

Vision Technology Products

2018/2019





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.

VISION TECHNOLOGY PRODUCTS

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

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

LOW VISION

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

EASY VISION

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

MADE IN GERMANY

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



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 70-81, you can find our range of sales support products – including versatile displays and attractive presentation systems. Ask your representative about further advertising opportunities.

DETAILED INFORMATION

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

INDIVIDUAL LENS RANGE

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

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ELECTRONIC VISION AIDS

HIGH QUALITY TECHNOLOGY FOR BRILLIANT VISION.



WHEN SPECTACLES ALONE ARE NO LONGER SUFFICIENT

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



visolux DIGITAL

SPLENDID – DOWN TO THE FINEST DETAIL

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

mobilux[®] DIGITAL Touch HD

PREMIUM MAGNIFYING GLASS

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



smartlux[®] DIGITAL

THE ELEGANT MAGNIFIER FOR BRILLIANT VISION

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

visolux **DIGITAL**

SPLENDID – DOWN TO THE FINEST DETAIL

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



visolux DIGITAL

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

CUSTOMER BENEFITS

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



Dynamic Line Scrolling (DLS)

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



Deliverable from April 2018 on

NEW

visolux DIGITAL XL FHD

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



The appropriate display is available as an option on page 78.

Accessories:

1655109 visolux DIGITAL Bag **NEW**

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



visolux DIGITAL HD

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



The appropriate display is available as an option on page 79.

Accessories:

1652105 visolux DIGITAL HD Base **NEW**

- Increases the distance away and thus extends the image region and reduces the magnification
- Allows writing and manual work under the display



Accessories deliverable from April 2018 on

1652108 visolux DIGITAL HD Bumper **NEW**

- Perfect all-round protection
- More secure grip



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



Accessories:

1651105 mobilux DIGITAL Base

- Increases the distance away and thus extends the image region and reduces the magnification



The appropriate display is available as an option on page 79.



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

Accessories:

16501108 smartlux® DIGITAL Bumper

NEW

- Perfect all-round protection
- More secure grip

Deliverable from April 2018 on



CUSTOMER BENEFITS

- ✚ Extra large field of view due to non-reflective 5" LCD and high magnification range
- ✚ Reading made easy with centre-mounted camera 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



The appropriate display is available as an option on page 79.

HAND-HELD MAGNIFIERS AND READING MAGNIFIERS

OPTIMUM VISION COMFORT –
ALWAYS READY TO HAND.



HAND-HELD MAGNIFIERS & READING MAGNIFIERS



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



The appropriate display is available as an option on page 79.



easyPOCKET XL

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

CUSTOMER BENEFITS

- ✦ Enlargement and light in a compact format
- ✦ Brilliant depiction with integrated illumination when pulling out the lens
- ✦ Magnifier can also be used as a stand with the integrated strap
- ✦ Large viewing area with super-flat lens
- ✦ Fits in any pocket thanks to the flat design and very low weight
- ✦ Case for safe storage
- ✦ Very economical: light only comes on when the lens is fully extended
- ✦ Bulb does not require changing: The LED optics used by Eschenbach has a virtually unlimited lifespan

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



The appropriate display is available as an option on page 79.



Can also be used as a stand magnifier.

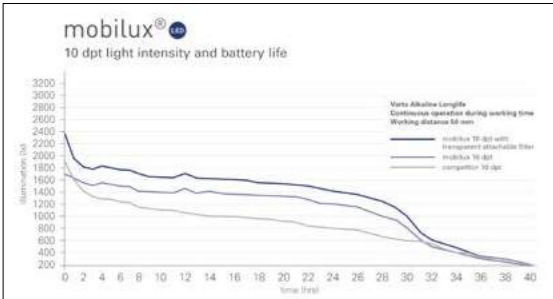


ILLUMINATED POCKET MAGNIFIERS

mobilux® LED

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

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



CUSTOMER BENEFITS

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

Item	Dimensions	Magnification	dpt
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



The appropriate display is available as an option on page 80.



mobase

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

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



CUSTOMER BENEFITS

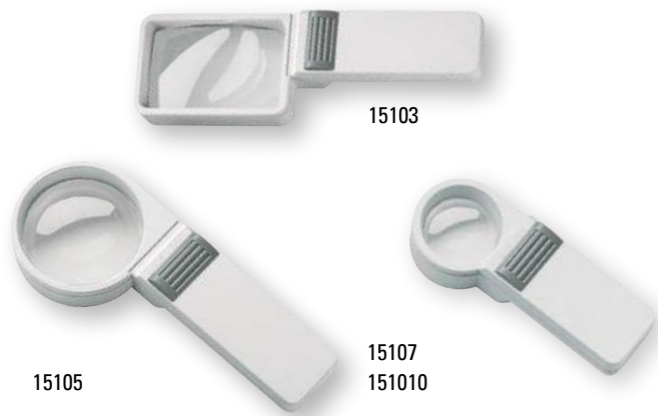
- ✚ Tremble-free image when reading and working with the mobilux® LED
- ✚ Leaves both hands free for reading and working with the mobilux® LED
- ✚ Easy to use due to practical means of attachment
- ✚ Ensures that the correct distance of use can be maintained
- ✚ Can be attached to a swan neck stand to 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.



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



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 68)
- 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

The appropriate display is available as an option on page 81.

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



Item	Illuminated magnifier
151002	15103, 15105
15711	15107, 151010



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

2.4–4.5 x

Display/ Optoform



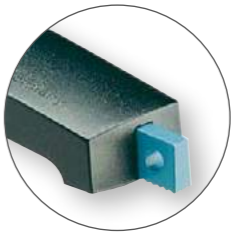
ASPHERIC READING MAGNIFIERS

aspheric II

- Particularly suitable for reading and looking at pictures with adequate ambient lighting (suitable lights can be found on page 34-35)
- 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



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

cera-tec coating

2.8–6.0 x

Display/ Optoform



BICONVEX MAGNIFIERS & READING MAGNIFIERS

economic

- Plano-convex additional lens with 5 x magnification in handle
- CUSTOMER BENEFITS**
- + Suitable for tasks which require a low or medium level of magnification
 - + An additional high-magnification lens enables small details to be read
 - + Transparent plastic frame ensures easy orientation on the reading material
 - + With eyelet in the end of the handle for round-the-neck cord which is supplied
 - + The biconvex reading magnifiers offer a large visual field in a medium magnification range

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



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



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



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

- CUSTOMER BENEFITS**
- + Ideal for those fine motor tasks that require two hands such as knitting or handicrafts
 - + The round-the-neck cord can be adapted to suit individual requirements
- Only for maxiPLUS (2678):**
- + The additional lens enables the user to see extremely small details

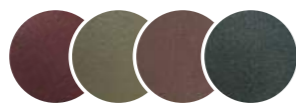


Item	Dimensions	Magnification	dpt
2677	Ø 100 mm	2.0 x	3.2
2678	100 x 140/Ø 35 mm	2.0 x/4.0 x	2.6/11.2





