb

Fluorescent tube

1 x LED **LEDs** (LED: Light Emitting Diode) are permanently built into the product and cannot be replaced.

LEDs are extremely economical to use in comparison to conventional filament light bulbs and have a lifespan that is many times longer.

xxx K **Colour temperature**

R_a > xx **General colour rendering index**

Filter caps: enclosed for changing the colour temperature and light intensity.

xxx lm **Light flux**

xxx h **Lifespan of lamp**

EEI xxx **Energy efficiency label:** The illuminants enclosed correspond to the stated energy efficiency class or the lighting fixture is suitable for illuminants of the stated energy efficiency class. The scale classification ranges from A to G.

Batteries

xxxxx **Round cell**

xx **Batteries** Included with the product.

xx **Batteries** Not included with the product.

Other icons

xxxxx **Intelligent automatic shut-off** to guard against unnecessary power consumption.

xxV xxHz **Mains plug**

Xx **Magnification**

Weight

Case Included with the product.

Case Not included with the product.

Screen size

Visual field

Frame size: Lens size/bridge width.

Step Up **Step-up converter:** an electronic control system, which boosts the supply voltage required by the LED and keeps it constant even when the battery voltage decreases. The illumination strength of the LED therefore.

PD xx mm **Pupillary distance**

Display **Display** available

Optoform **Optoform tray** available

Display/ Optoform **Display** and **Optoform tray** available.

≡ ESCHENBACH

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