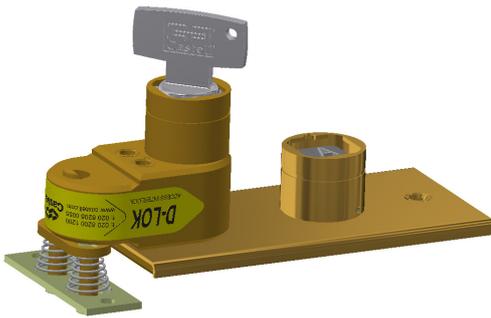


# BD Multi Key Panel Door Interlock



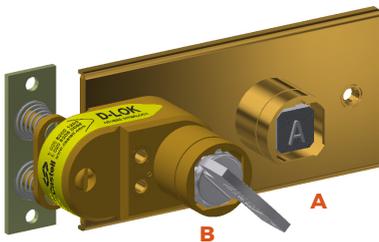
The BD Lock is a two part access interlock comprising of a main body and catch complete with secondary lock portions. The catch is available in two options, one suited to well aligned doors, the other suited to poor, mis-aligned doors. The lock is ideally suited for use on light duty panel doors in dry, non-corrosive environments where the lock is subject to light to medium use. Typical industries using the BD Lock are Control Panel Builders, MV and LV Switchgear and the food industry. The BD lock is available as FS or Q lock types.

## OPERATION

The BD lock range is used for interlocking electrical control cubicles and distribution panels.

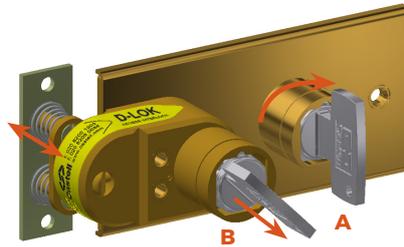
### BD multi key panel door interlock, exchange key condition

- 1** Key A is free, while key B is trapped and the catch is trapped.



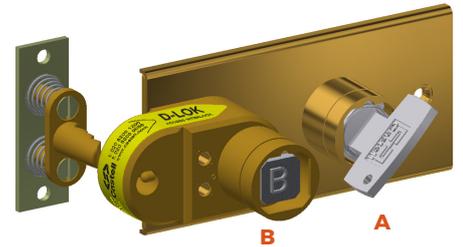
While the catch is trapped in the mechanism, key B is trapped and key A is free. The door is locked closed through the trapped catch.

- 2** Insert and turn key A, then turn key B to release catch and then release key B.



Inserting and turning key A in the bolt interlock enables the release of key B and the release of the catch. This will trap key A into the lock.

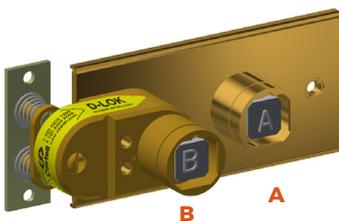
- 3** Key B is free, key A is trapped while catch is released.



Key B is used as the personnel key and taken to the machine area. Key A stays trapped as long the catch is released and key B is free.

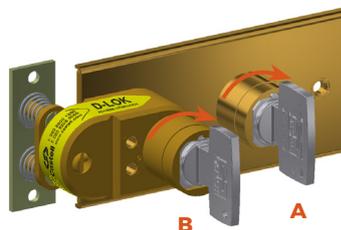
### BD multi key panel door interlock, double key condition

- 1** Both keys, A and B are free, catch is trapped.



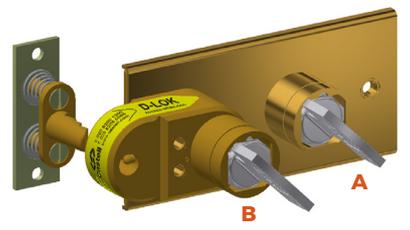
While the catch is trapped, both keys A and B are free. The door is locked closed through the trapped catch.

- 2** Insert and turn both keys to release catch.



