

# e684x1

Experience the difference.

 **optrel**<sup>®</sup>  
swiss made 



Automatically better welding

Protection level: automatic.  
 Colors: natural.  
 Comfort: all-inclusive.

PERFECT VIEW DURING WELDING - ONLY FROM OPTREL:

- Fully automated shade level adjustment for any welding procedure in the 5-13 shade range.
- Natural-color view in the entire protection level range.
- Ultra-HD quality in classes 1/1/1/1.



AUTOPILOT WITH  
 PROTECTION LEVELS 4/5-13



shade level

Light state

**Autopilot Range**  
 for all important work sequences

Inactive mode

Adjusts automatically to the changing light conditions of the current welding method.  
**Automatic adjustment up to shade level 13!**



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.

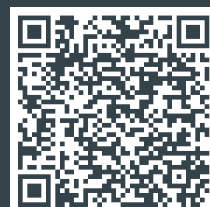
\* The automatic pilot can be turned off and the shade level adjusted manually if necessary.



TWILIGHT FUNCTION

The sudden opening of conventional autodarkening lenses has been replaced by optrel's patented Twilight technology, opening the filter more fluidly from dark to light and reducing eye fatigue.

DISCOVER OPTREL'S  
 COMFORT FUNCTIONS.



[www.optrel.com](http://www.optrel.com)  
 >> technology

# Fully automatic with ultra-HD quality.



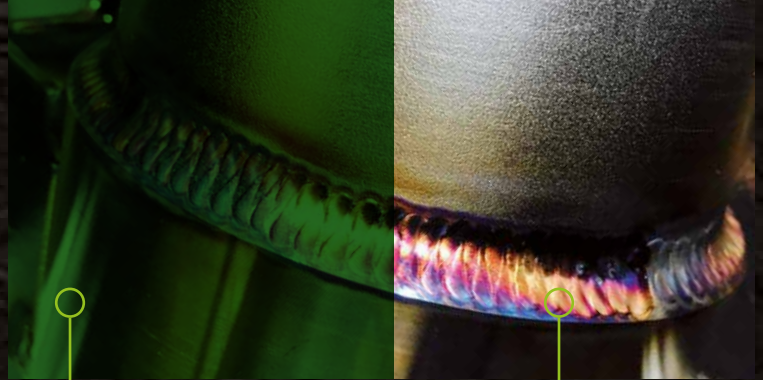
## TRUE COLOR

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

STANDARD WELDING HELMET  
COLOR SPECTRUM



COLOR SPECTRUM OF THE OPTREL  
E684 WITH TRUE COLOR VIEW



The normal world of the welder:  
a green environment with weak  
color contrasts.

optrel's revolution: at long last, true color  
perception even during the welding procedure.



## FOUR SUPERLATIVES: WELDING IN ULTRA-HD QUALITY

The optrel e684's autodarkening lens achieves the highest image quality standard in all four classifications:

OPTICAL CLASS:	CLASS 1	SCATTERED LIGHT:	CLASS 1
HOMOGENITY:	CLASS 1	ANGULAR DEPENDENCE:	CLASS 1

Its excellent viewing angle dependency in particular demonstrates the quality of the optrel autodarkening lens and makes working with the optrel e684 so enjoyable.



## RESPIRATORY PROTECTION (PAPR)

The **optrel e684** can be used in perfect harmony with the optrel e3000 ventilated breathing system. With its integrated particle filter of the highest class (TH3), it reliably protects the welder's airways from smoke, aerosol, and dust.



## 2+1-YEAR WARRANTY

Register your **optrel e684** at <http://register.optrel.com> and receive an additional year of warranty coverage free of charge.

## Helmet system



**e684** welding helmet  
silver  
black  
dark blue

## Item no.

1006.500  
1006.501  
1006.502



**e684** welding helmet  
silver, with hard hat  
black, with hard hat  
dark blue, with hard hat

1006.550  
1006.551  
1006.552



**e684** PAPR helmet  
silver  
black  
dark blue

4441.600  
4441.601  
4441.602



**e684** PAPR helmet  
silver, with hard hat  
black, with hard hat  
dark blue, with hard hat

4441.650  
4441.651  
4441.652

## Helmet system



optrel parking buddy

5002.900



Front cover lens (2 pcs.)  
Front cover lens (5 pcs.)

