

KLP2-FSB-1S-0-FR-4-D

The KLP bolt interlock is a key operated mechanical bolt interlock complete with position monitoring electrical contacts for the control of electrical switchgear or valves. The KLP lock comes with a 16 mm diameter bolt of variable length, that is used to control the rotation or movement of operating handles or toggles. The KLP1 comes with 2N/C 1N/O 10 amp contacts and the KLP2 has 4N/C 2N/O 10 amp contacts, these are used to provide remote indication of the bolt position or to switch the control circuitry on the machine. The locks are manufactured in brass or stainless steel making them ideally suited to use in harsh or corrosive environments.

Operation

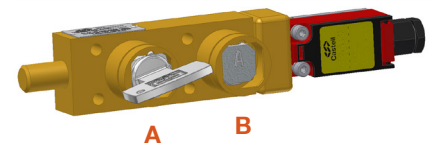
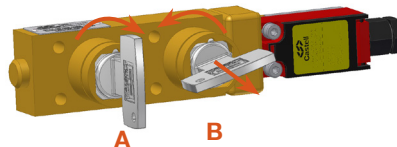
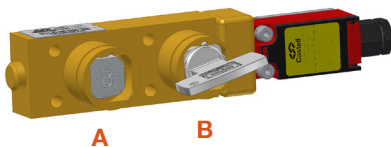
The Castell KLP bolt interlocks with safety switches are used in switchgear control to break circuitry and inhibit movement of cams, toggles or levers simultaneously.

KLP multi key bolt interlock with safety switch, rear entry, exchange key condition

① Key A is free, while key B is trapped and bolt is retracted.

② Insert and turn key A to extend the bolt. Release key B to trap key and change the contacts condition of the switch.

③ Key B is free, key A is trapped and bolt is extended. Switch contacts are reversed.

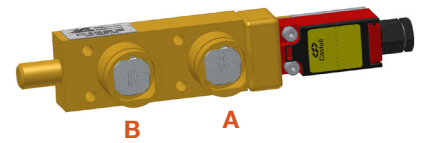
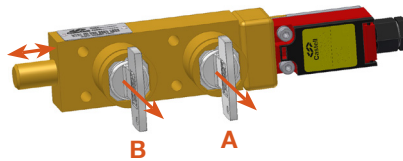
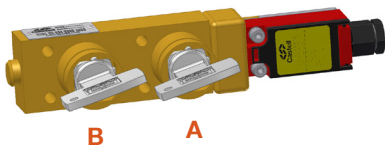


1. While the side bolt is retracted, key B is trapped and key A is free.
2. Inserting and turning key A in the KLP bolt interlock drives the bolt to extended position and allows to turn and release key B. This changes the contacts condition in the KLP switch. The extended bolt locks the power disconnector in the OFF position. Key B can now be taken by personnel into machine area.
3. With key B released and key A trapped in the KLP, the bolt stays extended, ensuring the disconnector is in the safe condition.

Operation

KLP multi key bolt interlock with safety switch, rear entry, double key condition

- ① Key A and B are trapped, while the bolt is retracted.
- ② Turn and release both keys, to drive the bolt and change switch condition.
- ③ Both keys are free and bolt is extended. Switch contacts are reversed.



1. While the side bolt is retracted and key B is trapped, key A is free.
2. Turning and releasing key A in the KLP bolt interlock changes the contacts condition in the KLP switch and enables the rotation of key B to drive the bolt. The extended bolt locks the power disconnecter in the OFF position. Both keys can now be taken by the personnel to the machine area.
3. With both keys released, the bolt stays extended, ensuring the disconnecter is in the safe condition until both keys are inserted and turned KLP bolt interlock.

Usage

The KLP multi key bolt interlock with safety switch should be used to allow safe control of valves or disconnect switches.



The KLP multi key bolt interlock is not designed for security purposes, such as a safe or external access to a building.

Installation

The housing of the KLP bolt interlock can be mounted either to a panel or on a surface using suitable fasteners. Please refer to drawing on page 4 for more details



IMPORTANT:

The interlock should be mounted using anti-tamper fasteners to prevent unauthorised removal.



The KLP bolt interlock must be installed by a competent and qualified person who has read and understood these instructions. Please retain this document in your technical file.

Force required to shear lock bolt is 30KN for stainless steel and 19KN for brass interlocks.

Maintenance

Periodic visual checks should be carried out by the site manager / safety officer.
Do not lubricate lock barrel with oil or grease, use CK Dry Powder Graphite if necessary.



In case of defects being detected please contact your nearest Castell Support Department for further actions.
Please see Contact section for contact details.

