KSE

Multi Key Powersafe Electrical Switch



The KSE is a multi-key controlled electrical switch designed for machine control circuits. This type of isolator should be used for short term, off load isolation. The unit is supplied for mounting into an existing panel or for surface mounting within its own IP65 rated lockable mild or stainless steel enclosure. It is available in FS or Q type lock portions. The KSE is manufactured from either brass or stainless steel.

OPERATION

Castell dual key access interlocks are used in various applications to control full body access to hazardous areas.

KSE multi key powersafe electrical switch, double key condition

1

Power is on, all keys are trapped



While the power is on, all keys are trapped.

2

Turn and release all keys to switch power off



By turning the keys, the contact condition changes switching the power off. The keys can now be released and taken by the personnel to unlock the doors in the machine area.

3

Power is off, all keys are sequentially released



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

Exchange key condition available on application.

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USAGE

The KSE powersafe electrical switch is designed to be part of a safety system and is used to isolate the power.

The KSE powersafe electrical switch is not designed for security purposes.

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

INSTALLATION

Back of panel units should be mounted to a flat surface. Panel and surface mount using suitable fasteners (please refer to drawings on pages 4 and 5 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 on page 6. Ensure that the unit is bonded for earth continuity (please refer to drawings on pages 4 and 5 for installation details).

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

The KSE range of switches 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.

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 switches operate in the correct safety operating conditions (see page 1).

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KSE
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TECHNICAL DATA

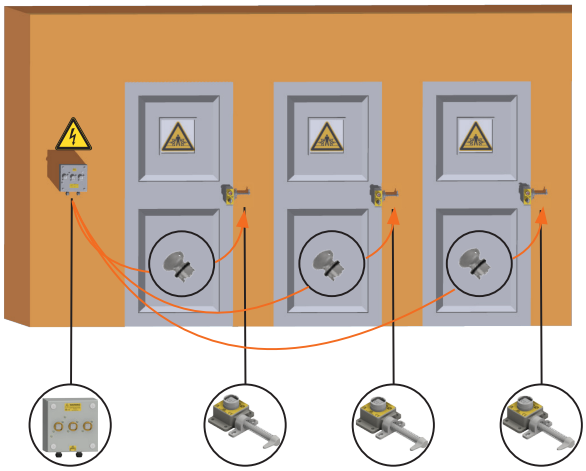
	KSE Multi Key Powersafe Electrical Switch
Temperature rating	-25˚C to 55˚C
Type of mounting	Surface mount (FOB) & Panel mount (BOB)
Mounting fasteners:	M8 for FOB & M6 for BOB
Weight	Secondary lock, fob mount weight: 2.9 kg, Secondary lock, bob mount weight: 1.1 kg
Material	Brass or Stainless steel lock, with IP65 Mild / Stainless steel enclosure or Stainless steel mounting plate
Control isolation	20A, standard (32A & 63A, available upon request)
Switch approvals	CCC, UL, CSACCC, UL, CSA
MTTF Certification	Available on request
B10d	1,000,000
Shock & vibration	EN 60068
Switch standards	IEC 60947
Switch protection	IP 65, for enclosed unit only
Switch rating	690 V, 20 amps (standard for KSE20)

APPLICATION

The KSE Powersafe safety component is used as part of an integrated safety system.

A typical application of KSE Powersafe electrical switch is machine guarding. It is usually used in combination with an access interlock such as the AI for part body access or an AIE access interlock with an exchange key for full body access control.

A typical system will isolate machinery and control access to hazardous areas. Turning the primary key in the KSE unit changes the condition of the electrical supply to the machine to a safe condition and enables the release of the keys. These keys are then used to unlock the AIE double key access interlocks. The guards can only be opened when the electrical supply has been switched into a safe condition and only once all the keys have been returned to the KSE interlock can the machine be restarted.