5000.210  
5000.212



Adjustable headband

5003.250



optrel bag for helmets

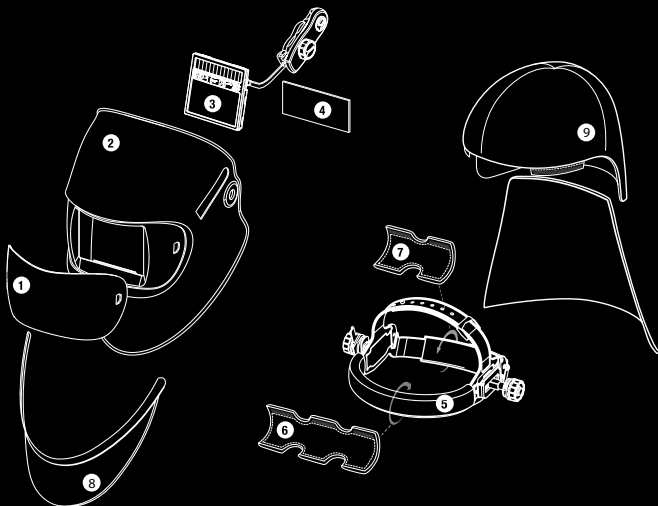
8000.100



## Spare parts and accessories

## Item no.

1	Front cover lens (2 pcs.) Front cover lens (5 pcs.)	5000.210 5000.212
2a	Helmet shell <b>e684</b> silver black dark blue	5001.684 5001.610 5001.601
2b	PAPR helmet shell <b>e684</b> silver black dark blue	4441.684 4241.007 4241.008
3	Spare ADF cartridge <b>e684</b>	5012.480
4	Inside cover lens (5 pcs.)	5000.001
5	Adjustable headband (including sweatband and comfortband)	5003.250
6	Cotton sweatband (2 pcs.)	5004.073
7	Comfortband (2 pcs.)	5004.020
8	Breast protector, leather	4028.015
9a	Head and neck protector, leather	4028.016
9b	Head and neck protector PAPR, leather	4028.031

