

# DAE Mechanical Time Delay Unit



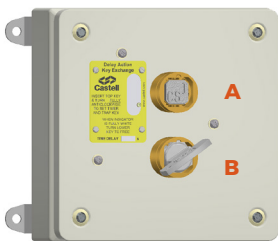
The DAE is a key controlled mechanical time delay unit designed to control access to dangerous machines which have a run-down time or where machinery must complete an operating cycle before access is permitted. The DAE is made for applications where the availability of the main power is limited or where the timer needs to be located in a potentially explosive atmosphere.

## OPERATION

The Castell Mechanical Time Delay Units are used in various applications to control access to hazardous areas, where a run-down time of a machinery is required.

### DAE Mechanical Time Delay, 30 sec

**1** Key B is trapped in the DAE, key A is held in a key switch while power is on



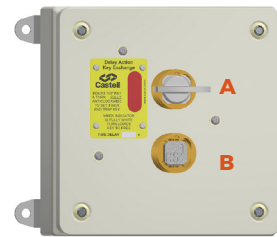
When the machine is running, key A is trapped in the key switch controlling the power. Key B is trapped in the mechanical time delay unit. This key is used to access the machine area, once machine has stopped running.

**2** Insert and turn key A to initiate time run-down. Once completed, release key B



Key A is released from the key switch and the power supply is switched off. Key A is then inserted and turned in the DAE unit. Once turned, the time delay begins. Key B is held in the DAE until time elapses. Once the time delay has elapsed the indicator bar on the DAE rotates from red to white. Key B can now be turned and removed.

**3** While key B is released, key A is trapped



This traps key A in the DAE, key A cannot be released until key B is returned.

The DAE mechanical time delay unit is available with 30, 60 or 90 seconds time delay as standard versions.

Any time delay within a range between 30 seconds and 15 minutes is available on request.

The time delay must be longer than the machine run-down time.

## USAGE

The DAE is designed to operate as part of an integrated safety system, controlling access to hazardous areas. A typical example of machine isolation, time delay and access control.



The DAE mechanical time delay unit is not designed for security purposes.

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

## INSTALLATION

The housing of the DAE mechanical time delay unit should normally be mounted to a panel using suitable fasteners. Please refer to drawing on page 4 for more installation details.



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



The DAE mechanical time delay unit 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 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] Q lock type / 140°C [284°F] 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>	3.0 kg
<b>Material</b>	Mild Steel
<b>Shock &amp; vibration</b>	In accordance with BS EN 60068-2-6 & BS EN 60068-2-27
<b>PL rating</b>	PLb
<b>B10d</b>	26,400

## APPLICATION

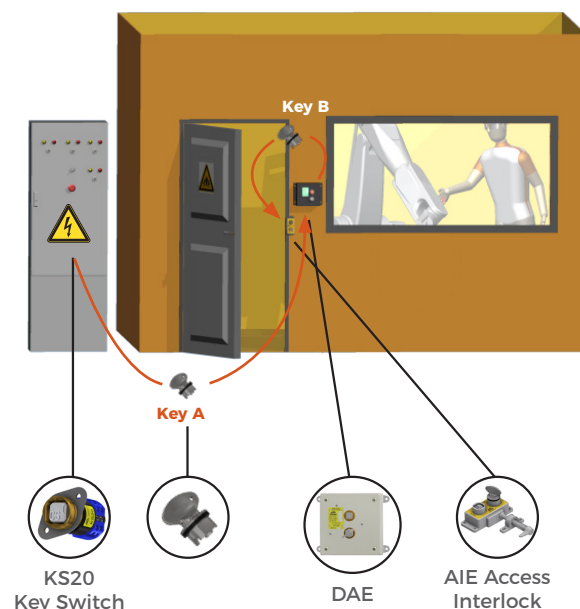
The DAE mechanical time delay safety component is used as part of an integrated safety system.

In a typical application, the DAE mechanical time delay is designed to operate as a part of an integrated safety system that controls access to hazardous areas.

The release of the isolation key (key A) from a key switch, e. g. KS20, changes the switch contacts and stops the machine.

Key A is then placed in the DAE time delay unit and turned, initiating the timer. After completion of the time out period key B can be released (the time delay must be longer than the machine run-down time).

Key B can then be taken to the AIE access interlock and the door to the machine room can be opened.



