



The KSD is a key driven non-fused switch disconnector suitable for power isolation. The standard KSD comes with either 4 or 6 poles plus 2 auxiliary early break contacts. The KSD is manufactured from either brass or stainless steel. It can be supplied either suitable for mounting into an existing panel, or in its own IP65 rated lockable mild steel enclosure.

## OPERATION

The Castell KSD Switch Disconnector is typically used for machine isolation applications in order to protect the hazardous area from access while power is on.

### KSD Switch Disconnector

**1** Key is trapped, power is on.



While the power is on and a machine is running, the key is trapped in the KSD Switch Disconnector.

**2** To switch power off turn and release the key.



To switch the power off turn and release the key from the KSD unit. This will change the condition of the forced break contacts from closed to open.

**3** Key is released, power is off.



The power is off until the key is replaced in the KSD Switch Disconnector.

The KSD is available for different switching loads as KSD32, KSD63, KSD125 and KSD160 as standard versions (with 32, 63, 125 and 160 amps power isolation respectively). Special versions, KSD250 and KSD315, are available upon special request.

Please refer to page 6 for more ordering details.

## USAGE

The KSD Switch Disconnecter is designed to be part of a safety system and is used to isolate power.



The KSD Switch Disconnecter is not designed for security purposes.

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

## INSTALLATION

The KSD unit should be mounted to a surface using suitable fasteners (please refer to drawing on page 4 for more details). The lock face should be sealed to the panel for ingress protection.

Cables should be connected to the switch in accordance with the applicable wiring diagrams. Ensure that the unit is bonded for earth continuity (please refer to drawing on page 4 for more installation details).



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



The KSD range of Switch Disconnecters 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.

## 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.



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



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

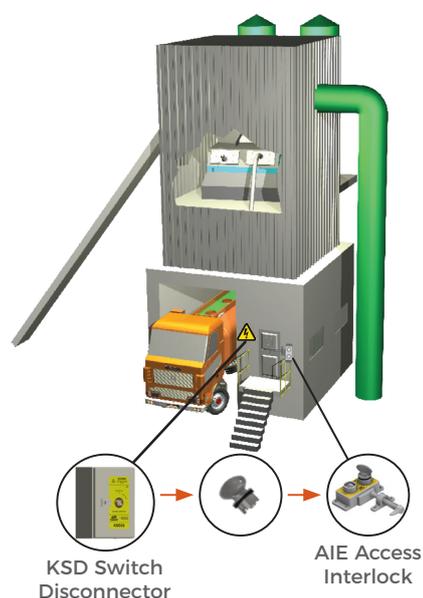
<b>Temperature rating</b>	Minimum: -5°C [23°F]
	Maximum: 55°C [131°F]
<b>Type of mounting</b>	3/8" or M10
<b>Weight</b>	KSD32 = 4.5 kg KSD63 = 4.5 kg KSD125 = TBA KSD160 = TBA KSD250 = TBA KSD315 = TBA
<b>Material</b>	Brass or Stainless steel, IP65 steel enclosure
<b>Power isolation</b>	32 A, 63 A, 125 A, 160 A, 250 A and 315 A options available
<b>Motor isolation (AC Values) / Switch polarity</b>	32 A: AC-23 A 11 kW AC-3 7.5 kW
	63 A: AC-23 A 22 kW AC-3 18.5 kW
	125 A: AC-23 A 45 kW AC-3 37 kW
	160 A: AC-23 A 55 kW AC-3 45 kW
<b>B10d</b>	2,500,000
<b>Shock &amp; vibration</b>	In accordance with BS EN 60068-2-6 & BS EN 60068-2-27
<b>PL rating</b>	PLe
<b>Switch standards</b>	IEC 947-3
<b>Switch approvals</b>	UL, CSA
<b>Operation</b>	Suitable for 1,000,000 operations

## APPLICATION

The KSD Switch Disconnector is designed to operate as part of an integrated safety system, controlling access to hazardous areas. Typical machinery using the KSD range are motor driven, high risk applications where complete isolation of the power supply is required before access is granted.

The removal of the key in the KSD changes the condition of the electrical supply to the machine to a safe condition. This key can now be removed and used to gain access to the hazardous area via the access interlock.

The machine cannot be restarted until the access door is closed and locked, and the key is returned and re-inserted into the KSD unit.