1740130 1740150 1740160
1740250 1740260
1740450 1740460
1740530 1740550 1740560



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

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



economy

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

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



visoPOCKET NEW

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



CUSTOMER BENEFITS

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

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



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





PENDANT MAGNIFIERS

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

CUSTOMER BENEFITS

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

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



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



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

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	3.5 x	10.0



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



STAND MAGNIFIERS & READING MAGNIFIERS



STAND MAGNIFIER
AND
READING MAGNIFIERS

STABLE SOLUTIONS
FOR BRIGHT MAGNIFICATION.



visolux+

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

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 79.



scribolux

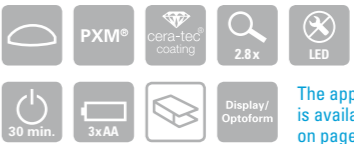
- NEW: Push-button switch for easy on/off operation
- NEW: Automatic light-off function after 30 minutes to avoid unnecessary power consumption
- High level of image brightness and large visual field
- Distance lens – supporting surface: 7.5 cm (apex of lens)
- In the case of all aspheric magnifiers 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

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




The appropriate display is available as an option on page 79.

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 68)

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




155773
155073
155173
155273
155393
155493
155993




155771
155071
155171
155271
155391
155491
155991




155774
155074
155174
155274
155394
155494
155994




158173
158063
158263




158171
158061
158261



158174
158064
158264



159910



1599144

Example of item number formation

- Battery handle:**
- Battery handle with filament bulb
 - **Replacement bulb:** Order No. 1545 (see page 68)



- 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



Reading line



Additional lens



Item	Dimensions	Magnification	dpt	Additional features	Case
155773* 155771** 155774***	Ø 35 mm	12.5 x	50.0	–	15601
155073* 155071** 155074***	Ø 35 mm	10.0 x	38.0	Incl. attachable measurement scale, graduation 0.5 mm and 1/64 inch	15601
155173* 155171** 155174***	Ø 35 mm	7.0 x	28.0	–	15601
155273* 155271** 155274***	Ø 50 mm	6.0 x	24.0	–	15601
155393* 155391** 155394***	Ø 58 mm	5.0 x	20.0	With retractable red reading line	15602
155493* 155491** 155494***	Ø 70 mm	4.0 x	16.0	With retractable red reading line	15602
155993* 155991** 155994***	Ø 80 mm	3.0 x	12.0	With retractable red reading line	15602
158173* 158171** 158174***	100 x 50 mm	3.9 x	11.4	Aplanatic	15603
158063* 158061** 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* 158261** 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

Accessories:

- Case



15601
15602
15603



For technical information please refer to page 84.



263611



visomax

- With attachable additional lens for an even larger visual field
- Can be used with magnifying ruler 2606 (see page 29)
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

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



1586141
1586201
1586281



158614
158620
158628



powerlux

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



The appropriate display is available as an option on page 79.



CUSTOMER BENEFITS

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

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



143830

menas LUX

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

CUSTOMER BENEFITS

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



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



14388

menas ZOOM

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

CUSTOMER BENEFITS

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



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





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



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 79.



BRIGHT FIELD MAGNIFIERS

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

CUSTOMER BENEFITS

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

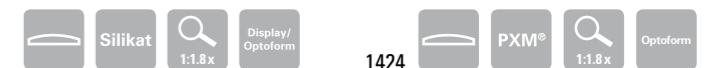
Example:

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

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

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

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



CUSTOMER BENEFITS

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

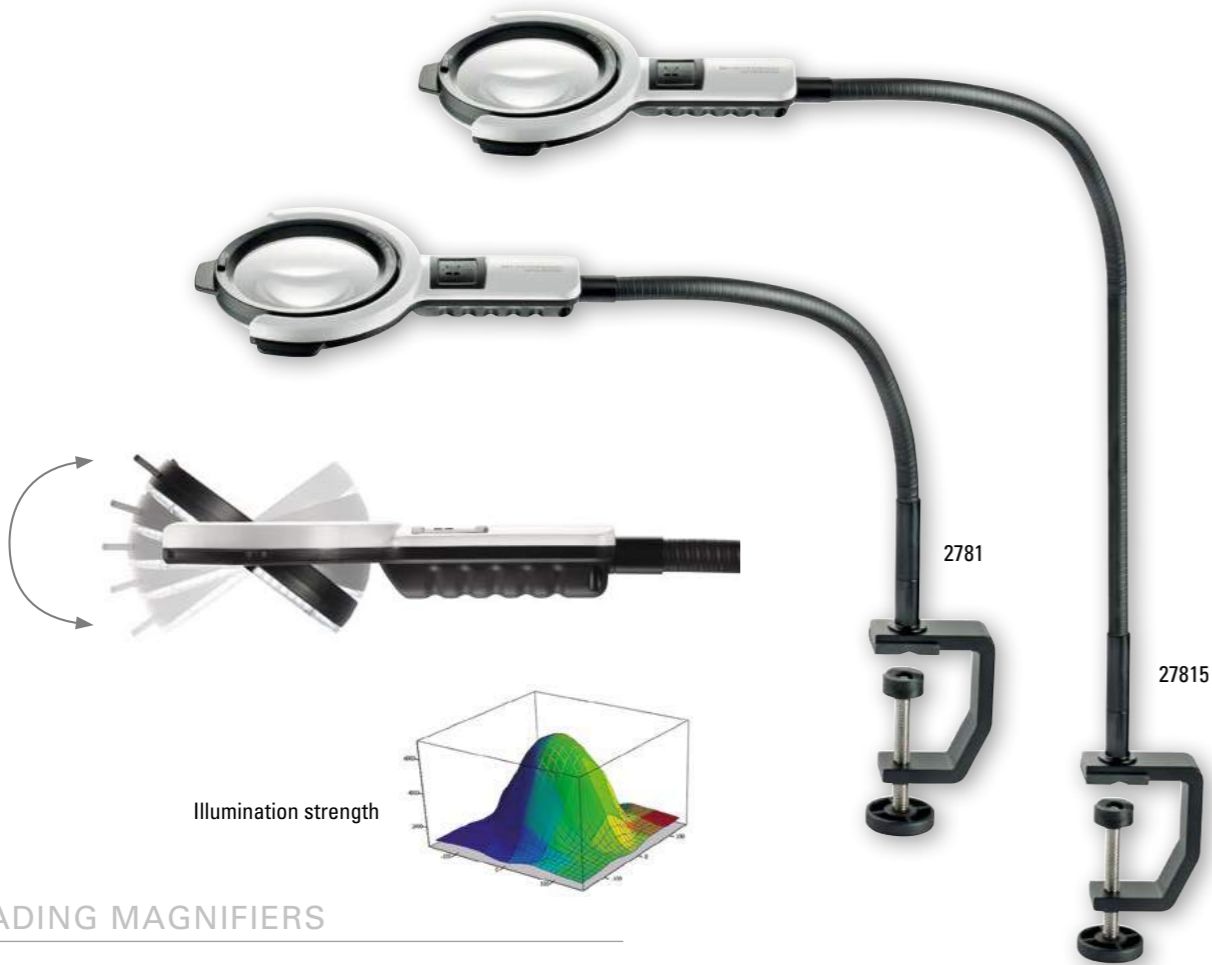
Item	Dimensions	Magnification	Details
2605	200 x 25 mm	1:1.8	• With grip bar • Incl. red guide line
2606	122 x 26 mm	1:2.0	• Incl. red guide line • Higher magnification due to aspheric surface • Scratch-resistant underside • Can also be used with visolux large field magnifiers (Item Number 263611, page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



