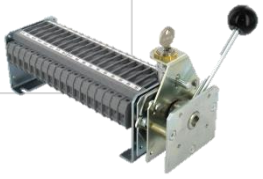
MAFELEC

BAY AUXILIARY CIRCUIT SWITCHES BLI

CONTROL AND SIGNALING SOLUTIONS FOR HARSH ENVIRONMENTS

BAY AUXILIARY CIRCUIT SWITCHES BLI



Robust

Long life durability :

- Comply with the international standards
- Designed according to electrical substations standards
- A foolproof mechanical and electrical robustness
- Applications in electrical substations, power plant (hydraulic, nuclear…)

Configurable

Adaptable to your applications :

- Locking system by key or padlock
- Up to 50 contacts as standard
- Possibility of « overlapping » contacts
- Arrangement and identification of contacts possible on request
- Possibility of adding configurable additional contacts blocks

APPLICATION

> Isolate circuits

- This device enables rapid isolation of supply circuits to realize separation of circuits before working on the equipment in complete safety.
- It arises from technical evolutions brought by strong customers requirements (electrical distribution market, nuclear applications…)
- Blade circuit opening cutting enables both low level and conventional (Ith16Amax) circuits to be isolated visibly. With these “overlapping” contacts it’s possible to isolate circuit without loss of signal.

Codification of products

Type	/ Special assembly	/ Contacts	/ Connection	/ Locking	//
Ex : BLIA	/ -	/ F24	/ SF	/ 3242A	//

Type

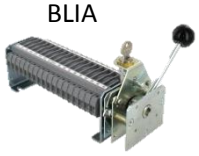
BLIA Switch with independent lateral control (handle at right)

(from 4 to 25 contacts)

BLIB Switch with independent central control

(from 26 to 50 contacts)

BLIA



BLIB

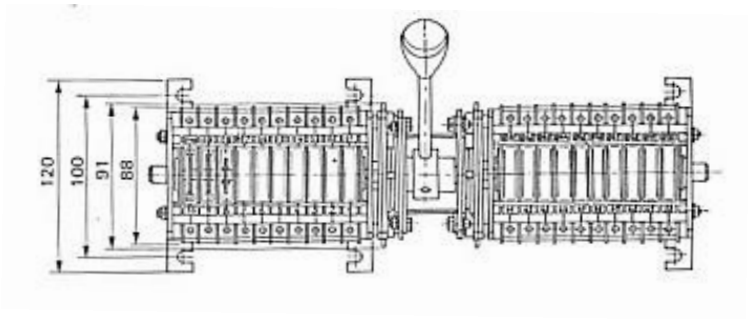
Special assembly

- Standard assembly

FD Displaced mounting

In some cases the standard fixing of the product can be complex considering the installation environment (fixing holes located below the device as standard). To overcome the problem the devices can be equipped with extended mounting feet (FD). The overall height is increased to 120mm.

FD



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Special assembly

- Standard assembly

CNS Non-standard configuration.

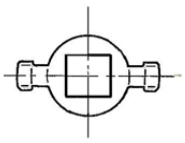
There are 2 types of non-standard configuration (which can be combined):

1) The arrangement or location of the desired contacts are different from our manufacturing standards. In this case, it will be transcribed in a scheme specified in the contact section (eg : F8-O4+Scheme N°)

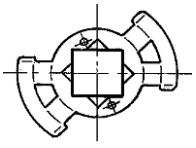
The standard is the following (see also in page 8) :

Each contact is marked by two numbers to differentiate between input and output (01 and 1 , 02 and 2, 03 and 3…).
The order of numbers increases from the control handle to the end of the product.
The Normally closed (NC) contacts are alternated with the Normally opened (NO) contacts.
The NC contacts are arranged in the even-numbered rows, starting from the left of the device.
For a BLIB the contacts are arranged symmetrically on either side of the handle ; if their number is odd the extra contact is placed on the left.

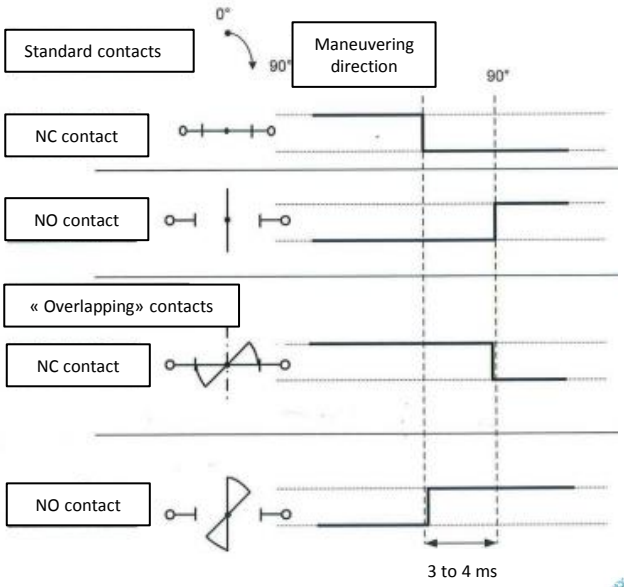
2) The product is equipped with « overlapping » contacts in replacement of standard contacts:



Standard contacts :
The NC contacts and the NO contacts can not be in the same state simultaneously during the maneuver.



