



Trapped Key CONTROL SWITCH with solenoid control – Type ISB4-SR

Operating Instructions

CONTROL SWITCH WITH SOLENOID RELEASE UNIT - ISB4-SR:



Request Button version also available

The ISB4-SR is a Trapped Key operated control switch designed to turn off machine safety circuits.

The Key is trapped when the main safety contacts are closed (machine able to run) and can only be released when the internal solenoid in the ISB4-SR is energised.

This then enables the key to be turned and released and the safety contacts opened. The Key can then be used to release other devices in a Trapped Key system.

It can be used in conjunction with safety delay timers to allow a delay time before the solenoid is energised therefore allowing for any machine run down prior to releasing of the key.

Versions with integral request button are available.

ISB4-SR STAINLESS STEEL 316

Sales Number	Contact Block	Solenoid Voltage	Conduit Entry
SS-ISB4-SR-22	2NC 2NO (240V 3A max)	24V ac/dc	M20
SS-ISB4-SR-31	3NC 1NO (240V 3A max)	24V ac/dc	M20

ISB4-SR DIE-CAST METAL (Mirror Finish)

Sales Number	Contact Block	Solenoid Voltage	Conduit Entry
M-ISB4-SR-22	2NC 2NO (240V 3A max)	24V ac/dc	M20
M-ISB4-SR-31	3NC 1NO (240V 3A max)	24V ac/dc	M20

ISB4-SR STAINLESS STEEL 316

(with changeover pushbutton)

Sales Number	Contact Block	Solenoid Voltage	Conduit Entry
SS-ISB4-SR-22-PB	2NC 2NO (240V 3A max)	24V ac/dc	M20
SS-ISB4-SR-31-PB	3NC 1NO (240V 3A max)	24V ac/dc	M20

ISB4-SR DIE-CAST METAL (Mirror Finish)

(with changeover pushbutton)

Sales Number	Contact Block	Solenoid Voltage	Conduit Entry
M-ISB4-SR-22-PB	2NC 2NO (240V 3A max)	24V ac/dc	M20
M-ISB4-SR-31-PB	3NC 1NO (240V 3A max)	24V ac/dc	M20

READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE INSTALLING, OPERATING, OR MAINTAINING THIS EQUIPMENT.

The product is designed to be a component of a customized safety oriented control system. It is the responsibility of the user to ensure the correct overall functionality of its systems and machines.

IDEM, its subsidiaries and affiliates, are not in a position to guarantee all of the characteristics of a given system or product not designed by IDEM.

INSTALLATION: Installation must only be carried out by competent personnel and in accordance with these instructions.

Always use correct size metal mounting bolts (M6). Tightening torque 2Nm.

WARNING:

It is the responsibility of the person installing the electrical equipment to ensure that the installation meets the requirements of the IET wiring regulations and is therefore 'fit for purpose'. Factors such as correct selection of components, cable sizing, protective devices and Earth bonding are all critical and should be checked prior to full testing and power-up. Any other regulations applicable to the equipment being installed such as the Machinery Directive and current health and safety legislation must also be adhered to. Terminals, including factory fitted, should be checked periodically to ensure correct tightness.