MAGNIFYING RULERS

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





READING MAGNIFIERS

varioLED flex

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



CUSTOMER BENEFITS

- ✚ Segment switching = provides a choice between 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

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



27770
27771

varioLED

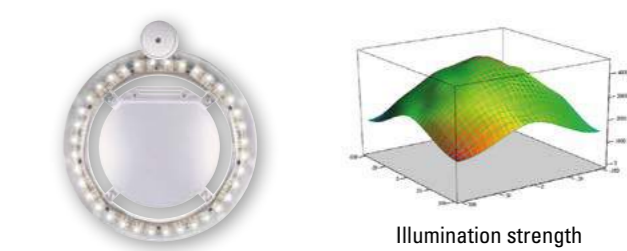
- Ring lighting provided by 36 long-life high performance LEDs with primary lens system for optimal concentration of light and shadow and flicker-free working
- Approx. 5,000 lx (at a 20 cm working distance) – provides full illumination power immediately
- Aspheric PXM® lightweight lens, cera-tec® coated 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



27711

varioMAXI

- Good illumination of the field of view by angled and directed PL lamp
- 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



Illumination strength

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

Accessories:

- 277701 Interchangeable lens**
- Compatible with 27770 and 27771

Item	Dimensions	Magnification	dpt
277701	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

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

- 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

LIGHT

INDIVIDUAL ILLUMINATION.
RADIANT DIVERSITY.



16042

16042

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

headlight LED

- Small, lightweight and compact LED light.
- 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). 1 m 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.





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
- Axial and horizontal turning of 355° is possible



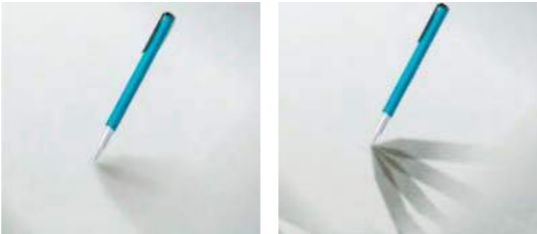
Individual illumination

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

Illumination	Light	Brightness levels
2,700°K	warm, yellowish	approx. 870 lx to approx. 180 lx
3,300°K	warm, yellowish-white	approx. 1,530 lx to approx. 270 lx
4,300°K	warm white	approx. 2,900 lx to approx. 560 lx
5,300°K	white	approx.. 2,350 lx to approx. 430 lx
6,500°K	cold white	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
- ✚ Colour temperature and illumination level can be adjusted independently as required
- ✚ Extremely flexibly orientable luminaire head



16036

economy visionLED

- 3 colour temperatures (2800 K, 3850 K, 4900 K) selectable
- 5 illumination levels selectable
- High colour rendering index CRI > 80
- LED lifetime: 25,000 hours
- Energy consumption only 4W

CUSTOMER BENEFITS

- ✚ Even illumination with no cast shadow
- ✚ Colour temperature and illumination level can be adjusted independently as required

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

(Values stated for 25 cm distance)



basic visionLED

- Colour temperature: approx. 5000 K
- Illumination level: approx. 1700 lx (distance 30 cm)
- Light flux: ≥ 360 lm
- Colour rendering index: CRI > 80
- Energy efficiency class: A
- LED lifetime: 40,000 hours
- Colour: white
- Output: 5 W
- Voltage: Input AC 100 ~ 240 V, Output DC 24 V

CUSTOMER BENEFITS

- ✚ Tactile switch in stand
- ✚ Stable arm with flexible, freely adjustable swan neck sections on stand and head
- ✚ Uniform illumination with no cast shadow



16038



FILTERS

LESS GLARE.
MORE CONTRAST.



wellnessPROTECT®

- Improved colour sensitivity and minimisation of glare by blocking short-wave, high energy light components in the blue part of the spectrum
- Available in the wP Drive filter variant suitable for driving or in the wP Classic variant
- Available in tint levels wP15, wP65, wP85, wP50-15, wP75P (polarising), wP active (photochromic only in filter variant wP Classic)
- Available in various frame models or as clip-ons – a suitable case is always included
- Spectacle frames with extra deep edge to block incident light from above
- Widely set temple with transparent side glare guard allows sideways orientation
- Side Ventilation slot between temple and middle section prevents fogging of the lenses
- 100 % UV protection and up to 99 % blue absorption

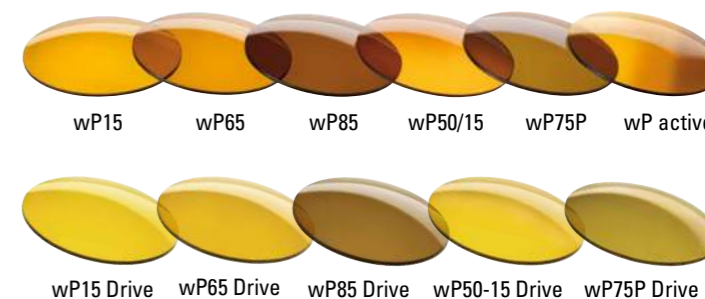


Ideal for spectacle wearers: wellnessPROTECT® XL is intended for wearing over the correction frame.



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



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

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

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.



without wellnessPROTECT®



with wellnessPROTECT®

Eyewear and clip-ons

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



wellnessPROTECT® XL, small



wellnessPROTECT® XL, large

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



1663365



wellnessPROTECT® Classic, small



wellnessPROTECT® Classic, large



wellnessPROTECT® Ladies, small



wellnessPROTECT® Ladies, large



wellnessPROTECT® Men



wellnessPROTECT® Sport, small



wellnessPROTECT® Sport, large

Lenses

wellnessPROTECT® wP15 Classic / wP15 Drive

- Cut-off filter with 15 % tint overlay
- Recommended use:*
- Indoors in the case of a high level of glare sensitivity
- Outdoors when the sky is cloudy
- Outdoors in the case of a low level of glare sensitivity

wellnessPROTECT® wP65 Classic / wP65 Drive

- Cut-off filter with 65 % tint overlay
- Recommended use:*
- Indoors in the case of a high level of glare sensitivity
- Outdoors in cloudy to clear weather
- Outdoors in the case of a medium level of glare sensitivity

wellnessPROTECT® wP75P Classic / wP75P Drive

- Cut-off filter with polarized 75 % tint overlay
- Strong reduction in reflection and additional contrast enhancement through polarisation
- Recommended use:*
- Indoors in the case of a high level of glare sensitivity
- Outdoors in the case of a high level of glare sensitivity
- Outdoors in bright weather, sunshine
- Outdoors on the water, in snow

wellnessPROTECT® wP85 Classic / wP 85 Drive












- Cut-off filter with 85 % tint overlay
- Recommended use:*
- Outdoors in sunshine
- Outdoors in the case of a very high level of glare sensitivity



wellnessPROTECT® wP50-15 Classic / wP50-15 Drive

- Cut-off filter with graded 50-15 % tint overlay
- Recommended use:*
- Indoors in the case of a medium to high level of glare sensitivity
- Outdoors in cloudy to clear weather
- Outdoors in the case of a low to medium level of glare sensitivity
- Ideal for reading indoors and outdoors