« Overlapping » contacts :
The NC contacts and the NO contacts are in the same state for a short time during the maneuver.



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Codification of products

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Contacts

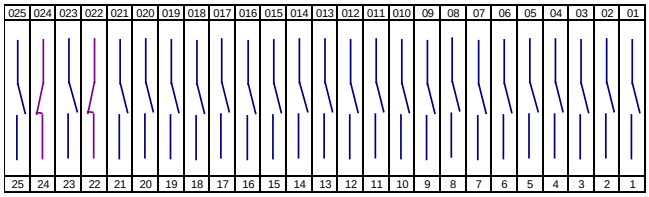
Fxx-Oxx

Fxx : Number of Normally Opened contacts (NO)
Oxx : Number of Normally Closed contacts (NC)

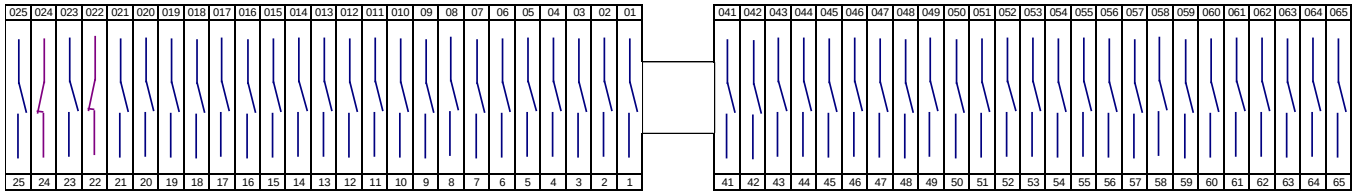
The functions F and O are defined on taking the position 1, handle down as reference.

Examples of contacts configuration :

1) F23-O2 : BLIA



2) F48-O2 : BLIB



Connection

SF

There is only one type of connection possible : wire clamp

SF

Codification of products

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Locking

- Product without locking device

CAD Product equipped with a feet for setting a padlock.

CAD

3242A Product equipped with a locking device by Ronis Key
(2 keys provided): Device lockable in 2 positions. Free key in both lock positions
Standard key number : 3242A

3242A

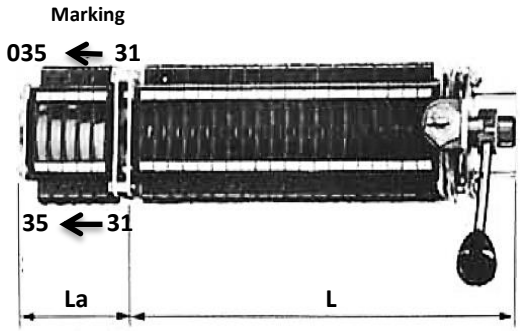
N° de clé Product equipped with a locking device by Ronis Key
(2 keys provided):
Non-standard key number to be define. *(eg : 1242E,1314A,2312E,421,455…)*

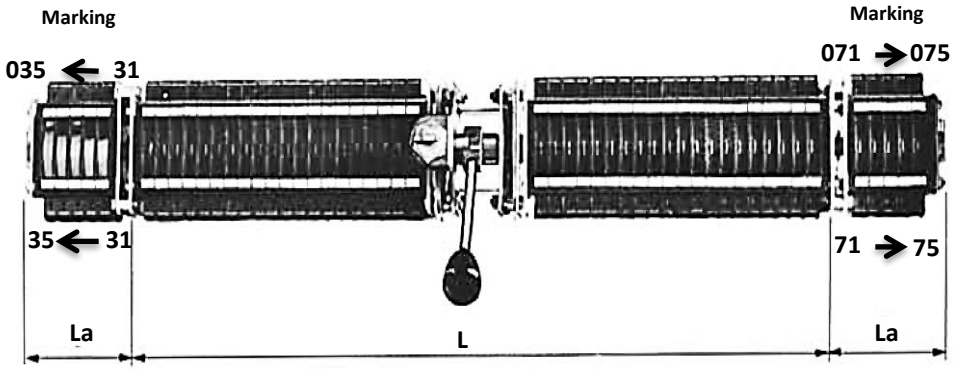
Modifiable contact blocks

In order to exceed the maximum number of contacts on the bay auxiliary switches, it's possible to add modifiable contact blocks. There are 3 variants of contact blocks that can be modified and configured at installation :

- 2 contacts , reference : 1SNA450028R0600
- 3 contacts , reference : 1SNA450029R0700
- 5 contacts, reference : 1SNA450004R0700

For a BLIA the modifiable block is disposed at the opposite side of the handle. For a BLIB the modifiable blocks can be mounted on both side.

