SECULOK range

Interlocks for Heavy Duty Applications

Trapped Key
& Safety Gate Switch
Interlocks

Machine Safety

SECUMS
Interlocks

Key Interlocking

➥ *100% Stainless Steel 316L*

➥ *For all Operating Conditions*

➥ *Flexible Modular configuration*

Company Profile

SECUMS Interlocks

Created in 2004 and based in Neuilly Plaisance in the Paris area, SECUMS Interlocks designs and manufactures the complete range of SECULOK products. SECUMS Interlocks Trapped Key technology provides up to SIL 3 (EN/IEC 62061), Category 4 and PLe (EN/ISO 13849-1) use suitable mechanical and electro-mechanical safety Interlocking solutions for use in a wide range of heavy duty guarding applications.
Since our company permanently listens to your needs, and thanks to our product development cycle, we offer you an ever wider range of products.

Expertise

Our expertise covers a wide scope of industrial heavy duty safeguarding applications from machine guarding, power generation and -distribution system interlocking to valve interlocking.
Recently developed products included in this catalogue as an example of our innovative design and engineering capabilities are:

-**SCB15: New design of solenoid controlled bolt lock** with single or multiple operating key and /or optional safety key. The SCB features a unique compact design and meets with the highest standards for power locking applications.

- **ASCL: New design of a robust solenoid controlled safety Gate Switch Interlock.**
The ASCL features a compact robust design, with optional access or safety key controls .
The compact design and reliable locking latch provides for optimal safety in the harshest operating conditions.

SECUMS Interlocks Advantages

SECUMS Interlocks is an "all out of one hand" guarding solution provider, specialized in complementing his product offering with the design of innovative on demand products at the best price to quality ratio.

SECULOK modular system configuration offers you unmatched user flexibility and economics
SECULOK offers a for all industrial applications compatible key system, inclusive Valve Interlocking
SECULOK products are manufactured in full Stainless Steel 316L as a standard
SECULOK provides you with the best key management set up.
SECULOK re-codeable locks and keys enables you to change your safety system by adding keys without having to replace existing locks.

SECUMS Interlocks implemented the ISO 9001/2008 certification procedures   to constantly improve it service.

Our Values

Client satisfaction is our top level priority.

We work in strict compliance with ecologic constraints by offering you products that can be 100% recycled and reused.

As to ensure long term development of the company, SECUMS Interlocks relies only on private investors who share our view of long term growth.

Summary

Keys and Key Identification

Ref: CQ

Characteristics:
- 2 key types with incorporated lock ingress protection:
  CQ: *Standard* with over torsion breakpoint to protect the lock in case of operator over torsion operation attempt.
  CQC: *Compact* for limited space environments, key marking on both key wing sides.
- Key combinations: 1080 attributed by SECUMS Interlocks.
- Marking: Standard: per identification **ref.** specified below.
  Customized: max. 3 rows-6 characters per row.

Materials: Stainless Steel 316L

Options:
- PC: Spare key with key tag (marking both sides on request)
- MK: Master key on request (not advised considering risk of abuse)

2 - Inserts codeur

1 - Empreintes de clé

A	I	R	0
B	J	S	1
C	K	T	2
D	L	U	3
E	M	V	4
F	N	W	5
	O	X	6
	P	Y	7
	Q	Z	8
			9

3 - Positions insert codeur

Exemple code : AR0
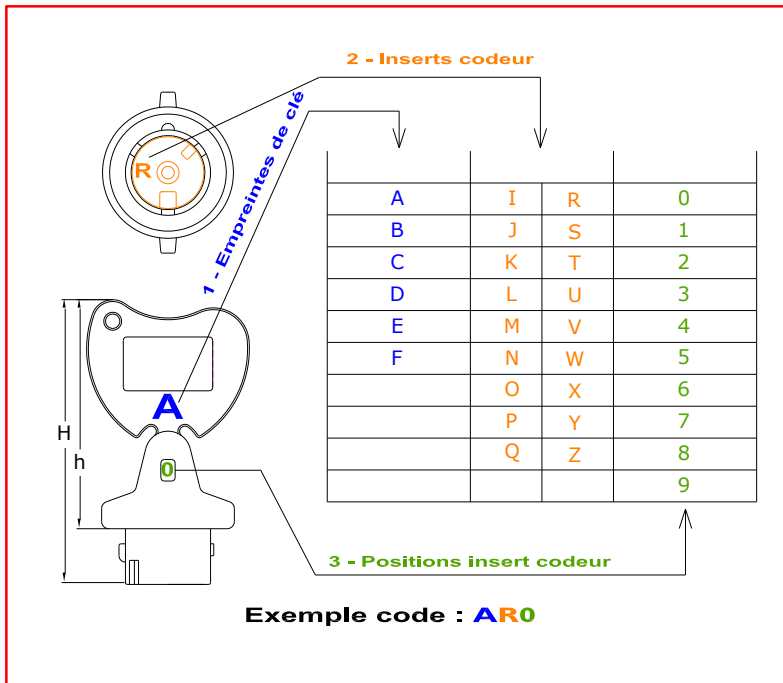
Ref: CQC

Ref: CQ-PC

Ref: CQ-C0.25

Standard Key Identification :
- For Operation keys: P1, P2, P3, P4, P5, P6, P7, P8,P9, P0,
- For Safety keys: SAFETY P1, SAFETY P2, …..
- For Spare keys: « DANGER SPARE KEY », for safety reasons, they are delivered with key tag on which a warning printed on a red label.
 In case of key loss, we advise you to have all locks recoded.

References examples:
CQ: Standard key with incorporated lock ingress protection.
CQC-PC: Compact key with incorporated lock ingress protection and key tag
CQ : Standard key coding with combination AR0 and P1 marking.
CQ-SP: Spare key if resupplied, please specify the coding type and the coding position (ex:AR0)

Emergency Key locking panel

SECUMS Interlocks — Machine Safety — Key Interlocking

Key locking panel for max 5 padlock able Emergency Keys

Ref: RAT-5E

275,0 / 263,0 / 65,0 / 53,0 / 13,5 / 63,8 / 2,0 / Ø6 A

1080 "standard" Key Combinations available, other combinations on request

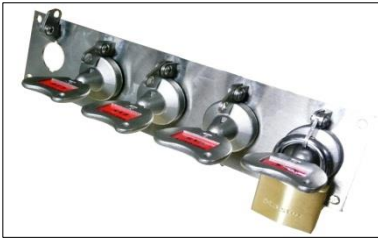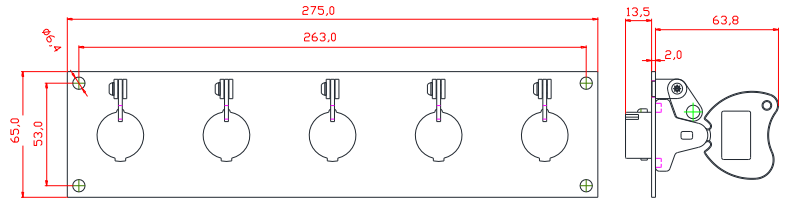| CLIENT		N° de compte	Dépt.	Ville		CLIENT ou site FINAL	

Clé - A	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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Clé - C	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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Clé - D	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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Clé - F	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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BLT

Bolt Lock

SECUMS Interlocks
Machine Safety — Key Interlocking

Ref: BLT15-CE

Characteristics:

For Switch, Switchgear or valve locking
- At choice 8, 10 or 15 mm diam. Bolt **ref: 8, 10 or 15**
- Available up to 5 lock modules **ref: 2E, 3 E, 4E, 5E**
- 15 mm bolt movement
- Exchange between keys: see drawings. examples type T2 to T4

Materials: Stainless Steel 316

Options:
- Lock Dustcover **ref:CE**
- Electrical contacts:
  1NO+1NC **ref: MCUOF**
  2NO (free key, extended bolt) **ref: MCU2O**
  2NC (free key, extended bolt) **ref: MCU2F**
- Contacts in panelmounting position **ref: INV**
- Reverted bolt behavior, key free when bolt retracted **ref: PR**

Operating Principle:

Key free when bolt extended. Key trapped and bolt retracted after inserting and turning the key
Key exchange options from 2E: **T1=**both keys free when bolt extended , **T2**=1/2, **T3**=1/2+3, **T4**=1+2/3
Key 1 is always the one operating the bolt. T2 to T4 are « exchange » conditions

Ref: BLT10 -3E-T1

* 9.5mm for BLT2E,3E,4E

+54.1 per additional key

References examples:

BLT8-CE: Ø 8 bolt lock, 1key (free with extended bolt) and dustcover
BLT10-CE-MCUOF: Ø 10 bolt lock, 1 key (free with extended bolt) and dustcover, contact 1NO+1NC
BLT15-2E-T1-CE: Ø 15 bolt lock, 2 keys (free with extended bolt) and dustcovers
BLT10-3E-T4-CE: Ø 10 bolt lock, 3 keys (1 free, 2 trapped with extended bolt) and dustcovers

Consignation lock with padlock

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Machine Safety · Key Interlocking

Ref: BLTHC-CE

Characteristics:
Consignation key trapped by padlock
Available up to 5 lock modules **ref: 2E,3 E, 4E**
- Hense of padlock diameter 6 mm max

Materials: Stainless Steel 316

Options:
- Lock Dustcover **ref:CE**
- Electrical contacts:
  1NO+1NC **ref: MCUOF**
  2NO (free key, extended bolt) **ref: MCU2O**
  2NC (free key, extended bolt) **ref: MCU2F**

Operating Principle:
Key free when bolt trapped. Key trapped and bolt extended, padlock installed after inserting and turning the key.

Keys trapped position - Bolt extended

25mm key(s) free
42.5mm key(s) trapped

240.5 = 4 keys
186.5 = 3 keys
132.5 = 2 keys
69.5 = 1 key

110,5
20
11.5
Ø7
35Ø6
Ø15
17
25,3
63,5
54
54
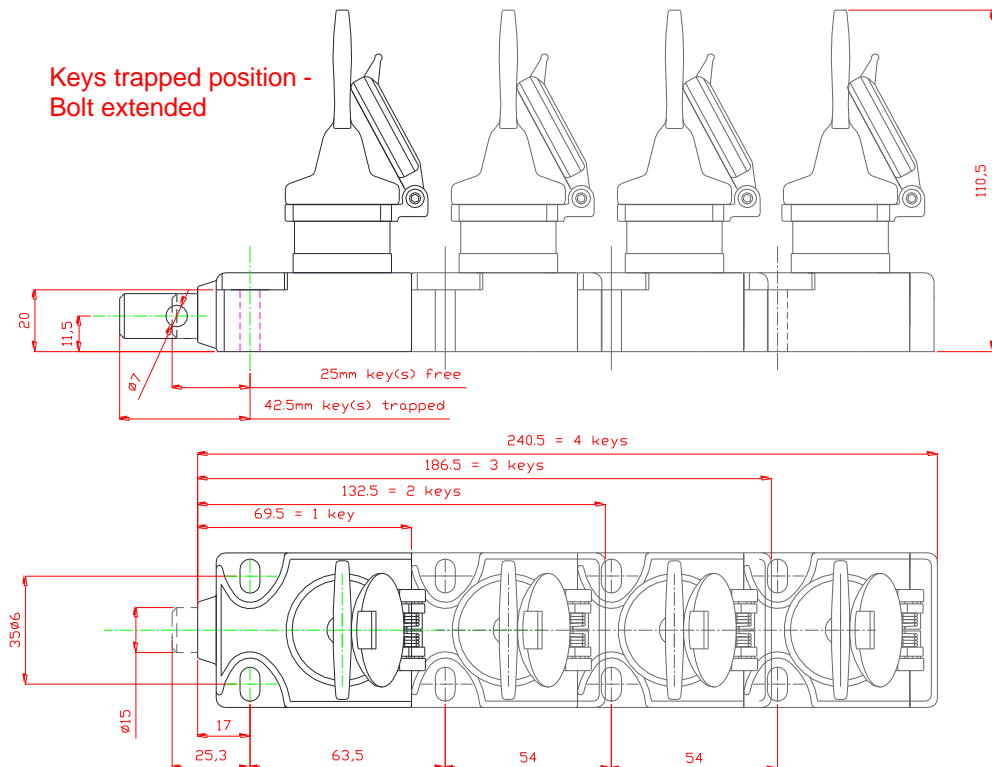
References examples:
BLTHC-CE: 1 key lock, 1key trapped with padlock and dustcover
BLTHC-2E-CE-MCUOF: 2 keys lock, 2 keys trapped with padlock and dustcover, contact 1NO+1NC

Solenoid controlled Boltlock

SECUMS Interlocks
Machine Safety · Key Interlocking

Ref: SCB15-2O-24V-CE

Characteristics :
- Electromechanical unlocking.
- Solenoid monitoring contacts 2NC and 2 NC bolt monitoring contacts (Failsafe), 100% duty cycle, LED, and override system. Solenoid voltage: 24V DC
- Bold diameter 8mm **ref: SCB8** , 10mm **ref: SCBT10** and 15 mm **ref: SCB15**
- 2 key control (2 key entries) **ref:2E**
- Bolt travel: 15mm

Material : Lock housing POM , bolt-lockcylider stainles steel 316L, solenoid housing polyester paint finished zamak

Options :
- Supply 230volts **ref: 230V**
- Supply 110volts **ref: 110V**
- Supply 48 volts ac/dc **ref: 48V**
- Springloaded dustcap, **ref** :**CE**
- Other contact configurations: please do contact us

Operating principle:
Solenoid activation- Solenoid safety contacts open- LED on – privides authorization to release the key and extend the bolt, and with bolt extention the 2 boltoperared safety contacts are opened.