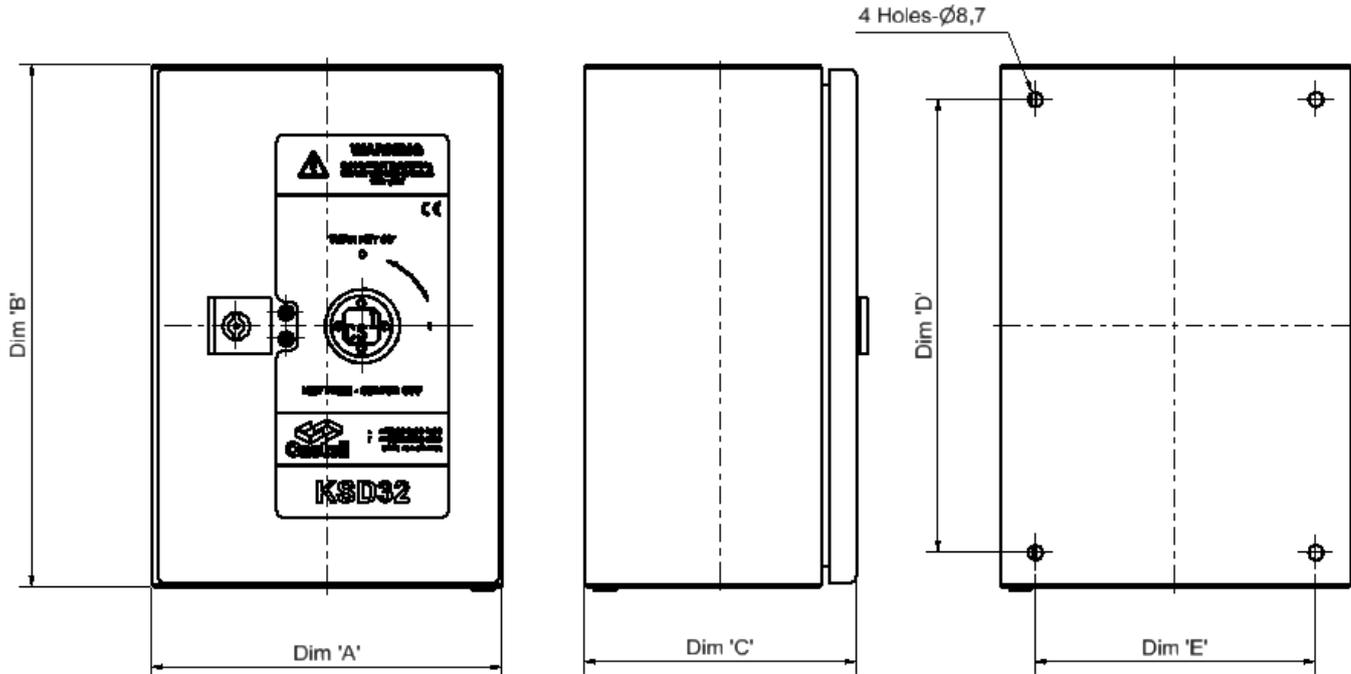


## DRAWING

Dimensions: in mm

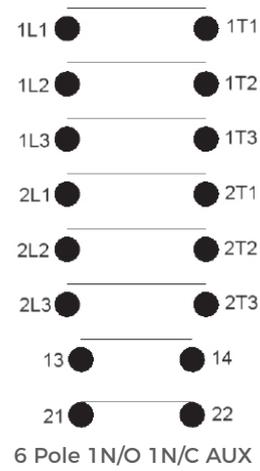
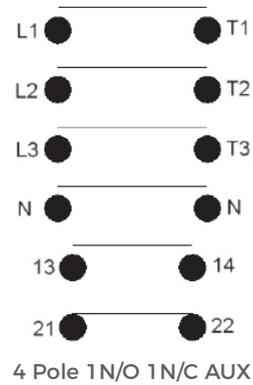
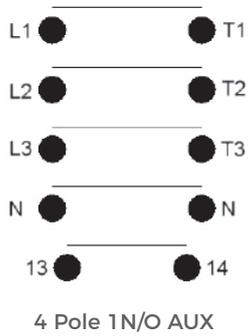
**Note:** For safe mounting, use security screws

## KSD



KSD Enclosure Dimensions						
Dim.	KSD32	KSD63	KSD125	KSD160	KSD250	KSD315
'A'	200mm	200mm	300mm	300mm	380mm	380mm
'B'	300mm	300mm	400mm	400mm	600mm	600mm
'C'	155mm	155mm	210mm	210mm	210mm	210mm
'D'	260mm	260mm	360mm	360mm	560mm	560mm
'E'	160mm	160mm	260mm	260mm	340mm	340mm

## WIRING DIAGRAM



## ORDER INFORMATION

	Component type		1	2	3	4	5	6	7	8
Part number	KSD									
Example	KSD	32	FS	B	F	CC	6	C/O	2	
		9								
	TBA									

1	Isolation	32 A (UL&CSA:30A), standard 63 A, 125 A or 250 A available on request (for switches over 125 A, key KSD-KEY-ST/STL should be used)
2	Lock portion type	FS <sup>(1)</sup> (KSD-R key recommended for use with all KSDs) Q <sup>(1)</sup> (not recommended for switches over 63 A)
3	Material	B = Brass / S = Stainless steel
4	Mounting	P = Panel mount (back of board) F = Front of board mount, enclosure
5	Main contacts arrangement in normal position (key in)	CC = NC arrangement (all contacts closed, standard)
6	Number of main contacts	6, standard
7	Auxiliary contacts arrangement in normal position	C/O = 1NO/1NC, standard
8	Number of auxiliary contacts	2, standard
9	Lock portion symbol	FS <sup>(1)</sup> up to 3 characters / Q <sup>(1)</sup> up to 6 characters

(1)	<b>FS - Lock type</b> Up to 3 characters 	<b>Q - Lock type</b> Up to 6 characters 
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Special construction available upon enquiry

## ACCESSORIES

	<b>Product</b>	<b>Part number</b>
	Flip Cap	FLIP-S

## CONTACT INFORMATION

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