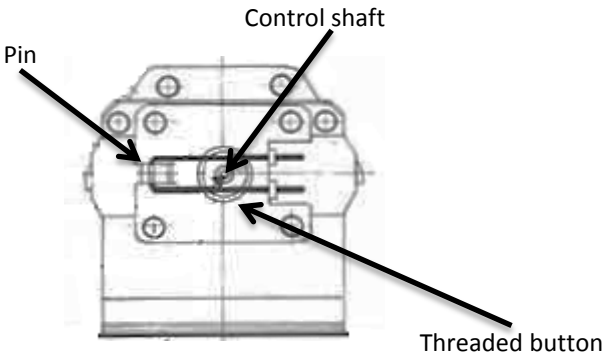




Contacts	La
2	45
3	56
5	78

L : Length of devices (see next page)

Mounting and configuring of modifiable contact blocks



- Unlock the pin
- Remove the control shaft with the threaded button
- Chose the position of the NC and NO by pushing in the shaft
- Replace the pin

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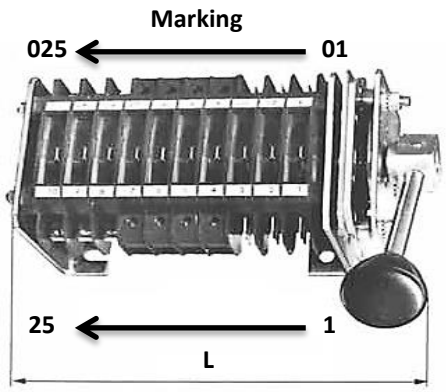
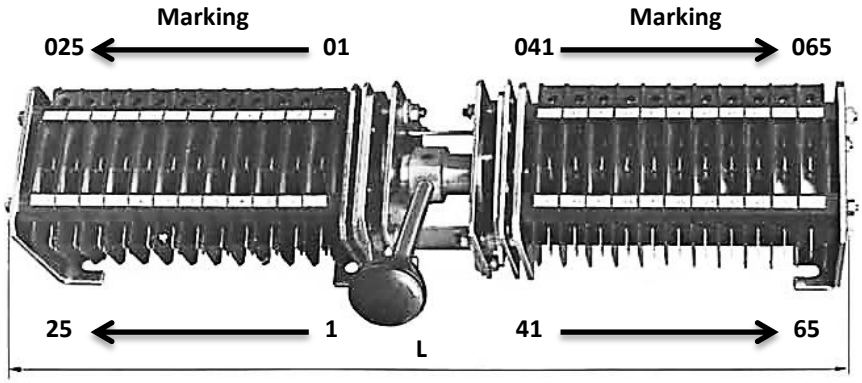
Dimensions and marking

BLIA



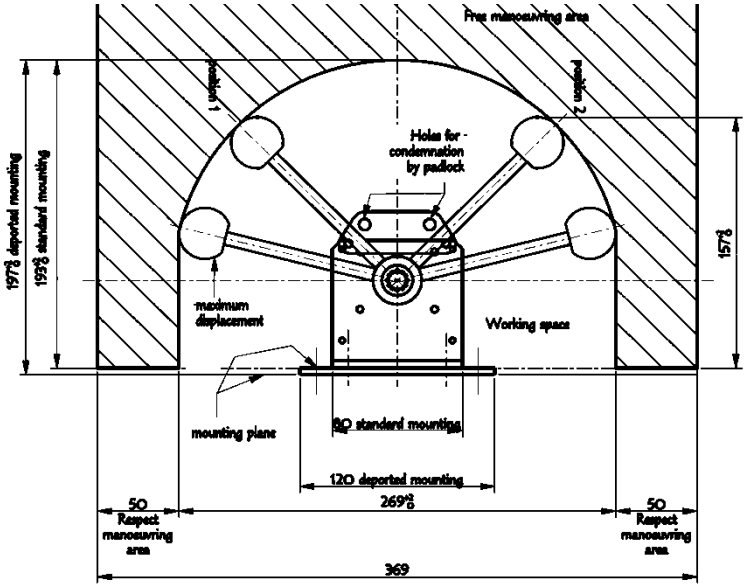
Contacts	L	Contacts	L
4	118,9	15	239,9
5	129,9	16	250,9
6	140,9	17	261,9
7	151,9	18	272,9
8	162,9	19	283,9
9	173,9	20	294,9
10	184,9	21	305,9
11	195,9	22	316,9
12	206,9	23	327,9
13	217,9	24	338,9
14	228,9	25	349,9