Technical Specification

Power supply: 24V AC/DC -10%/+25%
Solenoid monitoring contacts: 2NC 6A 240V
Bolt/key monitoring : 2NC AC15-10A 240V
LED: 2 x green
Wiring: 1 x 0.34² max 2 x 1.5²
Cable Gland Entries: 3 positions M20
Mounting: FOB
Fixing: M5 x 6
Temperature: Min-25°C.   Max 60°C.
Protection: IP67 according to EN 60529
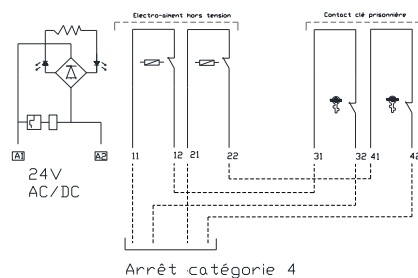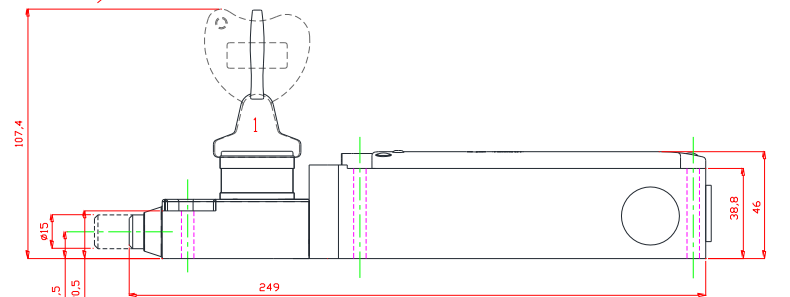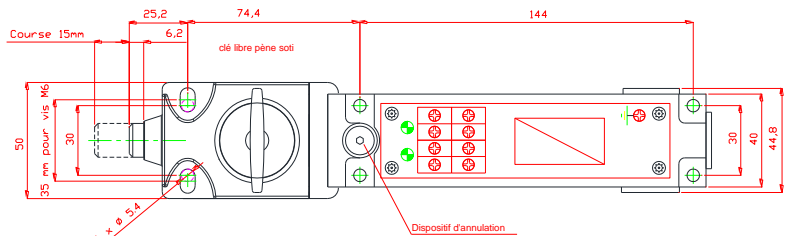
References Examples :
SCB15-2O2O-24V-CE : Solenoid controlled boltlock Ø 15mm, supply24Volts ac/dc, 1Key, (free, bolt shot) and Dustcover.
SCB15-2E-2O2O-110V : Solenoid controlled Boltlock Ø 15mm, supply 110 Volts ac/dc, 2 Keys (free, bolt shot)

SWL

Key switch
Lock 16 Amp

SECUMS Interlocks
Machine Safety — Key Interlocking

Ref: SWL-2O2F

Characteristics:
Key operated power isolation or circuit control switch lock
Standard sequence: key release when power «off»
- Panel mounting (BOB), at option choice wall-mounted (FOB)
- 1 to 5 locks (keys). Multiple lock **ref: 2E, 3E, 4E, 5E**

Materials: Stainless Steel 316

Electrical features:
Contacts: 2NO+2NC AC21 16A, AC23 4kW/230V, 7.5/400V, AC3 3kW/230V,4 kW/ 400V

Options:
- 1 switch per lock **ref: X** (between number of locks and switch contacts ordering reference)
- Contacts: 3NO+1NC key free **ref: 3O1F**
- Contacts: 4NO key free **ref: 4O**
- Lock dustcover **ref: CE**
- In enclosure-IP55 polycarbonat **ref: IP55** (Dust cover included**)**
- Padlocking device , 2x8,2 mm holes **ref: HC2**

Operating principle:
Turn the key to operate the switch, key released in 1 position only

contact key position	1-2	3-4	5-6	7-8
Clé free 0				
Key trapped 1				

SWL 20-2F

SWL 2E 20-2F+ (70 per extra key)

Ref: SWL-2O2F-IP55M

Switch 2o-2f PR12
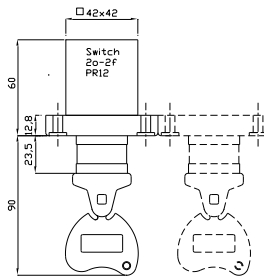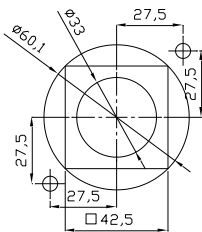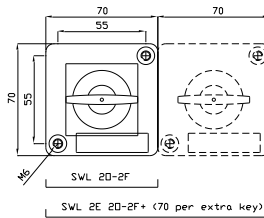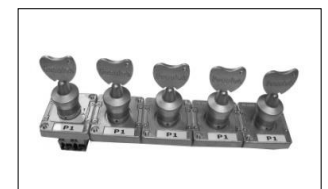
Ref: SWL-202F-HC2

Ref: SWL5E-202F

References examples:
SWL 2O2F: Lock with 1 key, 2NO+2NC contacts
SWL 2O2F-IP55: Lock with 1 key, 2NO+2NC contacts, in IP55 enclosure
SWL 2O2F-CE: Lock with 1 key, 2NO+2NC contacts, lock dustcover
SWL2E-2O2F-CE: 2 keys lock, 2NO+2NC contacts, lock dustcovers
SWL4E-X-2O2F-CE: 4 keys lock, 4x 2NO+2NC contacts, lock dustcovers
SWL5E-4O-CE: 5 keys lock, 4NO contacts, lock dustcovers

For further informations: http://www.secums-interlocks.com - Tel: 00 33 (0)1 43 08 65 31 Fax: 00 33 (0)1 43 08 97 20

SWL HC

Key switch Lock 16 Amp with padlocking device

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Machine Safety · Key Interlocking

Ref: SWL-2O2F

Characteristics:

Key operated power isolation or circuit control switch lock Standard sequence: key release when power «off»
Padlock in Off position key free or in ON position Key trapped, for padlock and diameter 8 mm maximum
- Wall-mounted (FOB)
- 1 to 5 locks (keys). Multiple lock **ref: 2E, 3E, 4E, 5E**

Materials: Stainless Steel 316

Electrical features:

Contacts: 2NO+2NC AC21 16A, AC23 4kW/230V, 7.5/400V, AC3 3kW/230V,4 kW/ 400V

Options:

- 1 switch per lock **ref: X** (between number of locks and switch contacts ordering reference)
- Contacts: 3NO+1NC key free **ref: 3O1F**
- Contacts: 4NO key free **ref: 4O**
- Lock dustcover **ref: CE**
- In enclosure**-**IP55 polycarbonate **ref: IP55** (Dust cover included**)**
- Key free in On and Off position **ref: SP**

Operating principle:

Turn the key to operate the switch, release the key (in 0 position only) and padlocked the switch.

contact key position	1-2	3-4	5-6	7-8
Clé free 0				
Key trapped 1				
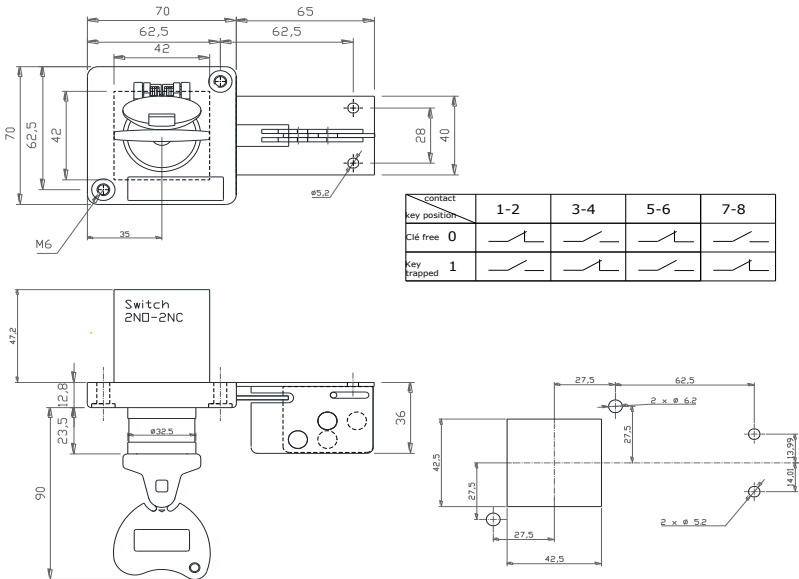
Ref: SWL2E-2O2F-CE-HC2

Ref: SWL-202F-COM-HC2

References examples:.

SWL-2O2F-HC2: Lock with 1 key, 2NO-2NC contacts, padlocking device
SWL-3O1F-CE-HC: Lock with 1 key, 3NO-1NC contacts- key free,dust cover, padlocking device
SWL2E-2O2F-HC2: Lock with 2 keys, padlocking device

Key switch lock
25 to 100 Amp

Ref: SWL32-4O

Characteristics:
Key operated power isolation or control switch lock.
Standard sequence: key release when power «off»
Panel mounting (BOB), at option choice wall-mounted (FOB)
- 1 to 4 locks (keys). Multiple lock **ref: 2E, 3E, 4E, 5E**

Materials: Stainless Steel 316

Electrical features (under 400Volts):
- 3NO 25 A contacts (AC23=7.5kW) **ref: 25**
- 3NO 32 A contacts (AC23= 11kW) **ref: 32**
- 3NO 63 A contacts (AC23=22kW) **ref: 63**
- 3NO 100 A contacts (AC23=37kW) **ref:100**

Options:
- Contacts: 4NO key free **ref: 40**
- Contacts: 3N+1NC key free **ref: 3O1F**
- Lock dustcover **ref: CE**
- In enclosure (3locks maximum) **ref: IP55** (dustcovers included)
- Interlocking from 2 keys (please contact us)

Operating principle:
Turn the key to operate the switch, key free in 1 position only

contact / key position	1-2	3-4	5-6	OPTION 4O 7-8	OPTION 3O1F 7-8
Clé free 0					
Key trapped 1					

Reference Dimensions	25	32	63	100
A	63	63	87	87
B 3O/4O	35/49	50/65	72/65	72/65
C	73	73	83	83

SWL 2E + 70 per extra key
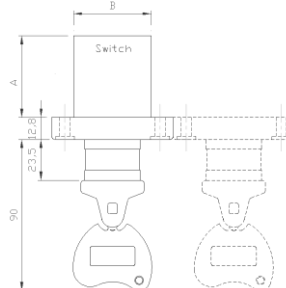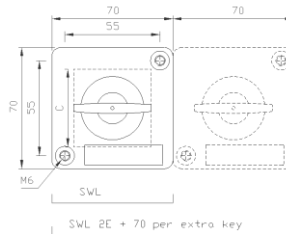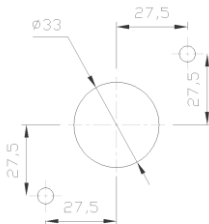
Ref: SWL32-2E-4O

Ref: SWL25-4O-IP55

References examples:.
SWL32-4O: Lock with 1 key, 32A switch, 4NO contacts- key free
SWL25-4O-IP55: Lock with 1 key, 25A switch, 4NO contacts- key free, in enclosure IP55
SWL63-2E-4O-CE: Lock with 2 keys, 63A switch, 4NO contacts –key free, lock dustcover
SWL100-3E-4O: Lock with 3 keys, 100A dustcover switch, 4NO contacts–key free

IMA

IP65 Power Isolation Key Switch

SECUMS Interlocks
Machine Safety · Key Interlocking

Characteristics:
Power supply isolation controlled by 1 to 4 keys
EN 60204-1 compliant disconnector switch
Red handle/ yellow crown with Padlock/Tag out facility
- **25 to 315 Amps: see order references scheme.**
- 400 Volts
- Four poles (3+N)

Materials: Stainless Steel 316 lock, polycarbonat case

Options:
- 6 poles **ref: 6P**
- Lock dustcover **ref: CE**
- Solenoïd lock release 1 key **ref: SCB**
- Solenoïd lock release 1 key with time delay from 0 to 999 seconds **ref: TIM**
- Solenoïd lock release 1 key with zero voltage (BEMF) **ref: RVN**

Ref: IMA 63-3E

Reference	Operational rated power at 400V Max	Uninterrupted Rated current In
IMA 32	15	32
IMA 63	37	63
IMA 100	50	100
IMA 160	55	160
IMA 250	90	250
IMA 400	130	400

Ref: IMA 250-1E

Enclosure dimensions depend on the number of keys:
IMA63-3E: 250 x 375 x180 mm

References examples:
IMA 32-1E-CE: 15 kW switch, 1 key, lock dustcover
IMA 32-2E-CE: 15 kW switch, 2 keys, lock dustcovers
IMA 32-SCB-1E:15 kW switch, 24Vsolenoïd unlocking 1key
IMA 32-TIM-1E: 15 kW switch, solenoïd unlocking with time delay, power supply 24V 1key
IMA 32-RVN-1E-CE:15 kW switch, unlocking with BEMF relais, power supply 24V, 1key, lock dustcover
IMA 32- 4E-CE: 15 kW switch, 4 keys, lock dustcovers
IMA 250-2E-CE: 90 kW switch, 2 keys, lock dustcovers

SCL

Solenoid controlled Switch lock

SECUMS Interlocks
Machine Safety · Key Interlocking

Ref: SCL-2O2F-24V
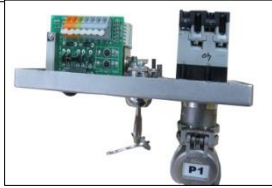
Characteristics:

Solenoid controlled single-key or multi- key switch interlock
Suitable for use in high-risk, category 4 applications
- 1 to 4 locks (keys), multi-key **ref: 2E, 3E ,4E**
- 2NO+2NC contacts + 2 solenoid position control contacts
  (positive breaking safety contacts)
- 100% Solenoid Duty Cycle, LED, Push Button, Override key

Materials: Stainless Steel 316

Electrical features:

- 24 V AC/DC 13 W power supply
- Contacts: AC2116A, AC23 4kW/230V, 7.5/400V, AC3 3kW/230V, 4kW/400V

Options:

- 48 V power supply **ref: 48V**
- 3NO+1NC contacts (free key) **ref: 3O1F**
- 4NO contacts (free key) **ref: 4O**
- Lock dustcover **ref: CE**
- In enclosure Polycarbonat IP55 **ref: IP55**
- In enclosure Metal IP55 **ref: IP55M**

Operating principle:

Energised solenoid enables key release after rundown time or operating cycle completion and prevents unauthorized restart. This unit is generally used in conjunction with the ACS series of Access interlocks
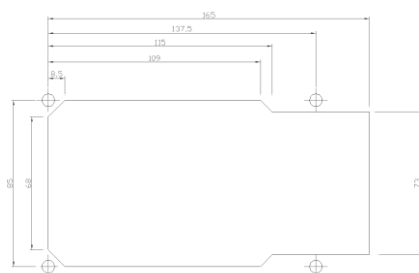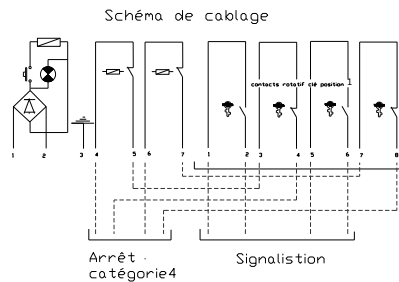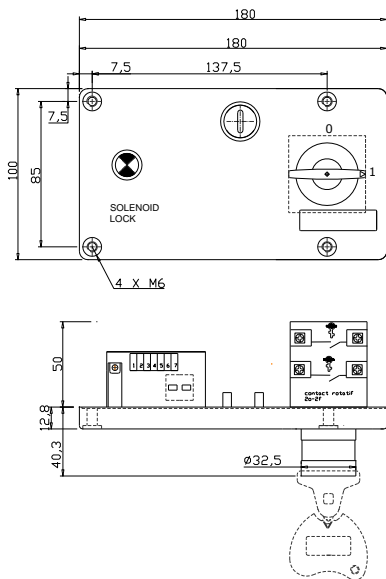
References examples:
SCL 2O2F-24V: 1 key electromechanical lock, 24 volts 2NO+2C contacts
SCL 4O-48V: 1 key electromechanical lock, 48 volts 4NO contacts -free key
SCL-2E-3O1F-24V-CE: 2 keys electromechanical lock, 24 volts 3NO+1NC contacts with lock dustcover
SCL-3E- 2O2F-24V: 3 keys electromechanical lock, 24 volts 2NO+2NC contacts
SCL-3E- 4O-24V-IP55: 3 keys electromechanical lock, 24 volts 4NO contacts in polycarbonat enclosure

Solenoid controlled Switch lock
3 positions : on – stop request - off

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Characteristics:

For automated ennvironments: Key controlled Stop Request and key release through solenoid after run down cycle.

3 Position Keyoperated rotary switch lock: 2=« on », 1=« stop request », 0= « off » (key free).

- 1 to 4 locks (keys), multiple key **ref: 2E, 3E, 4E**
- 2NO+2NC contacts + 2 solenoid position control contacts
  (positive breaking safety contacts)
- 100% Solenoid Duty Cycle, LED, push button, override key.

Materials: Stainless Steel 316

Electrical features:

- 24 Volts AC/DC 13W power supply
- 2NO+2NC 3 positions AC21 16A, AC23 4kW/230V, 7.5/400V, AC3 3kW/ 230V,4 kW/ 400V

Options:

- 48 Volts AC/DC power supply **ref: 48V**
- Lock dustcover **ref**: **CE**
- In enclosure Polycarbonat IP55 **ref: IP55**

Ref:SCL3P-2O2F-24V

Operating Principle :

Turning the key from position 2 to position 1 requests for machine stop. At full stop the LED illuminates and solenoid energisation unlocks the key to allow rotation and key release from position 1 to position 0 to prevent unauthorized restart.
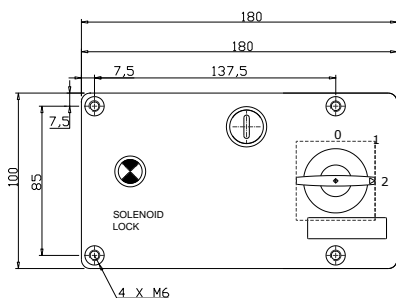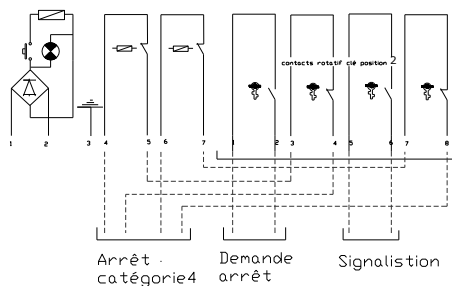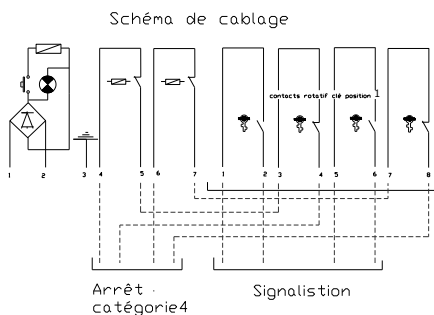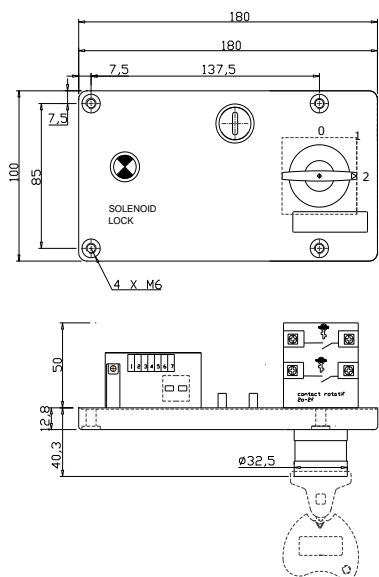
Schéma de cablage

Arrêt catégorie4 — Demande arrêt — Signalistion
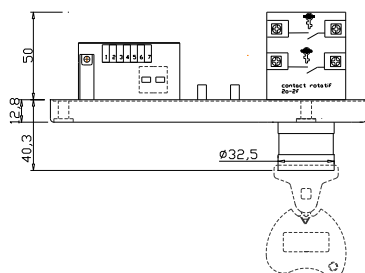
contact Clé position	1-2	3-4	5-6	7-8
Clé libre 0				
Clé 1 prisonnière				
Clé 2 prisonnière				

References examples:

SCL3P-2O2F-48V: solenoid control lock 1 key, 48 volts 2NO+2NC contacts
SCL3P-2O2F-24V-IP55: solenoid control lock 1 key 24 volts 2N0+2NC contacts, in enclosure IP55
SCL3P-2E- 2O2F-24V: solenoid control 2 keys lock 24 volts 2NO+2NC contacts
SCL3P-3E-2O2F-24V-CE: solenoid control 3 keys lock 24 volts 2NO+2NC contacts lock dustcovers

SCL 3PA

Solenoid controlled Switch lock
3 positions :on – off – key free

SECUMS Interlocks
Machine Safety · Key Interlocking

Ref:SCL3PA-2O2F-24V

Characteristics:

For systems with inertia: Remote controlled circuit locking and key release through solenoïd.

3 Position rotary switch lock: 2=« on », 1=« stop » and time delay triggering, 0= « off » (key free)

- 1 to 4 locks (keys). Multiple key **ref: 2E, 3E, 4E**
- 2NO+2NC contacts + 2 solenoid position control contacts (positive breaking safety contacts)
- 100% Solenoid Duty Cycle, LED, push button, override key

Materials: Stainless Steel 316

Electrical features:
- 24 Volts AC/DC 13W power supply
- Contacts: 2NO+2NC 3 positions AC21 16A, AC23   4kW/230V, 7.5/ 400V, AC3 3kW/ 230V,4 kW/ 400V

Options:
- 48 volts AC/DC power supply **ref: 48V**
- Lock dustcover **ref: CE**
- In enclosure Polycarbonat IP55 **ref: IP55**

Operating Principle :

Turning the key from position 2 to position 1 requests for machine stop, and triggers the time delay condition. Once the condition is fulfilled, solenoid energisation unlocks the key to alow rotation and key release from position 1 to position 0 to prevent unauthorized restart.

Schéma de cablage

Arrêt catégorie4   Signalistion

POSITION CLE	CONTACTS ROTATIFS CLE 20-2F				CONTACTS ELECTRO-AIMANT	
	1-2	3-4	5-6	7-8	4-5	6-7
POS 0 clé libre						
POS 1 arret						
POS 2 Marche						

References examples:

SCL3PA-2O2F-48V-CE: solenoid controlled lock 1 key, 48 volts 2NO+2NC contacts, lock dustcover

SCL3PA-2O2F-24V-IP55: solenoid controlled lock 1 key, 24 volts 2NO+2NC contacts , in enclosure

SCL3PA-2E- 2O2F-48V: solenoid controlled 2 keys lock, 48 volts 2NO+2NC contacts

SCL3PA-3E-2O2F-24V-CE: solenoid controlled 3 keys lock, 24 volts 2NO+2NC contacts,key dustcovers

SCL HC

Solenoid controlled Switch lock with padlocking device

SECUMS Interlocks
Machine Safety · Key Interlocking

Ref: SCL-2O2F-24V-CE-HC2

Characteristics:

Solenoid controlled single-key or multi- key switch interlock with padlocking device 2 holes for shackle diameter 8 mm max **ref:HC2**
Padlockable in both Key trapped or key free position.
- 1 to 5 locks (keys), multi-key **ref: 2E, 3E , 4E, 5E**
- 2NO+2NC contacts + 2 solenoid position
  control contacts **ref: 2O2F** (positive breaking safety contacts)
- 100% Solenoid Duty Cycle, LED, Push Button, Override key

Materials: Stainless Steel 316

Electrical features:

- 24 V AC/DC 13 W power supply **ref: 24V**
- Contacts: AC2116A, AC23 4kW/230V,
  7.5/400V, AC3 3kW/230V, 4kW/400V

Options:

- 48 V power supply **ref: 48V**
- 3NO+1NC contacts (free key) **ref: 3O1F - 4NO**
  contacts (free key) **ref: 4O**
- Lock dustcover **ref: CE**
- In Metal enclosure-stainless steel IP55 **ref: IP55M**

Operating principle:

Energised solenoid enables key release after rundown time or operating cycle completion and prevents unauthorized restart. Key free or key trapped possibility to use the padlocking device.
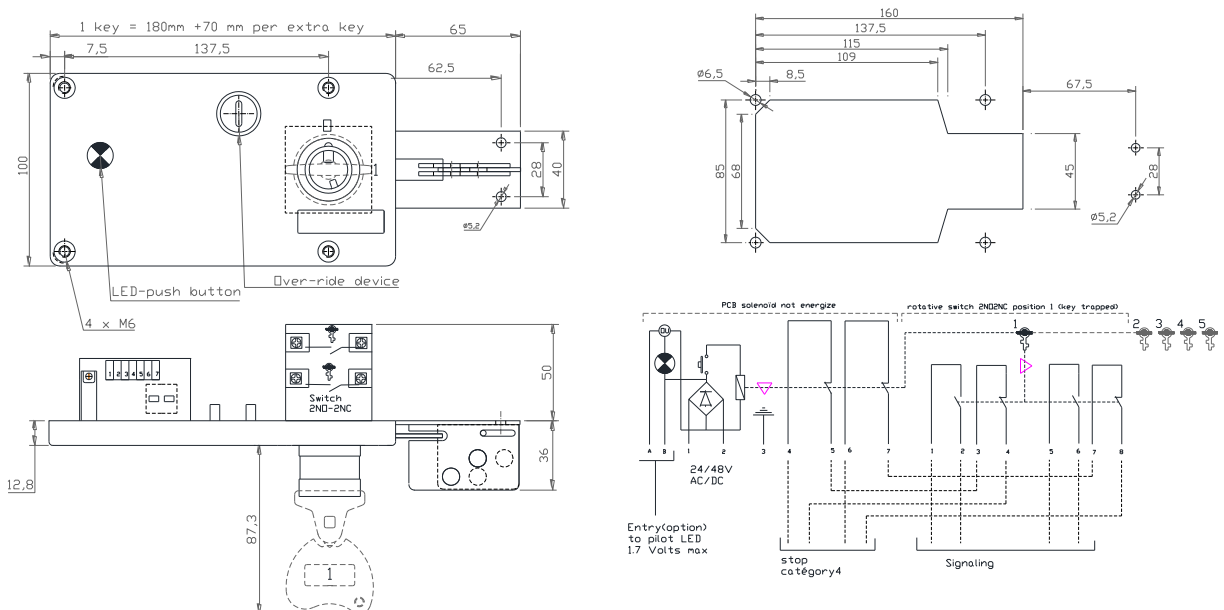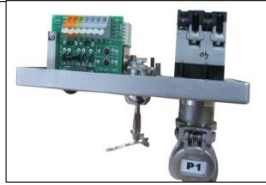

Reference examples:

SCL-2O2F-24V-HC2: 1 key electromechanical lock, 24 volts 2NO+2C contacts with padlock device
SCL-2E-4O-24V-CE-HC2: 2 keys electromechanical lock, 24 volts 4NO contacts with lock dustcover and padlock device

SCL 25/32/ 63/100

Key switch solenoïd lock 25 to 100 Amp

SECUMS Interlocks
Machine Safety · Key Interlocking

Ref: SCL25-4O-24V

Characteristics:

Key operated power isolation control by solenïd switch lock.
Standard sequence: key release when power «off» and solenoïd energize
- Panel mounting (BOB)
- 1 to 4 locks (keys). Multiple lock **ref: 2E, 3E, 4E, 5E**

## Materials: Stainless Steel 316

Electrical features:
- Power supply: 24 V AC/DC 13 W
- Cotntrol position solenoÏd contact: 2NC 3A
- 4NO 25 A contacts (AC23=7.5kW) **ref: 25**
- 4NO 32 A contacts (AC23= 11kW) **ref: 32**
- 4NO 63 A contacts (AC23=22kW) **ref: 63**
- 4NO 100 A contacts (AC23=37kW) **ref:100**

Options:
 Lock dustcover **ref: CE**
- In enclosure SS304L (3 keys maximum) **ref: IP55M**
 (dustcovers included)
- Interlocking from 2 keys (please contact us)

