



Eye protection. Respiratory protection. Accessories. PRODUCT PROGRAM



Automatically better welding

, , , WE ARE WORKING HARD ON MAKING THE LIVES OF THOSE EASIER, WHO I OVF WEI DING. BY REDUCING THEIR HEALTH RISKS DRAMATICALLY. 44

CONTENT

INTRODUCTION

4 swiss made - optrel means quality

EYE PROTECTION

Automatic welding helmets

- 6 optrel crystal2.0
- 8 optrel panoramaxx
- 10 optrel e684
- 12 optrel liteflip autopilot
- 14 optrel vegaview2.5
- 16 optrel neo p550
- 18 optrel weldcap series

Grinding helmets/Visors

20 optrel clearmaxx

RESPIRATORY PROTECTION

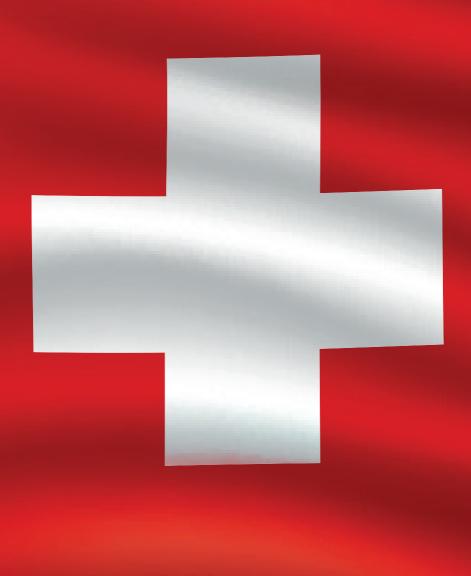
22 High-performance PAPR system optrel e3000

TECHNICAL FEATURES

Comfort Meets Performance

- 24 Autopilot
- 25 Outside Adjustment
- 25 True Color View
- 26 Delay and Twilight Function
- 26 Comfort Head Band
- 27 Sensitivity Adjustment
- 27 PAPR Adaptor

swiss made



OPTREL MEANS QUALITY

Using the swiss made sign optrel stands in a long tradition of swiss companies reaching for unequaled quality, highest performance and absolute safety by working on outrageous innovation and reliability. Optimal and method adapted protection is the central factor when it comes to the safety and health of the welder: Trust in highest swiss quality. Trust optrel.



INNOVATION IS IN OUR GENES

optrel AG settled in Wattwil, Switzerland, is a leading manufacturer of active eye protection products, which are used in fields of applications like welding, grinding and health care focussing on safety, health and efficiency of its users.

The international company was founded in 1986 and has become known as a technology leader in the market for auto darkening filters (ADFs) for welders as well as other opto- electrical protection systems.

With its world-leading innovations optrel regularly raises this claim and offers customers enormous advantages world-wide.









CRYSTAL CLEAR VISION.

BEFORE, DURING AND AFTER WELDING.

The world premiere for an absolute world record. The **crystal 2.0** sees optrel beat the best brightness level, which it set itself three years ago – and which had never been achieved previously. Light transmission in the inactive state is now 31 percent.

The crystal clear view in bright state makes the **crystal 2.0** the ideal combined helmet without compromises. The colour perception in light state is almost like looking through clear window glass and in dark mode you enjoy a detailled and high-contrast view of the welding pool with a never-seen-before clearness.



CRYSTAL LENS TECHNOLOGY WITH LIGHT STATE 2.0



AUTOPILOT SHADE LEVEL 4 TO 12



HEAT-REFLECTING PAINT



SENSITIVITY CONTROL



GRIND MODE



F	crystal 2.0 welding helmet silver	1006.900
<i>🖗</i>	crystal 2.0 fresh air helmet silver	4442.900
Technical data		
Protection level	4-12	
Brightness level	2.0	
Setting	Autopilot or manual	
Power supply	Battery (approx. 3,000 h operating t	ime)
Sensitivity	adjustable individually	
Switching time	0.10 ms (room temperature) 0.07 ms at 131°F	
Switch-off time	Delay function 0.05-1.0 s, with twilight function	
Classification EN379	1/1/1/2	
Operating temperature		

482 g

2

Helmet system

Weight

Standards

optrop

CE, ANSI, EAC, AS/NZS complies with CSA Z94.3

Item no.