Inserting and turning both keys in the BD bolt interlock enables you to release the catch unlocking the door. This will trap both keys into the lock.

- 3** Keys are trapped, catch is released.



The keys stay trapped as long as the catch is released.

The BD panel door interlock is available with rear or front entry mounted catch.

There are two catch types, standard for well aligned doors and MS catch for misaligned doors.

## USAGE

The BD panel door interlock should be used for interlocking electrical control cubicles and distribution panels.

 The BD lock is not designed for security purposes, such as access to a building.

No hazardous substances were used in the manufacture of this product.

## INSTALLATION

The housing of the BD panel door interlock should normally be mounted to a panel 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 BD Panel Door 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.

 The manufacturer should be consulted when use in a corrosive environment is planned.

 Alignment limits of 0.5 mm must be set in all planes. Angular displacement  $\pm 1^\circ$  between lock and catch.

## 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.

 The interlock must be inspected every 6 months. Safety checks should include ensuring the keys and catch can only be removed in the correct safety operating conditions (see page 1).

## TECHNICAL DATA

<b>Temperature rating</b>	Minimum: -40°C [-40°F] ice free for Q & FS lock type
	Maximum: 107°C [224.6°F] for Q lock type/140°C [284°F] for FS lock type
<b>Type of mounting</b>	Surface mount using suitable fasteners (please refer to drawing on page 4 for more details)
<b>Weight</b>	1.2 kg
<b>Material</b>	Brass
<b>Shock &amp; vibration</b>	In accordance with BS EN 50155 & IEC 61373
<b>PL rating</b>	PLd
<b>B10d</b>	2,000,000

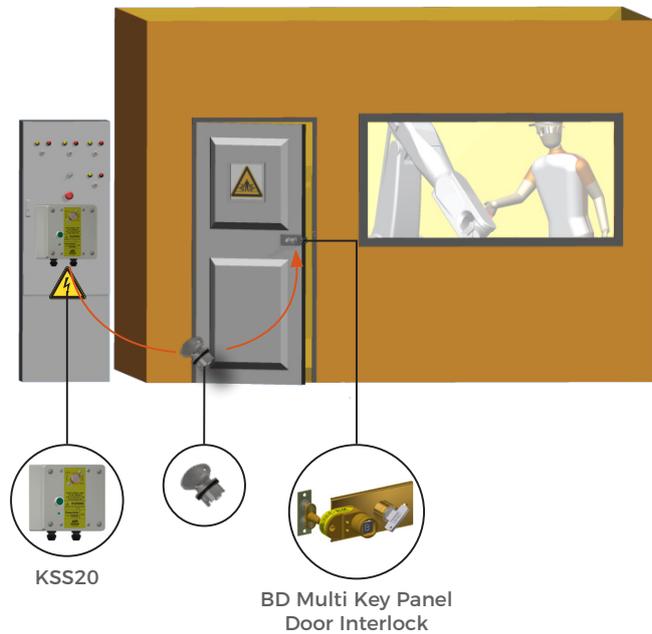
## APPLICATION

The Castell BD multi key panel door interlock safety component is used as a part of an integrated safety system, typically in machine guarding applications as in the below example.

The power supply to the system is switched on and the access door to the hazardous area is locked closed.

The removal of the isolation key in the KSS20, changes the switch contacts provided for electrical supply to the LV panel from closed to opened. This key is then used to unlock the door by inserting key in the BD panel door interlock and releasing the trapped personnel key and then the catch. This will trap the isolation key in the BD interlock. The personnel key is taken by the operator to the machine area.

The power cannot be switched on until the personnel key is returned, the door is closed, the catch is trapped in the BD panel door interlock and the isolation key returned to the KSS20.



