

Fully-automatic or manual – It is your choice.

! UNIQUE !
INTELLIGENT TECHNOLOGY



optrel 
www.optrel.com

Infinite automatic or
manual 9-13 shade
level adjustment

Orion 
OSE optrel
Evolution

optrel 
Miraplus
OSE optrel
Evolution

Manually selectable
shade level DIN 10 or 11

Fully-automatic or manual – It is your choice.

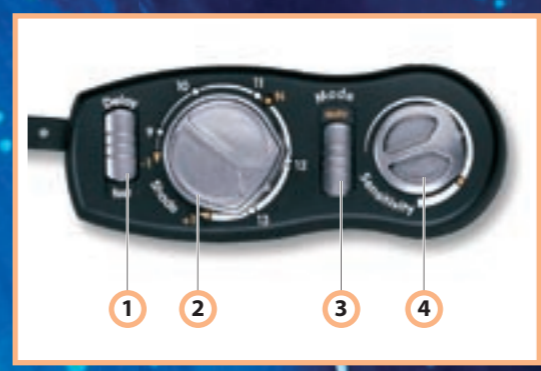
Automatic shade cartridge DIN 9 to 13.

UNIQUE!
INTELLIGENT TECHNOLOGY

automatic / manual



Operation and adjustments are easily accessible and mounted on the outside of the helmet.



1 Delay switch
Allows for adjustment of the dark to light switching time according to the individual requirements.

2 Shade level Adjustment
In «automatic» mode this potentiometer allows for +/- 1 shade level correction to suit individual requirements. In «manual» mode the potentiometer allows adjustment of the shade level from DIN 9 to 13.

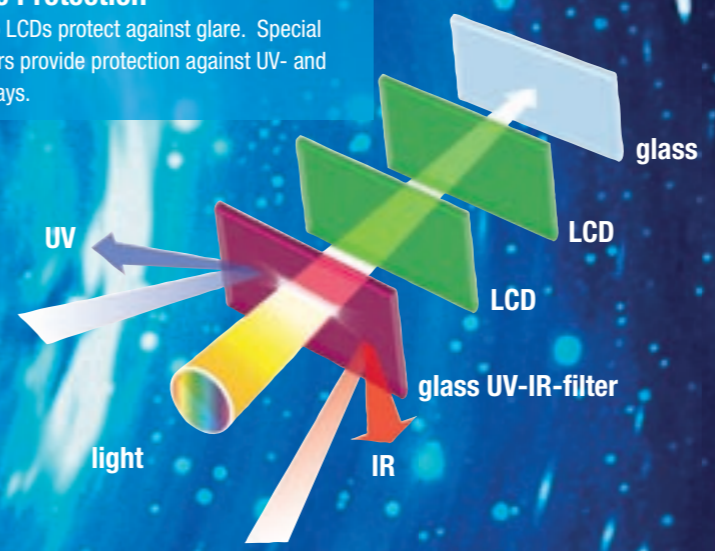
3 Manual/Automatic Mode switch
This sliding switch allows for selection of «manual» or «automatic» mode of operation.

4 Sensitivity Adjustment (Sensitivity)
The potentiometer minimizes the influence of surrounding bright light or when welding adjacent to other welders. It also allows for more sensitivity in low amperage applications.

5 Curved Cover lens
The durable polycarbonate lens is equipped with an elastic seal to eliminate negative effects caused by penetrating gases, smoke or particles. These cover lenses outlast conventional style cover lenses by a factor 10. The cover lens can be changed easily thanks to two quick-disconnects.

Eye Protection

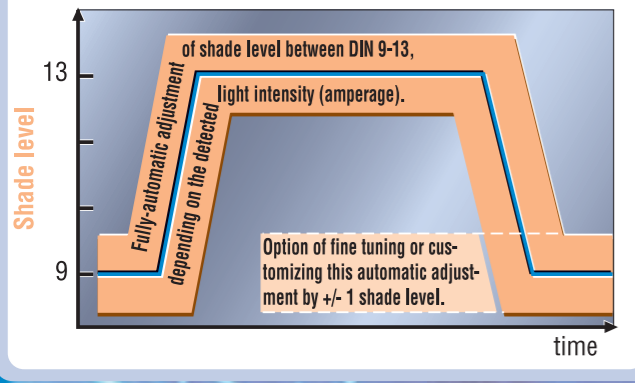
Two LCDs protect against glare. Special filters provide protection against UV- and IR rays.



