# Eyes protection- Optoelectronic welding hood



# >> Use <sup>(\*)</sup>

This welding helmet is designed to protect the user against the risk of injury to the eyes and face by mechanical impacts and against radiation related to welding activities (TIG, MIG ...), cutting ...

The hood should not be used for laser and gaz welding.

# >> Technical features

- ✓ Moulded in rigid high-strength black polypropylene.
- A clear PC protective cover lens is secured to the front and rear frames.
- The frontal viewing window is equipped with a solar cell and filter for welding operations, in shades 4/9-13 (fixed shade 4, automatically variable shade ranging from 9 to 13).
- Response time 1/25,000 s.
- Interior field of vision 92 x 42 mm.
- ✓ Dimensions of filter 110 mm x 90 mm x 9 mm.
- ✓ 2 sensors.
- The polyethylene headband is provided with two lateral joints for the rotation of the hood-shield assembly, with a facility for the adjustment of the tightening torque using a nut and bolt system.
- Foam padding is attached to the front and rear of the head band.
- The two upper straps allow the adjustment of height by a system of spikes.
- Adjustment around the head is achieved by a rack and pinion system.
- ✓ Packing : carton of 6 units.
  - each unit in individual customized box.

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#### >> Advantages

- With auto-darkening welding filter for easy and safety welding.
- Simple and compact design. Easy to use. Wide viewing area. Excellent performance. Maximum safety security.
- Darkens in 1/25,000 second. Automatic power ON and OFF. Protects form UV and IR radiation. Light weight.
- Modern design. Comfortable wear.
- Headgear with comfortable sweatband on the front and easy ratchet adjustement in the back.
- Spare PC front cover lens available for a longer life of the equipment (ref: ACC1190E2).

# >> Conformity

This equipment has been tested according to the following European Standards :

- Welding hood reference MS1190, EN 175: 1997. Personal protection. Equipment for eye and face protection during welding and allied processes
- ✓ Automatic filter reference ACC1190FA, EN 379 +A1 :2009. Personal eye-protection. Automatic welding filters. (4/9-13 SINGER<sup>®</sup> 1/1/1/2/379 C€)
- Front PC cover lenses, reference ACC1190E2,: EN 166: 2002. Personal eye-protection— Specifications.
- Inside PC cover lens, reference ACC1190, EN 166: 2002. Personal eye-protection— Specifications.

It complies with the European Regulation (EU) 2016/425 on Personal Protective Equipment (PPE). Category II. Intermediate design.

EU type examination certificates issued by DIN CERTCO. Notified body n°0196.

Download the EU declaration of conformity on: http://docs.singer.fr

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ACC1190E2

# MS1190

the product. Issue LS 12019\_11\_12. Copyright: Singer, Fotolia.

carefully the instructions enclosed with

to check whether the product is suitable or not for the i

(\*) Type of use is given as a guide only. It is to the end



## How does an opto-electronic helmet work?

The MS1190 opto-electronic device for welders is a protective device equipped with an electronic system of the LCD (liquid crystal display) type, which is light-reactive (certified in accordance with EN standard 379).

This model is fitted to an opaque protective helmet (certified in accordance with EN standard 175) of rigid and high-strength polypropylene construction.

Other materials may be used (polyester, etc.) or other colours may be available (including decorative finishes), according to the manufacturer concerned.

The helmet covers the entire face, and provides protection against physical

projections, together with radiation protection which is at least equivalent to that delivered by the darkest filter used.

The LCD screen, itself protected by exterior and interior guard screens of clear polycarbonate (certified in accordance with EN standard 166), is attached to this helmet.

The helmet is fitted with a highly practical harness, which eliminates the need for the handling of the device. The harness is comprised of a head strap, which is adjustable to the rear by means of a ratchet thumbwheel.

The upper straps are adjustable by means of a system of lugs.

An anti-perspiration strip is fitted at the front, for the comfort of the user.

Sensors fitted in proximity to the LCD screen detect the ignition of the welding arc, and initiate the automatic darkening of the unit within a very short space of time. Once welding is complete, the screen returns to its original shade (filter shade 4).

The number of sensors varies from 2 to 4, depending upon the model concerned. The **MS1190** is fitted with two sensors.

The **MS1190** is provided with a number of adjustment functions, arranged on the interior and the exterior of the helmet:

- a darkening shade adjustment function (from shades 9 to 13) (exterior)
- a sensitivity adjustment function, in order to determine the light intensity with effect from which the filter will darken (interior)
- an adjustment function for the speed of restoration of the clear state, in order to prevent excessively rapid dazzling (interior)
- a polishing function (exterior)

For operation, the opto-electronic helmet is powered by a solar cell and by two lithium batteries.

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MS1190

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