

# e684x1

Experience the difference.



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



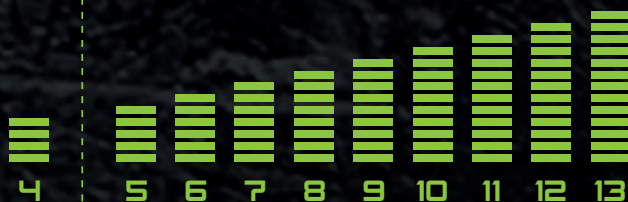
shade level

Light  
state

Inactive  
mode

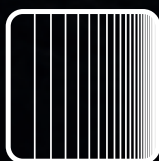
### Autopilot Range for all important work sequences

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The sudden opening of conventional autodarkening lenses has been replaced by optrel's patented Twilight technology, opening the filter more fluidly from dark to light and reducing eye fatigue.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



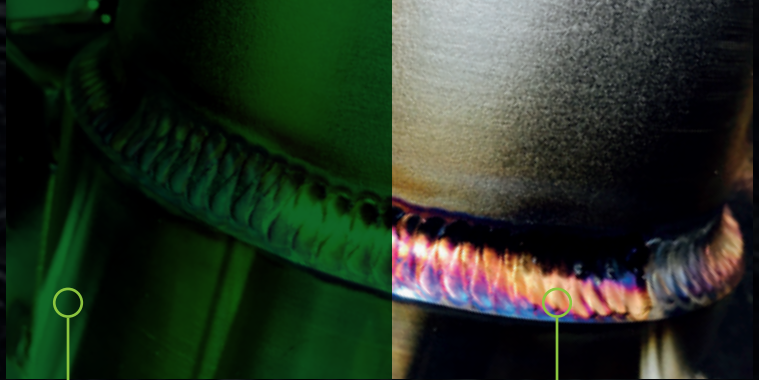
## TRUE COLOR

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)

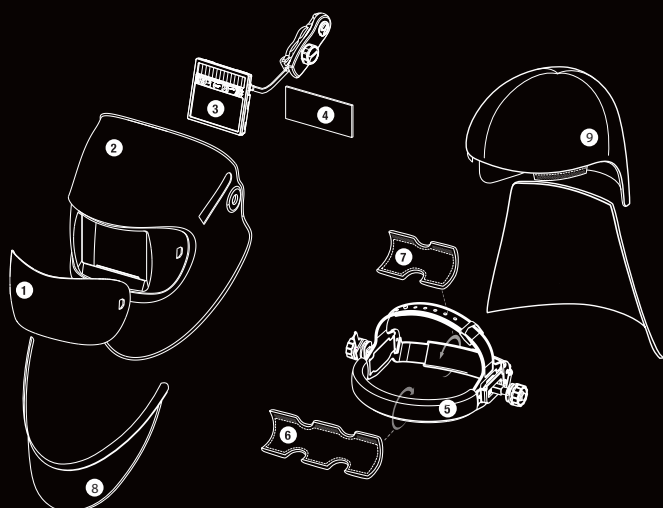
The **optrel e684** can be used in perfect harmony with the optrel e3000 ventilated breathing system. With its integrated particle filter of the highest class (TH3), it reliably protects the welder's airways from smoke, aerosol, and dust.



## 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	Item no.	Helmet system	Item no.
 <b>e684</b> welding helmet silver black dark blue	1006.500 1006.501 1006.502	 optrel parking buddy	5002.900
 <b>e684</b> welding helmet silver, with hard hat black, with hard hat dark blue, with hard hat	1006.550 1006.551 1006.552	 Front cover lens (2 pcs.) Front cover lens (5 pcs.)	5000.210 5000.212
 <b>e684</b> PAPR helmet silver black dark blue	4441.600 4441.601 4441.602	 Adjustable headband	5003.250
 <b>e684</b> PAPR helmet silver, with hard hat black, with hard hat dark blue, with hard hat	4441.650 4441.651 4441.652	 optrel bag for helmets	9410.043.00



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		Field of view	50 x 100 mm / 1.97 x 3.94"
	active:	Shade level 5-13		Shape stability	Welding mask: up to 220 °C / 428 °F Front cover lens: up to 137 °C / 279 °F
Autopilot	ADF with shade level range 4/5-13 with autopilot (automatic shade level adjustment), +/- 2 individual manual offset			Eye protection	Ultraviolet / Infrared Protection: maximum protection at any shade level
Manual mode	Continuous external adjustment in two shade level ranges 5-9 and 9-13			Operating temperature	-10°C to + 70°C / 14°F to 158°F
Sensitivity	Continuously adjustable, new with "Super High" sensitivity			Storage temperature	-20°C to + 80°C / -4°F to 176°F
Grind mode	External adjustment, shade level 4			Weight	500g / 17.6 oz
Twilight function	Patented twilight adjustment, adjustable from 0.1 to 2.0 seconds.			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>
Switching time	light to dark:	0.170 ms at room temperature 0.110 ms at 55 °C / 137 °F		Scope of delivery	Welding helmet, instruction manual, storage bag, batteries, warranty card and one front cover lens
	dark to light:	0.1 s - 2.0 s (with twilight function)		Standards	CE, ANSI, EAC, AS/NZS, complies with CSA Z94.3
Classification	Optical class:	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>
	Scattered light:	1			
	Homogeneity:	1			
	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.



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