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

	Filter variant	wP15	wP65	wP85	wP50-15	wP75P	wP active
Filter category	wP Classic wP Drive	1 1	2 2	3 3	2 2	2 2	1/3* 1/3*
Luminous transmittance	wP Classic wP Drive	approx. 50 % approx. 50 %	approx. 35 % approx. 35 %	approx. 15 % approx. 15 %	approx. 35 % approx. 30 %	approx. 20 % approx. 25 %	approx. 55 %/15 %*
Blue light absorption	wP Classic wP Drive	approx. 98 % approx. 95 %	approx. 96 % approx. 96 %	approx. 99 % approx. 98 %	approx. 98 % approx. 97 %	approx. 96 % approx. 96 %	approx. 97 %/99 %
Suitable for wearing whilst driving**	wP Classic wP Drive	 	 	 	 	 	 –

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

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

* brightened / darkened

Frame	Features	Filter variant	Characteristics	Frame colour	Material	Side window colour	Size	Frame, unglazed	wP15	wP65	wP85	wP50-15	wP75P	wP active
Classic frame, small	–	wP Classic	temples can be shortened	havanna, gloss	TR 90	orange-yellow	54-16-135	16635416	1663115	1663165	1663185	166315015	1663175P	–
		wP Drive	temples can be shortened	havanna, gloss	TR 90	green-yellow	54-16-135	16645416	1664115	1664165	1664185	166415015	1664175P	–
Classic frame, large	–	wP Classic	temples can be shortened	havanna, gloss	TR 90	orange-yellow	57-16-135	16635716	1663215	1663265	1663285	166325015	1663275P	–
		wP Drive	temples can be shortened	havanna, gloss	TR 90	green-yellow	57-16-135	16645716	1664215	1664265	1664285	166425015	1664275P	–
Ladies' frame	with adjustable pad arms	wP Classic	temples can be shortened	black, gloss	TR 90	orange-yellow	56-15-130	16635615	1663415	1663465	1663485	166345015	1663475P	166341580
		wP Drive	temples can be shortened	brown, gloss	TR 90	green-yellow	54-15-130	16645415	1664415	1664465	1664485	166445015	1664475P	–
Men's frame	spring hinges with adjustable pad arms	wP Classic	temples can be shortened	black, gloss	TR 90	orange-yellow	58-16-130	16635816	1663515	1663565	1663585	166355015	1663575P	166351580
		wP Drive	temples can be shortened	black, gloss	TR 90	green-yellow	58-16-130	16645816	1664515	1664565	1664585	166455015	1664575P	–
wP Sport frame, small	–	wP Drive	temples can be shortened	brown, matt	St. steel	green-yellow	56-17-135	16665617	1666115	1666165	1666185	166615015	1666175P	–
wP Sport frame, large		wP Drive	temples can be shortened	anthracite, matt	St. steel	green-yellow	59-16-135	16665916	1666215	1666265	1666285	166625015	1666275P	–
XL frame, small	–	wP Classic	–	havanna, matt	TR 90	orange-yellow	61-12-145	–	1663815	1663865	1663885	166385015	1663875P	166381580
		wP Drive	–	havanna, matt	TR 90	green-yellow	61-12-145	–	1664815	1664865	1664885	166485015	1664875P	–
XL frame, large	–	wP Classic	–	havanna, matt	TR 90	orange-yellow	65-12-145	–	1663915	1663965	1663985	166395015	1663975P	166391580
		wP Drive	–	havanna, matt	TR 90	green-yellow	65-12-145	–	1664915	1664965	1664985	166495015	1664975P	–
Clip-ons	–	wP Classic	–	–	–	–	60-11	–	1663315	1663365	1663385	166335015	–	–
		wP Drive	–	–	–	–	60-11	–	1164315	1164365	1164385	116435015	–	–



CUT-OFF FILTER EYEWEAR

system INDIVIDUAL XL

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

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

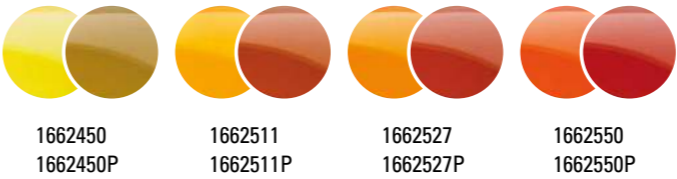
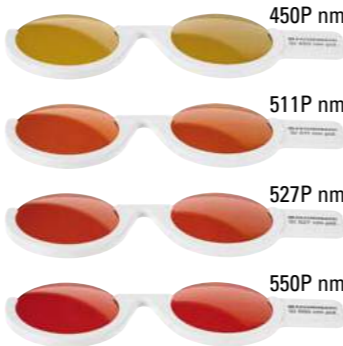
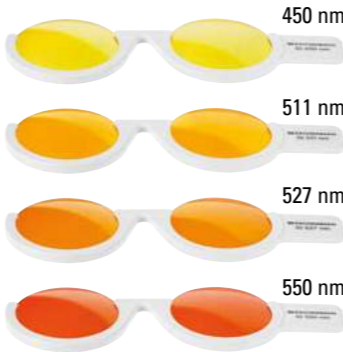
Ideal for wearing over one's own spectacles



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

Cut-off	450 nm, polarised	511 nm, polarised	527 nm, polarised	550 nm, polarised
Luminous transmittance	approx. 20 %	approx. 15 %	approx. 13 %	approx. 9 %
Filter category	2	3	3	3
Suitable for wearing whilst driving				
Small frame (61-12-140)	16618450P	16618511P	16618527P	16618550P
Large frame (65-12-140)	16619450P	16619511P	16619527P	16619550P

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



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

- CUSTOMER BENEFITS
- ✚ For reducing glare in the case of increased glare sensitivity.
 - ✚ For contrast enhancement.