OUR BEST INNOVATIONS IN ONE HELMET.

The unique nose cut-out floats above the nose to position the auto-darkening display closer to the eyes. This enlarges the field of vision 6 times compared to conventional welding masks, without adding extra weight.

The panorama view – in combination with the 2.5 shade at light-state and the optrel True Color optics – opens an entirely new visual dimension to the welding experience.

The **panoramaxx** features optrel's patented Autopilot function. Our unique 5-sensor array measures the brightness of the welding arc and automatically adjusts to the correct shade level.

Featuring a lithium-polymer power pack in combination with high-performance solar cells and an external USB charging option, the **panoramaxx** is the energy-independent, maintenance-free choice for professional welders.





PANORAMA FIELD OF VISION





MULTI SENSOR DETECTION



Isytes

\$

Item no.



panoramaxx welding helmet black unpain<u>ted</u> 1010.000

5-12
2.5
Autopilot, fully automated
Solar cells, lithium- polymer battery
adjustable individually
0.09 ms (room temperature) 0.07 ms at 55°C
Delay function 0.5-2.0 s, with twilight function
1/1/1/2
 14°F to 158°F
550 g
CE, ANSI Z87.1 (ADF and helmet shell), EAC, complies with CSA Z94.3





FULLY AUTOMATIC WITH ULTRA-HD QUALITY.

Optrel's exclusive Adaptive Shade Autopilot automatically adjusts to the appropriate shade level as you weld. An additional brightness sensor immediately detects changes in arc intensity and adjusts accordingly. You remain perfectly protected, regardless of your current welding parameters. Manual adjustment is no longer necessary – but it's available at the push of a button whenever you want it.

A specially developed UV/IR filter allows the realistic color perception typical of optrel, bringing color to the welder's world

The optrel **e684**'s autodarkening lens achieves the highest image quality standard in all four classifications. Its excellent viewing angle dependency in particular demonstrates the quality of the optrel autodarkening lens and makes working with the optrel **e684** so enjoyable.



AUTOPILOT



TRUE COLOR



HEAT-REFLECTING PAINT



WELDING IN ULTRA-HD QUALITY



RESPIRATORY PROTECTION



TWILIGHT FUNCTION



Drotoction	

Protection level	5-13
Brightness level	4
Setting	Autopilot, fully automated
Power supply	Solar cells, battery (approx. 3,000 h operating time)
Sensitivity	adjustable individually
Switching time	0.17 ms (room temperature) 0.11 ms at 131°F
Switch-off time	Delay function 0.5-2.0 s, with twilight function
Classification EN379	1/1/1/1
Operating temperature	14°F to 158°F
Weight	500 g
Standards	CE, ANSI, EAC, AS/NZS, complies with CSA Z94.3

Helmet system	ltem no.



e684 welding helmet

silver black unpainted dark blue 1006.500 1006.501 1006.502

e684 frish air helmet 444 silver

4442.004



Look into the future.



THE FIRST FLIP-UP WITH AUTOPILOT HAS ARRIVED.

Super lightweight flip-up welding helmet with automatic shade level adjustment makes welding much more comfortable and easy.

With a shade level range from 5 to 14 and fully automatic adjustment, the optrel **liteflip autopilot** achieves a new level of performance. All work sequences, such as measuring, testing, grinding, and other welding applications, can be handled without any manual adjustments at the helmet. And of course, without displacing the helmet itself. The welder is always protected perfectly.



AUTOPILOT



LIGHTWEIGHT



TRUE-COLOR VIEW



RESPIRATORY PROTECTION



TWILIGHT ADF TECHNOLOGY (• optrel

Helmet system

Item no.



1006.700

liteflip autopilot welding helmet

Technical data

lechnical data	
Protection level	5-14
Brightness level	4 (Flip-up clear view: 1)
Settings	Autopilot, fully automatic
Power supply	Photovoltaic cell, battery (approx. 3,000 h operating)
Sensitivity	adjustable individually
Switching time	0.10 ms (room temperature) 0.10 ms at 131°F
Switch-off time	Delay function 0.3-1.5 s, with twilight function
Classification EN379	1/1/1/2
Operating temperature	 14°F to 158°F
Weight	530 g
Standards	CE, ANSI Z87.1, EAC, complies with CSA Z94.3



bright. brighter. vegaview.