Principle:
Energised solenoid enables key release and operate power switch after rundown time or operating cycle completion and prevents unauthorized restart. This unit is generally used in conjunction with the ACS series of Access interlocks
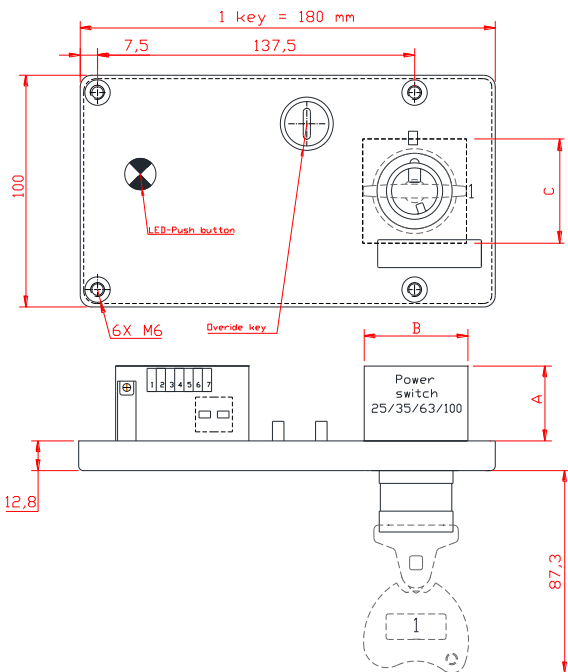
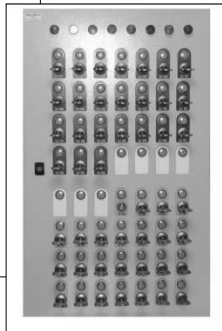Wiring scheme advise for best safety level category 4

Wiring Scheme drawn in trapped key position
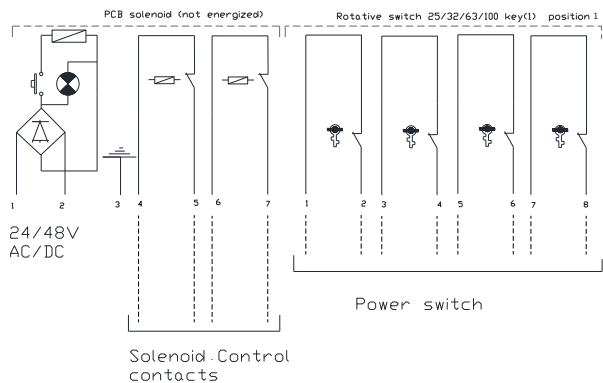
Reference Dimensions	25	32	63	100
A	63	63	87	87
B 30/40	35/49	50/65	65/72	65/72
C	73	73	83	83

References examples:
SCL25-4O-24V: 1key electromechanical lock with power switch 25Amp ,4 contacts NO power supply 24 Volts
SCL32-2E-4O-24V: 2 keys electromechanical lock with power switch 32 Amp, 4 contacts NO, power supply 24 Volts
SCL32-4O-24V-IP55M: 1 key electromechanical lock with power switch 32 Amp, 4 contact NO, power supply 24 Volts

SKS

Solenoid Key Switch

SECUMS Interlocks

Ref: EXL4E-1/3

Characteristics:
- Electromechanical unlocking.
- Solenoid monitoring contacts 2NC and 2 NC key free monitoring contacts (Failsafe), 100% duty cycle, LED, and override system. Solenoid voltage: 24V AC/DC
- 1 to 6 keys **ref: 2E, 3E, 4E, 5E,**
- FOB (wall) mounting

Materials: Lock: Stainless Steel 316, solenoid housing polyester paint finished Zamak

Options:
- Supply 230volts AC **ref: 230V**
- Supply 110volts AC **ref: 110V**
- Springloaded dustcap, **ref :CE**
- Other contact configurations: please do contact us

Operating Principle:
When solenoid is energized (LED on) possibility to release up to 5 keys

Mother key

M20 for cable gland
LED
Override device

SKS = 237 mm
SKS2E = 291.4mm
SKS3E = 345.2mm
SKS4E = 399.2mm
SKS5E = 453.4mm

Wiring scheme

PCB solenoid not energized

key(s) trapped

24V AC/DC

stop

References examples:
SKS-3E-2O2O-24V: 3 keys solenoïd switch lock, 2NO+2NO contacts, power 24V AC/DC
SKS-2O2O-230V-CE: 1 keys solenoïd switch lock, 2NO+2NO contacts, power 230V AC, key dust cover

RLS

Mini Solenoid lock

Automated 49 keys management cabinet

Ref: RLS-OF-24V-CE

Characteristics:
- Solenoid lock for automated key management, as to provide for key release and tracking.
- A changeover switch provides information on key presence.
- Standard version panel mounting (BOB).

Materials: Stainless Steel 316

Electrical features:
- Contacts: 1NO+1NC 6A/250v,3A/24V
- 100% Solenoid Duty Cycle
- Power supply: 24 Volts DC +/-5%, 8W

Options:
- Lock dustcover **ref: CE**
- 12 Volts DC power supply **ref: 12V**
- In IP55 enclosure **ref: IP55**
- Multiple locks mounted onto plate or in cabinet (on request, *please contact us*)

Operating principle:
Key release by energized solenoid, a position monitoring switch indicates if the key is trapped or released

Option CE (dust cover)
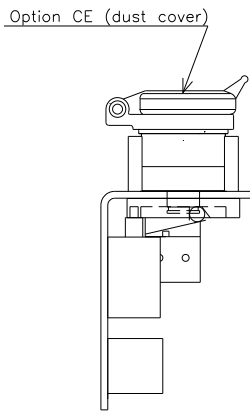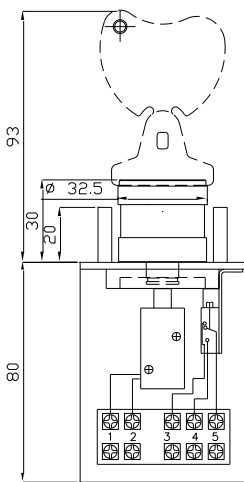
Key position	Connection terminal			
	3-5	4-5	1	2
0 (key free)			-	+
1 (key trapped)				
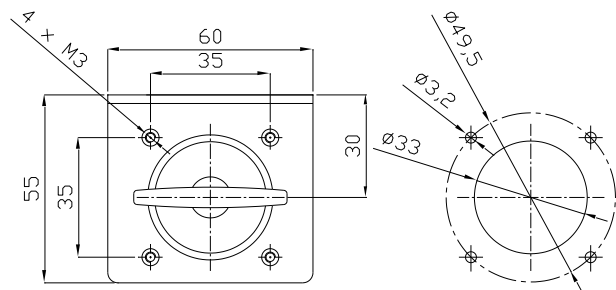
References examples:
RLSOF-24V: Solenoid lock with 1 key, 24VDC, 1NO+1NC changeover switch
RLSOF-24V-CE: Solenoid lock with 1 key, 24VDC, 1NO+1NC changeover switch, lock dustcover
RLSOF-24V-IP55: Solenoid lock with 1 key, 24VDC, 1NO+1NC changeover switch, in enclosure
RLSOF-12V: Solenoid lock with 1 key, 1NO+1NC changeover switch, 12V DC
RLSOF-12V-CE: Solenoid lock with 1 key, 1NO+1NC changeover switch, 12V DC, lock dustcover

TIM LOK

Electronic time delay Interlock

SECUMS Interlocks
Machine Safety — Key Interlocking

Ref: TIMLOK-24V

Characteristics:
Remote control circuit interlocking with key release at the end of a pre-determined time delay period. 3 positions key switch operation: «on», «off» & «start» time delay, key free .
- Adjustable time delay between 0 and 999 seconds
- 1 to 3 locks (keys). Multiple key **ref: 2E, 3E**

Electrical features:
- 24 Volts AC/DC power supply **ref: 24V**
- 240 Volts **ref: 240V**
- 2NO+2NC contacts AC21 16A, AC23 4kW/230V, 7.5/ 400V, AC3 3kW/ 230V,4 kW/ 400V

Materials: Stainless Steel 316

Options:
- Lock dustcover **ref: CE**
- In enclosure Polycarbonat IP55**: ref IP55**

Operating Principle:
Turning the first key from position 2 to position 1 stops the system and starts the time delay period. After this time delay, key 1 can be removed, which releases the other keys. To restart, all keys must be inserted into the unit. Contacts 3-4 and 5-6 are safetycircuit contacts, contacts 7-8 for signaling, as shown in the scheme below.

Ref: TIMLOK -3E- 24V

CONNECTION TERMINAL			
Key position	3-4	5-6	7-8
0 (key free)	‾‾_	‾‾_	‾_
1 (off)	_‾	_‾	‾_
2 (on)	_‾	_‾	_‾
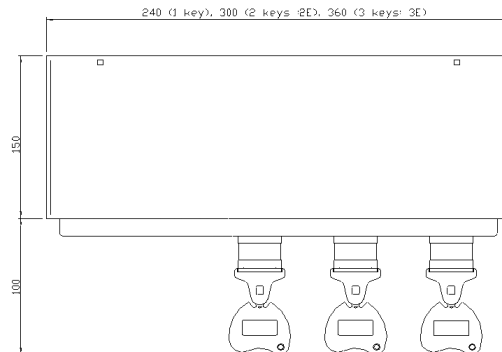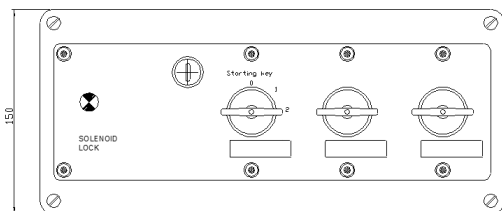
References examples:
TIMLOCK-24V: TIMLOCK with 1 lock (key), 24 Volts supply
TIMLOCK-2E-24OV-CE: TIMLOCK with 2 locks (keys), 240 Volts supply, lock dustcovers

Zero Speed Interlock

SECUMS Interlocks
Machine Safety — Key Interlocking

Ref: SPEEDLOK-24V

Characteristics:
Remote control circuit interlocking with key release at the end of motor rotation. 5 positions key switch operation: «on», «off» & «start» speed zero, key free .
- Adjustable time delay between 0 and 999 seconds
- 1 to 5 locks (keys). Multiple key **ref: 2E, 3E, 4E, 5E**

Electrical features:
- 24 Volts AC/DC power supply **ref: 24V,**
- 240 Volts **ref: 240V**
- 2NO+2NC contacts AC21 16A, AC23 4kW/230V,
  7.5/ 400V, AC3 3kW/ 230V,4 kW/ 400V

Materials: Stainless Steel **lock 316, enclosure 304**

Options:
- Lock dustcover **ref: CE**
- Key 2 positions on & off (key free): **ref: 2P**
- Key 3 positions On; stop request, Off(key free) **ref: 3P**
- Detection 2 motors with 2 relays**: ref:2RVN**

Operating Principle:
Turning the first key from position 2 to position 1 stops the system when the speed relauy detect 0 speed, key 1 can be turn from 1 to 0 and removed, which releases the other keys. To restart, all keys must be inserted into the unit. Contacts 8-9 and 10-11 are safetycircuit contacts, contacts 7-8 12-13 for signaling, as shown in the scheme below.

Ref: SPEEDLOK -3E- 24V

Key position	CONNECTION TERMINAL CONTACT			
	6-7	8-9	10-11	12-13
POS 0 key free				
POS 1 Off				
POS 2 On				
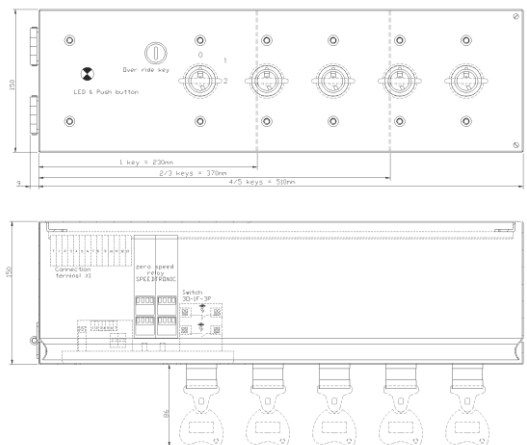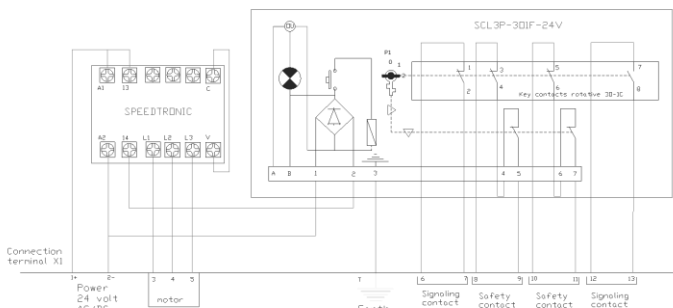
References examples:
SPEEDLOK-24V: SPEEDLOK with 1 lock (key), 24 Volts supply
SPEEDLOK-2E-24OV-CE: SPEEDLOK with 2 locks (keys), 240 Volts supply, lock dustcovers

EXL

Key Exchange unit

SECUMS
Interlocks
Machine Safety
Key Interlocking

Ref: EXL4E-1/3

Characteristics:

Allows exchange of a number of keys against an other
- 2 to 6 keys **ref: 2E, 3E, 4E, 5E, 6E**
- FOB (wall) mounting (BOB mounting possible at your choice)

Materials: Stainless Steel 316

Options:
- Electrical switch contacts: AC-15:400V/4A,
  1NO+1NC **ref: MCUOF**
  2NO (free key) **ref: MCU2O**
  2NC (free key) **ref: MCU2F**
- Lock dustcover **ref: CE**
  Note: the switch is always operated by the 1st key (operating key).
  For more then 6 keys exchange see product **ref: TCL**

Operating Principle:

Insertion of one or more operating keys releases one or more secondary keys. Operating key(s) are trapped when the secondary keys are released and reverse.

