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ICS-5 Laser Interlock System

The ICS-5 Laser Interlock System is the latest development of the market-leading ICS-1 Laser Interlock Control System. It is based on the same tried and tested safety control system, but has been totally updated and simplified internally to include the latest in electronic technology and design. Supplied in a smaller, attractive enclosure, it has a simple, easy-to-use control panel which can be wired directly to 4 interlocks or groups of interlocks.

The ICS-5 has all the safety features of the ICS-1 and complies with the relevant European Machinery Directive Standards - in particular EN954-1 & EN13849-1 (Safety related control systems).

The ICS-5 has the same basic functions of the ICS-1, namely:

- Interlocked mains supply
- Interlocked low voltage supply for beam shutters
- Laser interlock connector operators
- Key-switch operation to prevent unauthorised use
- Arm laser button
- Time limited fail-safe override option
- Automatic switching of illuminated signs
- Emergency stop circuit

- Can be configured as a locking or non-locking interlock system
- Automatic fault detection and shutdown
- LED indication for interlock switch status; reset ready; system checked; override on
- Dual-redundant fail-safe circuitry

In addition it has the following extra functions:

- Can be used as a local laser controller as part of a larger system, which may be controlled by a master ICS-1 or ICS-5. Optional safety status and ready status outputs can be provided to communicate with the ICS-1 or remote indicator panel
- Surface-mounted or flush-mounted standard options. Deep option for safety contactors for switching high power or multiple lasers.
- External facility to allow the system to be disabled by an external source e.g. supervisor's keyswitch
- Operation of mains or low voltage signs
- Integrated automatic switching of dual mode sign

Warning Sign Options

The ICS-5 can be used with either standard mains powered signs or with Lasermet's new compact low voltage LED Signs. Automatic switching of single or dual mode signs is available.

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ISO 9001 REGISTERED FIRM
Cert No GB3164

UKAS TESTING
2682

ISO/IEC 17025:2005
Only for optical testing to:
IEC/EN 60825-1
IEC/EN 60825-12
IEC/EN 60601-2-22

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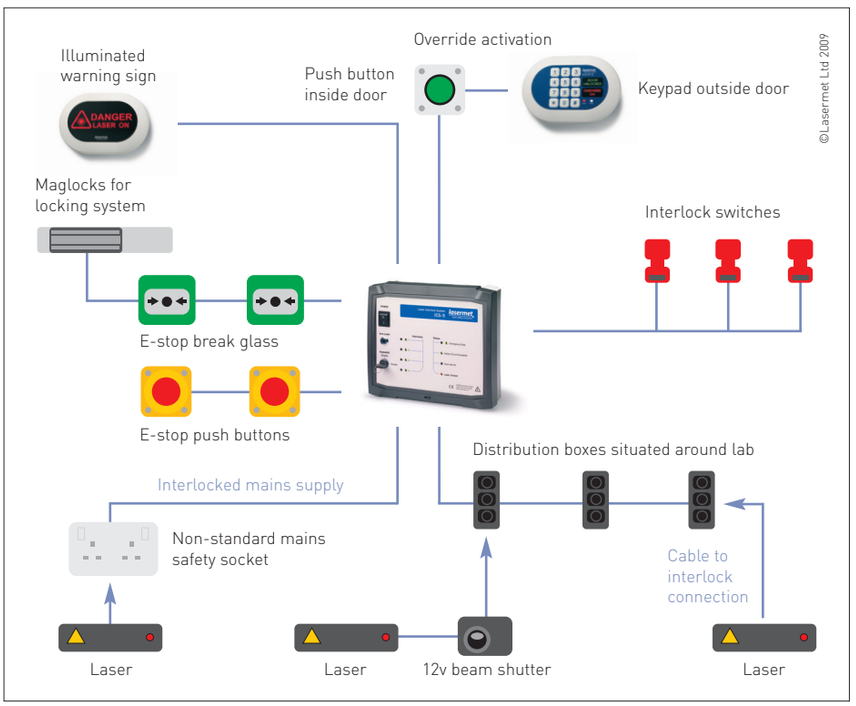
ICS-5 Laser Interlock System Installation



Flexible Expandable System

Over the years the ICS-1 has developed a reputation as a cost effective, reliable and highly flexible interlock controller. We have built on this foundation to produce the ICS-5 which is even more flexible whilst maintaining reliability and cost effectiveness. By adding the IB9 interlock board the standard unit can be expanded to have 9 interlock outputs. By using the deep back box, contactors can also be added to give interlocked 32A single phase and 3 phase mains supplies. In addition the ICS-5 can be connected to other ICS-5 or ICS-1 systems to operate as master or slave unit. Another common variation is to have an interlocked enclosure within a laboratory with a keyswitch to change between lab interlocked and enclosure interlocked modes. Less common but equally possible, labs can be split with a divider laser curtain or partition, and then operated in single or double lab mode.

	ICS-5	ICS-5 + IB9 Enhancement	ICS-5 + IB9 + Contactor Enhancement
Interlocked outputs	3 x outputs (rated at 6A at 250 VAC / 50 VDC) Configure as desired eg. 1 off Interlocked mains output (6 A) 1 off Interlocked shutter output (for up to 4 shutters) 1 off Interlock connector operator	9 x outputs (rated at 8A at 250 VAC / 50 VDC) Configure as desired eg. 1 off Interlocked mains output (8 A) 1 off Interlocked shutter output (for up to 6 shutters) 7 off Interlock connector operators	8 x outputs (rated at 8A at 250 VAC / 50 VDC) 4 x mains outputs (rated at 32 A, 415 VAC) Configure as desired eg. 1 off Interlocked mains output (32 A) 1 off Interlocked 3-phase output (32A) 1 off Interlocked shutter output (for up to 30 shutters) 7 off Interlock connector operators
Door interlock switches	Unlimited numbers can be connected Monitoring available for 4 switches or groups of switches		
Warning light output	230V or 24 VDC, 1A Automatic switching of single or dual message signs		
Emergency Stops	Unlimited numbers of emergency stops can be connected Can be connected into Fire Alarm or access control system		
Supply:	230 V / 110 V, 1A + connected load		
Size	265 w x 230 h x 86 deep (mm)	265 w x 230 h x 145 deep (mm)	265 w x 230 h x 145 deep (mm)
Weight	2 kg	2.2 kg	3 kg
Directives	Conforms to Machinery Directive, Low Voltage Directive, EMC Directive		
Standards	Meets EN954-1 & EN13849-1 (Cat 3 safety system), EN61508 (SIL 4), EN61010, EN60947-1		

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