FOR ALL THOSE WHO WANT TO HAVE A BETTER VIEW AT WELDING.

The optrel **vegaview2.5** lets the welders' most desired wish come true: bright view. With its ADF view with shade level 2.5, **vegaview2.5** improves the visibility of welders' environment by 400%! Compared with traditional autodarkening welding helmets, **vegaview2.5** sets the world record in the light state!

The **vegaview2.5** is perfectly combined with the optrel **e3000** PAPR respiratory system. With its integrated high-performance particle filter (TH3), welders are adequately protected against smoke, gas, and dust.



ADF SHADE LEVEL 2,5 / 8-12



TRUECOLOR FILTER



GRIND MODE







RESPIRATORY PROTECTION



	CARLES AND		<u> </u>
		The second	
ULUM		25	
	ilitian.		
			11
The second			
RE	angenetic and a second		

Helmet syst	em	Item no.
and the second	vegaview2.5 welding helmet	1006.600
Ó.	vegaview2.5 fresh air helmet	4441.801

Technical data	
Protection level	8-12
Brightness level	2.5
Setting	manual, exterior
Power supply	Battery (approx. 3,000 h operating time)
Sensitivity	adjustable individually
Switching time	0.10 ms (room temperature) 0.07 ms at 131°F
Switch-off time	Delay function 0.05-1.0 s, with twilight function
Classification EN379	1/1/1/2
Operating temperature	14°F to 158°F
Weight	489 g
Standards	CE, ANSI, EAC, complies with CSA





NEW DESIGN. EFFICIENT PERFORMANCE. OPTIMAL PRICE.

The optrel **neo p550** combines the advantages of the proven p550 helmet shell with the newest ADF technology from optrel. Experience true color vision in a mid-price helmet. With a new efficient energy concept that keeps it action-ready for 3,000 hours. And a reaction time of only 0.1 ms after striking a welding arc. Perfect protection and comfort for your eyes!











DELAY FUNCTION



LIGHTWEIGHT



NEW ENERGY CONCEPT



-		
Tec	hnica	l data

Protection level	9-13
Brightness level	4
Setting	Manual
Power supply	Solar cells, battery (approx. 3,000 h operating time)
Sensitivity	adjustable individually
Switching time	0.10 ms (room temperature) 0.10 ms at 131°F
Switch-off time	Delay function 0.05-1.0 s
Classification EN379	1/1/1/2
Operating time	 14°F to 158°F
Weight	495 g
Standards	CE, ANSI, EAC, AS/NZS, complies with CSA Z94.3

Helmet system		Item no.
6	neo p550 welding helmet black	1007.000
(neo p550 welding helmet green	1007.011

weldcap series

weldcap radical.

COMFORT, SAFETY, PRODUCTIVITY. JOIN THE REVOLUTION.

The name says it all: the weld**cap**[®] stands for an auto-darkening welder's cap that combines the comfort of a casual cap with the advantages of a full welding helmet. The combination of plastics and textile is unique. It's soft where it must be comfortable, and robust where you need maximum protection.

The heart of this innovative product is the optical filter featuring a well-defined nose cut-out. With its Shade level 3 in inactive mode, the welder has a bright and well-lit view of the work-place. This feature makes the optrel weldcap[®] perfect for grinding jobs as well.



While normal autodarkening hoods protect only part of the head, the weldcap[®] bump now completely protects the crown of the head against painful strikes. The bump cap also provides additional stability and a feeling of safety like a full-face helmet, without getting noticeably heavier.

weld**Cap**[®] hard

Compatible with standard hard hats, the weldcap[®] hard attaches with minimal effort to your industrial helmet. The cap's design accommodates the use of ear muffs.