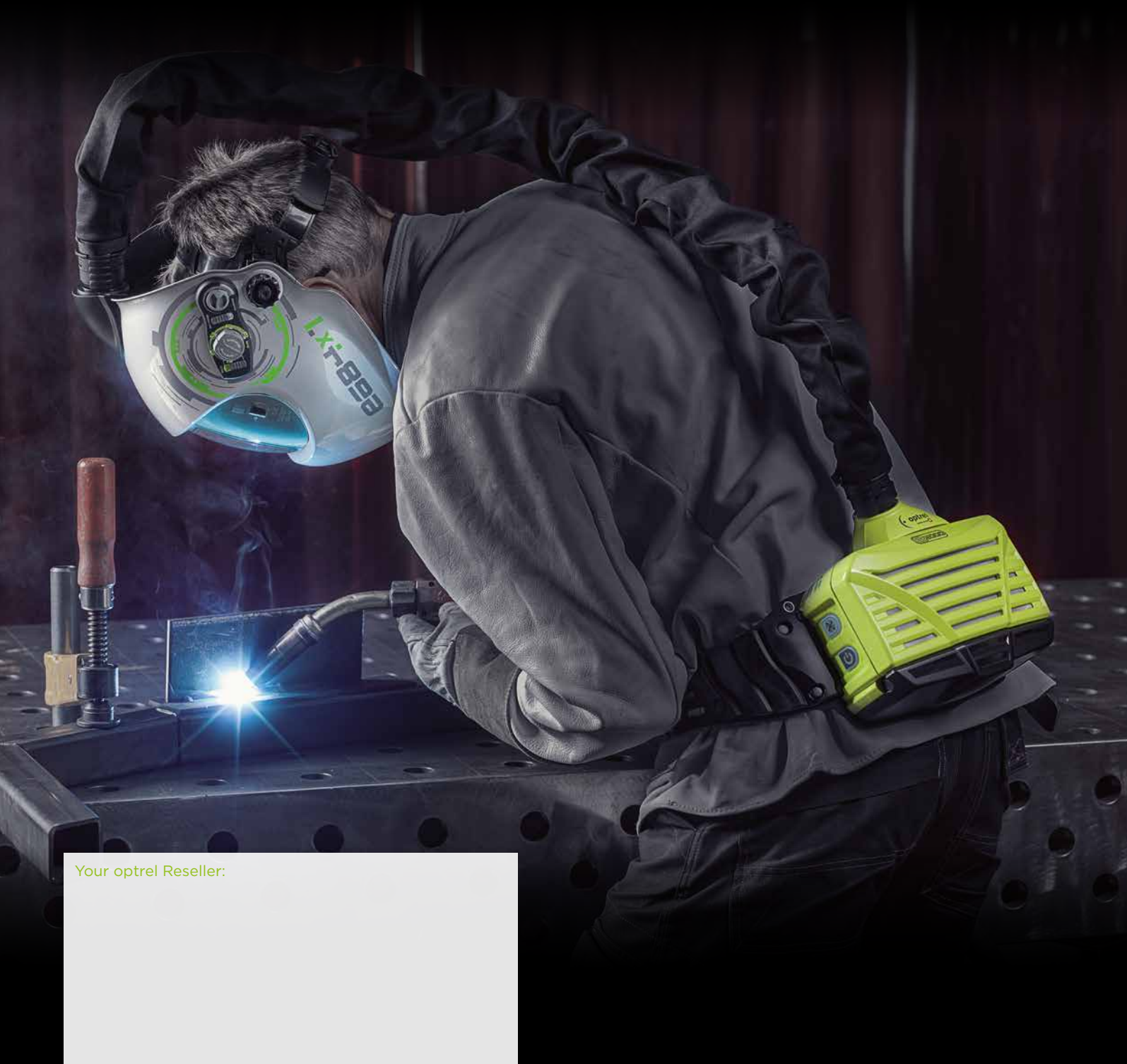




## TECHNICAL DATA

Description	Fully automatic welding helmet (no manual adjustment necessary) with true color view, ADF with shade level range 4/5-13 with autopilot.		Sensors	3 sensors, variable detection angle with movable sensor slider
Shade levels	inactive: Shade level 4 active: Shade level 5-13		Field of view	50 x 100 mm / 1.97 x 3.94"
Autopilot	ADF with shade level range 4/5-13 with autopilot (automatic shade level adjustment), +/- 2 individual manual offset		Shape stability	Welding mask: up to 220 °C / 428 °F Front cover lens: up to 137 °C / 279 °F
Manual mode	Continuous external adjustment in two shade level ranges 5-9 and 9-13		Eye protection	Ultraviolet / Infrared Protection: maximum protection at any shade level
Sensitivity	Continuously adjustable, new with "Super High" sensitivity		Operating temperature	-10°C to + 70°C / 14°F to 158°F
Grind mode	External adjustment, shade level 4		Storage temperature	-20°C to + 80°C / -4°F to 176°F
Twilight function	Patented twilight adjustment, adjustable from 0.1 to 2.0 seconds.		Weight	500g / 17.6 oz
Switching time	light to dark: 0.170 ms at room temperature 0.110 ms at 55 °C / 137 °F dark to light: 0.1 s - 2.0 s (with twilight function)		Application ranges	Any electric arc welding process Electrode Welding (Stick Welding, SMAW) / MIG / MAG (GMAW) / GMAW High melting rate process / Flux Cored Wire Welding / TIG welding (GTAW) / Plasma Arc Welding / Plasmacutting & Oxy-gas Welding <i>Prohibited for laser welding!</i>
Classification	Optical class:	1	Scope of delivery	Welding helmet, instruction manual, storage bag, batteries, warranty card and one front cover lens
	Scattered light:	1	Standards	CE, ANSI, EAC, AS/NZS, complies with CSA Z94.3
	Homogeneity:	1	Warranty	2 years (except batteries) 1 year warranty extension for online product registration within the first 6 months. <a href="http://register.optrel.com">http://register.optrel.com</a>
	Angular dependence:	1		
Power supply	Solar cells, 2 pcs batteries 3V exchangeable (CR2032)			
Operating time batteries	Approx. 3,000 hours (operating)			

# Weld professionally in true color.



Your optrel Reseller:



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