Nombre total de clés	A mm	Type d'échange	Nombre de clé mère	Nombre de clé fille
2E	129	1/1	1	1
3E	184	1/2	1	2
3E		2/1	2	1
4E	238	1/3	1	3
4E		2/2	2	2
4E		3/1	3	1
5E	292	1/4	1	4
5E		2/3	2	3

Nombre total de clés	A mm	Type d'échange	Nombre de clé mère	Nombre de clé fille
5E	292	3/2	3	2
5E		4/1	4	1
6E	346	1/5	1	5
6E		2/4	2	4
6E		3/3	3	3
6E		4/2	4	2
6E		5/1	5	1

86.1
20.5
25.5
52   54   54   23
Option MCU 1O−1F 2O 2O−1F
ø6 x35
50
54   54   43,5
A
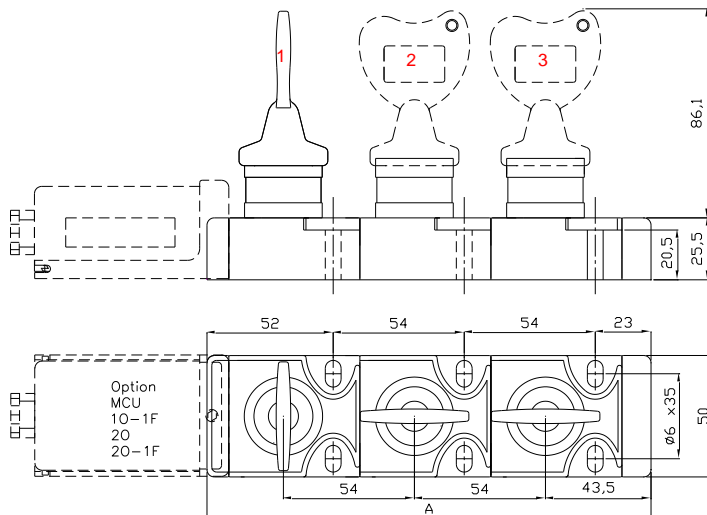
Ref: EXL3E-1/2-MCU2O

References examples:

EXL-3E-1/2: 3 keys exchange unit, 1 key releases 2 trapped keys

EXL-4E-1/3-CE: 4 keys exchange unit, 1 key releases 3 trapped keys, lock dustcovers

EXL-6E-2/4-MCUOF-CE: 6 keys exchange, 2 keys release 4 trapped keys, 1NO+1NC contacts operated by the 2 operating keys, lock dustcovers

EXL-5E-1/4-MCU2O: 5 keys exchange unit, 1 key releases 4 trapped keys, 2NO contacts when the operating key is free

Ref: TCL20E-5/15

Characteristics:

Allows exchange of 1 or a number of keys against another
- From 5 to maximum 36 keys, **ref: 5E to 42E**
- Rows include maximum 6 keys.
- Electrical contacts per lock (key) possible.
- Ease of use (no predefined key release sequence).
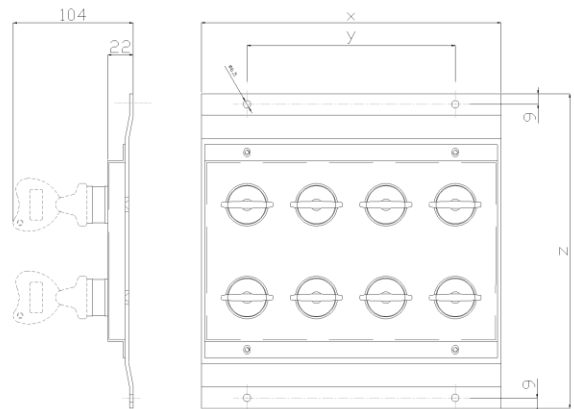- Personalized identification marking

Materials: Stainless Steel 316

Options:
- Contact: 1NO-1NC, AC21 10A on lock **ref: OF**
  For contact on particular lock, please contact us
- Key dustcover **ref: CE**
- Padlock guarding rail to lock/trap the first set of keys:
   10 locks **ref: H 10**
   20 locks **ref: H 20**
   30 locks **ref: H 30**
   40 locks **ref: H 40**
   For the guarding rail operating principle see product ref BHC

Panel type with number of keys and rows	Maximum Number of keys « primary »	Maximum number of keys <secondary	Reference With max keys per row
A-8-2	4	4	TCL8E-4/4
B-12-2	6	6	TCL12E-6/6
C-18-3	6	12	TCL18E-6/12
	12	6	TCL18E-12/6
D-24-4	6	18	TCL24E-6/18
	12	12	TCL24E-12/12
	18	6	TCL24E-18/6
E-30-5	6	24	TCL30E-6/24
	12	18	TCL30E-12/18
	18	12	TCL30E-18/12
	24	6	TCL30E-1246
F-36-6	6	30	TCL36E-6/30
	12	24	TCL36E-12/24
	18	18	TCL36E-18/18
G-42-7	6	36	TCL42E-6/36
	12	30	TCL42E-12/30

	$\times$	y	z
A	250	200	260
B	350	300	260
C	350	300	315
D	350	300	370
E	350	300	425
F	350	300	480
G	350	300	535
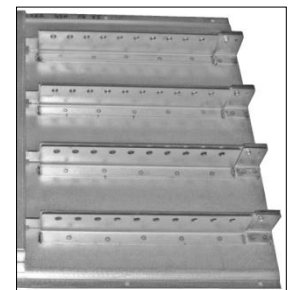
Ref: H40

References examples:
TCL 12E-2/10: 12 keys panel with 2 free, 10 trapped
TCL 8E-1/4: 8 keys panel with 1 free, 4 trapped
TCL 12E-2/10-CE: 12 keys panel with 2 free, 10 trapped, with lock dustcovers
TCL 12E-2/10-CE-H10: 12 keys panel with 2 free, 10 trapped, with lock dustcovers, 10 padlocks rail traps the 2 operating keys (preventing release of access keys to the guarded area)

ACS

Single Access
Interlocks

SECUMS
Interlocks
Machine Safety
Key Interlocking

Ref: ACS-CE

Characteristics:
Access control Interlock for any kind of door.
85 mm centre-distance 3 handing positions locking latch.
- Latch with locking claws
- Latch handle with incorporated ingress protection

Materials: Stainless Steel 316

Options:
- Lock dustcover **ref: CE**
- Latch hole dustcover **ref: CEL**
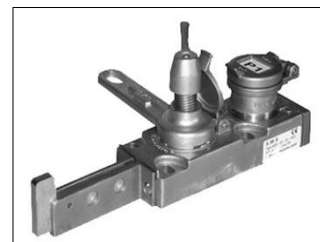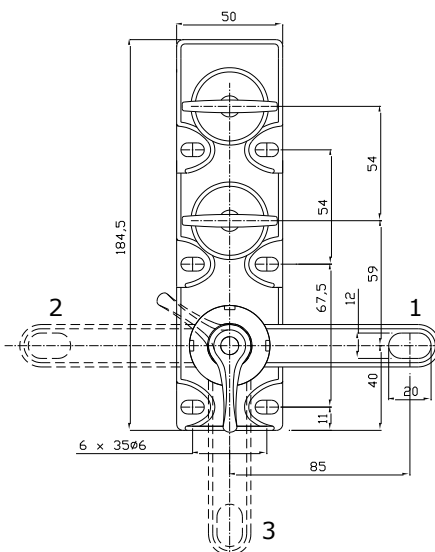- 20 cm chain latch **ref: C0.2**

Electrical contacts:
- 1NO+1NC **ref: MCUOF**
- 2NO (open door) **ref: MCU2O**
- 2NC (open door) **ref: MCU2F**
- Padlocking device, 2 x8,2 mm holes **ref: HC**
- Enhanced protection (concrete) **ref: PR**

Operating Principle:
Key free = access door closed and locked. Inserting and turning the key frees the latch. The key remains trapped as long as the door is open.
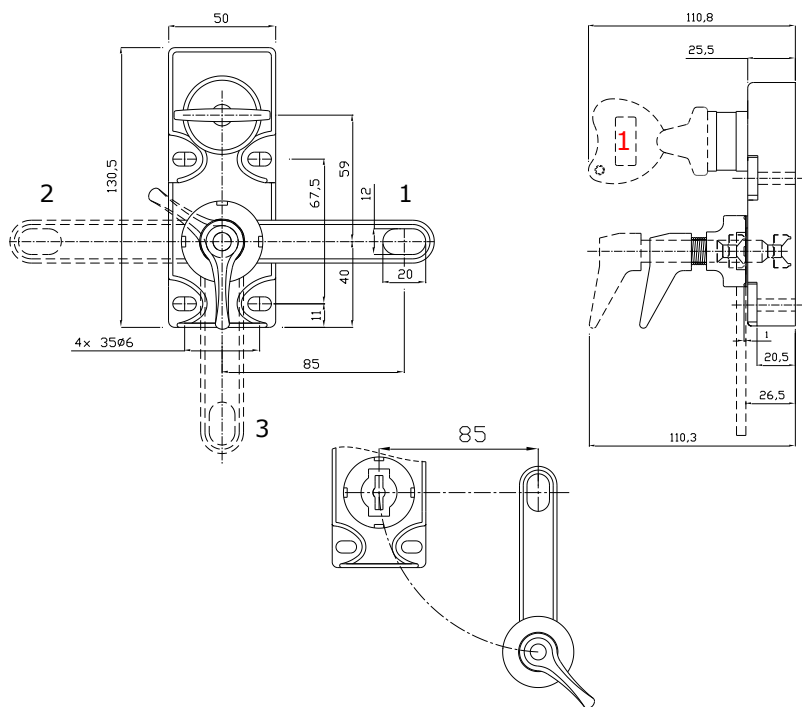
Ref : ACS-CE-C0.2

Ref : ACS-HC-CE-CEL

Ref : ACS-CE-CEL-ATV

References examples:
ACS: Access lock, 85 mm latch
ACS-CE: Access lock, lock dustcover, 85mm latch
ACS-C0.2: Access lock, 20 cm chain latch
ACS-CE-C0.2: Access lock, lock dustcover, 20 cm chain latch
ACS-CE-C0.2-MCU20: Access lock, lock dustcover, chain latch 20 cm, 2NO contact

2 Keys Access Interlock

SECUMS Interlocks
Machine Safety
Key Interlocking

Ref: ACS2E-T1-CE

Characteristics:
2 Keys access control Interlock for all kinds of doors.
85 mm centre distance, 3 handing positions locking latch
- 2 Operation Keys **ref:T1**
- 1 Operation Key and 1 Safety Key (to avoid locking in) **ref: T2.**

Materials: Stainless Steel 316

Options:
- Lock dustcover **ref: CE**
- Latch hole dustcover **ref: CEL**
- 20 cm chain latch **ref: C0.2**
- **Electrical contact:**
  1NO+1NC **ref: MCUOF**
  2NO (open door) **ref: MCU2O**
  2NC (closed door) **ref: MCU2F**
- Padocking device, 2x8.2 mm holes **ref: HC**

Operating Principle:
T1: 2 operating keys. Inserting and rotating both operation keys frees the latch. Keys remain trapped as long as door stays open.
T2: 1 operating key and 1 safety key, inserting the operation key and removing safety key unlocks the latch
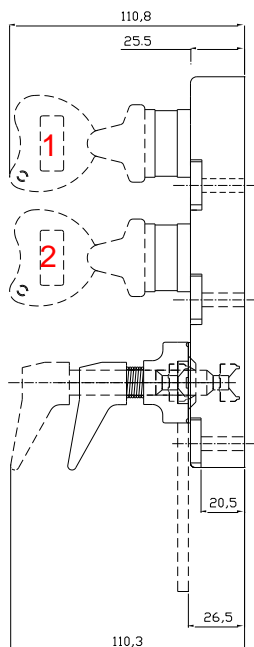
Ref: ACS-2E-T2-CE
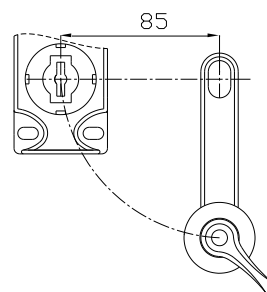
References examples:
ACS-2E-T1-CE: Access lock, 2 operation keys, lock dustcovers, 85 mm latch
ACS-2E-T2-C0.2: Access lock,1 operation key, 1 safety key, 20 cm chain latch
ACS-2E-T2-CE: Access lock, 1 operation key, 1 safety key, 85 mm latch, lock dustcovers
ACS-2E-T2-CE-C0.2: Access lock, 1 operation key, 1 safety key, lock dustcovers, 20 cm chain latch

ACS 3E

3 Keys Access Interlock

SECUMS Interlocks
Machine Safety — Key Interlocking

Ref: ACS-3E-T1-CE

Characteristics:
3 keys access control Interlock for all kind of doors.
85 mm centre-distance, 3 handing positions locking latch.
3 operation keys **ref:T1**
2 operation keys and one Safety key (to avoid locking in) **ref:T2**
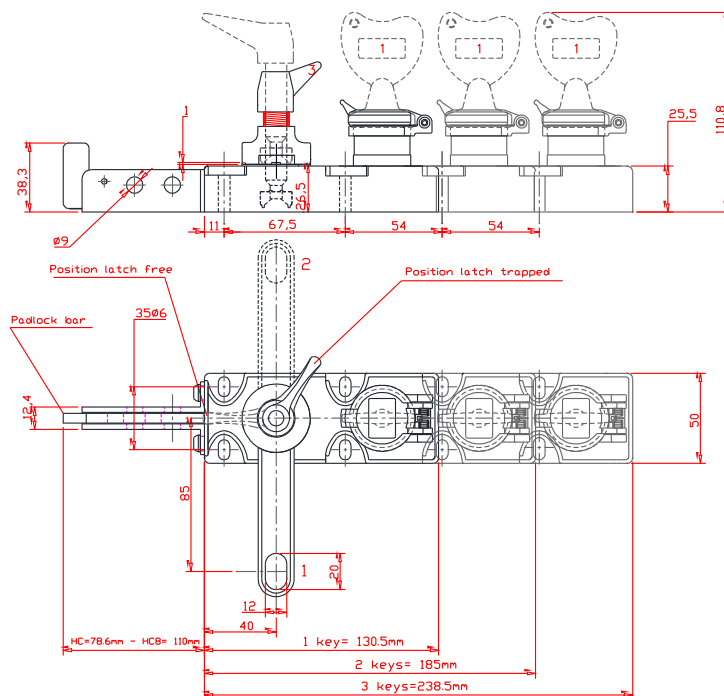
Materials: Stainless Steel 316

Options:
- Lock dustcover **ref: CE**
- Latch hole dustcover **ref: CEL**
- 20 cm chain latch **ref: C0.2**