KSE
Solenoid Controlled
Switch

AIE Access Interlocks

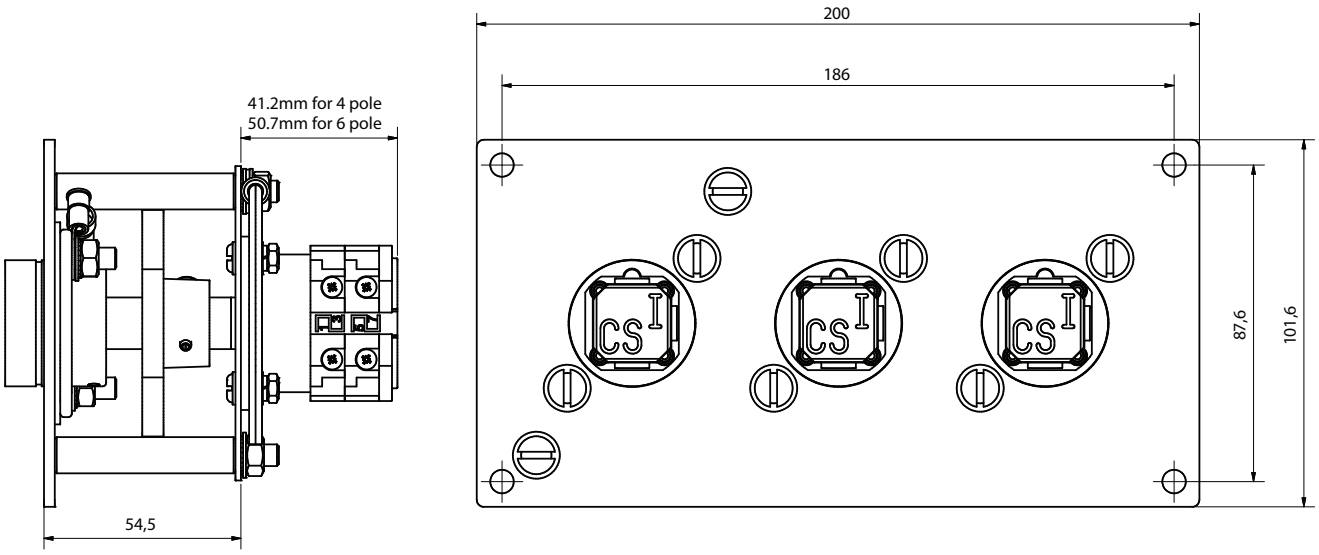
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DRAWING

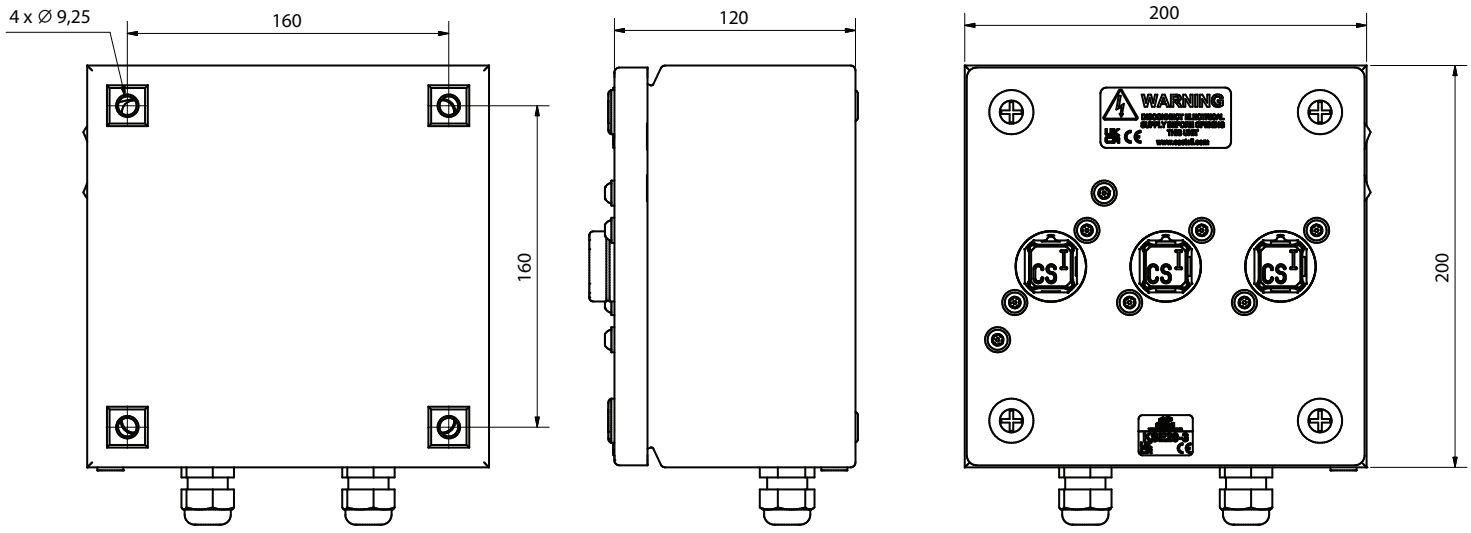
Dimensions: in mm

Note: For safe mounting, use security screws

KSE, panel mount (3 lock portions)



KSE, panel mount (3 lock portions)



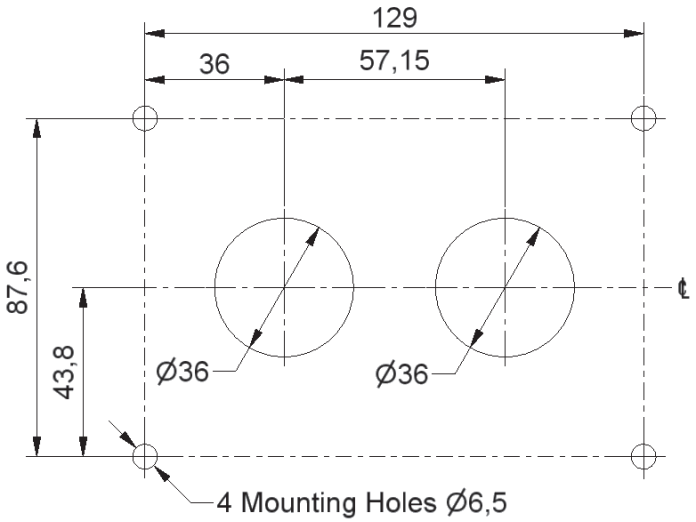
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MOUNTING DRAWING