(· optrei





PROTECTION LEVEL 3 / 9-12



EXTENSIVE FIELD OF VIEW



MULTI-PURPOSE USE AL MAXIMUM PROTECTION



MINIMAL WEIGHT



SWIFT HANDLING

Welding cap		ltem no.	Technical data		
			Protection level	9-12	
			Brightness level	3	
	weld cap® RC 3/9-12	1008.000	Setting	Manual	
			Power supply	Battery (approx. 1,000 h operating time)	
	weldcap* bump RCB 3/9-12 weldcap* hard RCH 3/9-12	1008.001 1008.002	Sensitivity	adjustable individually	
			Switching time	0.16 ms (room temperature) 0.11 ms to 131°F	
10 0			Switch-off time	— — 0.3 s	
			Classification EN379	1/1/2/2	
			Operating time		
			Weight	approx. 400 g	
			Standards	CE (EN 379, EN 166, EN 175), ANSI Z87.1, AS/NZS 1337/1338	

clearmaxx

Clear view. Clear air.



WORK WITH YOUR OWN CLIMATE COMFORT ZONE Unlimited clear view of your workspace.

COMFORTABILITY

Thanks to a minimized weight of only 330 g and an ergonomic fit the **clearmaxx** sets new benchmarks in wearing comfort.

ALWAYS A GREAT VIEW FOR PROTECTING YOUR EYES AND FACE

Ideal for:

- grinding
- metal industry
- food industry
- sand blasting
- wood working
- feather industry
- landfills
- agriculture



I

Item no.



clearmaxx standard version 1100.000

Technical data

Weight	330 g
Standards	CE (EN 379, EN 166, EN 175), ANSI Z87.1,
	AS/NZS 1337/1338



Buckle up & take a deep breath!

HIGH-PERFORMANCE PAPR SYSTEM WITH A SAFETY CLASS 3 FILTER

Effective aeration and ventilation is generally necessary for all work areas. Room ventilation solutions are elementary, but not always sufficient. An additional local exhaust vent in the immediate vicinity of a work station is hard to bring about and also risks suctioning off valuable protective gases.

If each worker is to be comprehensively protected from hazardous particles, personal protective breathing equipment is indispensable.

The e3000 PAPR system allows optrel to guarantee

- the highest class of protection (TH3) from respirable particles (smoke, aerosol, and dust). Breathing air becomes cleaner by a factor of up to 500.
- even air distribution in the fresh air helmet.
- automatic air flow control.
- additional cooling effect for keeping a cool head about you.



AUTOMATIC AIR FLOW CONTROL



HIGH PERFORMANCE BATTERY



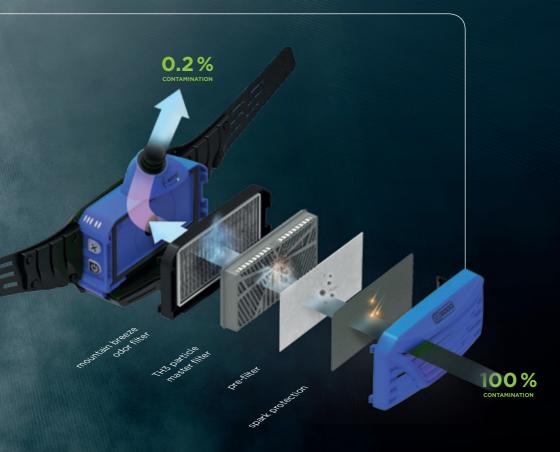
LOW OPERATING COSTS



ADJUSTABLE AIR FLOW



MOUNTAIN-BREEZE ODOR FILTER



Filter system	Item no.
COST Nº ZANA ANA ANA	



e3000 PAPR blue, 10h battery pack 4551.000

Technical data

Protection level	TH3 (EN 12941)			
Туре	TH3P R SL filter for TH3P system (EU)			
Flow rates	Level 1: min. 150 l/min Level 2: min. 200 l/min Level 3: min. 250 l/min			
Adjustment	Manual			
Fuse	electronic			
Noise level	max. 70dbA			
Weight	1,560 g (incl. filter, belt and battery)			
Standards	EN 12941:1998/A2:2008, AS/NZS 1716:2012, EAC: TP TC 019/2011			

COMFORT MEETS PERFORMANCE

If a welder's helmet beats all expectations in comfort and performance, it's likely from optrel. The following pages show what makes an optrel product so valuable for the user: second to none technology for a comfortable working day.



