# ESCHENBACH

# Vision
# Technology
# Products

2016 / 2017

## 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 480 employees throughout the world, today Eschenbach Optik has a global presence.

## 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".

MADE IN
GERMANY

## 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.
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 66-77, 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 "2015 Individual Lens Range" catalogue.

## CONTENTS

# HAND-HELD MAGNIFIERS

# AND

## READING MAGNIFIERS

OPTIMUM VISION COMFORT –
ALWAYS READY TO HAND.

3,5x 100 250
made in Germany

LED

**ESCHENBACH**

15113
15114

15112
151141
15115
15116

15117
151110
151112

## 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.

**mobilux® DIGITAL Touch HD can be found on page 28.**
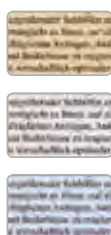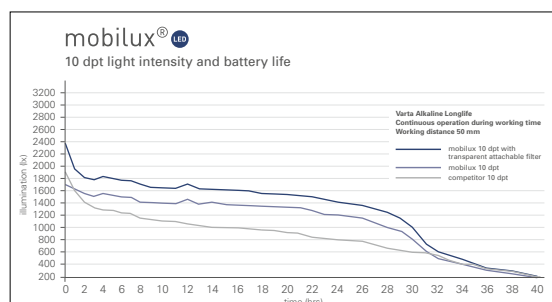
### CUSTOMER BENEFITS

- ✤ 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 |
|---|---|---|---|
| 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

**Accessories:**
See page 6 for mobase Order Nos. 1511001, -2, -3, -4
Lanyard Order No. 15981

reddot design award
winner 2011

mobilux® LED
10 dpt light intensity and battery life

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

— mobilux 10 dpt with transparent attachable filter
— mobilux 10 dpt
— competitor 10 dpt

illumination (lx)
3200 3000 2800 2600 2400 2200 2000 1800 1600 1400 1200 1000 800 600 400 200
time (hrs)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40

PXM®  cera-tec® coating  3–12.5 x

2 x AA  Step Up  Display/ Optoform

The appropriate display is available as an option on page 76.

1511001 + 15113

upright position

1511001 + 15113

flat position

# mobase  NEW

- 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.

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

1511001

1511002

1511003

1511004

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

## 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, 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 |

**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.

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

1511003

152111

152110    152122
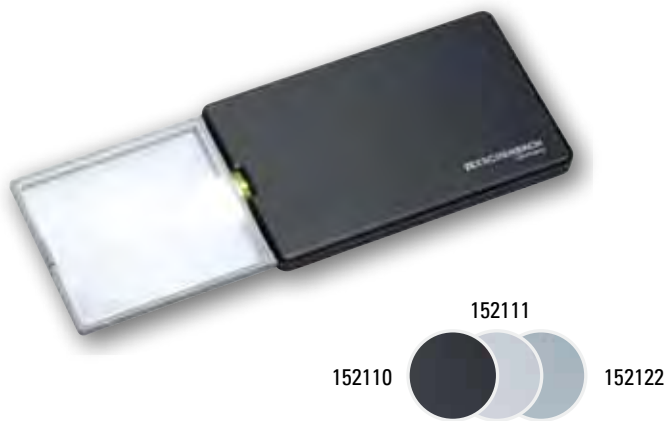
# easyPOCKET

- 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.

## 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.

| 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 |

PXM®    3x/4x    2x 2025    Display/Optoform    The appropriate display is available as an option on page 75.

152211    152210

Can also be used as a stand magnifier.

# easyPOCKET XL    NEW

- 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.
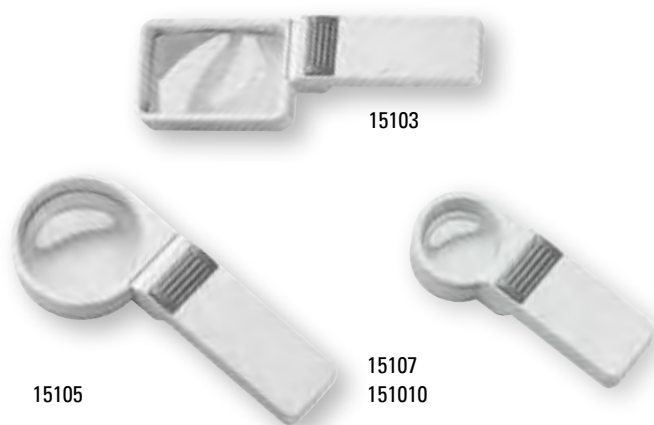- **Replacement battery:** Order No. 15473, requires 2 batteries.

| 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 |

## 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.

PXM®    2.5x    2x 2032    Display/Optoform    The appropriate display is available as an option on page 75.

15103

15107
151010

15105

# mobilux® ECONOMY

- Batteries are very handy to change – when the battery compartment is opened, the upper and lower sections of the housing remain connected via a hinge and can be easily closed again.
- Bulb: NF lens bulb 2.5 V, 250 mA, E10.
  **Replacement bulb:** Order No. 1544 (see page 64).
- 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.

| | PXM® | 3.5–10 x | NF 2,5 V 250 mA E10 | 2 x AA | Display |

## CUSTOMER BENEFITS

- ⊕ Great value illuminated pocket magnifier with NF filament bulb.
- ⊕ Ideal for reading small print at home and on the move, e.g. when searching for telephone numbers or looking at prices in the supermarket.

| Item | Dimensions | Magnification | dpt |
|------|-----------|---------------|-----|
| 15103 | 75 x 50 mm | 3.5 x | 10.0 |
| 15105 | Ø 58 mm | 5.0 x | 20.0 |
| 15107 | Ø 35 mm | 7.0 x | 28.0 |
| 151010 | Ø 35 mm | 10.0 x | 38.0 |

**Accessories:**
- Microfibre drawstring pouch for safely storing the pocket lens.
- The pouch can also be used for cleaning the lens.

15711

151002

| Item | Illuminated magnifier |
|------|----------------------|
| 151002 | 15103, 15105 |
| 15711 | 15107, 151010 |

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2668950

266850

266860

266875

266885

## APLANATIC READING MAGNIFIERS

# 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 |

| | PXM® | DUPLEX | 2.4–4.5 x | Display/ 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 30).
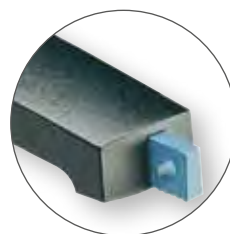• Round-the-neck cord supplied.

**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 |

PXM®   cera-tec coating   2.8–6.0x   Display/Optoform

2612401

2612801

2612601

26129501

## BICONVEX MAGNIFIERS & READING MAGNIFIERS

# Great value, high-quality magnifiers with additional lens in the handle
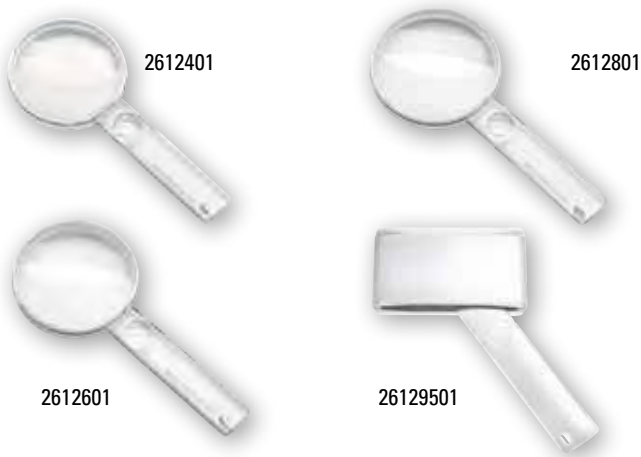
- Plano-convex additional lens with 5 x magnification integrated in the handle.

### 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 |

PXM®   1.5–3.25 x   Display/Optoform

The appropriate display is available as an option on page 77.

264265

264280

2642100
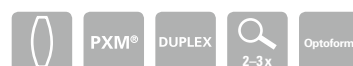
2642120

2642840

2642150

26421255

# 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 |

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 |

PXM®   2.0–2.9 x   Optoform

2677

2678

## 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.

ROUND-THE-NECK MAGNIFIERS

# maxiPLUS/economy

• Transparent frame for shadow-free magnification.
• Non-slip foam rubber pads on the feet.
• 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.

| 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 |

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. 80 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 |

Silicate    3.5 x

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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®    5 x    Optoform

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171014
171067
1710910

# mobilent

- High magnification folding magnifiers.
- The plastic case encloses the lens and is dust-tight.
- With round-the-neck cord.

### CUSTOMER BENEFITS

✚ The ideal magnifier for handbag and trouser pocket or for
   wearing around the neck.
✚ Ideal for magnifying small print discreetly.

| Item | Colour | Dimensions | Magnification | dpt |
|------|--------|------------|---------------|-----|
| 171014 | red | Ø 35 mm | 4.0 x | 16.0 |
| 171067 | anthracite | Ø 35 mm | 7.0 x | 28.0 |
| 1710910 | white | Ø 35 mm | 10.0 x | 38.0 |

PXM®    4–10 x    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 |

1752150    1752160
1752550    1752560
1752850    1752860

[ ] PXM®  Super-DUPLEX  [ 3.5 x / 6.0 x ]  Optoform

## CUSTOMER BENEFITS

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

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

173033    173023
173013    173053

# economy

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

[ ] PXM®  [ 3.5 x ]

2031

2032

2034

2036

# combiPLUS

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

## 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.

| 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 |
| 2036 | 100 x 50 mm | 2.6 x | 6.3 | 20211 |

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

## CUSTOMER BENEFITS

⊕ Extremely versatile and can be used for many different tasks – simply unfold the ends of the handle.
⊕ Can be used as a pocket magnifier, a stand magnifier with an inclined view e.g. for manicures, or as a stand magnifier with a straight view for hobby activities (e.g. stamp collecting).
⊕ Small, handy format.

| Item | Dimensions | Magnification | dpt |
|------|-----------|---------------|-----|
| 20501 | Ø 60 mm | 2.5 x | 10.0 |

20501

HAND/STAND MAGNIFIER

# visoflex

- The flexible solution for every occasion.
- A stand magnifier with an inclined view is created by opening out the handle ends; a stand magnifier with a straight view can be created by rotating and then folding the handle ends towards each other.

