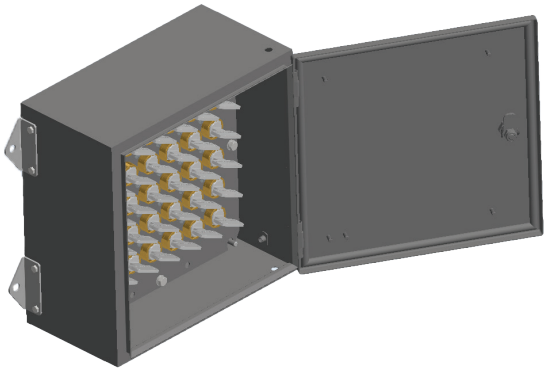
NEMA Key Exchange Box

Castell
Part of the Sentric Group



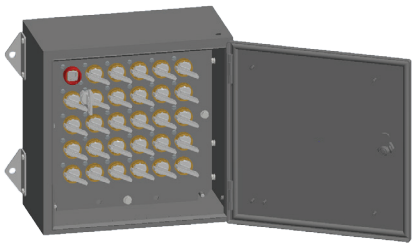
The NEMA exchange box serves as a weatherproof key exchange box and is suitable for large facilities or harsh environments. The product is supplied in an either mild steel or stainless steel enclosure which is suitable for outdoor use and can house up to 90 locks.

OPERATION

Castell key exchange boxes are used in various applications to control multiple access points to hazardous areas.

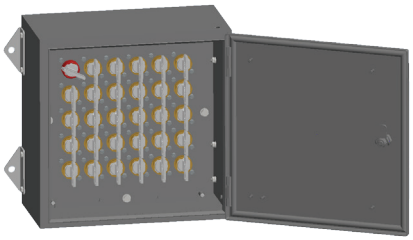
NEMA key exchange box

1 **1 key is free, 29 keys are trapped**



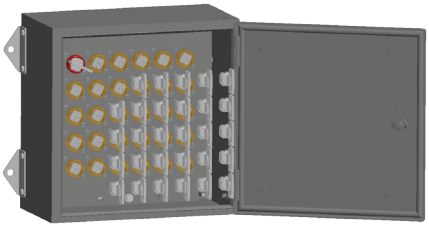
While 1 key is free which is usually used in a power isolation, 29 keys are trapped.

2 **Insert and turn the free key, then turn and release the trapped keys in a sequence**



By inserting and turning the free key in the NEMA key exchange box, trapped keys can be sequentially released. The released keys can be used in the access door locks to gain access to the hazardous area.

3 **1 key is trapped, 29 keys are released**



The inserted key stays trapped until all released keys are returned to their original position.

The NEMA key exchange box is available in different combinations of free and trapped key to suit most requirements.

NEMA Key Exchange Box

USAGE

The NEMA key exchange box should be used to allow a safe access to potential hazardous and dangerous areas with many access points.

The NEMA key exchange box 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 NEMA key exchange box should normally be mounted using suitable fasteners. Please refer to the drawing on page 4 for maximum and minimum mounting distance. NEMA key exchange boxes are available in horizontal and vertical mounting versions.

IMPORTANT: The NEMA key exchange box should be mounted using anti-tamper fasteners to prevent unauthorised removal.

The NEMA key exchange box 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).

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TECHNICAL DATA

Temperature rating	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
Type of mounting	1/4“ or M6
Weight	Varies based on number of lock portions
Material	Mild steel or Stainless steel
Shock & vibration	
PL rating	
B10d	

APPLICATION

The NEMA key exchange box safety component is used as part of an integrated safety system.

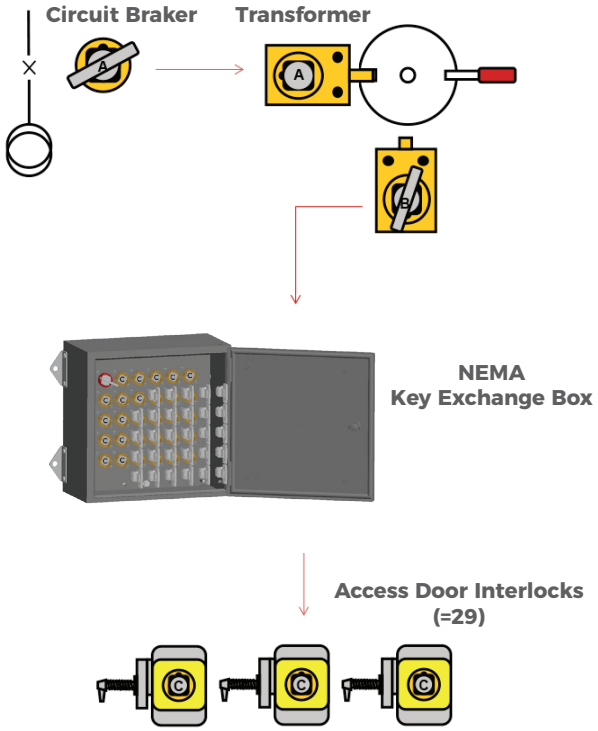
A typical application of the NEMA key exchange box is electrostatic precipitators interlocking with one or more access points to the hazardous area.