Item	Cut-off	Trans-mission	Filter Cat.	Suitable for wearing whilst driving
1662450	450 nm	85 %	0	
1662450P	450 nm, polarised	34 %	2	
1662511	511 nm	60 %	1	
1662511P	511 nm, polarised	15 %	3	
1662527	527 nm	43 %	2	
1662527P	527 nm, polarised	12 %	3	
1662550	550 nm	28 %	2	
1662550P	550 nm, polarised	11 %	3	



CLIP-ONS

system INDIVIDUAL

- 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



Polarised clip-on sunglasses

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

- CUSTOMER BENEFITS
- ✚ Polarisation makes them particularly suitable for watersports (sailing, fishing)
 - ✚ The quick solution for clipping onto eyewear frame
 - ✚ Ideal when you don't want to wear a separate pair of sunglasses

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



READING AIDS



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



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

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



The reading aids on pages 43-44 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.



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 81.



Ready readers

- Rimless readers
- 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
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 81.

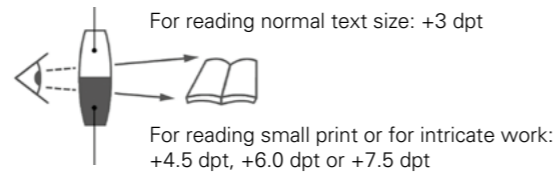


miniframe BIFO

- 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

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



Item	Colour	dpt	Item	Colour	dpt
29060-34	gun matt	+3.00/+4.50	29062-36	blue	+3.00/+6.00
29060-36		+3.00/+6.00	29062-37	matt	+3.00/+7.50
29060-37		+3.00/+7.50			
29061-36	gold	+3.00/+6.00	29063-34	red	+3.00/+4.50
29061-37	gloss	+3.00/+7.50	29063-37	matt	+3.00/+7.50

PXM®

Display

The appropriate display
is available as an option
on page 81.



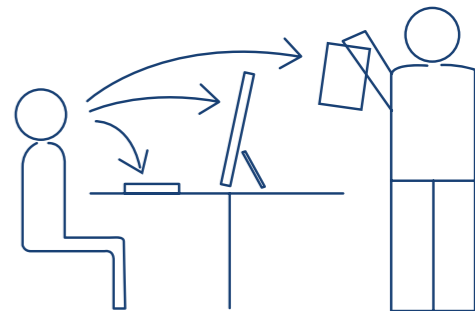
miniframe2

- 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

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



PXM®

PD
63 mm

Display



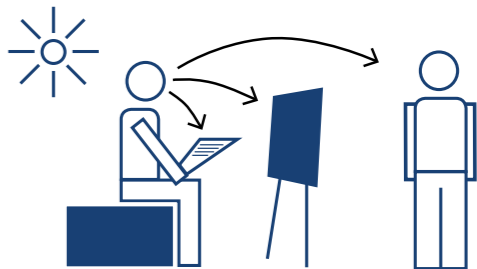
miniframe2 SUN

- 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

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



PXM®

PD
63 mm

Display

The appropriate display
is available as an option
on page 81.



16814122

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: colour gold matt	3.0 x	83 mm
1681-4	lens*: 4 x, 16 dpt frame, magnification 4 x: colour gold matt	4.0 x	65 mm
1681-5	lens*: 5 x, 20 dpt frame, magnification 5 x: colour gold matt	5.0 x	50 mm
1681-6	lens*: 6 x, 24 dpt frame, magnification 6 x: colour gold matt	6.0 x	42 mm

* 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.

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

Frames only



16814122

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

16814122: Colour gold matt



168014 168015 168016
168018 1680110

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

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).

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



16824 16825 16826
16828 168210

noves BINO

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

CUSTOMER BENEFITS

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

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





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

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				



Accessories:



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



TELESCOPES



TELESCOPES
MAGNIFICATION SYSTEMS
FOR EVERY OCCASION.



maxTV®

- Extremely comfortable to wear
- Easy adjustment of dioptré 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

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 dioptré 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



maxDETAIL

- For demanding detailed work
- Easy adjustment of dioptré 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



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



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





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



1631

UNIVERSAL CARRIER SYSTEM

uniADAPT

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



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



1691



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 54)
- Roof prism system with multicoating
- Supplied with: carrying cord, case
- Compatible with adapter system 1625 (see page 57)

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	2.8x/3.4x	220 m/1,000 m 26 mm/150 mm	12.5°/10°
16732 4.2 x 10	4.2x/5.5x	175 m/1,000 m 25 mm/200 mm	10°/7.2°
16733 4.2 x 12	4.2x/5.0x	220 m/1,000 m 32 mm/200 mm	12.5°/9.2°
16734 6.0 x 16	6.0x/7.6x	175 m/1,000 m 26 mm/250 mm	10°/6°

Further technical information can be found on page 83.



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 54)

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 54)



16711 viso-quick finger ring

- The finger ring ensures inconspicuous use and provides stability when used as a handheld monocular

System carrier frame

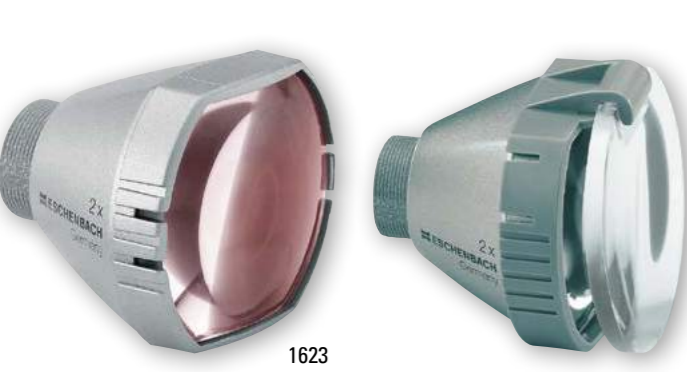
- Special frame for holding optical systems
- Very light and sturdy titanium frame
- Soft, adjustable, silicon saddle bridge
- Spring-hinged, rubberised „golf club“ temple ends
- Demo lenses with grid for simple centering of the lenses
- Temples 150 mm, can be shortened



16934916
16935116
16935218

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





1623

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 57)

Galilei 2.0 GF

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

CUSTOMER BENEFITS

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

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



Example of use

Accessories: 162301



1630

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

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



1630 Fitting case

The contents of the fitting case will enable you to test most of the adjustments for close range and distance which this system allows.

Contents: 2 x 1623 with trial frame adapters, 1 each of: 16230, 16233, 16234, 16235, 16236, 16238, 162310, 162312

162510 Fitting instructions



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, MgF₂ 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	2.2x	250 m/1,000 m	∞
16225	2.5x	230 m/1,000 m	∞



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:



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



Item	Magnification	Magnification	Visual field*	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



1632

The 1632 and 16321 fitting cases are available for these systems. These can be found on page 56.

* 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 83.