PXM®  2.5x

STAND MAGNIFIERS

AND

STABLE SOLUTIONS
FOR BRIGHT MAGNIFICATION.

READING MAGNIFIERS

## 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<br>• Incl. red guide line |
| 2606 | 122 x 26 mm | 1:2.0 | • Incl. red guide line<br>• Higher magnification due to aspheric surface<br>• Scratch-resistant underside<br>• Can also be used with visolux large field magnifiers (Item Number 263611, page 19) |
| 2608 | 250 x 35 mm | 1:1.8 | • Incl. red guide line |

| PXM® | 🔍 1:1,8 x | | 2606 | PXM® | 🔍 1:2.0 x | Display/Optoform |
|------|-----------|--|------|------|-----------|------------------|

## 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

✛ „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.
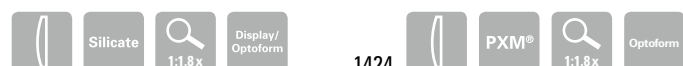
## BRIGHT FIELD MAGNIFIERS

• 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.

| | Silicate | 🔍 1:1.8 x | Display/Optoform | 1424 | | PXM® | 🔍 1:1.8 x | Optoform |
|--|----------|-----------|------------------|------|--|------|-----------|----------|

1436

1426

## SEGMENT BRIGHT FIELD MAGNIFIERS

# 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

- NEW: Push-button switch for easy on/off operation.
- NEW: Automatic light-off function after 30 minutes to avoid unnecessary 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 |

The appropriate display is available as an option on page 75.

14388

### BRIGHT FIELD MAGNIFIERS

# 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 |

# 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.

143830



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

## 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.
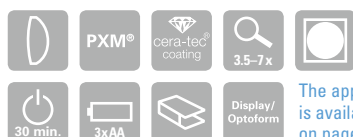✛ Suitable for both left and right handers.

| 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 |

158614
158620
158628

1586141
1586201
1586281

## 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

30 min.   3xAA   Display/Optoform

The appropriate display is available as an option on page 75.

## visomax

● With attachable additional lens for an even larger visual field.
● Can be used with magnifying ruler 2606 (see page 16). 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.
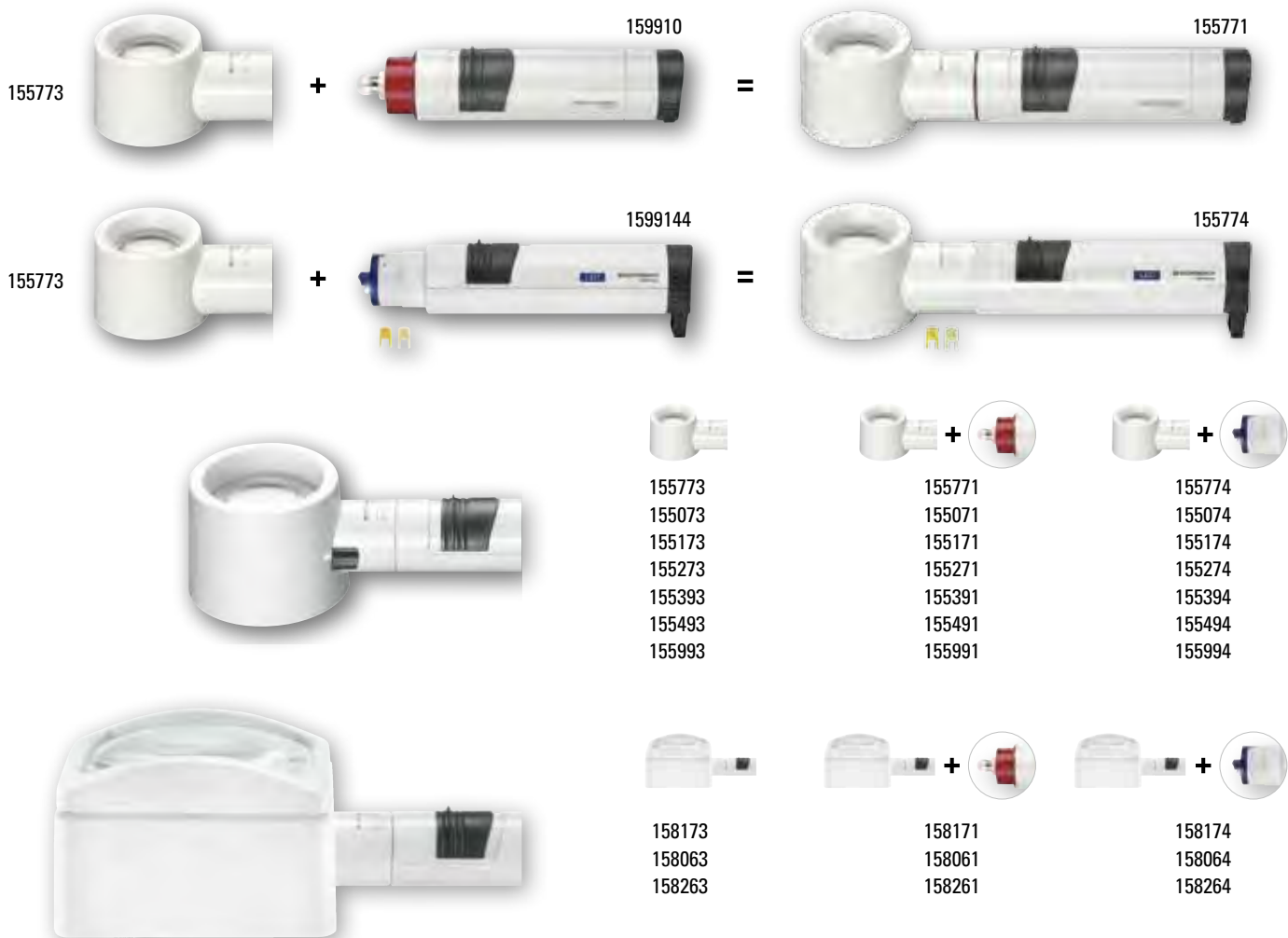✛ Large, rectangular visual field.

263611

PXM®   cera-tec coating   3.8 x

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

Example of item number formation



155773 + 159910 = 155771

155773 + 1599144 = 155774



| 155773 | 155771 | 155774 |
| 155073 | 155071 | 155074 |
| 155173 | 155171 | 155174 |
| 155273 | 155271 | 155274 |
| 155393 | 155391 | 155394 |
| 155493 | 155491 | 155494 |
| 155993 | 155991 | 155994 |

| 158173 | 158171 | 158174 |
| 158063 | 158061 | 158064 |
| 158263 | 158261 | 158264 |

## ILLUMINATED STAND MAGNIFIERS

# 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 64).

For technical information please refer to page 78.

## 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.

PXM® | cera-tec coating | 2.8–12.5x | Optoform

Reading line    Additional lens

159910



1599144

**Battery handle:**
- Battery handle with filament bulb.
- **Replacement bulb:** Order No. 1545 (see page 64).

2.5 V 250 mA | 2x Baby

**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.

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

**Accessories:**
- Case.



15601
15602
15603

| Item | Dimensions | Magnification | dpt | Additional features | Case |
|------|-----------|--------------|-----|--------------------|------|
| 155773*<br>155771**<br>155774*** | Ø 35 mm | 12.5 x | 50.0 | – | 15601 |
| 155073*<br>155071**<br>155074*** | Ø 35 mm | 10.0 x | 38.0 | Incl. attachable measurement scale, graduation 0.5 mm and 1/64 inch | 15601 |
| 155173*<br>155171**<br>155174*** | Ø 35 mm | 7.0 x | 28.0 | – | 15601 |
| 155273*<br>155271**<br>155274*** | Ø 50 mm | 6.0 x | 24.0 | – | 15601 |
| 155393*<br>155391**<br>155394*** | Ø 58 mm | 5.0 x | 20.0 | With retractable red reading line | 15602 |
| 155493*<br>155491**<br>155494*** | Ø 70 mm | 4.0 x | 16.0 | With retractable red reading line | 15602 |
| 155993*<br>155991**<br>155994*** | Ø 80 mm | 3.0 x | 12.0 | With retractable red reading line | 15602 |
| 158173*<br>158171**<br>158174*** | 100 x 50 mm | 3.9 x | 11.4 | Aplanatic | 15603 |
| 158063*<br>158061**<br>158064*** | 100 x 50 mm | 3.0 x | 7.6 | With additional swivel lens, 4 dpt. 45 nm cut-off filter, ergonomic, tiltable magnifier head | 15603 |
| 158263*<br>158261**<br>158264*** | 100 x 75 mm | 2.8 x | 7.0 | With retractable red reading line, 4 dpt. 45 nm-cut-off filter, ergonomic, tiltable magnifier head | 15603 |

* Magnifier head, without handle   ** with battery handle 159910   *** with battery handle 1599144

156512

# scribolux

- NEW: Push-button switch for easy on/off operation.
- NEW: 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.

