ESCHENBACH

Vision Technology Products

Novelties 2015

Lens Geometry

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

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

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

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

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

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

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

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

Lens Material

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

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

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

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

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

Lens coating

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

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

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

Illumination

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

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

Filament bulb

Fluorescent tube

Batteries

Round cell

xx optional xx **Batteries**
Blue: supplied with product.
Grey: available as an additional option.

xx g **Battery housing**

Other icons

Mains plug

Xx **Magnification**

Weight

optional **Case**
Blue: supplied with product
Grey: available as an additional

Screen size

Touchscreen

Colour temperature

Visual field

Frame size: Lens size/ bridge width

Filter caps for changing the colour temperature are enclosed.

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

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

Optoform **Optoform tray**

CONTENTS

wellnessPROTECT XL 4

Ready readers 5

scribolux 5

mobiluxDIGITAL Touch HD 6

headlight LED 7

Sales support 8

1663865

wellnessPROTECT® XL

- 100% UV protection and up to 99% blue absorption.
- Improved contrast vision and minimisation of glare by blocking short-wave, energy-rich light components.
- Available in the tints 15%, 65%, 85%, 50-15% graded, 75% polarising and as a photochromic active option.
- The phototropic lenses of wellnessPROTECT active protect the eyes in all light conditions.
- Available in two frame sizes, each including case.
- Eyewear frames with glare protection from above and from the sides
- Ventilation slot between temple and middle section prevents fogging of the lenses.

Frames

Available in different frame sizes: large (65-12-145) and small (61-12-145). Frame colour „Havanna matt“

	15%	65%	85%	50–15%	75% (pola-rised)	active (photo-chromic)
Filter category/ Blue light absorption	1 ca. 98%	2 ca. 97%	3 ca. 99%	2 ca. 98%	2 ca. 94%	1 / 2 ca. 97%/ ca. 99%
Small frame 61-12-145	1663815	1663865	1663885	166385015	1663875P	166381580
Large frame 65-12-145	1663915	1663965	1663985	166395015	1663975P	166391580

CUSTOMER BENEFITS

- All-round protection for the eyes against the harmful rays of the sun and against unpleasant glare.
- Visually appealing and improved colour recognition in comparison to conventional cut-off filter eyewear.

worn over glasses

CR 39 Display/ Optoform

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
- Incl. high quality case with zip

CUSTOMER BENEFITS

- incl. zipped case in matching colour
- 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® Display/ Optoform

scribolux

- High level of image brightness and large visual field.
- Push-button switch for easy on/off operation NEW
- Practical automatic shutoff after 30 minutes
- 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

PXM® cera-tec® coating 2,8 x 3xAA Display/ Optoform

16511

mobilux® DIGITAL Touch HD

- Non-reflective 4.3" display
- Intuitive operation via touchscreen
- HD camera for maximum definition and optimum contrast
- Generous depth of focus for variable viewing distances
- Stable support surfaces for different uses:
  - placed on the reading material for tremble-free image when reading lengthier texts
  - hand-held for orientation on the reading material and for headings
  - can be tilted for comfortable viewing angle
- 4 to 12x magnification (hand-held at a distance of 5 cm approx. 1.9- to 4.5x)
- 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: 110V - 240V, 50 - 60Hz
- Supplied with adapter for EU, GB, US, AUS.
- Supplied with protective hard foam case, lanyard and cleaning cloth

CUSTOMER BENEFITS

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

Item	Dimensions	Magnification
16511	4.3" display	4.0 x up to 12.0 x

16042

16042
As an accessory with maxDetail, labo-comfort 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. 3200 lx in 250 mm, 1200 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
- Battery housing:
  Dimensions: 90 x 55 x 29 mm (without clip). 1m cable length

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

PXM® 3xAA CPC 2 60 g

18802

Electronic
Half-Size Display Tray

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

18810

mobilux LED
Half-Size Display Tray

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

18811

mobilux LED
Half-Size Display Tray

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

18812

mobilux LED
Half-Size Display Tray

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

18813

mobilux LED easyPOCKET
Half-Size Display Tray

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

18820

Stand Magnifiers
Half-Size Display Tray

Contents: 1 each of: 14361, 14362, 156512, 1566
Also available: 188203 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

18831

max TV/ max DETAIL

Half-Size Display Tray

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

18835

Folding Magnifiers Classic

Half-Size Display Tray

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

18836

Folding Magnifiers Classic

Half-Size Display Tray

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

18841

wellness PROTECT XL

Half-Size Display Tray

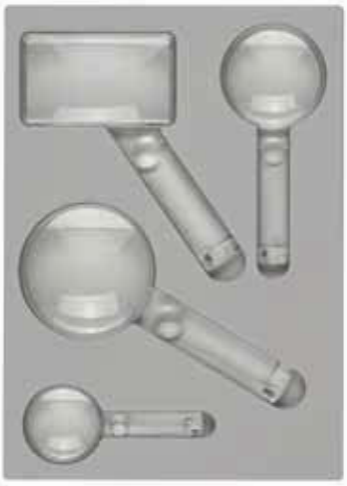
Contents: 1 each of: 1663865, 1663885, 1663915, 1663975P
Also available: 188413 Tray insert

18842

wellness PROTECT

Half-Size Display Tray

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



28800

Bikonvex Magnifiers
Half-Size Display Tray

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

28801

visomed
Half-Size Display Tray

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

28805

economic, angular
Half-Size Display Tray

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

28806

economic, round
Half-Size Display Tray

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

28810

aspheric II
Half-Size Display Tray

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

28815

mediplan ergo
Half-Size Display Tray

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

28820

combiPLUS

Half-Size Display Tray

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

1895

Exchangeable motif
189502

Standard display
87280

Exchangeable motif
87294

Shop window display
1896

Exchangeable motif
189602

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

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

Eschenbach Optik products have been awarded EN ISO 9001 and DIN ISO 14001:2004 certification (environmental management) and this is your guarantee of a high standard of quality

cera-tec® coating

reddot

product design award 2010

ESCHENBACH

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