16321

FITTING CASES

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



1625



Galilean and Keplerian fitting case

- Contents as per 16321, but also including:**
- 1619 Trial frame adapters (two)
 - 16731 Keplerian monocular 2.8 x 9
 - 16732 Keplerian monocular 4.2 x 10
 - 16733 Keplerian monocular 4.2 x 12
 - 16734 Keplerian monocular 6.0 x 16
 - 16711 viso-quick finger ring
 - 167302 Adapter for reading caps for 16731 and 16732
 - 167303 Adapter for reading caps for 16733 and 16734

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



1632

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 replacement adhesive rings |
| 1625101 | 1 Fitting brochure |
| 16261 | 2 Carrier lenses, adapters for infinite distance use, centering inserts |
| 16262 | 2 Carrier lenses, convergence adapters for 200 mm, centering inserts |
| 16263 | 2 Carrier lenses, convergence adapters for 250 mm, centering inserts |
| 16264 | 2 Carrier lenses, convergence adapters for 330 mm, 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 |



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 distance
1674820	8 x 20	125 m/1,000 m	7°	300 mm to ∞
1674832	8 x 32	140 m/1,000 m	8°	700 mm to ∞



- 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 distance
4293616	6 x 16	140 x 108 m/1,000 m	8° x 6.2°	1,000 mm to ∞
4293816	8 x 16	122 x 94 m/1,000 m	7° x 5.4°	1,000 mm to ∞



MONOCULARS

start® Monofold 8x21



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



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

Further technical information on the individual monoculars can be found on page 83.

HEADBAND & CLIP-ON MAGNIFIERS



HEADBAND
AND
PRACTICAL VISION AIDS
FOR HOBBIES AND WORK.
CLIP-ON MAGNIFIERS



- 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



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.



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



Accessories:

1647 laboCLIP and laboMED case

Contents: 1 each of 164450, 164620, 16451, 16452, 16453, 16454, 16457 (Contents and specification subject to change.)



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.



Example of use

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



164617	164620
164625	164630
164640	164670

TECHNICAL MAGNIFIERS

PRECISION OPTICS.
COMPACT DESIGN.



TECHNICAL MAGNIFIERS



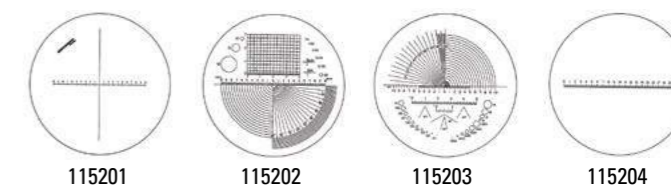
Precision scale magnifiers

- 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:



Precision measuring scales for a variety of applications.

Order No. 115201, 115202, 115203, 115204

Silicate



11514 LED lighting unit

- For precision scale magnifiers 11547 and 115410
- Handle holds 2 batteries



- 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



Measuring magnifier

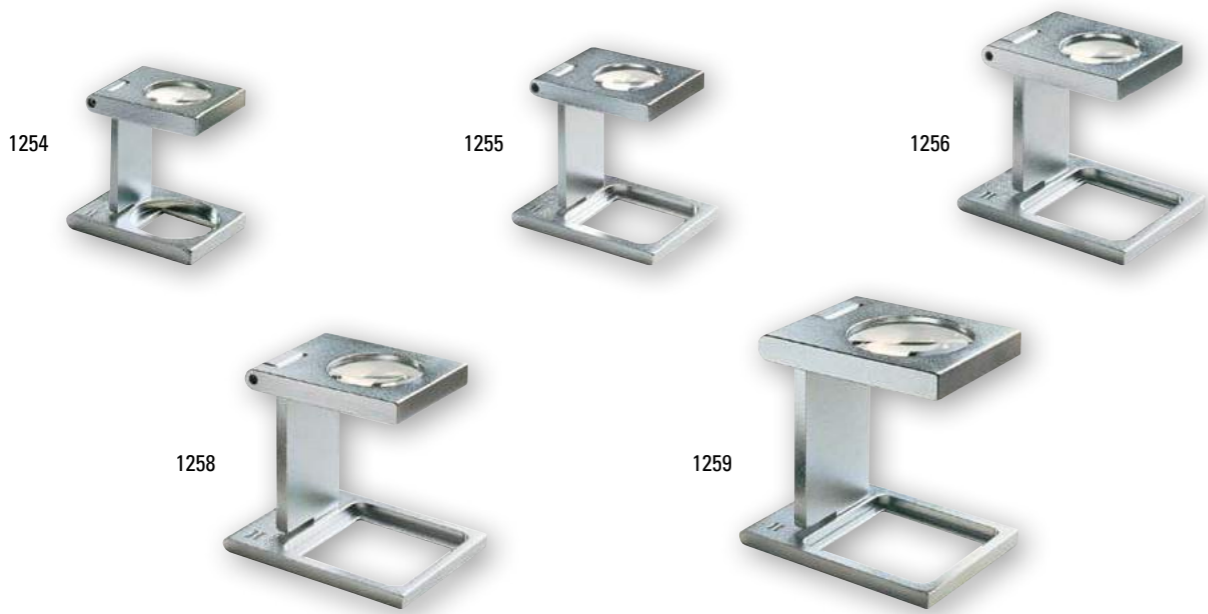
Tube microscopes



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

- 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





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



Plastic precision linen testers

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

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

Accessories:

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

Order No. Linen Tester	Order No. Case
1254/1255/1271	12002
1256/126692/1272	12003
1258/1259/1270	12005