## 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 |

The appropriate display is available as an option on page 75.

# 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 |

The appropriate display is available as an option on page 75.

2781

27815

Illumination strength
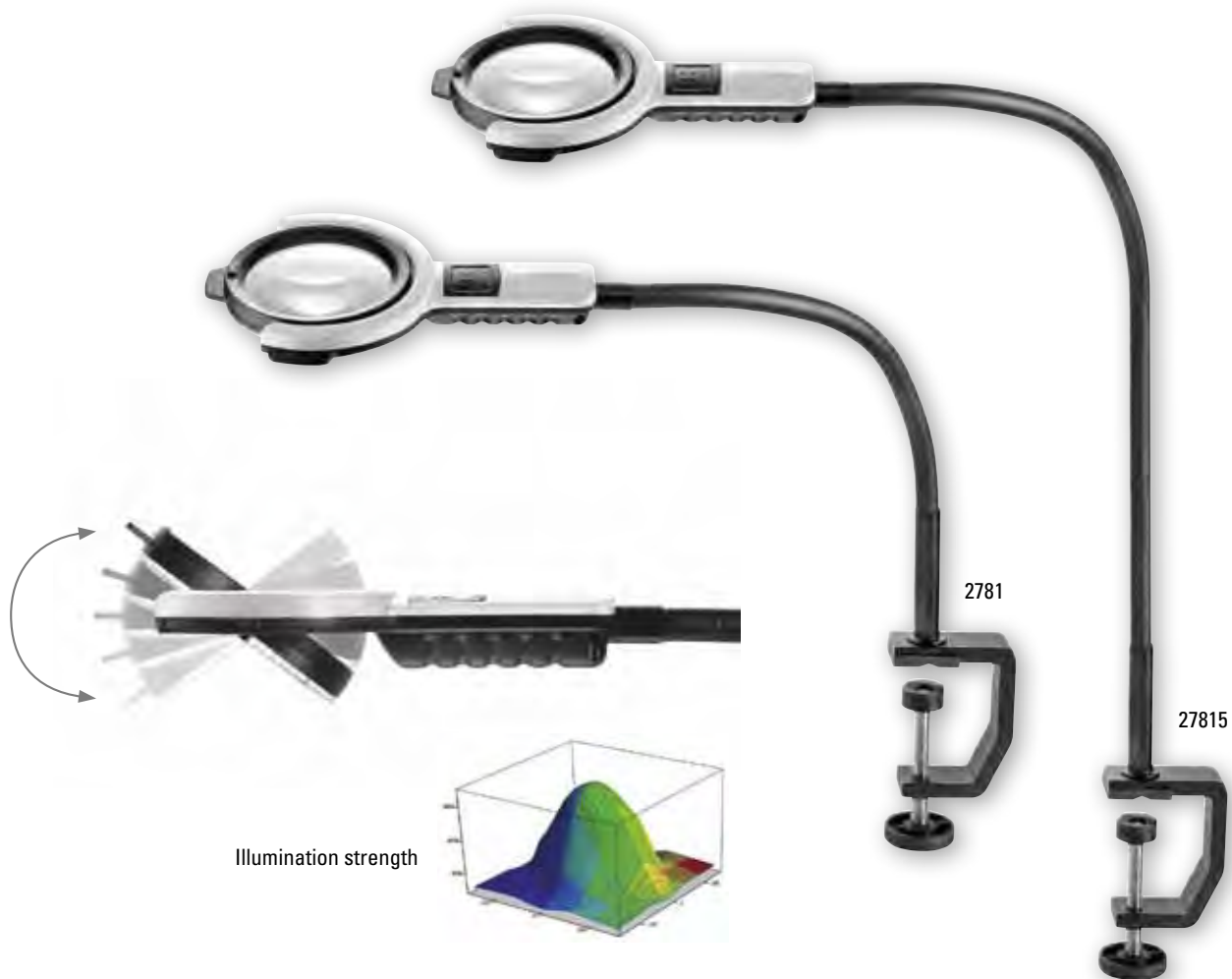
# varioLED flex

- 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. 6000 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: 3 m.

## CUSTOMER BENEFITS

- ✧ Segment switching = provides a choice between ring illumination and segment illumination for closer 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 as power requirement is only 5W, service life of LED approx. 50,000 hours.

| 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 |

**Accessories:**
**27819 Table base**
- Steel, black finish, weight 2 kg.
- Only suitable for item 2781.

| | PXM® | cera-tec® coating | 2.5 x | 36 | 110–220V 50–60 Hz |

27711

## varioMAXI

- Optimum illumination of the viewing area is provided by the PL lamp which is tilted downwards.

- Macropsia effect* due to „infinite optics".
- Illumination: compact fluorescent tube, 11 W/900 lm/G23/ colour shade 21. **Replacement tube:** Order No. 16032.
- Arm extends to max. 900 mm.
- Swivel range of magnifier head: vertical ±90°, radial ±90°.
- Cable length: 3 m.
- Supplied with light, table clamp for table top thicknesses of 18-74 mm and protective dust cover.

### CUSTOMER BENEFITS

✛ The field of vision can comfortably accommodate an entire DIN A4 page.
✛ The magnifier head can be variably positioned by adjusting the sturdy, jointed arm.
✛ The magnifier can be used with near or distance glasses.
✛ Angled view ensures comfortable reading position.

| Item | Dimensions | Magnification | dpt |
|------|-----------|---------------|-----|
| 27711 | Ø 220 mm | 1,75 x | 3,0 |

PXM® | cera-tec® coating | 1.75 x | 11 W/G23 | 230V 50 Hz

27722

## vario

- 2 magnification levels due to additional swivel lens.
- The magnifier head can be variably positioned by adjusting the sturdy, jointed arm.
- Optimum illumination of the viewing area is provided by the PL lamp which is tilted downwards.
- Macropsia effect* due to „infinite optics".

- Illumination: compact fluorescent tube 9 W/600 lm/G23/ Colour shade 21. **Replacement tube:** Order No. 27728.
- Arm extends to max. 900 mm.
- Swivel range of magnifier head: horizontal ±45°, vertical ±90°, radial ±90°.
- Cable length: 3 m.
- Removable protective lens cover.
- Supplied with light and table clamp for table top thicknesses of 18-74 mm.

\* Macropsia: physiological magnification caused by disaccommodation and suppressed convergence of the eyes.

### CUSTOMER BENEFITS

✛ Equally suitable for both hobby and professional use.
✛ The magnifier can be used with distance or near vision glasses.
✛ The lens is protected by a hinged dust cover.
✛ Relaxed reading position due to comfortable angled view.

| Item | Dimensions | Magnification | dpt |
|------|-----------|---------------|-----|
| 27722 | Ø 132 mm | 1.9 x/2.8 x | 3.55/7.1 |

PXM® | cera-tec® coating | 1.9/2.8 x | 9 W/G23 | 230V 50 Hz
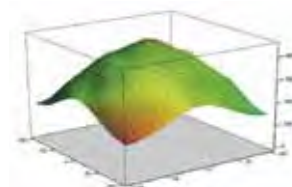
27770
27771

Illumination strength

**Accessories:**
**277701 Interchangeable lens**
- Compatible with 27770 and 27771.

| Item | Dimensions | Magnification | dpt |
|------|-----------|---------------|-----|
| 277701 | Ø 132 mm | 2.5 x | 6.0 |

## READING MAGNIFIERS

# varioLED

- Ring lighting provided by 36 long-life high performance LEDs with primary lens system for optimal concentration of light and shadow and flicker-free working.
- Approx. 5,000 lx (at a 20 cm working distance) – provides full illumination power immediately.
- Aspheric PXM® lightweight lens, cera-tec® coated for a distortion-free image with edge-to-edge sharpness.
- Hinged and removable lens cover.
- Magnifier head has 6 joints to ensure optimum positioning.
- Tilting range of magnifier head: 180°.
- Can be operated using one hand.
- Cable length: 3 m.
- Supplied with table clamp for table top thicknesses of 18-74 mm.

### CUSTOMER BENEFITS

✛ Shadow-free and flicker-free illumination.
✛ Brightness can be adjusted to suit individual requirements.
✛ Can be used with distance and near vision glasses.
✛ Minimum power consumption due to low power requirement of the LED which is only 15 W.

| Item | Dimensions | Magnification | dpt |
|------|-----------|---------------|-----|
| 27770 | Ø 132 mm | 1.9 x | 3.55 |
| 27771 | Ø 132 mm | 2.5 x | 6.0 |

27729

**27729 Table base**
- Cast iron, 260 mm Ø, weight 6 kg.
- Suitable for stand magnifiers 27722, 27770 and 27771.

27718

**27718 Screw attachment**
- Permanent attachment of the stand magnifier onto a work surface. For use in the office or workshop.
- For assembly, the work surface needs to be drilled (hole Ø 12 mm). Suitable for table top thicknesses of 25 to 30 mm.
- Suitable for stand magnifiers 27711, 27722, 27770 and 27771.