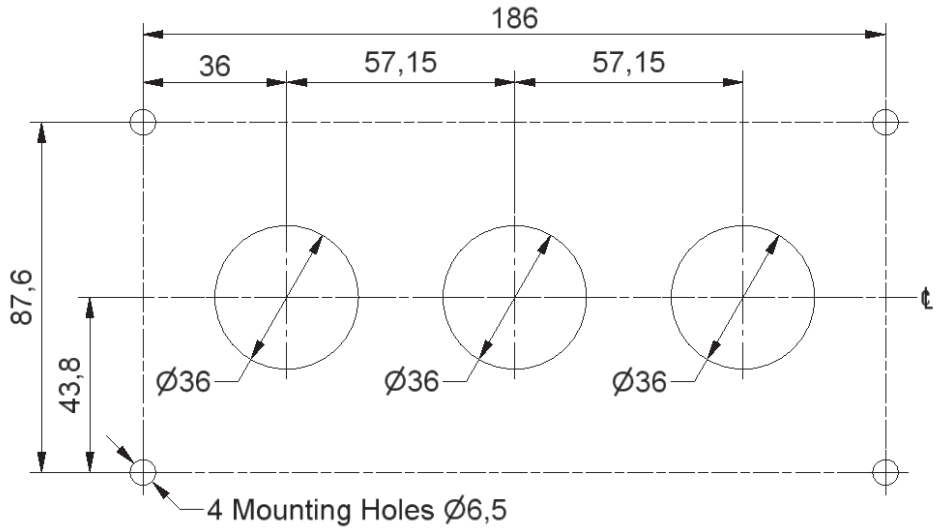
Dimensions: in mm

Note: For safe mounting, use security screws

KSE, 2 lock portions



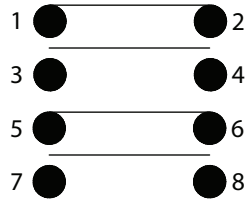
KSE, 3 lock portions



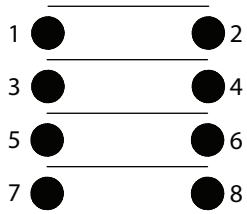
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WIRING DIAGRAM

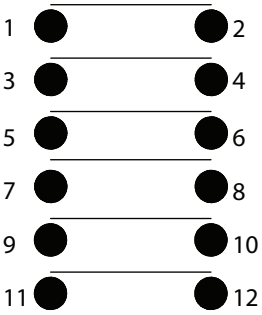
Key Free, 4 Pole 2N/O+2N/C Switch



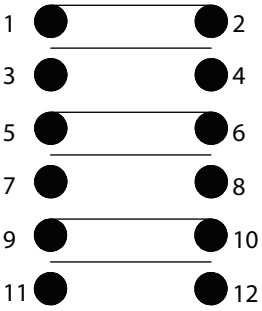
Key Free, 4 Pole Off/On Switch



Key Free, 6 Pole Off/On Switch



Key Free, 6 Pole 3N/O+3N/C Switch



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ORDER INFORMATION

	Component type	1		2	3		4	5		6		7	8		9	10
Part number	KSE		-			-			-		-					
Example	KSE	20	-	FS	B	-	1	D	-	F	-	CO	4		A1	B1

1	**Isolation**	20A, standard / 32A, 63A (available upon request)
2	**Lock portion type**	FS (1) / Q (1)
3	**Material**	B = Brass / S = Stainless steel
4	**Secondary lock portion(s)**	1 / 2, standard / 3 / 4 / 5 / 6 (available upon request)
5	**Key condition**	D = Double key condition (sequential removal of all keys) E = Exchange key condition
6	**Mounting**	P = Panel mount (BOB- back of board) / F = Front of board, (FOB- mild steel enclosure) / SF = Stainless steel enclosure (not available with brass locks)
7	**Contacts arrangement in normal position**	CO = NO/NC arrangement (contacts closed/open) / CC = NC arrangement (all contacts closed)
8	**Number of contacts**	4 / 6, standard
9	**Lock portion symbol:** Primary key (located next to switch)	FS (1) up to 3 characters / Q (1) up to 6 characters
10	**Lock portion symbol(s):** Secondary key(s)	FS (1) up to 3 characters / Q (1) up to 6 characters

(1)

FS - Lock type	Q - Lock type
Up to 3 characters	Up to 6 characters
	

Special construction available upon enquiry

ACCESSORIES

	Product	Part number
	Flip Cap	FLIP-S

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