Electrical contacts:
- NO+NC **ref: MCUOF**
- 2NO (open door) **ref: MCU2O**
- 2NC (closed door) **ref: MCU2F**
- Padlocking device, 2x 8,2 mm holes **ref: HC**

Operating Principle :
T1: Inserting and rotating the 3 operation keys unlocks the latch.
Keys remain trapped as long as door stays open.
T2:. Inserting and rotating 2 operation keys releases the safety key.
Removal of the safety key from the lock unlocks the latch to open access.
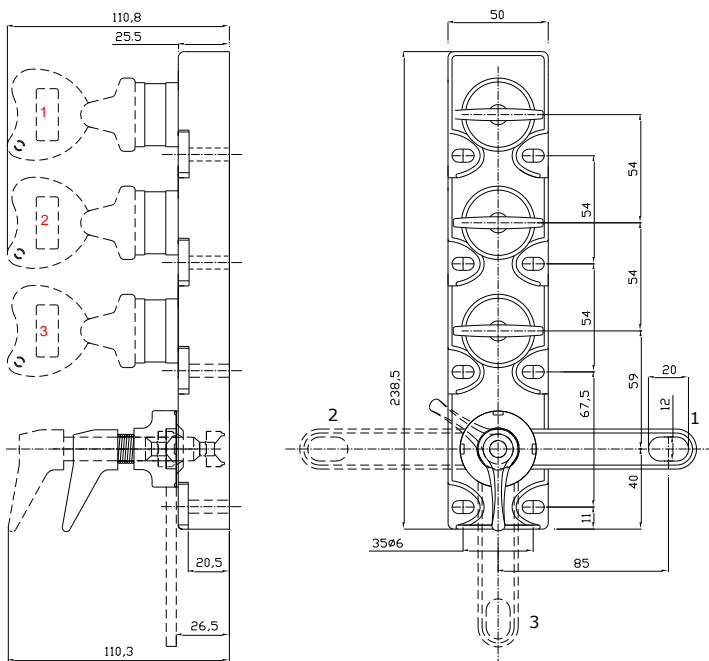
Ref: ACS3E-T2-CE-C0.2

Ref: ACS-3E-T2-MCUOF-CE-C0.2

References examples:
ACS-3E-T1-CE-C0.2: 3 operating keys, lock dustcovers, 20 cm chain latch
ACS-3E-T2: 2 operating keys, 1 safety key, 85 mm latch
ACS-3E-T2-CE-MCUOF: 2 operating keys, 1 safety key, lock dustcovers, 85 mm latch with electric contacts 1NO+1NC
ACS-3E-T2-C0.2: 2 operating keys, 1 safety key, 20 cm chain latch

Access Interlocks with padlock device

SECUMS Interlocks
Machine Safety
Key Interlocking
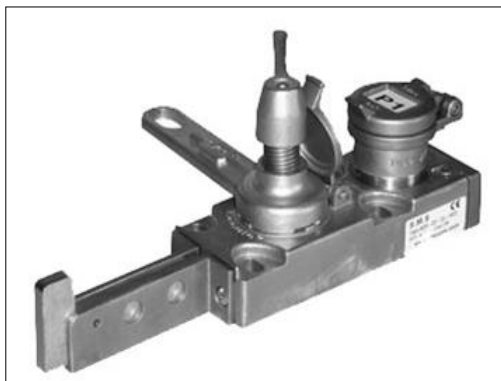
Ref: ACS-HC-CE-CEL

Characteristics:
Access control Interlock 1 to3 keys for any kind of door.
85 mm centre-distance 3 handing positions locking latch.
- 2 padlocks **ref: HC** - 8 padlocks **ref: HC8**
- 1 key **ref: ACS**, 2 Keys **ref: 2E**, 3 keys **ref: 3E**
- 2 Operation Keys **ref:T1**
- 1 Operation Key and 1 Safety Key (to avoid locking in) **ref: T2**
- Latch handle with incorporated ingress protection

Materials: Stainless Steel 316

Options:
- Lock dustcover **ref: CE**
- Latch hole dustcover **ref: CEL**
- 20 cm chain latch **ref: C0.2**

Electrical contacts:
- 1NO+1NC **ref: MCUOF**
- 2NO (open door) **ref: MCU2O**
- 2NC (open door) **ref: MCU2F**
- Enhanced protection (concrete) **ref: PR**

Operating Principle:
Key free = access door closed and locked. Inserting and turning the key frees the latch, push the padlock bar and insert padlock in holes. The door is consigned open andThe key remains trapped as long as the door is open and padlocks are present.

Position latch free
Position latch trapped
Padlock bar
25,5
110,8
38,3
ø9
11
67,5
54
54
35Ø6
85
12,4
50
12
40
20
1
HC=78.6mm - HC8= 110mm
1 key= 130.5mm
2 keys= 185mm
3 keys=238.5mm

References examples:
ACS-HC: Access lock,2padlocks capacity, with 85 mm latch
ACS2E-T1-HC8-CE: 2 operation Keys access lock,8 padocks capacity, lock dustcover, 85mm latch

ALMCU

Safety gate switch
With latch

SECUMS
Interlocks
Machine Safety
Key Interlocking

Characteristics:
Access safety switch locking for any kind of door.
Most suitable for doors with risk of misalignment and/or harsh operating conditions.
Easy installation, no safety switch tuning required.

Materials: Stainless Steel 316

Electrical features:
AC-15:400V/4A- Positive breaking safety contacts
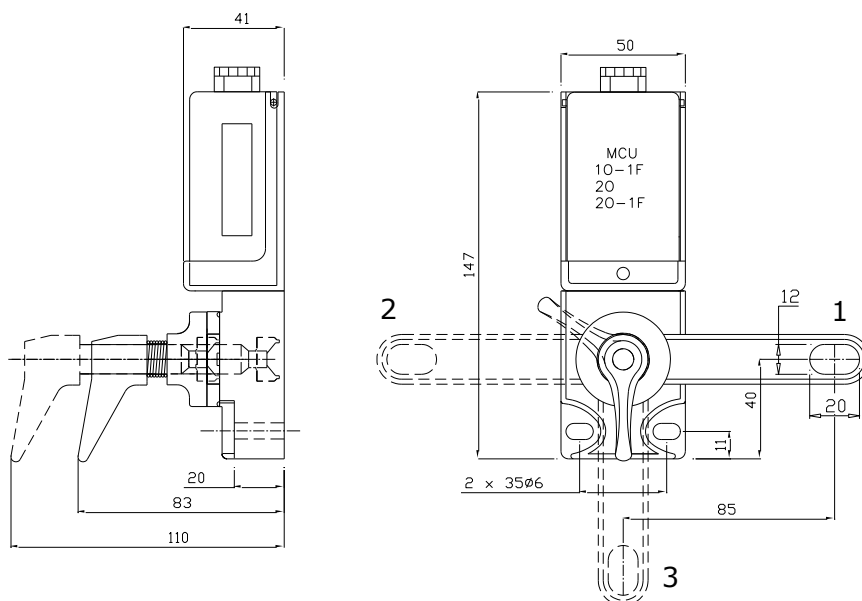2NO contacts- free latch
Ingress Protetion: IP67

Options:
- 2NC+1NO contacts(locked latch) **ref: 1O2F**
- 1NO+1NC contacts (free latch) **ref: OF**
- 2NO contacts (free latch) **ref: 2NO**
- ATEX 1NO+1NC contacts with 3 meters of cable **ref: ATEXOF3**
- 20 cm chain latch **ref: C0.2**

Ref: **ALMCU-2O**

Operating Principle:
With free latch (open access) 2NO contacts are open.
Trapped latch (denied access) 2NO contacts are closed for machine start (with safety switch contacts 2NC+1NO latch trapped when 2 closed /1 open).
The latch is very reliable and requires conscious action for opening and closing

Ref: ALMCU-2O-C0.2

MCU
1O−1F
2O
2O−1F

41

50

147

2

12 1

40

20

11

2 × 35Ø6

85

3

20
83
110

85
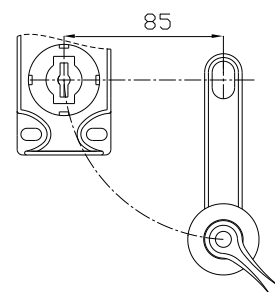
References examples:
ALMCU-2NO: Switch with 2NO contacts free latch
ALMCU-2NC+1NO: Switch with 2 contacts closed and 1 contact open- trapped latch
ALMCU-1NO+1NC: Switch with 1NO+1NC contact -free latch
ALMCU-2NO-C0.2: Switch with 2NO contact- free latch, 20cm chain latch

Safety Gate switch interlock
For safe access control

SECUMS Interlocks — Machine Safety — Key Interlocking

Ref:ACST0-MCU2O-CE

Characteristics:
Safety key release initiates machine stop and enables safe door opening**.**
Prevents machine operation with open door,
Prevents personnel being accidently locked iside a guarded area.

Materials: Stainless Steel 316

Options:
- Key dustcover **ref: CE**
-20 cm chain latch **ref: C0.2**

Electrical contacts:
- 1NO+2NC **ref: MCU1O2F**
- 1NO+1NC **ref: MCUOF**
- 2NO (open door) **ref: MCU2O**
- 2NC (closed door) **ref: MCU2F**
- ATEX3 contacts **ref: ATEX3** (see for detail ref: MCU)
- 1 Operation Key and 1 Safety Key **ref: T2**
- 2 Safety Keys **ref: 2E**

Operating Principle:
Removal of the Safety Key operates the safety swich contacts to safe machine stop mode and enables door opening. Safety key can be taken into the guarded area to prevent accidental restart, and/or innitiate safe programming inside the guarded area by operating safety switch interlock **ref:EXLT1 MCU**

Ref: ACST0-MCU2O-CO.2-CE
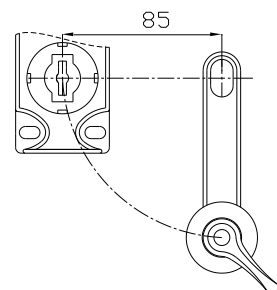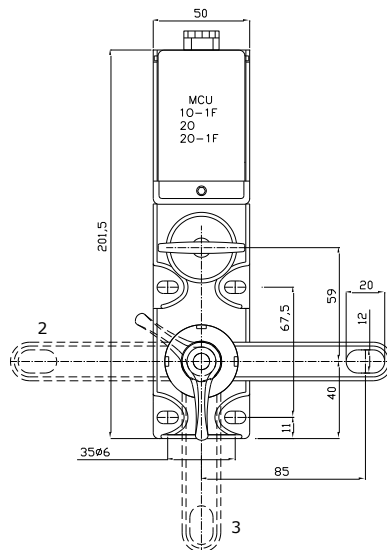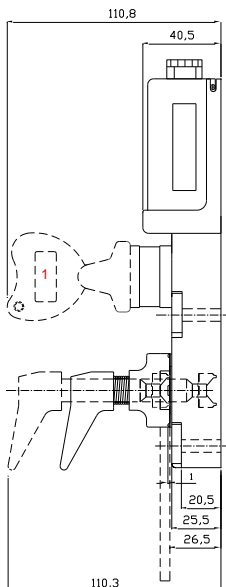
References examples:
ACST0-CE-C0.2: with lock dustcover and 20 cm chain latch
ACST0-MCU2O-CE: with lock dustcover, 85 mm latch and 2NO contacts
ACST0-CE: Unit without switch, with lock dustcover and 85 mm latch
ACST0-C0.2: Unit without switch, and 20 cm chain latch
For combined safe programming inside the guarded area, see safety switch interlock *ref: EXLT1 MCU*

For further informations: http://www.secums-interlocks.com - Tel: 00 33 (0)1 43 08 65 31 Fax: 00 33 (0)1 43 08 97 20

ASCL

Solenoid controlled
Access lock

SECUMS Interlocks
Machine Safety
Key Interlocking

Ref: ASCL-2O2O-24V-C0.2

Characteristics:
- Solenoid locking. 2 solenoid and 2 latch position control contacts (positive break), 100% Solenoid Duty Cycle, with LEDs, and override key, 85 mm centre-distance latch.
- Designed for heavy duty interlock application.
- With coded locking latch option **ref: LM**

Materials: Stainless Steel 316

Electrical features:
- Solenoid Voltage: 24 V DC/AC 13W
- Contacts: 2NO+2NC AC21 16A, AC23 4kW/230V, 7.5/400V, AC3 3kW/ 230V,4 kW/ 400V

Options:
- 230 Volts power supply **ref: 230V**
- 20 cm chain latch **ref: C0.2**
- Latch lock dustcover **ref: CEL**
- Key Lock dustcover **ref: CE**
- Padlocking device, 2 x8,2 mm holes **ref: HC**
- Padlocking device, 8 x8,2 mm holes **ref: HC8**

Operating Principle:
- Solenoid energization releases the locking latch and enables access door opening.
- Provides suitability for use in SIL 3 EN/IEC 62061, Category 4 and Ple EN/ISO 13849-1 applications.
  Protection: IP67 according to EN 60529