PXM® | cera-tec coating | 1.9/2.5 x | 36 | 110–220V 50–60 Hz

# ELECTRONIC VISION AIDS

# AND

# LIGHT

## HIGH QUALITY TECHNOLOGY
## FOR BRILLIANT VISION.

165011

# smartlux® DIGITAL

- The elegant magnifier for brilliant vision.
- Display: non-reflective 5″ LCD.
- LCD brightness can be dimmed in the case of a high level of glare sensitivity.
- 5 viewing modes: True colour as well as contrast-enhanced black/white, white/black, black/yellow, yellow/black.
- Generous depth of focus for variable viewing distances.
- Incremental magnification from 1.7 to 12 x, depending on use.
- Freeze-frame and image capture function: images can be quickly captured. If required, up to 20 of these images can be permanently stored and managed.
- 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
- LEDs can be switched off, for use on gloss surfaces.
- Automatic shut-off if the device has not been used for approx. 3 minutes to ensure low power consumption.
- Dimensions: 174 mm x 90.3 mm x 40.1 mm.
- Weight: 220 g.
- Large RESET button, in a protected position under the folding stand.
- Battery run time: approx. 2.5 hours, charging time: approx. 2 hours.
- Lithium ion rechargeable battery.
- Mains voltage requirement for battery charger: 110 V-240 V, 50-60 Hz.
- Supplied with adapter for EU, GB, US, AUS.
- Comes supplied with a lanyard for wearing the smartlux DIGITAL around the neck and a protective rigid foam case.

## CUSTOMER BENEFITS

- ✛ Extra large field of view due to non-reflective 5″ LCD and high magnification range.
- ✛ Makes reading simple as camera is centrally positioned under the display.
- ✛ Extra writing position for writing or working under the display.
- ✛ Easy to use due to large operating buttons which are easy to see and tactile.

1.7–12 x   5″ 16:9   220 g   Display/Optoform

16511

# mobilux® DIGITAL Touch HD

- Non-reflective 4.3" display.
- Intuitive operation via touchscreen.
- HD camera for maximum definition and optimum contrast.
- Generous depth of focus for variable viewing distances.
- 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 12 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.
- Screen-reading function via computer monitor.
- 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.
- Battery run time: 2.5 to 3 hours, charging time: approx. 2 hours.
- Lithium ion rechargeable battery.
- Mains voltage requirement for battery charger: 110 V-240 V, 50-60 Hz.
- Supplied with adapter for EU, GB, US, AUS.
- Supplied with protective hard foam case, lanyard and cleaning cloth.

## CUSTOMER BENEFITS

- Relaxed reading due to non-reflective, high contrast display.
- 2 in 1: handy reading device for when you're on the move plus simple screen-reading device for use at home.
- 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.

| Item | Dimensions | Magnification |
|------|-----------|---------------|
| 16511 | 4.3" display | 4.0 x to 12.0 x |





3–12.5 x    4.3" 16:9    230g    Display/Optoform

The appropriate display is available as an option on page 75.
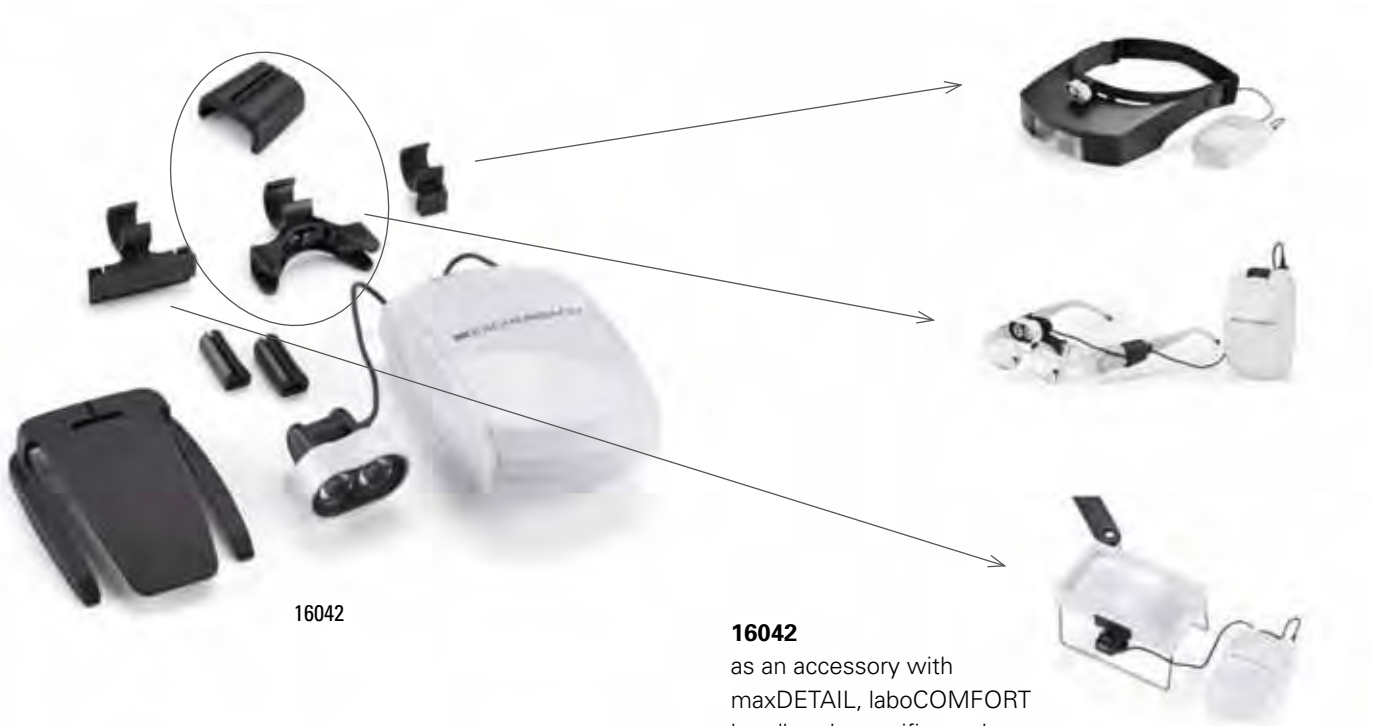
16042

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

# headlight LED

- Small, lightweight and compact LED light.
- Light can be concentrated at a specific working distance by means of CPC optics (Compound Parabolic Concentrator).
- Light is focused in a precise and glare-free manner.
- Power supply via handy, compact battery housing and cable.
- Flexible cable with additional adapter for attaching to eyewear temple.
- Virtually constant illumination throughout the entire lighting period.
- 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  8,000 K  3 x AA

16031

- Highly adjustable arm – can tilt from vertical to almost horizontal.
- Highly adjustable shade – can be tilted horizontally by 180°, vertically and axially by 45° in each case.
- Height min. 32 cm up to max. 52 cm.
- Length of mains cable: 1.6 m.
- Lamp base is disassembled for delivery; screw assembly.
- Colour silver/anthracite.

## CUSTOMER BENEFITS

⊕ The magnifier head has a very large swivel range which makes alignment to the reading material extremely easy.
⊕ Extremely bright, glare-free illumination of the reading area.

# Desk lamp

- Electronic ballast for flicker-free illumination.
- Metal reflector in lamp shade for optimum, even illumination.
- Illumination: approx. 1500 lx (at a distance of 35 cm).

[24 W/GY10q]  [4.500 K]  [230V 50 Hz]

# Floor lamp

- As 16031, but in the design of a floor lamp.
- Height min. 117 cm up to max. 151 cm.
- Lamp is dismantled for delivery.
- Colour: silver.

**Replacement tubes for lamps 16031 and 16033:**
1603127 Replacement tube 24 W/2,700 K/GY10q
1603145 Replacement tube 24 W/4,500 K/GY10q

## CUSTOMER BENEFITS

⊕ Can be perfectly adapted to sitting habits as alignment to the reading material is extremely easy.
⊕ Extremely bright, glare-free illumination.
⊕ Easy to use and adjust.

[24 W/GY10q]  [4.500 K]  [230V 50 Hz]

16033

16035

# comfort visionLED

- Multi-layer diffuser technology for:
  - glare and hard shadow-free illumination,
  - 100 % UVA/UVB light blocking and
  - up to 90 % blue light damping.
- High colour reproduction index (CRI) at 90.
- LED lifespan: 50,000 hours.
- Energy consumption only 10 Watt.
- Timer function for automatic switch off after 2 hours.
- Night light function with reduced brightness.

**Individual illumination**

With the aid of 5 colour shades and 5 brightness levels, the illumination can be individually adjusted and modified to any purpose.

2,700°K  warm, yellowish light, brightness levels: approx. 870 lx to approx. 180 lx

3,300°K  warm, yellowish-white light, brightness levels: approx. 1,530 lx to approx. 270 lx

4,300°K  warm white light, brightness levels: approx. 2,900 lx to approx. 560 lx

5,300°K  white light, brightness levels: approx. 2,350 lx to approx. 430 lx

6,500°K  cold white light, brightness levels: approx. 2,000 lx to approx. 400 lx

## CUSTOMER BENEFITS

- Even and glare-free illumination with hard shadows.
- High black-white contrast.
- Very good colour reproduction.
- 5 different colour tones (2,700°K, 3,300°K, 4,300°K, 5,300°K, 6,500°K) adjustable in 5 brightness steps for individual lighting requirements.
- Individually adjustable light head that can be turned axially and horizontally by up to 355 degrees.

2,700 K
3,300 K
4,300 K
5,300 K
6,500 K

230V 50Hz
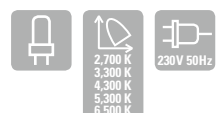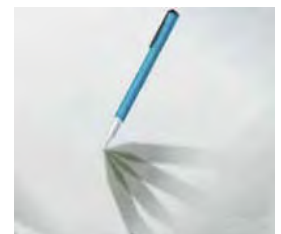
# FILTERS

LESS GLARE.
MORE CONTRAST.