## 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.

ISO 13849-1:2015 Safety of Machinery

2006/42/EC Machinery Directive

Empowered signatory:

Kirstie Van Oerle  
Business Unit Director 

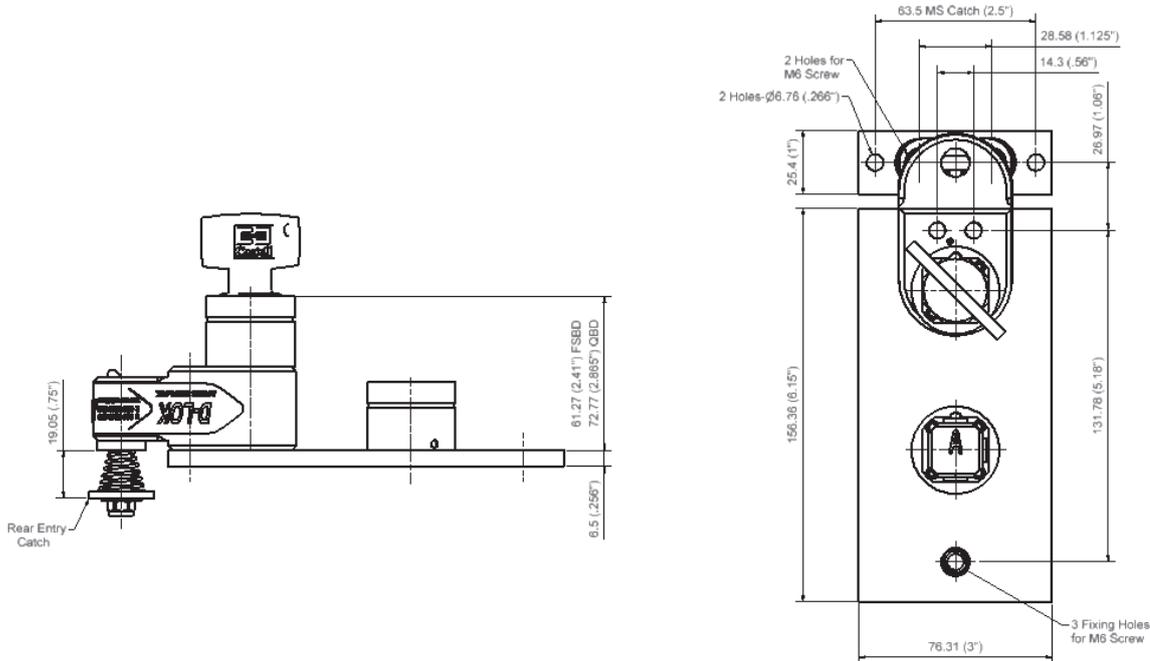
# BD Multi Key Panel Door Interlock

## DRAWING

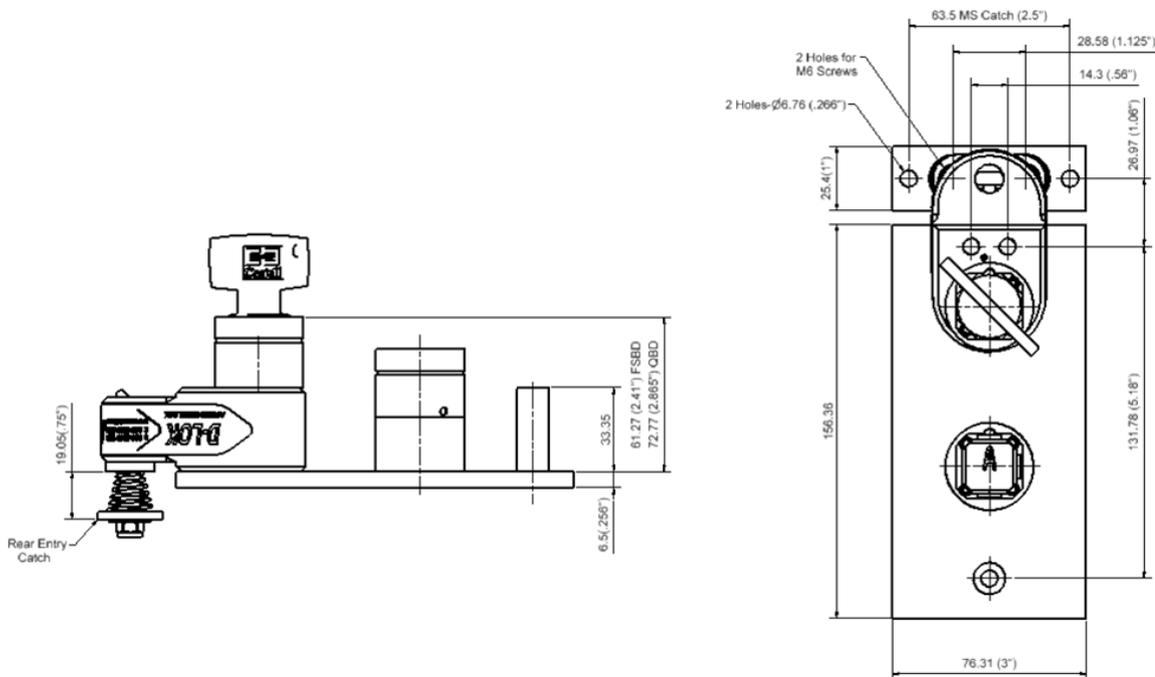
Dimensions: in mm

**Note:** For safe mounting, use security screws

### BD, front of board mount, exchange key condition, form 1



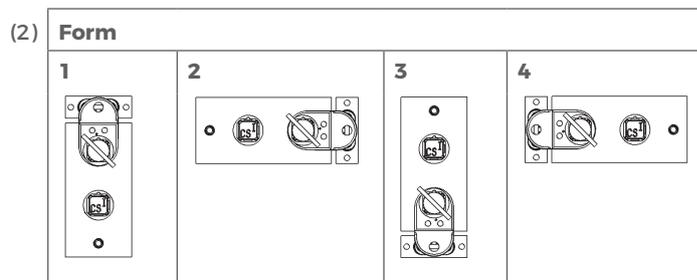
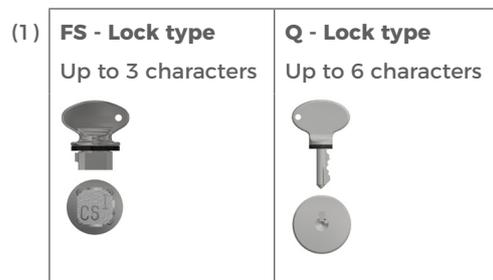
### BD, back of board mount, exchange key condition, form 1



## ORDER INFORMATION

	Component type	1	2	3	4	5	6	7	8	
Part number	BD									
Example	BD	FS	B	F	1S	E	RE	STD	4	
		9	B	Primary/Personnel key symbol (double key condition)			10	A	Secondary/Isolation key symbol (double key condition)	

1	Lock portion type	FS <sup>(1)</sup> / Q <sup>(1)</sup>
2	Material	B = Brass (standard)
3	Mounting	P = Panel mount (back of board) / F = Front of board mount
4	Secondary lock portion(s)	1S / 2S / 3S / 4S / 5S or 6S = 1 / 2 / 3 / 4 / 5 or 6 secondary lock portions respectively
5	Key condition	E = Exchange key condition / D = Double key condition (simultaneous removal of all keys)
6	Catch entry	RE = Rear entry / FR = Front entry
7	Catch type	STD = Standard catch, use for well aligned doors / MS = Catch with spring, use for misaligned doors
8	Form	1 / 2 / 3 / 4 <sup>(2)</sup>
9	Lock portion symbol: Primary key (lock next to the catch)	FS <sup>(1)</sup> up to 3 characters / Q <sup>(1)</sup> up to 6 characters
10	Lock portion symbol: Secondary key	FS <sup>(1)</sup> up to 3 characters / Q <sup>(1)</sup> up to 6 characters



Special construction available upon enquiry

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