Wiring scheme

24V AC/DC

stop catégory4
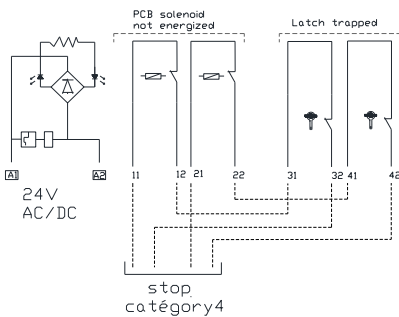
TECHNICAL SPECIFICATION

Power supply: 24V AC/DC -10%/+25%-13 W
Working factor:100%
Contacts solenoid 2NC 6A 240V
Contacts latch: 2x2NCAC15-10A 240V
LED: 2 x green
Section cable: mini 1 x 0.34² max 2 x 1.5²
Cable gland entry: 3 positions M20
Montage: front of board
Fitting: M5 x 6
Température: Min-25°C. Max 60°C.
Protection: IP67 according to EN 60529
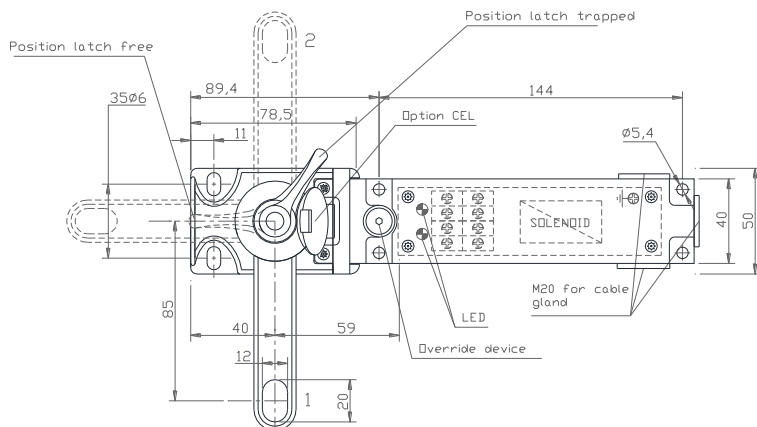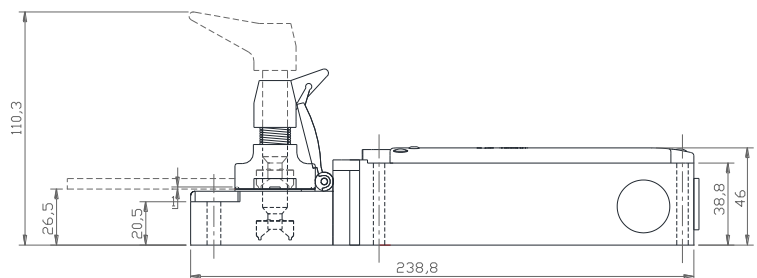
References examples:
ASCL-2O2O-24V-CE: lock with solenoid controlled latch 24 V 2NC+2NC contacts with key dustcover
ASCL-2O2O-24V-LM: lock with solenoid controlled latch 24V 2NC+2NC contacts and coded locking latch
ASCL-2O2O-24V-E1-CE: lock with solenoid controlled latch 24 V 2NC+2NC contacts, safety key and dustcovers.
ASCL- 2O2O-24V-CO.2: lock with solenoid contr. latch 24 V 2NC+2NC contacts and 20 cm chain latch

Solenoid controlled Access lock with safety key

SECUMS Interlocks
Machine Safety · Key Interlocking

Ref: ASCL1E-2O2O-24V-C0.2 -CE

Characteristics:
- Solenoid locking. 2 solenoid and 2 latch position control contacts (positive break), 100% Solenoid Duty Cycle, with LED, and override key, 85 mm centre-distance latch.
- Designed for heavy duty interlock application.
- With coded locking latch option **ref: LM**
- Available with up to 3 Safety Keys **ref: 2E, 3E**

Materials: Stainless Steel 316

Electrical features:
- Solenoid Voltage: 24 V DC/AC 13W
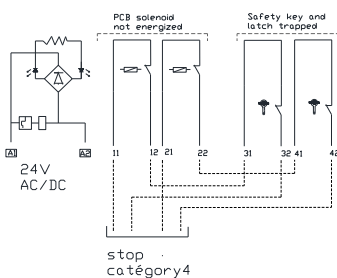- Contacts: 2NC+2NC 6A /240V,

Options:
- 230 Volts power supply **ref: 230V**
- 20 cm chain latch **ref: C0.2**
- Latch lock dustcover **ref: CEL**
- key Lock dustcover **ref: CE**
- Padlocking device, 2 x8,2 mm holes **ref: HC**
- Padlocking device, 8 x8,2 mm holes **ref: HC8**

Operating Principle:
- Solenoid energization releases the safety key and enables to release the latch andaccess door opening.
- Coded locking latch **ref: LM**
  Provides suitability for use in SIL 3 EN/IEC 62061 Category 4 and Ple EN/ISO 13849-1 applications.
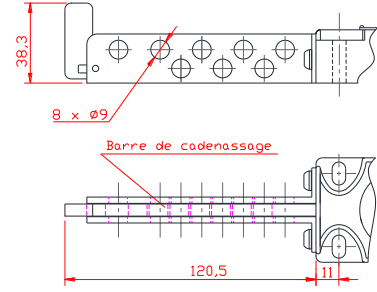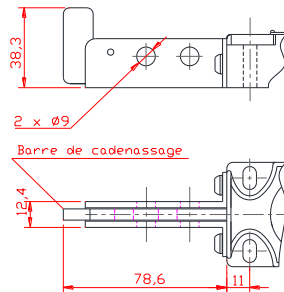 Protection: IP67 according to EN 60529

Wiring scheme

PCB solenoid not energized

Safety key and latch trapped

24V AC/DC

stop catégory4
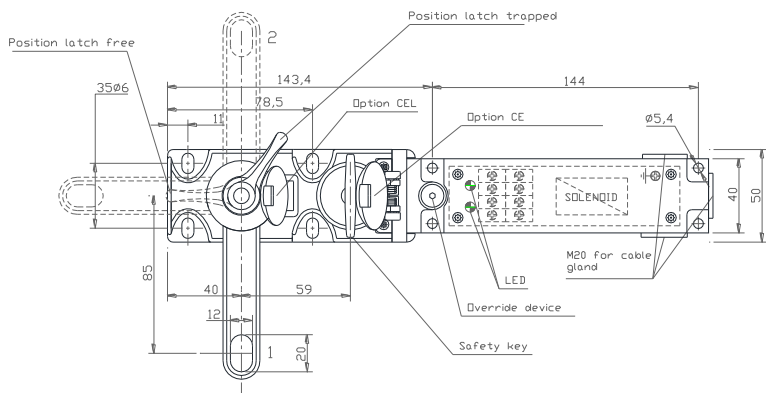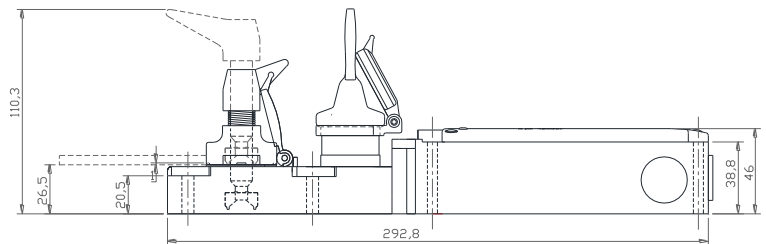
TECHNICAL SPECIFICATION

Power supply: 24V AC/DC -10%/+25%-13 W
Working factor:100%
Contacts solenoid 2NC 6A 240V
Contacts latch: 2x2NCAC15-10A 240V
LED: 2 x green
Section cable: mini 1 x 0.34² max 2 x 1.5²
Cable gland entry: 3 positions M20
Montage: front of board
Fitting: M5 x 6
Température: Min-25°C.   Max 60°C.
Protection: IP67 according to EN 60529

References examples:
ASCL1E-2O2O-24V-CE: lock with solenoid controlled safety key &latch 24 V 2NC+2NC contacts with key dustcover
ASCL1E-2O2O-24V-LM: lock with solenoid controlled safety key &latch 24V 2NO+2NC contacts and coded locking latch
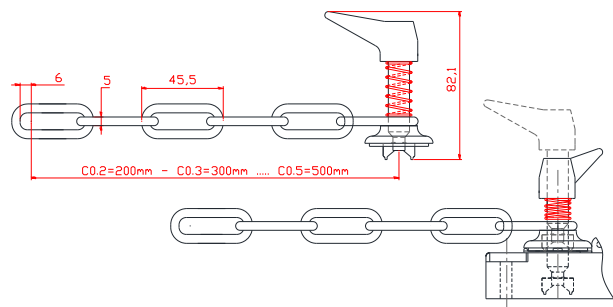**ASCL1E- 2O2O-24V-CO.2**: lock with solenoid contr. latch 24 V 2NO+2NC contacts and 20 cm chain latch

Padlock devices and Latches for Access Locks

SECUMS Interlocks
Machine Safety · Key Interlocking

Padlock device for 2 & 8 Padlocks **ref: HC / HC8**

38,3
2 x Ø9
Barre de cadenassage
12,4
78,6
11

38,3
8 x Ø9
Barre de cadenassage
120,5
11

Latch 135 mm bended-for flush mounting **ref: LQ135**
Latch180 mm bended-for flush mounting **ref: LQ180**

14,5
14.5mm pour porte coullissante
20
12
5
180 / 135
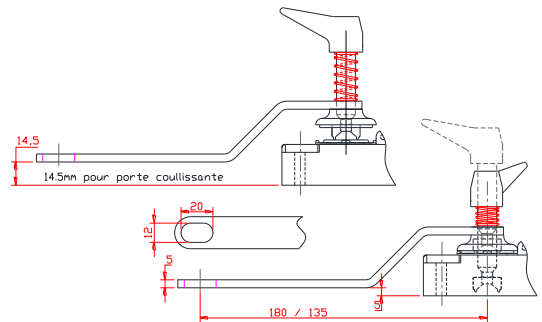
Chain Latch 20cm/30cm… **ref: C0.2 / C0.3**
Shackles 5 mm – welded- full stainless steel

6
5
45,5
82,1
C0.2=200mm – C0.3=300mm ..... C0.5=500mm

Anti Vibration Latch , 85mm centre distance **ref: ATV**

TORX SERCURIT
M10x40mm
5mm free space Vertikal
5mm free space Horisontal
35
25,3
17,3
50
85
8
34,5
Ø8,5
Ø8,5
34,5
M10

EXL
T1
MCU

Key operated
Safety switch

SECUMS
Interlocks
Machine Safety
Key Interlocking
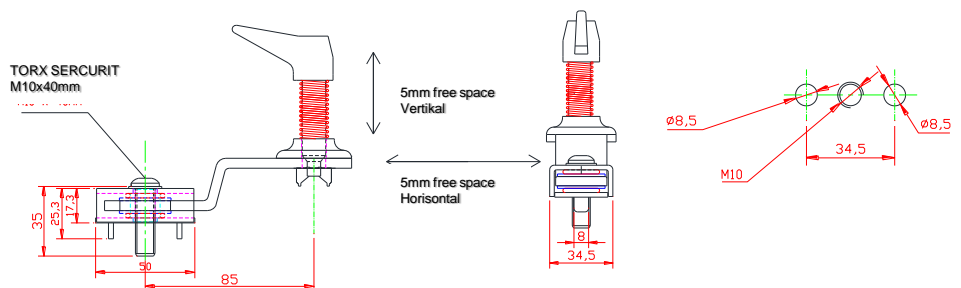
Ref: EXLT1-MCU20-CE

Characteristics:
- Keyoperated failsafe assembled overtravel limit switch.
- Suitable for access request-, Programming- and Machine stop control in combination with ASCL and ACS units.
- Front of board mounting.
- Available up to 6 locks. Multiple lock **ref: 2E, 3E, 4E, 5E, 6E**

Materials: Stainless Steel 316
Ingress Protection: IP67

Electrical features:
- AC15: 4A/400V- Positive breaking safety contacts
- 2NC+1NO **ref: MCU2FO**
- 1NO-1NC **ref: MCUOF**
- 2NO (free key) **ref: MCU2O**
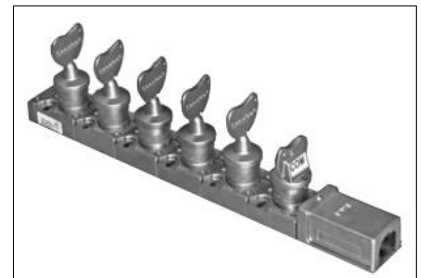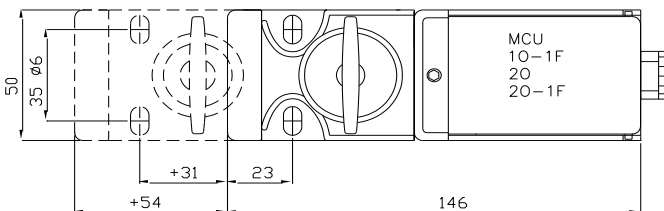- 2NC (free key) **ref: MCU2F**

Options:
- Key dustcover **ref: CE**
- BOB (Panel Mounting) **ref: INV** (see for detail ref: MCU)
- ATEX3 contacts **ref: ATEX3** (see for detail ref: MCU)

Operating principle:
Modular lock with safety switch, designed as FOB (wall) mounted rail, release of one or more keys operates the switch and vice versa.
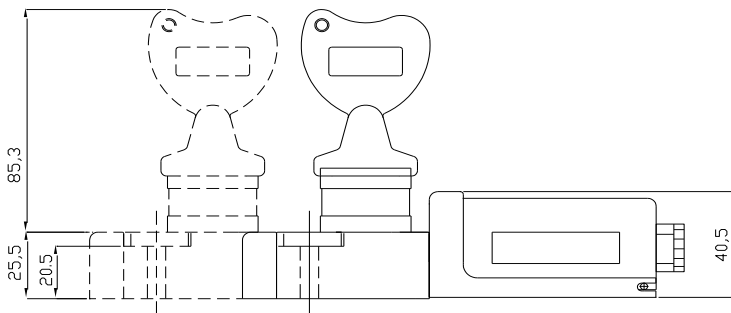
Ref: EXLT1-3E-MCU20

Ref: EXLT1-6E-MCU20-COM

References examples:
EXLT1-MCUOF: Lock 1 key with contacts 1NO+1NC
EXLT1-2E-MCUOF: Lock 2 keys with contacts 1NO+1NC
EXLT1- 3E-MCU2O-CE: Lock 3 keys with contacts 2NO free keys, lock dustcovers
EXLT1-MCU2OATEX3: Lock 1 key with contacts 2NO free key, explosion proof contacts with 3 meters of cable.

Safety switch
Contact module

SECUMS
Interlocks
Machine Safety
Key Interlocking

Ref: MCUOF

Characteristics:
- Electrical safety switch module, fits without modification to any of our products like BLT Boltlock, ACS Access locks, or EXL Key exchangers.
- Fitted with protection cover and sealed with a safety screw to prevent unauthorized switch access. Suitable for safety applications.