THE TECHNOLOGY HIGHLIGHT FROM OPTREL

THE AUTOPILOT

With the autopilot optrel managed the impossible. The ADF not only automatically darkens itself, but it will determine the exact shade level that is needed depending on the welding arc intensity.



Why such? Your eyes are always perfectly protected, never too dark or too light. The laborious changing of the shade level during different work processes becomes unnecessary.

The autopilot function is available in the following products:

- · optrel crystal2.0
- · optrel e684



ALL IMPORTANT FUNCTIONS AT A FINGERTIP

OUTSIDE ADJUSTMENT

Shade level adjustment, grind mode or other features, which must be adjusted during welding processes, can be easily adapted from outside of the helmet without pulling it off. A central control unit, which is

directly connected to the ADF, is



EXPERIENCE TRUE COLOR DURING WELDING

TRUF COLOR VIEW

A special UV-/IR-filter developed by optrel allows a color realistic perception and brings color to the world of the welder.

COLOR SCHEME OF A STANDARD WELDING ADF

COLOR SCHEME OF AN OPTREL ADF WITH TRUE COLOR VIEW



placed on the left side of the helmet shell in reach of the welder.

The welder's normal world: environment in green shades with low contrast levels

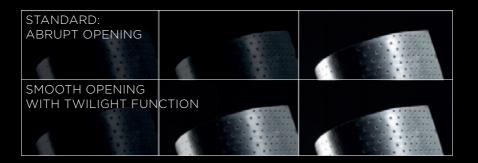
> The optrel revolution: finally experience true color view during the whole welding process

PATENTED SAFETY WHEN SHUTTING OFF THE ADF



DELAY AND TWILIGHT FUNCTION

We all know how uncomfortable your eyes are when a material continues to glow after welding. If the helmet quickly switches from dark to light after a long period of welding, the welder can be briefly dazzled. The welder can use the delay function to delay the ADF from opening, thereby greatly improving operating comfort.



Groundbreaking technology prevents/reduces eye fatigue automatically. Unlike other ADF lenses that rapidly return to light, the twilight ADF technology restores light more naturally, presenting a smooth transition to the eyes. This exclusive technology reduces eye fatigue on welders who are continuously welding, enabling them to work longer and safer.



SIMPLY CONVENIENT WITHOUT COMPROMISES

COMFORT HEAD BAND

ſ		(ر مر ا	7]
ľ	\sim			J

The combination of the optrel comfort headband and the ergonomic shape of the optrel helmet shells guarantees an optimum weight distribution for any head shape.

The outcome of this is a minimum strain on the neck and shoulders of the helmet wearer as well as a lasting increase of the welder's efficiency. Also the headband has a telescopic mechanism so that the helmet can be individually adjusted to ensure an optimum field of vision. The extensibility of the patented hard hat adapter also ensure that this range offers great comfort and protection.



NEW WITH "SUPER-HIGH-SENSITIVITY" SENSITIVITY ADJUSTMENT

If several welders are working in a room or in close proximity to one another, sometimes the ADF responds too soon or not at all to the flash because the preset sensor sensitivity is not set correctly for the working environment conditions. Continuously variable sensitivity control allows the sensor sensitivity to be adapted to the surroundings and workplace. This function can also be used if welding at low amperages and the ADF is not therefore darkening.



ALWAYS FRESH AIR

Most optrel helmets are available with PAPR adaptor for connecting an optrel e3000 high-performance PAPR blower system. By using the intelligent air distribution system the welder keeps a cool head at any time, means better working conditions for greater efficiency and comfort and better performance.



ADJUSTABLE AIR DISTRIBUTION

A rotary switch can be used to feed 20% of the air cooling the forehead area.

Your optrel Reseller:



PH POLSAB

ul Oleska 121 45-231 Opole NIP: 754-00-22-888 www.polsab.com.pl polsab@polsab.com.pl



optrel inc. 5 Division St #35 East Greenwich, RI 02818 USA usa.optrel.com info_us@optrel.com



Art. no. 9312.062.0