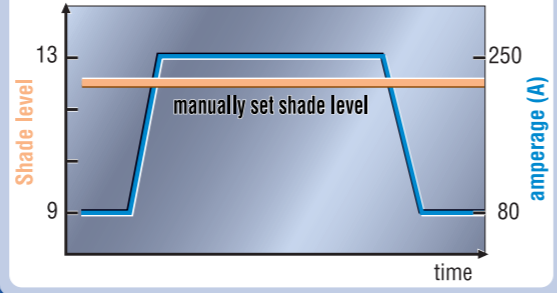
optrel® Orion OSE

The new intelligent sensor technology of the optrel® Orion OSE automatically adjusts the shade level between DIN 9 to 13 depending on the measured light intensity of the arc; the user has the option of fine tuning or customizing this automatic adjustment by +/- 1 shade level.

Mode of shade cartridge «automatic»



Mode of shade cartridge «manual»



In «manual» mode the potentiometer allows adjustment of the shade level from DIN 9 to 13.

This new product also incorporates the well-known optrel® comfort features including sensitivity adjustment, delay switch and optrel® comfort headgear.

Applications

- All arc welding processes:
- Shielded metal arc welding
- MIG / MAG welding
- High melting rate process
- Flux core arc welding
- TIG welding
- Not suitable for laser and oxy-gas welding.

Colours available



4/9<13 M OS 1/1/1 EN379

  0196 

ANSI Z87
AS / NZS 1338.1 - 1  CSA Z94.3
LM 85050

Technical data	optrel® Orion OSE
Type	Shade level DIN 4/9 to 13 manually or fully-automatically adjustable
Light transmittance	De-activated: Shade level DIN 4 Activated: Shade level DIN 9 to 13
Switching time light to dark	0,2 ms at room temperature 0,1 ms at 55°C
Switching time dark to light	Position «slow» 0,3 – 0,6 s Position «fast» 0,1 – 0,35 s
UV/IR protection	Max. UV/IR protection at any shade setting
Power supply	Solar cells, no battery changes
Operation temperature	-10°C – +70°C
Weight	570 g
Size of cartridge	90 x 110 x 7 mm
Warranty	2 year warranty on ADF cartridge
Special characteristics	Mechanically durable cover lens
Accessories	Neck protection, hard hat adapter

Proven functionality in a new design.

Shade level DIN 10 or 11 manual variable.



The inexpensive two-in-one solution.

You have a choice: Shade level DIN 10 or 11



4/10-11 OS 1/1/1 EN379



0196 CE

ANSI Z87
AS / NZS 1338.1 - 1

CSA Z94.3
LM 85050



Technical Data

optrel® Miraplus OSE

Type	Manual variable between 4/10 or 11
Light transmitting capacity	Not activated: protection level DIN 4 Activated: protection level DIN 10 to 11
Switching time light to dark	0,4 ms at room temperature 0,1 ms at 55°C
Switching time dark to light	0,2 – 0,3 s
UV/IR protection	Maximum UV/IR protection at any shade setting
Power supply	Solar cells, no battery changes
Operating temperature	-10°C – +70°C
Total weight	530 g
Size of cartridge	90 x 110 x 7 mm
Warranty	2 year warranty on ADF cartridge
Special characteristics	Mechanically durable cover lens
Accessories	Neck protection, hard hat adapter
Spare parts	2 front cover lens in scope of supply additionally included

The inexpensive alternative offering comfort and durability is called optrel® Miraplus OSE. A sliding switch on the back side of the cartridge gives you the choice to select either shade level 10 or 11. The sensor bar determines the sensitivity of the sensor by changing the angle of incoming light and the ergonomic design of the OSE welding helmet (available in unpainted black or optional blue color) along with the proven headgear guarantee a high level of comfort.

optrel® Miraplus OSE

1 Solar cells

The use of solar cells means that an on/off switch or change of battery are no longer required.

2 Viewing area

The LCD automatically darkens to the set shade level within fractions of a millisecond with arc ignition.

3 Sensor bar

Eliminates the influence of surrounding bright light and can be removed for more sensitivity in low amperage applications or under off-angle working conditions.

4 Shade level selector switch

Easy selection of either shade level DIN 10 or 11 protection via sliding switch.

5 Water resistance

The Miraplus ADF is protected against humidity and moisture (according to European IP 67 standard: 30 minutes at a depth of 1 meter).

6 Curved cover plate

The durable polycarbonate lens is equipped with an elastic seal to reduce negative effects caused by penetrating gases, smoke or particles. These cover lenses outlast conventional style cover lenses by a factor 10. The cover lens can be changed easily thanks to two quick-disconnects.

Colours available



black

blue

Applications

Electrode welding
MIG steel
MIG aluminium, MIG stainless steel
MAG welding

Not suitable for TIG-, laser- and oxy-gas welding.

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