The precipitator environment is a very harsh environment in terms of exposure to the elements and the risk that precipitators present with electrodes carrying in excess of 10,000 volts.

The process for isolating precipitators is to firstly isolate the circuit breaker, this will then allow the removal of the circuit breaker key A. The circuit breaker key A is then used to isolate the transformer, when the transformer is isolated the circuit breaker key remains trapped, therefore preventing the circuit breaker returning to the live state.

Locking the circuit breaker key in the transformer allows the removal of the transformer key B. The transformer key B is then used in the NEMA key exchange box. The exchange box allows multiple keys C to be released so access can be gained to multiple areas. These keys can only be released when the transformer key is locked in position. When access is gained the keys from the exchange box remain trapped in the access locks, this effectively ensures that no power to the electrodes can be turned on whilst access is gained.

To turn on the circuit breaker the process is simply reversed.



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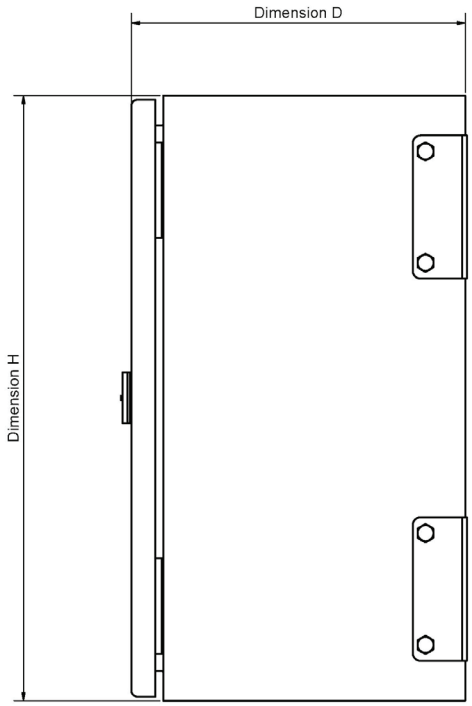
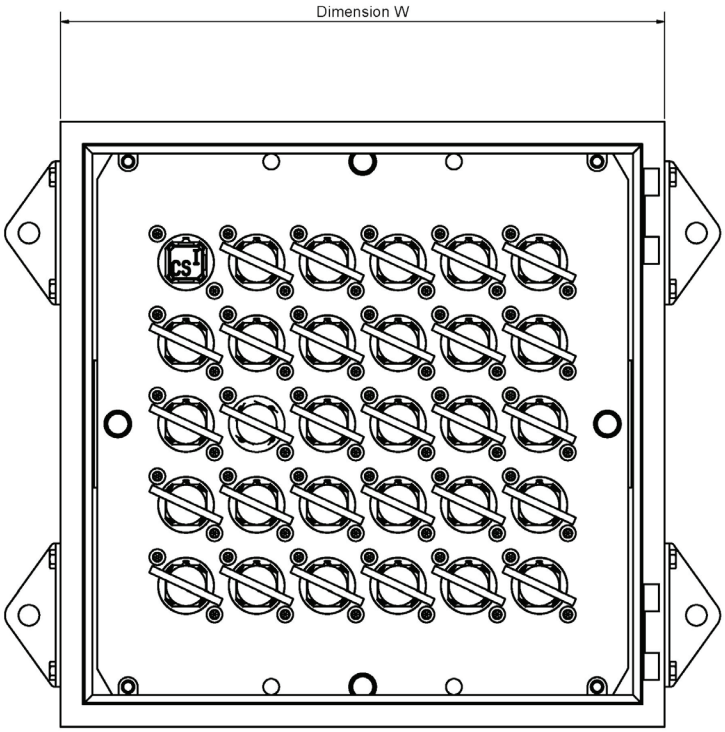
DRAWING

Dimensions: in mm

Note: For safe mounting, use security screws 90 key exchange box size shown





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ORDER INFORMATION

	Component type	1		2	3		4
Part number	NEMA		-			-	
Example	NEMA	4X	-	FS	B	-	10

1	**Box type**	12 = Power-coated mild steel 4X = Stainless Steel
2	**Lock portion type**	FS (1) / Q (1)
3	**Material**	B = Brass / S = Stainless steel
4	**Total number of keys**	Up to 90

(1)

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

Special construction available upon enquiry

CONTACT INFORMATION

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