PRECISION FOLDING MAGNIFIERS

Plastic precision folding magnifiers

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

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



Metal precision folding magnifiers

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

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



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



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





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



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



Stand magnifiers

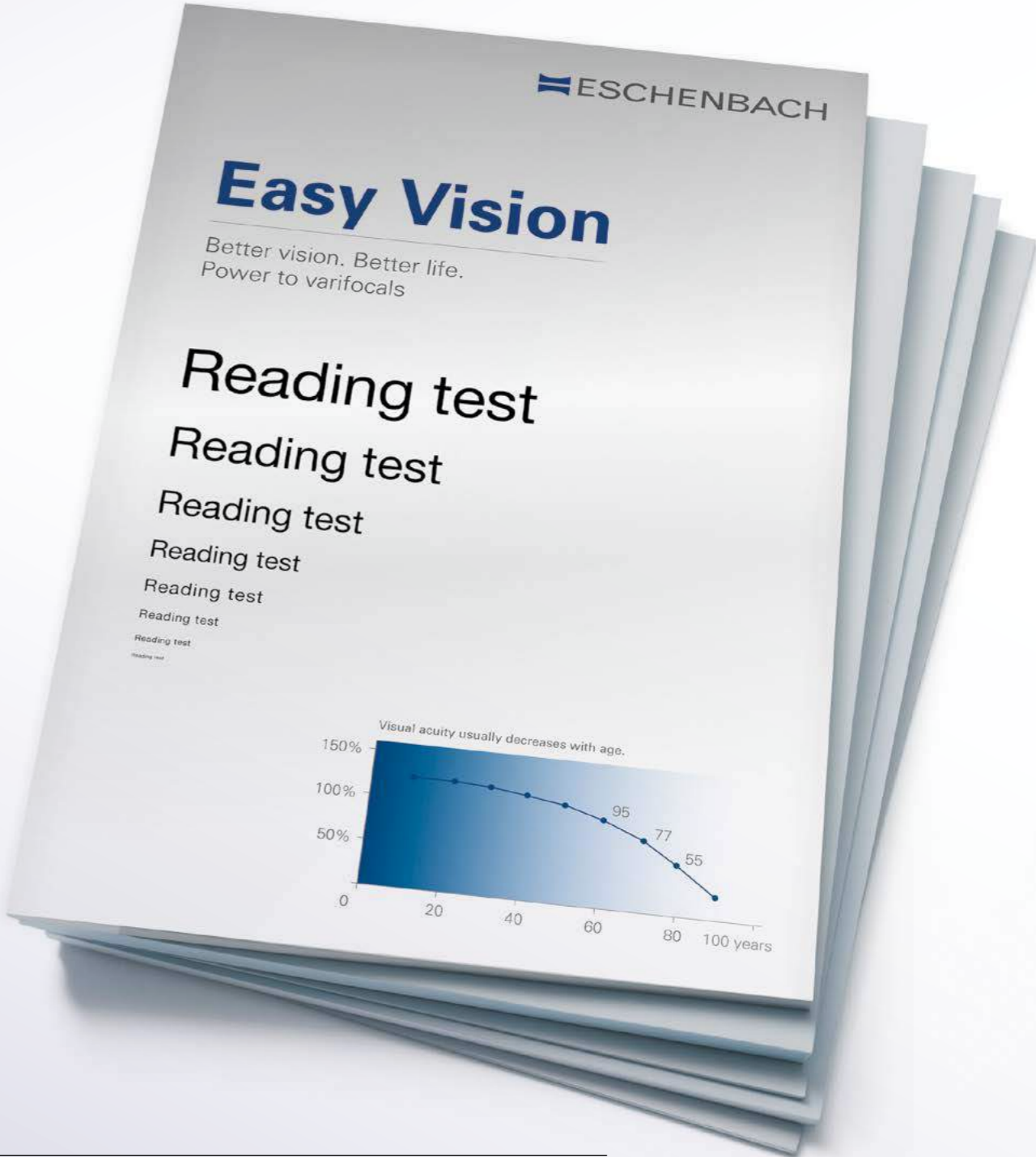
- High magnification, e.g. for retouching work in photography
- Can also be used as a high magnification vision aid
- Open base for working under the lens (with the exception of 1153, which has a closed base)
- The transparent stand allows excellent illumination from all sides

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



ACCESSORIES
AND
RESOURCE MATERIALS

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

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

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



1600

duoCLIP
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

Replacement bulbs

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

RESOURCE MATERIALS

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



1060203



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.

SALES SUPPORT



SALES
SUPPORT

OPTIMUM PRESENTATION.
VISUALLY IMPRESSIVE.



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



Exchangeable motif
189502



Exchangeable motif
189503



Exchangeable motif
189506



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



18376

mobilux®-LED tray

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



18582

Tray of magnifiers

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



18802

Electronic I Half-size display tray

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



18803

Electronic II Half-size display tray

Contents: 1 each of: 16501, 16521
Also available: 188033 Tray insert

NEW



18804

Elektronik III Half-size display tray

Contents: 1 x 16551
Also available: 188043 Tray insert

Deliverable
from April
2018 on



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

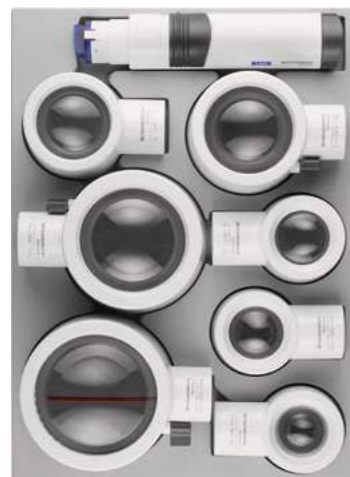
Contents: 1 each of: 15113, 15115, 15117, 151110, 1511001, 1511002, 1511003, 1511004
Also available: 188143 Tray insert



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



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



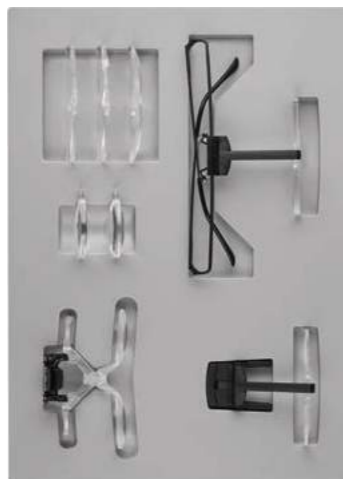
18826

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



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

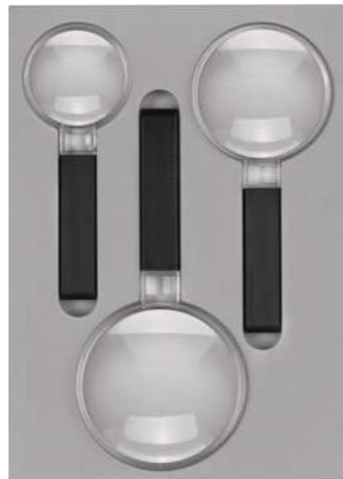
Contents: 1 each of: 1663865, 1663885, 1663915, 1663975P
Also available: 188413 Tray insert



18842

wellness PROTECT® Half-size display tray

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



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

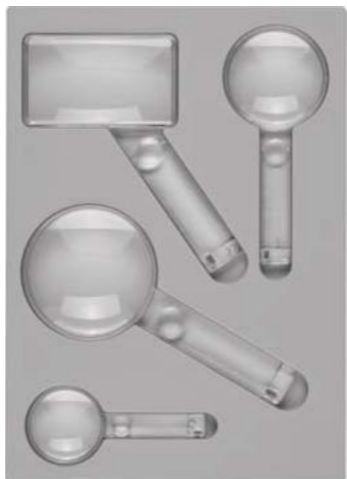
Contents: 1 each of: 265550, 265570, 2655150, 2655750
Also available: 288103 Tray insert