FILTERS

Glare protection

Side glare protection

Ventilation slot

# wellnessPROTECT®
# wellnessPROTECT® XL

- Improved contrast vision and minimisation of glare by blocking short-wave, energy-rich light components.
- Available in the active photochromic options, in the following tints: 15 %, 65 %, 85 %, polarised 75 % and graded 50-15 % for inside and out.
- The phototropic lenses of wellnessPROTECT® active protect the eyes in all light conditions.
- Available in different frame sizes or as clip-ons, each including case.
- Frames are darkened on the inside and the upper edge of the frame extended to reduce the amount of light entering from the top.
- Transparent side shields protect against glare and allow orientation to the side.
- 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 wellnessPROTECT® 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: wellnessPROTECT® XL is intended for wearing over the correction frame.



wellnessPROTECT® filter lenses have an additional cut-off filter. In addition to UV light, they also absorb shortwave, energy-rich light components. Contrast vision is therefore improved and unpleasant glare is reduced.

wellnessPROTECT® 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.



with wellnessPROTECT®



without wellnessPROTECT®

CR 39    Display/Optoform    The appropriate display is available as an option on page 76.

# Eyewear and clip-ons

- Glazed with wellnessPROTECT® plano lenses 15 %,
  65 %, polarizing 75 %, 85 % and graded 50 -15 %.
  The description relates to the absorption of the additional
  tint overlay on the base filter. It does not relate to the light
  transmission level of the entire filter.
  - material CR39
  - eyewear supplied in hard foam case
  - clip-ons supplied in soft case with belt clip

1663115

1663215

1663885*

166345015

1663975P*

1663565

\* wellnessPROTECT XL® glasses are meant to be put on over normal
prescription glasses and because of the lens size are not intended for
individual glazing.

1663365

1663315
166335015
1663385

| | Frame colour | 15 % | 65 % | 85 % | 50-15 % (graded) | 75 % (polarized) | active (photochromic) |
|---|---|---|---|---|---|---|---|
| Filter category | | 1 | 2 | 3 | 2 | 2 | 1/2 |
| Luminous transmittance | | approx. 50 % | approx. 35 % | approx. 15 % | approx. 30 % | approx. 30 % | approx. 55 % /15 % |
| Blue light absorption | | approx. 98 % | approx. 97 % | approx. 99 % | approx. 98 % | approx. 94 % | approx. 97 % approx. 99 % |
| Small frame size 54-16-135 | havana gloss | 1663115 | 1663165 | 1663185 | 166315015 | 1663175P | - |
| Large frame size 57-16-135 | havana gloss | 1663215 | 1663265 | 1663285 | 166325015 | 1663275P | - |
| Ladies' frame size 56-15-130 | black gloss | 1663415 | 1663465 | 1663485 | 166345015 | 1663475P | 166341580 |
| Men's frame size 58-16-130 | black gloss | 1663515 | 1663565 | 1663585 | 166355015 | 1663575P | 166351580 |
| Clip-ons size 60-11 | | 1663315 | 1663365 | 1663385 | 166335015 | - | - |
| XL small frame size 61-12-145 | havana matt | 1663815 | 1663865 | 1663885 | 166385015 | 1663875P | 166381580 |
| XL large frame size 65-12-145 | havana matt | 1663915 | 1663965 | 1663985 | 166395015 | 1663975P | 166391580 |

Note: wellnessPROTECT® are also available with individual lens strengths.

# Lenses

## wellnessPROTECT® wP15

- 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.

## wellnessPROTECT® wP65

- 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.

## wellnessPROTECT® wP75P

- 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.

## wellnessPROTECT® wP85

- Cut-off filter with 85 % tint overlay.

*Recommended use:*

- Outdoors in sunshine.
- Outdoors in the case of a very high level of glare sensitivity.

## wellnessPROTECT® wP50-15

- 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.

## wellnessPROTECT® wP active

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

*Recommended use:*

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



| 15 | 65 | 85 | 50/15 | 75P | active |
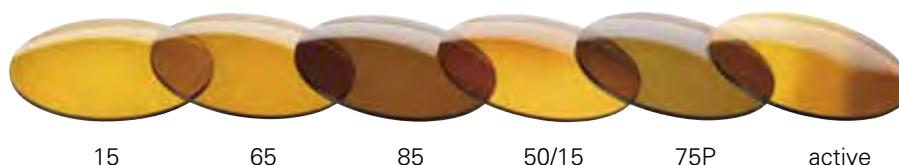
# Frames

The frames are also available unglazed, to accommodate individual prescriptions.

**16635416** small frame, unglazed
- temples can be shortened
**16635716** large frame, unglazed
- temples can be shortened
**16635615** Ladies' frame, unglazed
- temples can be shortened
- temples with adjustable pad arms
**16635816** Men's frame, unglazed
- temples can be shortened
- temples with adjustable pad arms
- spring hinges



The catalogue containing the individual lens range and the „wellnessPROTECT® Order form" can be obtained from our in-house sales department.

16603801


16605111


16605271


16604501

Subject to changes in color design

# Cut-off filter eyewear

- Suitable above all for wearing outdoors.
- Troublesome shortwave components are filtered out in particular and at the same time a high degree of light transmission is also achieved. This means that the cutoff filters are suitable above all for those with visual impairment.
- The darkened upper edge of the glasses fits closely to the face and therefore provides effective protection against troublesome diffused light which can shine on the eyes from above. Additional protection is provided by the broad temples with integrated filters.
- Suitable for eye diseases such as cataracts, retinitis pigmentosa, macular degeneration, albinism, glaucoma, optic atrophy.
- 100 % UVA/UVB protection.
- Optical efficiency: ±0 dpt.
- Flexible temple ends with excellent fit.
- Two different frame sizes.

It is always necessary to test out cut-off filters individually, preferably under the normal conditions of use, e.g. in the user's own home or outdoors.

## CUSTOMER BENEFITS

- ✛ For reducing glare in the case of increased glare sensitivity.
- ✛ Enhances contrast vision.
- ✛ For wearing over a corrective eyewear frame.

| Item | Size | Cut-off/filter category | Area of use |
|---|---|---|---|
| 16603801 16603802 | 60-16 67-13 | 380 nm/3 | Outdoors, reflection reduction, Transmission approx. 15 % Polarising grey filter, no cut-off filter |
| 16604501 16604502 | 60-16 67-13 | 450 nm/1 | Contrast enhancement, macular degeneration, optic atrophy, albinism, pseudophakia, Transmission approx. 66 % |
| 16605111 16605112 | 60-16 67-13 | 511 nm/3 | Cataracts, retinitis pigmentosa, macular degeneration, glaucoma, recommended for PUVA treatment, Transmission approx. 10 % |
| 16605271 16605272 | 60-16 67-13 | 527 nm/2 | Cataracts, diabetic retinopathy, photophobia, glaucoma, Transmission approx. 32 % |

The information outlined in the table above relating to the areas of use is a recommendation only and is not of universal validity.

PC

**1662450**
**1662450P**

**1662511**
**1662511P**

**1662527**
**1662527P**

**1662550**
**1662550P**

- The lenses have screw attachment, they are not riveted.
- Supplied with soft case.

# Cut-off filter clip-ons

- 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.
- Optical efficiency: ±0 dpt.

## 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 | yes |
| 1662450P | 450 nm, polarised | 34 % | 2 | yes |
| 1662511 | 511 nm | 60 % | 1 | no |
| 1662511P | 511 nm, polarised | 15 % | 3 | no |
| 1662527 | 527 nm | 43 % | 2 | no |
| 1662527P | 527 nm, polarised | 12 % | 3 | no |
| 1662550 | 550 nm | 28 % | 2 | no |
| 1662550P | 550 nm, polarised | 11 % | 3 | no |

CR 39    Display/Optoform

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**29211   29212   29213**

**29261   29262   29263**

## 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 |
|---|---|---|---|---|
| 29211 | brown | approx. 15 % | 3 | Clip-on |
| 29212 | grey | approx. 15 % | 3 | Clip-on |
| 29213 | green | approx. 15 % | 3 | 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 |

# Polarised clip-on sunglasses

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

Tri-Acetat

# READING
# AIDS

READING ACCESSORIES
FOR MAXIMUM VISION COMFORT.

29181-
29182-
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 |
| 29182-15 | 1.50 | 29182-25 | 2.50 | black with ornamental design |
| 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 39-40 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®

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/Optoform  The appropriate display is available as an option on page 77.

291211-

291212-

# Readers

- Rimless readers.
- Available in a variety of designs.
- Strengths from 1.0 dpt to 3.5 dpt in 0.5 dpt increments.
- Metal frame.

## CUSTOMER BENEFITS

✛ Discreet design.
✛ Exceptionally comfortable to wear due to very low weight.
✛ Adjustable sides with soft pads.
✛ Incl. case.

|        | Item    | Frame | Colour         | Strength                   |
|--------|---------|-------|----------------|----------------------------|
| Ladies | 291211- | Metal | silver gloss   | -10/-15/-20/-25/ -30/-35   |
| Men    | 291212- | Metal | gun gloss      | -10/-15/-20/-25/ -30/-35   |

PXM®  PD 62 mm  Display  The appropriate display is available as an option on page 77.

2910-

# miniframe

- Rimless readers.
- Discreet, classically elegant design.
- Strengths from 1.0 dpt to 4.0 dpt in 0.5 dpt increments.
- Metal temple, chromium-plated, length: 130 mm.