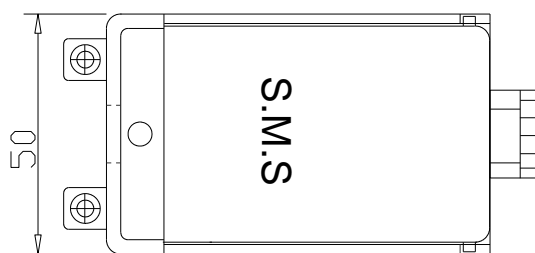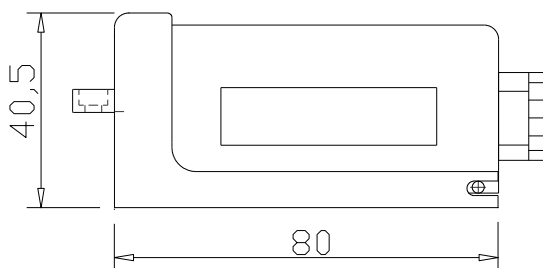**Materials:** Stainless Steel 316

Electrical features:
 AC-15:400V/4A- Positive breaking safety contacts
- 2NC+1NO **ref: MCU2FO**
- 2 NO contacts **ref: MCU20**
- 2NC contact **ref: MCU2F**
- 1NO +1NC contacts **ref: MCUOF**
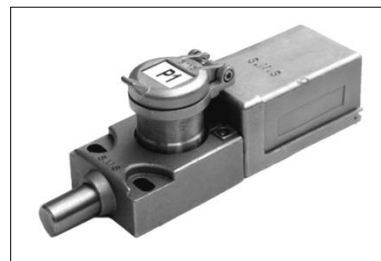- Ingress protection: IP 67 **ref: IP67**

Options:
- Back of Board version (Panel Mounting) **ref: INV**
- ATEX 1NO+1NC contact with 3 meters of cable
 (for other type please contact us) **ref: ATEXOF3**

Operating principle:
The module MCU can be fitted without any technical modification of the host lock. It monitors the key or latch status and/or provides for safety circuit control functionality.

Ref: BLT15-CE-MCUOF

40,5

80

S.M.S

50

contacts sécurité
positive
1NO-NF
2NF
2NO

Ref: BLT15-MCUOF-INV

Ref: BLT10-2E-MCU2O

For further informations: http://www.secums-interlocks.com - Tel: 00 33 (0)1 43 08 65 31 Fax: 00 33 (0)1 43 08 97 20
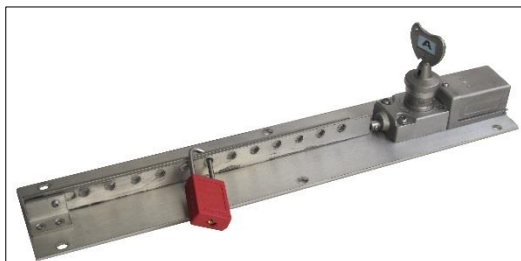
Ref: BHC-M-2E-12C

Characteristics:
- Designed for multi padlockable key storage, to prevent unauthorized restart of equipment
- Capacity: 5, 12, 20 padlocks.
- Padlock holes for 8 mm max. diam shackle
  For 5 padlocks **ref: BHC5C**
  For 12 padlocks **ref: BHC12C**
 For 20 padlocks **ref: BHC20C**

Materials: Stainless Steel 316

Options:
- 2 keys **ref: 2E**
- 3 keys **ref: 3E**
- Lock dustcover **ref: CE**
- Switch 2NO free key **ref: MCU2O**
- Switch1NO+1NC **ref: MCU-OF**

Can be combined with key exchange panel ref. TCL

Operating principle:
The key is trapped in the lock by any padlock which blocks key release for access lock operation
(f.i. access lock with safety key ACS2E-T2) as well as system restart.
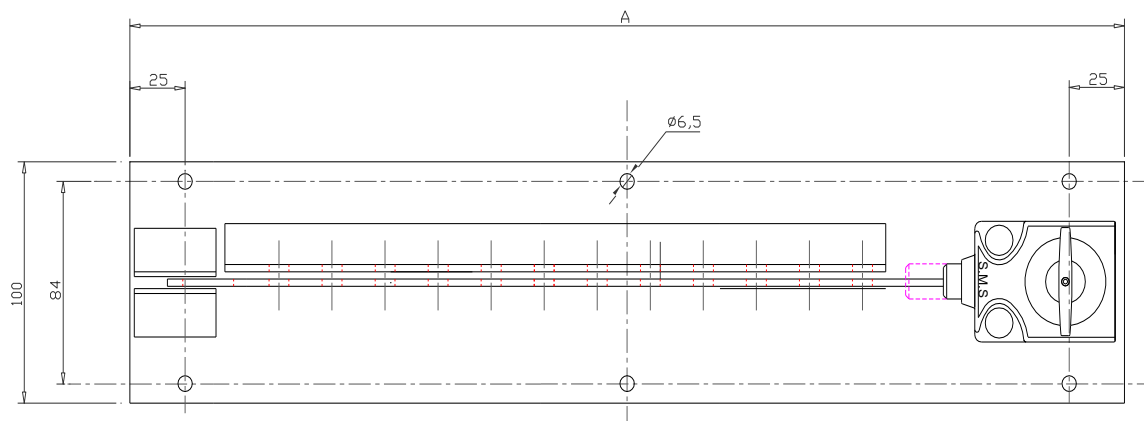
référence	A
BHC 5	300
BHC 12	450
BHC 20	600

References examples:
BHC5C: 1 key lock with 5 padlocks rail
BHC12C: 1 key lock 12 padlocks rail
BHC12C-2E-CE: 2 keys lock with 12 padlocks rail, lock dustcovers
BHC20C: 1 key lock with 20 padlocks rail
BHC12C-2E: 2 keys lock with 12 padlocks rail
BHC12C-2E-MCUOF: 2 keys lock with 12 padlocks rail and 1NO+1NC contacts

Pneumatic & Hydraulic Valve lock

SECUMS Interlocks
Machine Safety — Key Interlocking
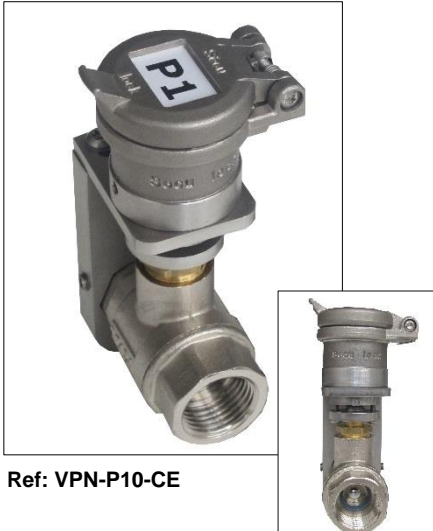
Ref: VPN-P10-CE

Characteristics:
- Interlock for pneumatic or hydraulic valves, with key free in locked closed position.
- Pneumatic valve DN10 to DN 25 with female connexion Direct key operated
- Hydraulic valve DN15 to DN50 with female connexion Lever operated and interlocked with boltlock

Materials:
- Lock body : Stainless Steel 316
- Pneumatic valve: brass, chrome finished
- Hydraulic valve: steel chrome finished

Options:
- Lock dustcover **ref: CE**
- 3 way valve (on request)
  Specific options for hydraulic valve
- Switch NO+NC **ref: MCUOF**
- Locked 2 positions with 2 locks **ref: LOC**
- Lock closed 2 keys free **ref: 2E**

Reference	Valve type & Diameter	Pressure (bars)
VPN10	Pneumatic DN10	30
VPN15	Pneumatic DN15	30
VPN20	Pneumatic DN20	30
VPN25	Pneumatic PN25	30
VPH15	Hydraulic DN15	400
VPH25	Hydraulic DN25	400
VPH40	Hydraulic DN40	400

Ref: VPH25-CE

References examples:
VPH-P10-CE: pneumatic valve DN10 locked closed-key free with dustcover
VPH-H25-CE: hydraulic valve DN25 locked closed-key free with dustcover
VPH2E-H15-CE: hydraulic valve DN15 locked closed 2 keys free with dustcover
VPH-LOC-H40-MCUOF-CE: hydraulic valve DN40 locked open and locked closed with contact NO+NC

Interlock
For lever operated valves

SECUMS Interlocks
Machine Safety *Key Interlocking*

Ref: 90L-LOC

Characteristics:
- Lock 90L (for ¼ turn valves) such as ball or butterfly valve.
- Includes valve fitting kit, can be mounted without drilling or valve modification.
- Quick to install or to dismantle
- Locking force 500 daN
- 650°C fire resistance
- Keys and dustcover with incorporated lock ingress protection
- SécuMS patented easy lock coding and marking

Materials: Stainless Steel 316

Options:
Integrated position monitoring switch
- ATEX 1NC position contact when valve open **ref: BFO**
- ATEX 1NC position contact when valve closed **ref: BFC**
- Key cabinets/Key management systems

For more details and the complete range of locks for valves, please refer to our SECULOK IVL catalogue

Operating principle:
- **90L–LO**: Single locking, key free when the valve is locked open (right side key).
- **90L– LC**: Single locking, key free when the valve is locked closed (left side key). en the valve is locked closed (left key), other key free when the valve is locked open (right key). Only one key can be free at the time.
- **90L–LOC**: Double locking, one key free

Ref: 90L-LOC-BFO+BFC
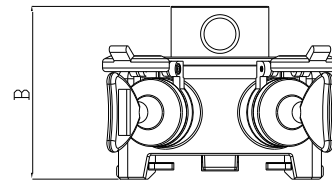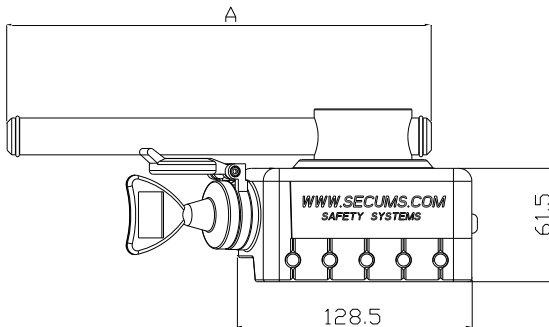
DIMENSIONS	
A	B
180	95
280	
380	
500	

Design of adaptation kit tailored to the to be interlocked valve type and size

References examples:
90L-LOC: Double lock with lever, locking the valve in open and/or closed position
90L-LO: Single Lock with lever, locking the valve in open position
90L-LC: Single Lock with lever, locking the valve in closed position

Interlock for handwheel Operated valves

SECUMS Interlocks
Machine Safety — Key Interlocking

Ref: MTL-LOC

Characteristics:
- Lock MTL (for handwheel operated valves) such as gate, globe or gearbox operated valves .
Includes valve fitting kit, and can be mounted without
drilling or valve modification.
- Quick to install or to dismantle
- Locking force 500 daN
- 650°C fire resistance
- Keys and dustcovers with incorporated lock ingress protection

Materials: Stainless Steel 316

Options:
Integrated position monitoring switch
- ATEX 1NC position contact when valve open **ref: BFO**
- ATEX 1NC position contact when valve closed **ref: BFC**
- Key cabinets/Key managementsystems: see **ref TCL**

For more detail and the complete range of locks for valves, please refer to our SECULOK IVL catalogue

Operating Principle:
- **MTL–LO**: Single locking, key free when the valve is locked open
  (right side key).
- **MTL– LC**: Single locking, key free when the valve is locked closed
  (left side key).
- **MTL–LOC**: Double locking, one key free when the valve is locked closed
  (left key), other key free when the valve is locked open (right key).
  Only one key can be free at the time.

Ref: MTL-LOC

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SAFETY SYSTEMS

61.5

128.5

110
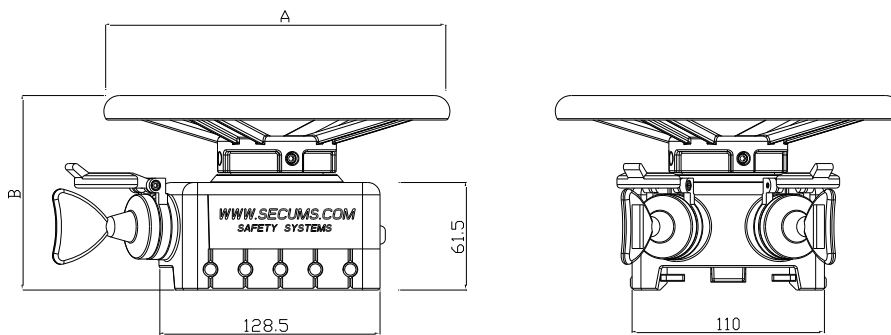
DIMENSIONS	
A	B
Ø 180	95
Ø 280	115
Ø 380	135
Ø 500	155

References examples:
MTL-LOC: Double lock with handwheel, locking the valve in open and/or closed position
MTL-LO: Single Lock with handwheel, locking the valve in open position
MTL-LC: Single Lock with handwheel, locking the valve in closed position

Lockout for
Handwheel valves

SECUMS
Interlocks
Machine Safety
Key Interlocking

Ref: CVL-483

Characteristics:
Thermoplastic body XENOY, dielectric, light, robust and chemical resistant.
Unique rotary design for quick installation.
- 6 sizes, for up to 35,2cm diameter handwheels
- 3 padlocks holes 8/9,5 mm
- Removable center cap for rising stem valves
- Temperature -46 °C to 177 °C
- Quick to install or to dismantle

Options:
- Padlocks
- Hasp with 6 padlocks **ref: 416**

Operating Principle:
Place the valve in proper position, place the to the valve handwheel size adapted CVL cover, and lock with safety padlocks at choice.

Ref: CVL-482

Handwheel ⟳ 2.7cm up to 8.1cm	**480**
Handwheel ⟳ 5.4 cm up to 13.5cm	**481**
Handwheel ⟳ 10.8cm up to 17.6cm	**482**
Handwheel ⟳ 16.2 cm up to 27cm	**483**
Handwheel ⟳ 21.6 cm up to 35.2cm	**484**
Handwheel set of each size (5)⟳ 5.4 up to 35.2 cm	**485**

References examples:
CVL-480: Lockout for handwheel valve between 2,7 and 8,1 cm
CVL-483: Lockout for handwheel valve between 16,2 and 27 cm

SECUMS

Interlocks

Machine Safety

Key Interlocking

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