28815

mediplan ergo Half-size display tray

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



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



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



Exchangeable motif
189604



1896
Example of use



165519

NEW

Display visolux DIGITAL XL FHD

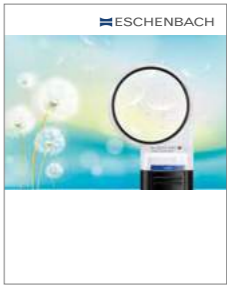
Contents: 1 x 16551

16551907 Empty display
As 165519, but without contents

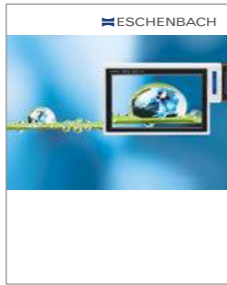
Deliverable
from April
2018 on

Standard display

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



Exchangeable motif
87294



Exchangeable motif
87299



87280



165219

Display visolux DIGITAL HD

Contents: 1 x 16521

16521907 Empty display
As 165219, but without contents



165119

Display mobilux DIGITAL Touch HD

Contents: 1 x 16511

16511907 Empty display
As 165119, but without contents



165019

Display smartlux DIGITAL

Contents: 1 x 16501

16501907 Empty display
As 165019, but without contents



152129

Display easyPOCKET

Contents: 2 each of: 152110, 152111, 152122
15212907 Empty display
As 152129, but without contents



15669

Display visolux+

Contents: 2 x 1566
1566907 Empty display
As 15669, but without contents



1565119

Display scribolux

Contents: 2 x 156512
156511907 Empty display
As 1565119, but without contents



1586209

Display powerlux

Contents: 1 each of: 158620, 158628
158620907 Empty display
As 1586209, but without contents



143629

Display makrolux

Contents: 1 each of: 143611, 143621
14362907 Empty display
As 143629, but without contents



1624119

Display maxTV

Contents: 1 x 162411
162411907 Empty display
As 1624119, but without contents



Product display unit
mobilux® LED

Contents:
3 x 15113 2 x 15115
1 x 15114 2 x 15117
1 x 151141 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



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

Display
visoPOCKET **NEW**

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

1721907 Empty display
As 17219, but without contents



17219

Display
mobilux® ECONOMY

Contents: 2 each of: 15103, 15105, 15107

15101907 Empty display
As 151019, but without contents







151019



Universal display
for readers

2900907
Example of use

On Electronic low vision aids

	visolux DIGITAL XL FHD	visolux DIGITAL HD	mobilux DIGITAL Touch HD	smartlux DIGITAL
Display				
Size	11.6" / 29.5 cm	7" / 17.9 cm	4.3" / 11.0 cm	5" / 12.7 cm
Format	16:9 widescreen	16:9 widescreen	16:9 widescreen	16:9 widescreen
Type	Active matrix TFT LCD with LED backlight	Active matrix TFT LCD with LED backlight	Active matrix TFT LCD with LED backlight	Active matrix TFT LCD with LED backlight
Anti-reflection	• (matt)	• (matt)	• (matt)	• (matt)
Brightness dimmable	•	•	•	•
Features				
Magnification	2.0 x to 22 x	2.0 x to 22 x	1.9 x to 12 x	1.7 x to 12 x
System resolution	Full-HD	HD	HD	WVGA
Operating keys	10	8	1	3
Graphical menu	•	•	•	–
Touchscreen operation	• (defeatable)	–	•	–
Operation with speech output	• (defeatable)	–	–	–
Display options				
Dynamic Line Scrolling (DLS)	• (horizontal + vertical)	• (horizontal)	–	–
Reading line / Reading blinds	• / •	• / •	• / •	–
Automatic exposure	•	•	•	•
Illumination defeatable	•	•	•	•
Live dual-screen function	•	•	• (to PC)	–
Photo store function	• (defeatable)	• (defeatable)	•	•
Camera centrally mounted	•	•	•	•
Orientation aid on housing	•	•	–	–
Housing tiltable	–	–	•	–
Writing under the display	•	–	–	•
Stand can be folded out	• (two positions)	• (two positions)	–	• (three positions)
Positioning markers on stand	•	•	–	–
Interfaces				
SD card slot	•	•	•	–
USB port (PC and Mac)	• (Type C)	• (Type C)	• (Type Mini B)	–
HDMI output	•	•	–	–
HDMI input	•	–	–	–
Power port	• (via USB)	• (DC 9 V)	• (via USB)	• (DC 5 V)
Miscellaneous				
Software update	•	•	•	• (via Service)
Reset key	•	•	•	•
Automatic shut-off	•	•	•	•
Integrated battery	• (Lithium-polymer)	• (Lithium-ion)	• (Lithium-ion)	• (Lithium-ion)
Operating hours, approx.	2.5 hours*	3.5 hours	3 hours	2.5 hours
Dimensions, approx.	29 x 20 x 4 cm	20 x 14 x 3 cm	21 x 7.5 x 4 cm	17 x 9 x 4 cm
Weight, approx.	1,050 g*	460 g	230 g	220 g
Delivery contents				
Hard foam case	•	•	•	•
Lanyard	•	•	•	•
Microfibre cloth	•	•	•	•
HDMI cable	•	•	–	–
USB cable	•	•	•	–
SD card	• (8 GB)	• (8 GB)	• (4 GB)	–
PC software	–	–	• (on SD card)	–
Universal charger	• (110-240 V, 50-60 Hz)	• (110-240 V, 50-60 Hz)	• (110-240 V, 50-60 Hz)	• (110-240 V, 50-60 Hz)
Travel mains adapter	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)	• (EU, GB, US, AU)
Operating instructions	• (printed)	• (printed)	• (printed)	• (printed)
Optional accessories				
Base (stand)	–	•	•	–
Bumper (protective envelope)	–	•	–	•
Bag (for carrying)	•	•	•	•
• yes, available or possible – no, not available or not possible * final value not yet available at time of printing				

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	Dioptré 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.

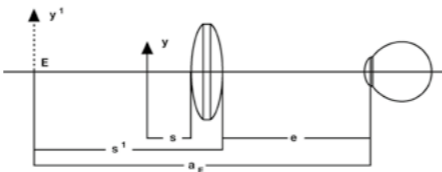
Lens size	Magnification (ISO/CEN)	Dpt.	mm	mm
35	12.5 x	50.0	15	40
35	10.0 x	38.0	20	40
35	7.0 x	28.0	29	60
50	6.0 x	24.0	31	100
58	6.0 x	24.0	31	100
58	5.0 x	20.0	36	140
58	4.0 x	16.0	44	150
70	4.0 x	16.0	45	150
60	4.0 x	16.0	44	150
60	3.0 x	12.0	49	250
75/50	4.0 x	16.0	44	180
75/50	3.5 x	10.0	50	250
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

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.



- 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



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-Acetate** 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

 **Filament bulb**


 **Fluorescent tube**

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


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


 **Colour temperature**

 **General colour rendering index**

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

 **Light flux**

 **Lifespan of lamp**

 **Energy efficiency label:** The illuminants enclosed correspond to the stated energy efficiency class or the lighting fixture is suitable for illuminants of the stated energy efficiency class.


Batteries

 **Round cell**

 **Batteries**
Included with the product.

 **Batteries**
Not included with the product.

Other icons

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

 **Mains plug**


 **Magnification**

 **Weight**

 **Case**
Included with the product.


 **Case**
Not included with the product.

 **Screen size**

 **Touchscreen**

 **Visual field**

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

 **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.



ESCHENBACH

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