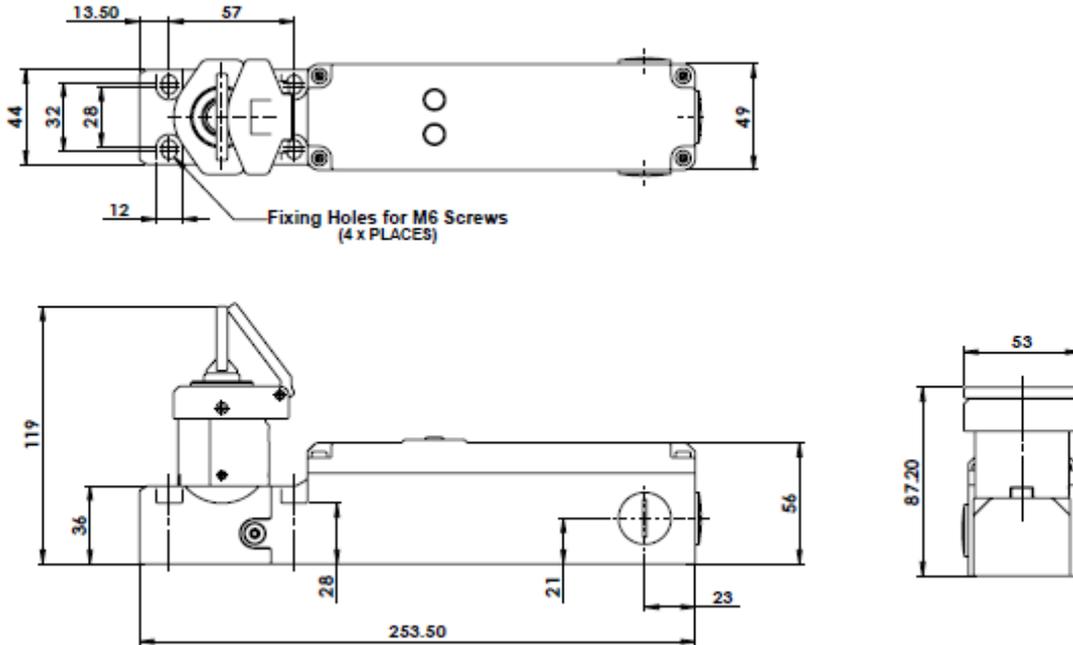
MAINTENANCE: Every month: Check correct operation of all circuits. If the key or housing display signs of mechanical damage then remove and replace.

IDEM will not accept responsibility for failure of the interlock functions if the installation and maintenance requirements are not implemented.

THESE INSTRUCTIONS FORM PART OF THE PRODUCT WARRANTY.

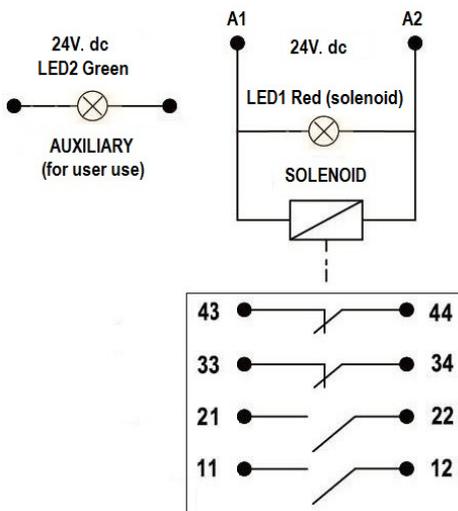
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PRODUCT DIMENSIONS



TECHNICAL SPECIFICATIONS:

Body Material: Stainless steel or Die Cast
 Operating Temperature: -20C. to +40C.
 Mechanical Life (B10d): 1,000,000 cycles
 Solenoid Voltage: 24V.dc (+/- 10%)
 LED2 voltage: 24V.dc (+/- 10%)
 Conduit exit: M20
 Enclosure protection: IP67
 Changeover pushbutton (if fitted): 24V.dc / 400mA



Applying 24V.dc to A1 and A2 will:

Energise the solenoid and allow the key to be removed
 Contacts 11/12 and 21/22 will open (safety contacts)
 Contacts 33/34 and 43/44 will close (auxiliary contacts)
 LED1 (red) will stay illuminated
 Key can be turned and removed then allowing the key to be removed.

De-energising A1 and A2 will:

Cause LED1 (red) to go off and allow key to be inserted and turned to the trapped position
 Contacts 11/12 and 21/22 will close (safety contacts)
 Contacts 33/34 and 43/44 will open (auxiliary contacts)

LED2 Green is an auxiliary indication circuit for optional user use.

Changeover Push button (if fitted)

Wire colours (NC/NO):
 Black = common
 Brown = NC
 Blue = NO