## CUSTOMER BENEFITS

✛ Discreet and practical design.
✛ Includes handy case.

| Item    | dpt  | Item    | dpt  | Item    | dpt  |
|---------|------|---------|------|---------|------|
| 2910-10 | 1.00 | 2910-25 | 2.50 | 2910-40 | 4.00 |
| 2910-15 | 1.50 | 2910-30 | 3.00 |         |      |
| 2910-20 | 2.00 | 2910-35 | 3.50 |         |      |

PXM®  PD 65 mm  Display  The appropriate display is available as an option on page 77.

| Item | Colour | dpt | | Item | Colour | dpt |
|---|---|---|---|---|---|---|
| 29050-10 | | 1.00 | | 29052-10 | | 1.00 |
| 29050-15 | | 1.50 | | 29052-15 | | 1.50 |
| 29050-20 | gun matt | 2.00 | | 29052-20 | blue matt | 2.00 |
| 29050-25 | | 2.50 | | 29052-25 | | 2.50 |
| 29050-30 | | 3.00 | | 29052-30 | | 3.00 |
| 29051-10 | | 1.00 | | 29053-10 | | 1.00 |
| 29051-15 | | 1.50 | | 29053-15 | | 1.50 |
| 29051-20 | gold gloss | 2.00 | | 29053-20 | red matt | 2.00 |
| 29051-25 | | 2.50 | | 29053-25 | | 2.50 |
| 29051-30 | | 3.00 | | 29053-30 | | 3.00 |

29050-  29051-
29052-  29053-

# 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.
- Temple colour: gun, gold, blue, red.
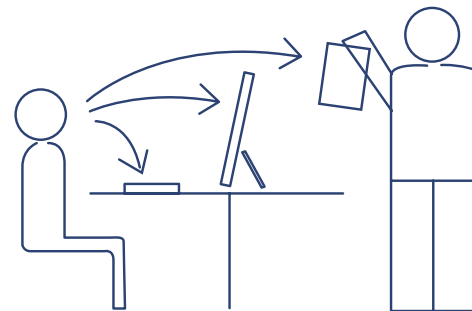
## CUSTOMER BENEFITS

✚ 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 77.

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

29080-

# miniframe2 SUN

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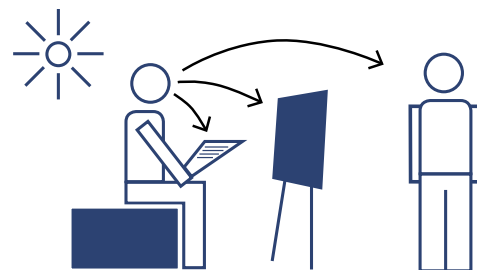
## CUSTOMER BENEFITS

✚ 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 77.

29060-
29061-
29062-
29063-

# 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.
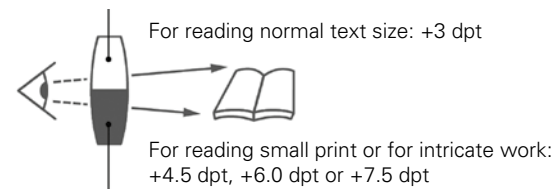- Temple colour: gun, gold, blue, red.

PXM® | Display

The appropriate display is available as an option on page 77.

## 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 | Item | Colour | dpt |
|---|---|---|---|---|---|
| 29060-34 | gun matt | +3,00/+4,50 | 29062-34 | blue matt | +3,00/+4,50 |
| 29060-36 | | +3,00/+6,00 | 29062-36 | | +3,00/+6,00 |
| 29060-37 | | +3,00/+7,50 | 29062-37 | | +3,00/+7,50 |
| 29061-36 | gold gloss | +3,00/+6,00 | 29063-34 | red matt | +3,00/+4,50 |
| 29061-37 | | +3,00/+7,50 | 29063-36 | | +3,00/+6,00 |
| | | | 29063-37 | | +3,00/+7,50 |

# noves MONO

- Maximum protection of lenses against mechanical influences and dust is provided by high-precision, diffractive nanostructures on the insides 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.
- Supplied in a robust hard shell case.

**Note:** The option of ordering individual components enables you to optimise stock holding and also to carry out binocular correction, e.g. in the case of aphakia.

| Item | Description | Magn. | Working distance approx. |
|---|---|---|---|
| 1681-0 | frosted lens* | flat | – |
| 1681-3 | lens*: 3 x, 12 dpt frame, magnification 3 x: | 3.0 x | 83 mm |
| 1681-413 | colour choice: gold matt | | |
| 1681-4 | lens*: 4 x, 16 dpt frame, magnification 4 x: | 4.0 x | 65 mm |
| 1681-414 | colour choice gold matt or | | |
| 1681-0414 | gun gloss | | |
| 1681-5 | lens*: 5 x, 20 dpt frame, magnification 5 x: | 5.0 x | 50 mm |
| 1681-415 | colour choice gold matt or | | |
| 1681-0415 | gun gloss | | |
| 1681-6 | lens*: 6 x, 24 dpt frame, magnification 6 x: | 6.0 x | 42 mm |
| 1681-416 | colour choice gold matt | | |

\* Depending on the requirements, one magnifying lens and one frosted lens, or two magnifying lenses should be ordered in correspondence with the respective level of magnification.



1681-

# Frames only



168104122
16814122

- The spring-hinged frame has adjustable temples, soft pads and an easily adjustable pad arms.

**16814122:** Colour gold matt
**168104122:** Colour gun gloss

## 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.

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

168014  168015  168016
168018  1680110

**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 the Eschenbach Optik System Individual).

## HIGHER ADDITIONS

# prismatic BINO comfort

- Binocular readers with a higher addition and prismatic convergence support.
- 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.

### CUSTOMER BENEFITS

� Relaxed binocular vision with high magnification.

| Item | Magnification | dpt | Working distance approx. |
|---|---|---|---|
| 168014 | 1.00 x | 4.0 | 250 mm |
| 168015 | 1.25 x | 5.0 | 200 mm |
| 168016 | 1.50 x | 6.0 | 165 mm |
| 168018 | 2.00 x | 8.0 | 125 mm |
| 1680110 | 2.50 x | 10.0 | 100 mm |

CR 39 | 1–2.5x | 41–22

16824  16825  16826  16828  168210

168204  168205  168206  168208  1682010

# 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 |
| 168204 | gun gloss | 1.00 x | 4.0/5 △ | 250 mm |
| 16825 | gold matt | 1.25 x | 5.0/6 △ | 200 mm |
| 168205 | gun gloss | 1.25 x | 5.0/6 △ | 200 mm |
| 16826 | gold matt | 1.50 x | 6.0/7 △ | 165 mm |
| 168206 | gun gloss | 1.50 x | 6.0/7 △ | 165 mm |
| 16828 | gold matt | 2.00 x | 8.0/9 △ | 125 mm |
| 168208 | gun gloss | 2.00 x | 8.0/9 △ | 125 mm |
| 168210 | gold matt | 2.50 x | 10.0/11 △ | 100 mm |
| 1682010 | gun gloss | 2.50 x | 10.0/11 △ | 100 mm |

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

Example of use

**Accessories:**


16431


164321


1643107

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

**1643107 Empty case for UniVision®-System**
- Empty case for individually putting together the UniVision® System.
- The trial lenses are only available with the UniVision® Hyperocular Application System 16431

| 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.

1634
16344



16362
16363
16364

# teleMED/ridoMED

- Coated lens system.
- Adjustment of pupillary distance of 54–74 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.

## teleMED

| Item | Magnification | Working distance | Visual field |
|---|---|---|---|
| 1634 | 3.0x/binocular | 70 cm up to ∞ | 160 m/1,000 m |
| 16344 | 4.0x/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 | 2.5x/binocular | approx. 350 mm | 75/350 mm |
| 16363 | 3.0x/binocular | approx. 200 mm | 54/200 mm |
| 16364 | 4.0x/binocular | approx. 250 mm | 35/250 mm |

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



162431

# 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 60-68 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.

## 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.

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

162411

## 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.

# 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: 60-68 mm.
- Main distance of use: 3 m.
- Supplied in hard foam case.

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

16244

# maxTV® Clip

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

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

162451

# 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 60-68 mm.
- Working distance approx. 40 cm.
- Supplied in hard foam case.

## 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.



| | PXM® | 2x | 13/40mm | PD 60-68 mm | 49 g | | Display/ Optoform |

---


16246

# maxDETAIL Clip

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

## 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 | | Display/ Optoform |

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 52).

# 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 | 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.

| 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 78.

[icons: PXM® | cera-tec coating | 2x (–6x) | 18g]

[icons: PXM® | cera-tec coating | 7g]

### 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
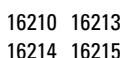
### 162510 Fitting instructions

1621

# 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 | ∞ |
| 16225 | 2,5 x | 230 m/1,000 m | ∞ |

Silicate | 2.2x (–8.8x) | 16g



16225

# 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°.

**Reading caps:**

162101    16210 16213    16216 16218
        16214 16215    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

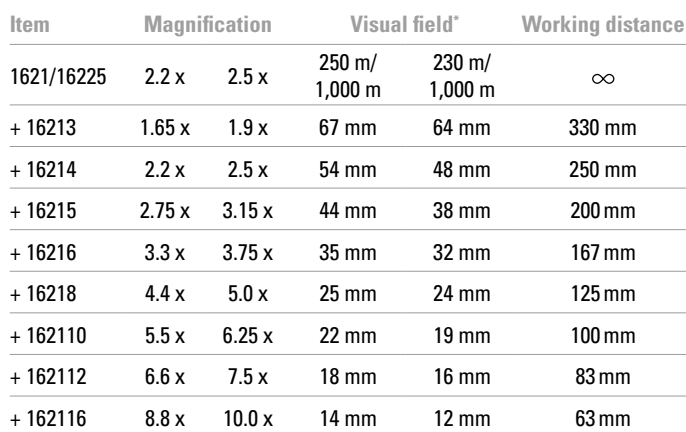| | |
|---|---|
| **16213** Reading cap 3.0 dpt | **16214** Reading cap 4.0 dpt |
| **16215** Reading cap 5.0 dpt | **16216** Reading cap 6.0 dpt |
| **16218** Reading cap 8.0 dpt | **162110** Reading cap 10.0 dpt |
| **162112** Reading cap 12.0 dpt | **162116** Reading cap 16.0 dpt |

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

## 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.

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

| 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 |

Silicate | cera-tec coating | 6g



1632

The 1632 and 16321 fitting cases are available for these systems. These can be found on page 52.