Technical Data

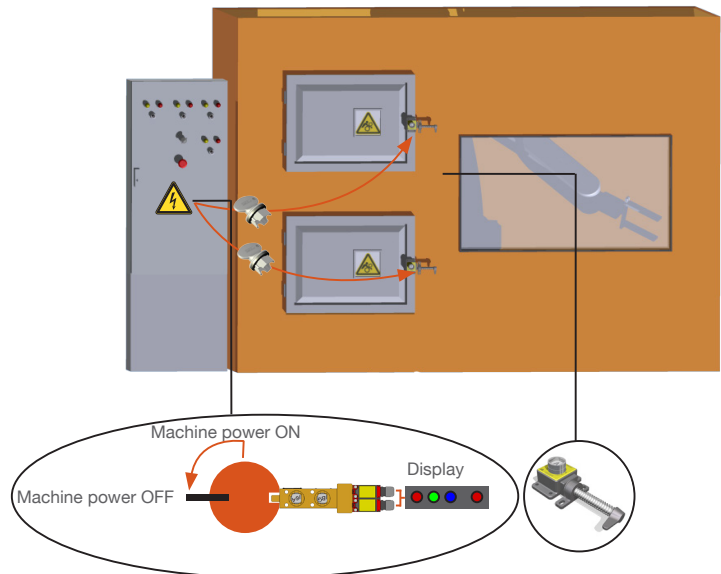
Temperature rating	-25°C ice free to +55°C
Type of mounting	panel or surface mount using suitable fasteners (please refer to drawing on page 4 for more details)
Weight	KP1: Front of board mount = 0,8 kg / back on board mount = 0,6 kg KP2: Front of board mount = 0,8 kg / back of board mount = 1 kg
Material	Brass/Stainless steel
Switch approvals	CE, CCC, cCSAus, IP65
MTTF Certification	Available on request

Application

Castell KLP bolt interlocks with safety switches are used as a part of a safety system, typically in switchgear applications.

The electrical supply of the machine is on, and the protective doors to the hazardous area are locked. Both keys are trapped in the KLP unit. Before entering the machine area the disconnecter lever needs to be rotated to isolate the power to the machine. To lock the disconnecter lever in the safe position both keys in the KLP bolt interlock need to be released. This extends the bolt of the KLP, locks it in the extended position and changes the contacts in the KLP switch. This is connected to a traffic light or another display, indicating the access to machine area can be gained.

The removed keys are taken to the AI access interlocks to open the doors. The power supply cannot be switched back on while the keys are trapped in the access interlocks.



EC-Declaration

We, the manufacturers, declare that the components, detailed herein and placed on the market, comply with all the essential health and safety requirements applying to them.

Empowered signatory:

Mr T.C. Whelan
Managing Director

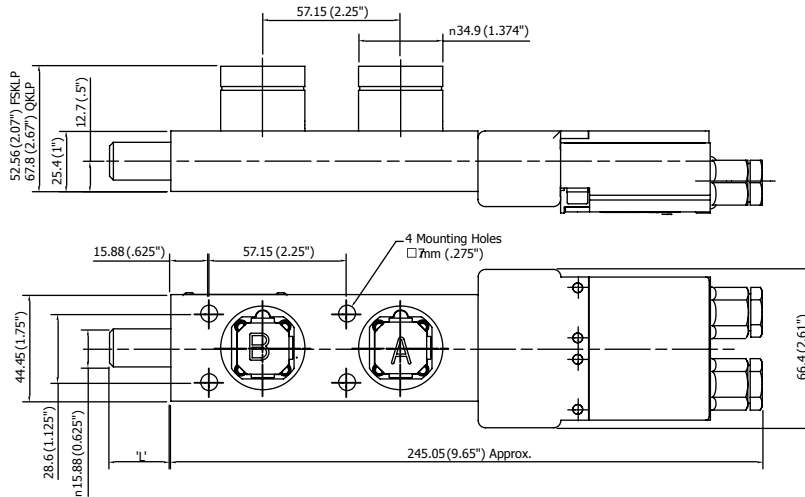


Drawing

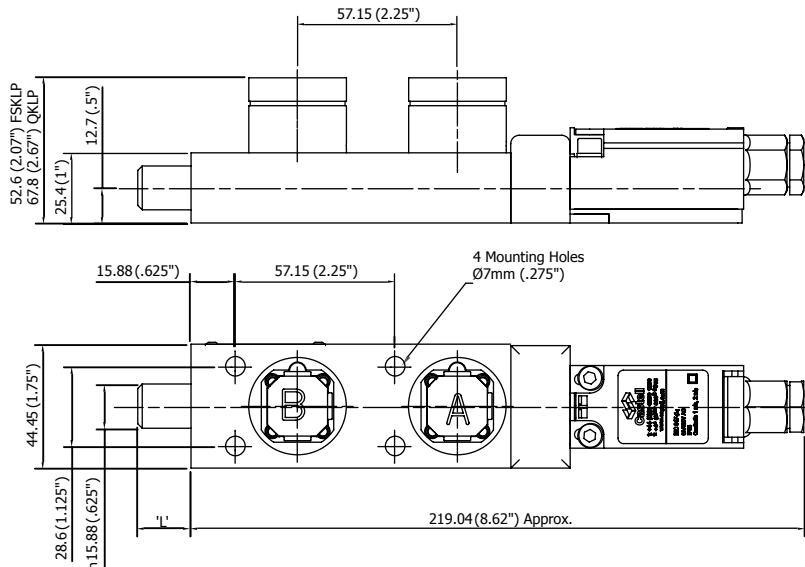
Dimensions:
in mm

Note: For safe mounting, use security screws

KLP2, REAR MOUNTED SWITCH



KLP1, FRONT MOUNTED SWITCH

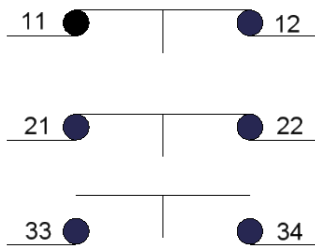


L Dimension Retracted bolt length (in mm)	Extended bolt length (in mm)
0	19,05
6,35	25,40
12,70	31,75
19,05	38,10
25,40	44,45

While every effort has been made to ensure the accuracy of the information provided, no liability can be taken for any errors or omission. Castell Safety International Limited reserves the right to alter specifications and introduce improvements without prior notice.

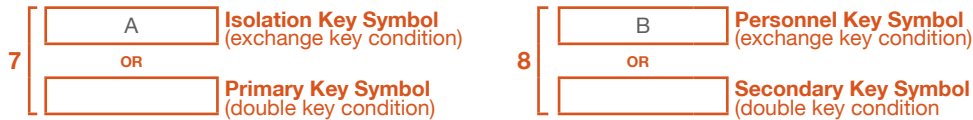
Wiring Diagram

Bolt retracted - switch on: 2 N/C - 1 N/O



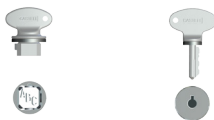
Order Information

Product Type	1	2	3	4	5	6	7	8	
Part Number	KLP								
Example	KLP	2	FS	B	1S	0	FR	4	D

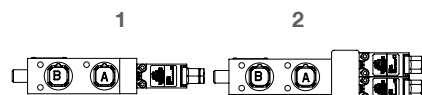


1	Switch specification	1 = 2NC/1NO (1 switch) ⁽²⁾ 2 = 4NC/2NO (2 switches) ⁽²⁾
2	Lock portion type	FS ⁽¹⁾ / Q ⁽¹⁾
3	Material	B = Brass / S = Stainless steel
4	Secondary lock portion(s) Secondary lock portions are provided for personnel keys, primary lock portion for the isolation key	1S / 2S / 3S / 4S / 5S or 6S = 1 / 2 / 3 / 4 / 5 or 6 secondary lock portions respectively
6	L Dimension (bolt length when retracted) in mm	0 / 6,4 / 12,7 / 19,1 / 25,4
6	Switch entry	FR = Front entry switch / RE = Rear entry switch ⁽³⁾
7	Form	1 / 2 / 3 / 4 ⁽⁴⁾
8	Key condition	E = Exchange key condition / D = Double key condition (removal of all keys)
7	Lock portion symbol: Isolation key (for exchange key condition) Primary key (for double key condition, located next to the bolt)	FS ⁽¹⁾ up to 3 characters / Q ⁽¹⁾ up to 6 characters
8	Lock portion symbol: Personnel key (for exchange key condition) Secondary key (for double key condition - this key drives the bolt)	FS ⁽¹⁾ up to 3 characters / Q ⁽¹⁾ up to 6 characters

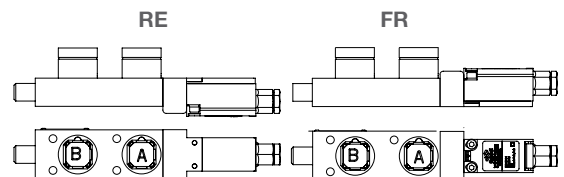
(1) **FS - Lock type** Up to 3 characters
Q - Lock type Up to 6 characters



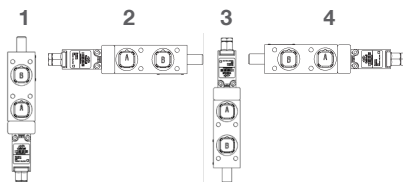
(2) **Switch specification**



(3) **Switch entry**



(4) **Form**



Special construction available upon enquiry

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