

## FULL FACE MASKS

Protection against gases and vapours,  
mists and dusts

### DATA SHEET

**5400**

cod. 8001039

**EN 136:1998 Cl.3**



EN 136:1998 performance tests		EN 136	BLS 5400
Total inward leakage (%)		< 0,05	0,001
Breathing resistance (mbar)	inhal. 30 l/min	< 0,5	0,2
	inhal. 95 l/min	< 1,5	0,8
	inhal. 160 l/min	< 2,5	1,8
	exhal. 160 l/min	< 3,0	2,6
CO <sup>2</sup> content (%)		<1,0	0,4

### Main features

BLS 5400 full face mask is marked by a soft silicone rubber facepiece, an adjustable head harness with six fast realise buckles and a panoramic visor. The inner mask is equipped with two inhalation valves, to reduce visor misting and assist comfort. The central connection for filters is threaded according to EN 148-1 standard, to be used with all the devices fitted with the same EN 148-1 male threaded connection (gas, particle and combined filters, power assisted filtering devices).

### Materials

BLS 5400 full face mask is made by the following materials:

- facepiece: silicone rubber
  - inner mask: silicone
  - visor: polycarbonate
  - filter holder (connection): ABS
  - head harness: synthetic rubber
- Weight: 540 g

### 400 series filters

BLS 5400 full face mask can be fitted with BLS 400 series gas, particle and combined filters, equipped with standard threaded connection. The filters are fitted directly onto the central connection of the mask. BLS 5400 full face mask is also fitted as component of the BLS power assisted filtering devices SGE2600 models.

### Correct usage

Exposure limit for full face masks with particle filters:  
full face mask with filter P2 = 16 \* XTLV  
full face mask with filter P3 = 1000 \* XTLV  
Exposure limit for gas masks with filters:  
full face mask + gas filter = 2000 \* XTLV  
Exposure limit for face masks with filters combined:  
full face mask + gas filter + filter P2 = 16 \* XTLV  
full face mask + gas filter + filter P3 = 1000 \* XTLV

\* FPN (nominal protection factor) as specified in EN 529:2005

### Certification

BLS 5400 full face mask fulfils the requirements of EN 136:1998 European Standard and it has the CE marking according to the European Directive 89/686/EEC, as a PPE of III category. Italcert Srl (Notified Body n°0426) is the responsible of the certification (Art. 10) and of control (Art. 11.B). The products are manufactured in a company that is ISO 9001:2008 certified

### Certification tests

BLS 5400 full face mask meets the requirements of EN 136:1998 standard and has been submitted to the tests provided by class 3 (great resistance to radiant heat and flame - suitable for fire fighting) of the reference standard.

#### • Total inward leakage

The full face mask must have a good face fitting. The total inward leakage test provides that 10 subjects carry out a series of exercises simulating the work conditions fitting the respirator. During the test, the test aerosol (Sodium chloride) is measured to see how much of aerosol passes through face seal leakage and exhalation valve leakage. Total inward leakage shall be not greater than 0,05%.

#### • Breathing resistance

Breathing resistance offered from the mask must not be greater than the following values: during the test with breathing machine (25 cycles/min and 2,0 l/stroke) or continuous flow 160 l/min shall not exceed 2,5 mbar for inhalation and 3,0 mbar for exhalation. The inhalation resistance shall not exceed 0,5 mbar with continuous air flow 30 l/min and 1,5 mbar with continuous air flow 95 l/min.

#### • Carbon dioxide

The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1,0 % (by volume).

#### • Resistance to radiant heat

Class 3 full face mask must be resistant to radiant heat. BLS 5150 full face mask is resistant to radial heat because it maintains the leakage after a test time of 20 minutes, also if it suffers a deformation.

#### • Visual field

A full face mask equipped with a visor must be designed to have a real visual field not lower than 70% (BLS 5400= 89,3%) of the natural visual field and a binocular visual field not lower than 80% of the Natural binocular visual (BLS 5400= 88,1%)

## Warnings

### Donning and leak tightness test

After the checks necessary before use, donning the mask following the next procedure: 1) elongate the straps of the head harness as much as possible; put the harness behind the neck and put the chin into the face seal, keeping the two lower straps stretched open with the hands; 2) pull the mask over the head and adjust it on the face. Be sure that hair does not remain trapped between seal and forehead; 3) adjust the side straps, then the upper straps and finally the lower ones. Do not tight the straps excessively; 4) before entering a contaminate atmosphere, check the tightness of the mask: whilst wearing the mask, close the standard connection where the filter must be screwed using the palm of the hand and take a deep breath. The mask should collapse in towards the face and remain so for as long as you hold your breath. This check is necessary to ensure that the face seal is fitted correctly. If it is not, tighten the straps or adjust the mask over the face. Then repeat the check until the fit is perfect.

### Cleaning and disinfecting

Take particular care of any contaminants deposited on the mask. All cleaning should take place in safe areas. Do not use abrasive substances to clean the visor. Cleaning and disinfection operations: 1) After removing mask and contaminated filter, clean under running water to remove most of the contaminants; then clean more fully by placing in boiling water (temperature not upper to 40°C) with a common neutral soap. If disinfection is required, use a solution of a common disinfectant based on active chlorine diluted in sodium chloride. 2) Dry the mask with a soft, clean cloth or make it dry naturally. 3) When dry, clean the visor with clean cotton wool.

**Storage time:** 10 years (factory sealed), as shown on label.

**Storage conditions:** temperature range -10°C e +50°C, Relative Humidity < 80%, as shown on label (pictogram of thermometer and umbrella)

For all the information about applications, limitations of use and maintenance, see the User's manual enclosed to each full face mask (code ISU0015\_02).

## Technical details

Polycarbonate visor is optic class tested (EN 166 norm), anti scratch and anti acid.

6 point attach K-omfort harness does not mark user's face.



# K-omfort

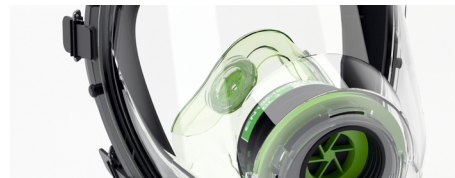


## EN 148-1

5000 monofilter series supports standard fitting EN 148-1. BLS 5150, 5400 and SGE46 use DIN unified fitting.



Silicone flat valves on inner face piece grant maximum safety for end user.



Soft silicone rubber gasket offers higher comfort for the user.

BLS 3150, 3150V, 3400, 5150, 5400 and SGE46 support BLS 400 series filters.



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