\* 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 78.

16731

16732

16733

16734

167302

167303

16934916
16935116
16935218

# 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 50).
- Roof prism system with multicoating.
- Supplied with: carrying cord, case.
- Compatible with adapter system 1625 (see page 52).

### 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/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° |

Further technical information can be found on page 78.

**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 50).

**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 50).

**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.

| 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

1631

## 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.





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.



16321



1632

# Fitting Case

**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 | | |

**1632 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.

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 |
| **1625101** | 1 | Fitting brochure |
| **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

## HANDHELD MONOCULARS

# varioPLUS

- 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.

| Item | Magnification | Visual field | Visual angle | Working dist. |
|---|---|---|---|---|
| 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 ∞ |



# club® M

4293616
4293816

- Ideal for both leisure activities and visual impairment.
- 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.

| Item | Magnification | Visual field | Visual angle | Working dist. |
|---|---|---|---|---|
| 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 ∞ |



42928212

## MONOCULARS

# start® Monofold 8 x 21

- Ideal for both leisure activities and visual impairment.
- Extremely small and compact when folded together.
- High level of light transmission and image brightness.
- Keplerian system with porro prisms, multi-coated.
- Dimensions, when folded: 7 x 4.5 x 2 cm.
- Foldable, shockproof plastic housing.
- Supplied with belt case.

| Item | Magnification | Visual field | Visual angle | Working dist. |
|---|---|---|---|---|
| 42928212 | 8 x 21 | 113 m/1,000 m | 6,5° | 1,500 mm to ∞ |



4294618

4294413

# microlux

- For leisure activities and visual impairment.
- 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.

| Item | Magn. | 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 |

Further technical information on the individual monoculars can be found on page 78.

# HEADBAND
## AND

PRACTICAL VISION AIDS
FOR HOBBIES AND WORK.

## CLIP-ON MAGNIFIERS

164450
164451
164452
164453



164817
164820
164825
164830

- 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 |

# 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.
- Dark grey, enclosed plastic shield against diffused light and with an integrated lens bracket.
- The headband magnifier can only be used with binocular lenses.

| 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 |





## 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.

*   Shorter working distance due to integrated convergence supporting prisms.

**Accessories:**
**1647 laboCLIP and laboMED case**
Contents: 1 each of
164450, 164620, 16451,
16452, 16453, 16454, 16457.
(Contents and specification
subject to change.)

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.

| 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 |

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

**Accessories:**

| 16451 | 16452 | | 16454 |
|-------|-------|--|-------|
| 16453 | 16455 | | 16457 |

## 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®    1.7–7x    Optoform

| 164617 | 164620 |
| 164625 | 164630 |
| 164640 | 164670 |

# TECHNICAL MAGNIFIERS

PRECISION OPTICS.
COMPACT DESIGN.

3+6=9
Achromat

1103
1104



110910

# Slide-out &
# folding magnifiers

**Slide-out 1103/1104**
- Slide-out magnifier with durable, plastic case.
- Small, compact and handy.
- 1103 has two lenses, each individual lens has two
  magnification levels.

**Folding magnifiers 110910**
- Folding magnifier in durable, plastic case.
- Small, compact and handy.

| Item | Magnification | Lens size |
|------|---------------|-----------|
| 1103 | 3.0 x and 4.5 x or 6.0 x and 9.0 x | – |
| 1104 | 3.0 x or 6.0 x | – |
| 110910 | 10.0 x | Ø 23 mm |

 110910 



1163

# Handheld magnifier
# in light metal frame

- Black plastic handle.
- Black, anodised metal frame.

| Item | Magnification | Lens size |
|------|---------------|-----------|
| 1163 | 5.0 x 20 dpt | Ø 50 mm |





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 |

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

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

11869  118210

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

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

## PRECISION FOLDING MAGNIFIERS

# Plastic precision folding magnifiers

Silicate  3–10 x

118410
118420

1187

11766  11768  117610  117612

| Item | Size | Lens | Magn. | 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 | |

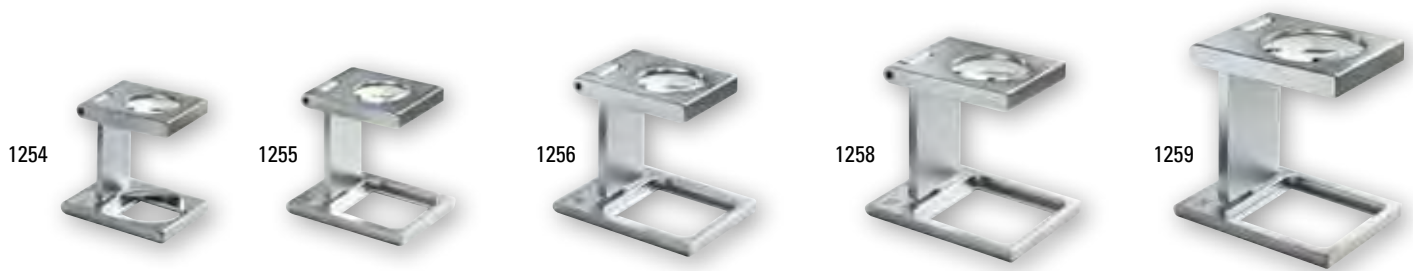# Metal precision folding magnifiers

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

Silicate  4–20 x

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

## LINEN TESTERS

- Measuring scale: graduation 1/10 mm.

| Item | Size | Magnification | Cut-out | Height |
|------|------|--------------|---------|--------|
| 126692 | Ø 14 mm | 32 dpt/8 x | 18 x 18 mm | 33 mm |

Silicate    8 x



126692



1270
1271
1272

# 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 |

PXM®    DUPLEX    5–10 x



12002
12003
12005

**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 |
| 1256/126692/1272 | 12003 |
| 1258/1259/1270 | 12005 |

155071
155074

# Measuring magnifier

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

| Item | Specification | Magnification | dpt |
|------|---------------|---------------|-----|
| 155071 | Battery handle | 10 x | 38.0 |
| 155074 | Battery handle, LED | 10 x | 38.0 |





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.



1174

- The wide focusing range enables raised or depressed features (e.g. holes) to be examined in detail.
- The wide adjustment range is even able to compensate for a high level of visual impairment.
- 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.

# Tube microscopes

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

COMPACT DESIGN.
ENORMOUS BENEFITS.

1605

- Guarantees stability and a tremble-free image.
- Supporting surface area: 40 x 35 cm.
- Material: maple 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.

**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: maple wood.



1600

# Duo-clip table clamp

- Table clamp for attaching a reading magnifier or additional lighting (e.g. super-lite 2090 light set) to a table top or directly onto the reading material.
- The flexible, black gooseneck metal arm allows reading magnifiers to be placed in almost any position.
- Length of metal arm: 330 mm.
- The plastic clamps on each end have rubber inserts.
- Suitable for tables top with a thickness of up to approx. 4.5 cm.



1542        1544        1545

**1542 Special halogen bulb**
- For illuminated magnifier 1585 with illuminated.
- Reading line, 6 V, 2.4 Watt, supplied in a 2-pack.

**1544 NF lens bulb**
- For illuminated magnifiers 15103, 15105, 15107, 151010.
- 2.5 V, 250 mA, E10 supplied in a 2-pack.

**1545 Spherical filament bulb**
- For battery handle 159910.
- 2.5 V, 250 mA, supplied in a 5-pack.

# Replacement bulbs

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.

