



# LASERMET LTD

## laser safety solutions



## Looking for safety compliance of your laser facility?

Businesses and other organisations are increasingly recognising the benefits of creating a safety culture in terms of better staff morale, reduced sickness and increased productivity. The proper interlocking of laser facilities is widely regarded as best safety practice and is thus essential for any company using lasers which has a commitment to the safety of its employees. In addition, the use of interlocks is a requirement of EN/IEC 60825-1 for all Class 4 and most Class 3B lasers whatever the application, and is usually enforced by HSE and local authority inspectors.

## Choose the ICS-1 interlock and warning sign system

The ICS-1 is a comprehensive and highly flexible system for the control of laser interlocks which has been designed to meet all the relevant European Standards (in particular EN 954-1 'Safety related control systems ...' as well as EN 60825-1) and incorporates a unique safety checking circuit which ensures that the system is fail safe. It can be used with lasers of all powers and types, and incorporates automatic switching of illuminated warning signs, over-ride facility for entry or exit, operation of laser power supply, external shutters or interlock connectors and much more. The IPS-11 is a heavy duty interlocked power supply designed as an add-on option to the ICS-1 for the interlocking of ring mains, large power supplies or multiple lasers in the same room. Please call our sales department for help in designing your system.

## Functions and Features

- ▼ Interlocked laser power supply
- ▼ Interlocked laser shutter supply
- ▼ Interlock connector operation
- ▼ Automatic switching of illuminated signs
- ▼ Use with mechanical or coded magnetic door switches
- ▼ Automatic fault detection and shutdown
- ▼ Reset switch
- ▼ Key-switch operation
- ▼ LED indication for interlock switch status; reset ready; system checked; override on.

### ICS-1 Specifications

Interlocked outputs	1. 230 V, 10 A 2. 12 or 24 VDC selectable, 2 A or 1 set n/o clean contacts
Warning light output	230 V, 1 A max
Supply	230 V, 13 A
Size	300 x 400 x 100 mm
Weight	6.2 kg
Conforms to	Machinery Directive; Low Voltage Directive; EMC Directive
Meets	EN 954-1, Category 3 safety system; EN 61508, SIL4 EN 61010; EN 60947-1

## Options

- ▼ Emergency stop switch
- ▼ Fail-safe, adjustable time limited override
- ▼ Secure or non-secure override switches: pushbutton, keypad, key-switch or swipe card
- ▼ Override alarm
- ▼ Fail-safe door-locking interlock system, compatible with fire and other safety regulations
- ▼ Use with one-way, two-way or three-way signs
- ▼ Can be configured to guard one of two areas eg enclosure when closed, or laboratory when enclosure open

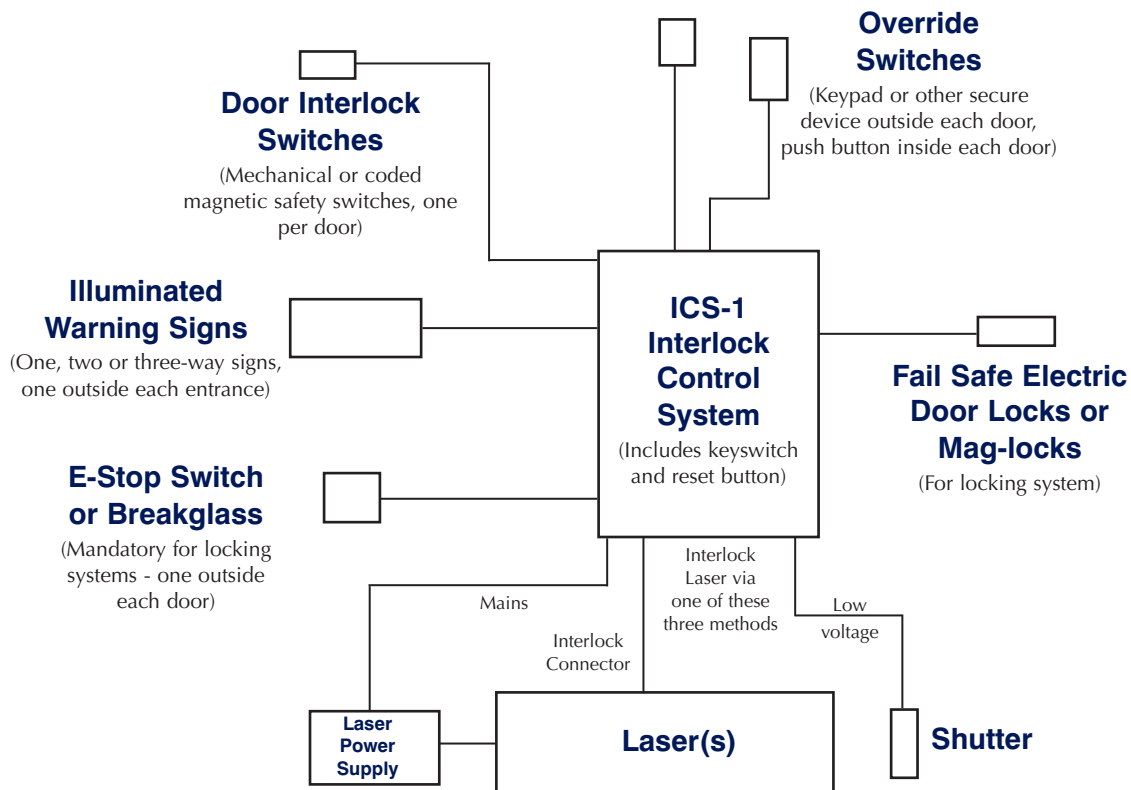
### IPS-11 Specifications

1. Two 230 V, 32 A or one 415 V, 32 A
2. 12 VDC, 5A    3. 24 VDC 1A
4. 8 sets n/o clean contacts
230 V, 10 A
from ICS-1 plus supply for 1. above
300 x 400 x 100 mm
7.5 kg
as ICS-1



**Non-locking interlock system** is the usual configuration

**Locking interlock system** is recommended for laser operating theatres, areas running long experiments and any situation where accidental interruption of the laser is undesirable



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