## 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

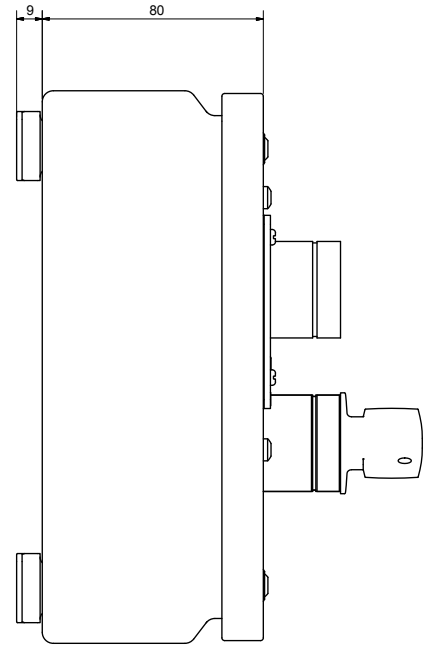
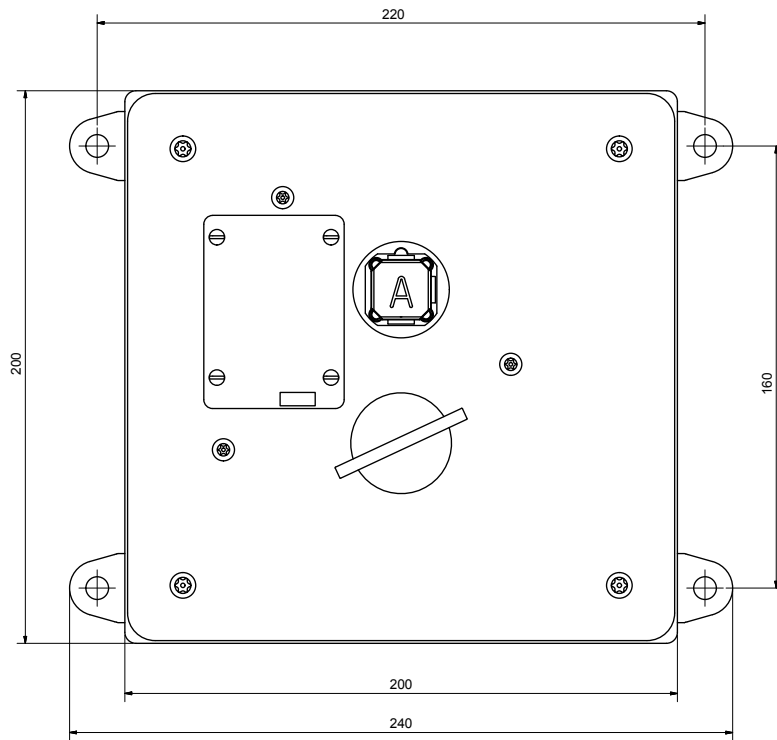


## DRAWING

Dimensions: in mm

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



### DAE



## ORDER INFORMATION

	<b>Component type</b>	<b>1</b>	<b>2</b>	<b>3</b>
Part number	DAE			
Example	DAE	FS	B	001
	<b>4</b> A <b>Primary key symbol</b>		<b>5</b> B <b>Secondary key symbol</b>	


<b>1</b>	<b>Lock portion type</b>	FS <sup>(1)</sup> / Q <sup>(1)</sup>
<b>2</b>	<b>Material</b>	B = Brass (mild steel enclosure), S = Stainless steel (stainless steel enclosure)
<b>3</b>	<b>Time delay</b>	001 = Less than or equal to 1 minute 002 = Greater than 1 minute - less than or equal to 3 minutes 003 = Greater than 3 minutes - less than or equal to 6 minutes 004 = Greater than 6 minutes - less than or equal to 15 minutes
<b>4</b>	<b>Lock portion symbol:</b> Primary lock symbol (Free key symbol)	FS <sup>(1)</sup> up to 3 digits / Q <sup>(1)</sup> up to 6 digits
<b>5</b>	<b>Lock portion symbol:</b> Secondary lock symbol (Trapped key symbol)	FS <sup>(1)</sup> up to 3 digits / Q <sup>(1)</sup> up to 6 digits

(1)	<b>FS - Lock type</b> Up to 3 characters	<b>Q - Lock type</b> Up to 6 characters
		

\* The time delay of the DAE unit must be longer than the machine run-down time

Special construction available upon enquiry

## ACCESSORIES

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

## CONTACT INFORMATION

### Castell Safety

The Castell Building  
217 Kingsbury Road  
London, NW9 9PQ  
UK

t: +44 (0)20 8200 1200  
f: +44 (0)20 8205 0055  
e: [sales@castell.com](mailto:sales@castell.com)

### Castell Safety

Tower 185  
60185 Frankfurt am Main  
Germany

t: +49 (0)69 50 50 47 310  
f: +49 (0)69 50 50 47 450  
e: [vertrieb@castell.com](mailto:vertrieb@castell.com)

### Kirk Key Interlock

9048 Meridian Circle NW  
North Canton, OH 47720  
USA

t: +1 800 438 2442  
f: +1 330 497 4400  
e: [sales@kirkkey.com](mailto:sales@kirkkey.com)

### SPS China

2F, Building 63  
No 421 Hongcao Road, Xuhui District  
Shanghai PRC, 200233  
China

t: +86 (0)21 6040 7398  
f: +86 (0)21 5453 0630  
e: [chinasales@castell.com](mailto:chinasales@castell.com)