1895

**Exchangeable motif**
189502
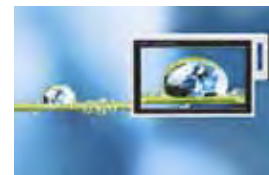
**Exchangeable motif**
189503

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.
- NEW: 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

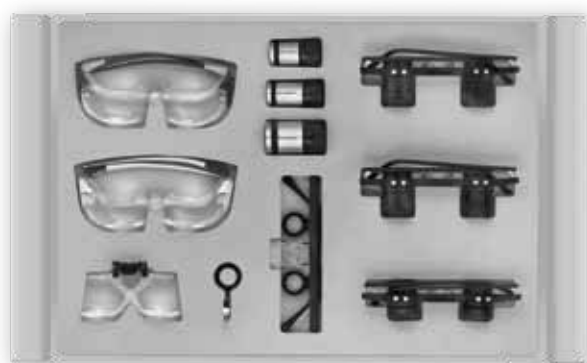**Weight without product:** approx. 60 kg

**Number of trays supplied:** 5

**Accessories:**
**189501 Individual tray**



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

16951

## Tray of telescopes

**Contents:** 1 each of: 162411, 162451, 16246, 1631, 1634, 16344, 16363, 16711, 16731, 16732, 16733
Also available: 169513 Tray insert


18232

## Tray of illuminated magnifiers

**Contents:** 1 each of: 14361, 14362, 15113, 15114, 152110, 152122, 158620, 16246, 156511
Also available: 182323 Tray insert


18376

## mobilux®-LED tray

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


166392

## wellnessPROTECT® tray

**Contents:** 1 each of: 1663115, 1663165, 1663185, 166315015, 1663215, 1663265, 1663285, 166325015, 1663315, 1663365, 1663385, 166335015
Also available: 1663923 Tray insert


18522

## visolux⁺, bright field magnifiers

**Contents:** 1 each of: 1420, 1421, 14361, 14362, 1566, 2031, 2032, 2034
Also available: 185223 Tray insert


18582

## Tray of magnifiers

**Contents:** 1 each of: 14361, 15113, 15115, 152110, 152111, 156511, 162411, 162451, 2031, 2034
Also available: 185823 Tray insert

18802

# Electronic
## Half-size display tray

**Contents:** 1 each of: 16501, 16511
Also available: 188023 Tray insert



18810

# mobilux® LED
## Half-size display tray

**Contents:** 1 each of: 15112, 151141,
15115, 15116
Also available: 188103 Tray insert



18811

# mobilux® LED
## Half-size display tray

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



18812

# mobilux® LED
## Half-size display tray

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



18813

# mobilux® LED
# easyPOCKET
## Half-size display tray

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



18814

# mobilux® LED/
# mobase
## Half-size display tray

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

18820

## 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
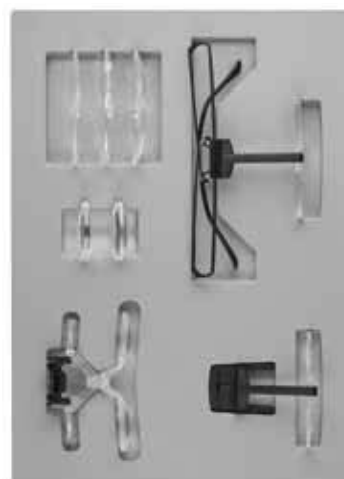Also available: 188253 Tray insert



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: 16246, 164450, 164620, 16451, 16452, 16453, 16454, 16457
Also available: 188303 Tray insert

18831

## maxTV®/ maxDETAIL

### Half-size display tray

**Contents:** 1 each of: 162411, 16244, 162451, 16246
Also available: 188313 Tray insert


18833

## easyPOCKET/ easyPOCKET XL

### Half-size display tray

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


18834

## Folding magnifiers

### Half-size display tray

**Contents:** 1 each of: 1103, 1104, 152110, 152111, 152122, 171014, 171067, 1710910, 1711, 20501
Also available: 188343 Tray insert


18835

## Folding Magnifiers Classic

### Half-size display tray

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


18836

## 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


18840

## wellness PROTECT®- clip-ons

### Half-size display tray

**Contents:** 1 each of: 1663315, 1663365, 166335015, 1663385
Also available: 188403 Tray insert

188401

## System INDIVIDUAL-clip-ons

### Half-size display tray

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



188402

## System INDIVIDUAL-clip-ons

### Half-size display tray

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



18841

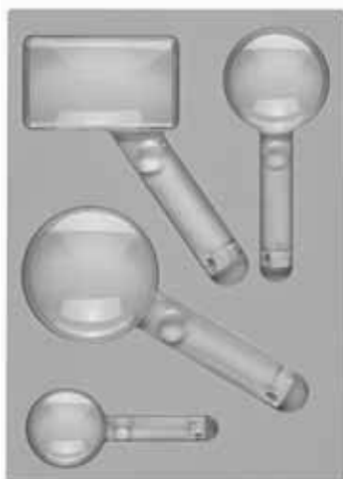## wellness PROTECT® XL

### Half-size display tray

**Contents:** 1 each of: 1663865, 1663885, 1663915, 1663975P
Also available: 188413 Tray insert



18842

## wellness PROTECT®

### 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
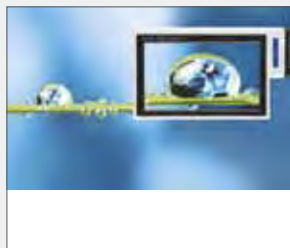Also available: 288203 Tray insert

# 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.
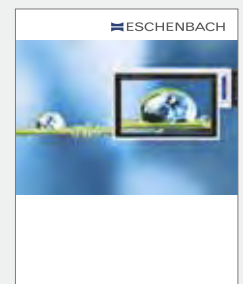
**Exchangeable motif**
189602

**Exchangeable motif**
189603

1896
Example of use

**Exchangeable motif**
87294

**Exchangeable motif**
87299

# Standard display

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

87280

143629

## Display makrolux

**Contents:** 1 each of: 143611, 143621

**14362907 Empty display**
As 143629, but without contents.

152129

## Display easyPOCKET

**Contents:** 2 each of: 152110, 152111, 152122

**15212907 Empty display**
As 152129, but without contents

1565119

## Display scribolux

**Contents:** 2 x 156512

**156511907 Empty display**
As 1565119, but without contents

15669

## Display visolux+

**Contents:** 2 x 1566

**1566907 Empty display**
As 15669, but without contents

1586209

## Display powerlux

**Contents:** 1 each of: 158620, 158628

**158620907 Empty display**
As 1586209, but without contents

165019

## Display smartlux® DIGITAL

**Contents:** 1 x 165011

**16501907 Empty display**
As 165019, but without contents

165119

## Display mobilux® DIGITAL Touch HD

**Contents:** 1 x 16511

**16511907 Empty display**
As 165119, but without contents

# Display wellnessPROTECT®

**Contents:** 1 each of: 166315015, 1663165, 1663215, 1663285
With redesigned support surfaces

**16639407 Empty display**
As 166394, but without contents



166394

# Product display unit mobilux® LED



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

| Item No. | Display incl. Flyer | Flyer |
|----------|---------------------|-------|
| 1511910-1 | Languages: German | 87238 |
| 1511910-2 | Languages: Italian | 8723807 |
| 1511910-3 | Languages: English/Spanish | 8723803 |
| 1511910-4 | Languages: French | 8723805 |
| 1511910-5 | Languages: Spanish | 8723806 |

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

151019

# Display mobilux® ECONOMY

**Contents:** 2 each of: 15103, 15105, 15107

**15101907 Empty display**
As 151019, but without contents



26121

# 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

# Universal display for readers

2900907
Example of use

# 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 |
| 42928212 | 8.00 x | | 113 m / 1,000 m | 6.5° | 1,500 to ∞ | 21.0 | 90.0 | 2.63 | |
| 4293616 | 6.00 x | | 140 x 180 m / 1,000 m | 8° x 6.2° | 1,000 to ∞ | 16.0 | 65.0 | 2.7 | |
| 4293816 | 8.00 x | | 122 x 94 m / 1,000 m | 7° x 5.4° | 1,000 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° | 200 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).

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# On illuminated magnifiers, 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- | 3.9 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 |
| 100/50 | 3.9 x | 11.4 | 46 | 200 |
| 100/50 | 3.0 x | 7.4 | 59 | 250 |
| 100/75 | 2.8 x | 7.0 | 61 | 250 |
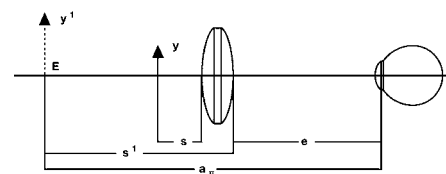
aE = Eye-to-image distance
y = Object
y1 = Image
e = Eye-to-lens distance
s = Lens-to-object distance
s1 = Lens-to-image distance

**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.

**Eschenbach Optik products have been awarded EN ISO 9001 and DIN ISO 14001:2004 certification (environmental management) 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**
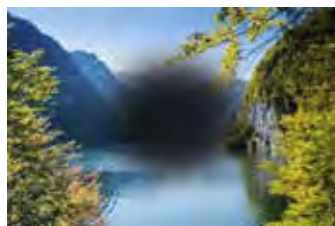


**Central scotoma due to macular degeneration**

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 cataracts**

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.

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

# Lens Material

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

**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.

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

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

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

# Illumination

**LEDs** are extremely economical to use in comparison to conventional filament light bulbs and have a virtually unlimited service life.

**SMD-LED** (SMD: Surface Mounted Device; LED: Light Emitting Diode) – special, miniature LED with a higher luminous power than conventional LEDs.

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

**Filament bulb**

**Fluorescent tube**

# Batteries

**Round cell**

**Batteries** Included with the product.

**Batteries** Not included with the product.

# Other icons

**Mains plug**

**Magnification**

**Weight**

**Case** Included with the product.

**Case** Not included with the product.

**Screen size**

**Touchscreen**

**Colour temperature**

**Visual field**

**Frame size:** Lens size/bridge width.

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

**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.

**Pupillary distance**

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

**Optoform tray**

TÜV SÜD
ISO 9001



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coating



reddot



iF
product
design
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2010



AEO

**☰ ESCHENBACH**

Eschenbach Optik GmbH
Schopenhauerstrasse 10
90409 Nuremberg

| | |
|---|---|
| Tel. | +49 (0) 911 3600-0 |
| Fax | +49 (0) 911 3600-358 |
| Internet | www.eschenbach-optik.com |
| E-Mail | mail@eschenbach-optik.com |

Art.No
KAT-VTP03

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