BLIB



Contacts	L	Contacts	L
26	412,8	39	555,8
27	423,8	40	566,8
28	434,8	41	577,8
29	445,8	42	588,8
30	456,8	43	599,8
31	467,8	44	610,8
32	478,8	45	621,8
33	489,8	46	632,8
34	500,8	47	643,8
35	511,8	48	654,8
36	522,8	49	665,8
37	533,8	50	676,8
38	544,8		

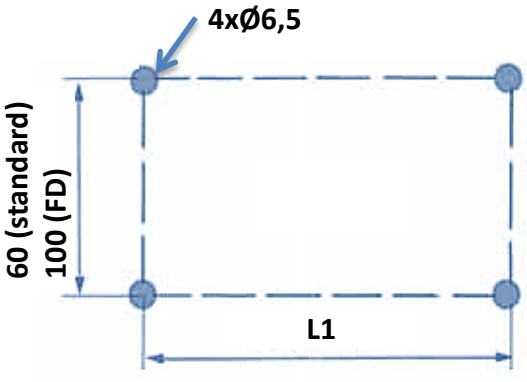
Maneuvering space



** The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.*

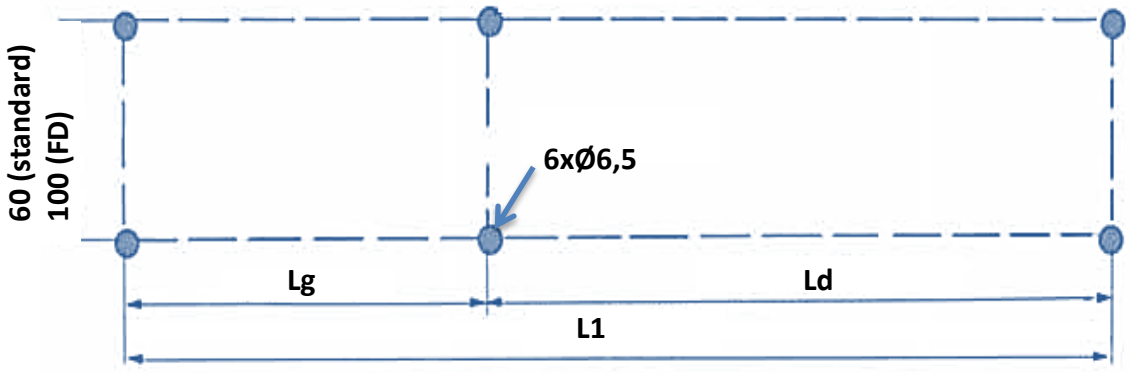
Drilling

BLIA



Contacts	L1	Contacts	L1
4	37	**15**	158
5	48	**16**	169
6	59	**17**	180
7	70	**18**	191
8	81	**19**	202
9	92	**20**	213
10	103	**21**	224
11	114	**22**	235
12	125	**23**	246
13	136	**24**	257
14	147	**25**	268

BLIB



Contacts	L1	Lg	Ld	Contacts	L1	Lg	Ld
26	368,8	136	232,8	**39**	511,8	213	298,8
27	379,8	147	232,8	**40**	522,8	213	309,8
28	390,8	147	243,8	**41**	533,8	224	309,8
29	401,8	158	243,8	**42**	544,8	224	320,8
30	412,8	158	254,8	**43**	555,8	235	320,8
31	423,8	169	254,8	**44**	566,8	235	331,8
32	434,8	169	265,8	**45**	577,8	246	331,8
33	445,8	180	265,8	**46**	588,8	246	342,8
34	456,8	180	276,8	**47**	599,8	257	342,8
35	467,8	191	276,8	**48**	610,8	257	353,8
36	478,8	191	287,8	**49**	621,8	268	353,8
37	489,8	202	287,8	**50**	632,8	268	364,8
38	500,8	202	298,8				

Electrical characteristics

Rated thermal current (Ith)	16A
Max voltage (AC)	380V
Dielectric strength	3,5kV @50Hz – 1min
Short-circuit current (1s)	350A
Minimum current	80mA/1,6V (voltage drop 180µV)
Breaking capacity	
AC : Cos ϕ = 1	380V 16A / 220V 16A / 127V 16A / 48V 16A
DC : L/R = 0	220V 6A / 127V 12A / 48V 16A

Mechanical and environmental characteristics

Mechanical life utilization	10 000 operation cycles
Operating temperature	- 20°C to + 55°C
Storage temperature	- 40°C to + 85°C
Pollution degree	Type 3
Terminals protection degree	IP 20
Terminals recommended tightening torque	0,5-0,8 N.m
Recommended screwdriver	Ø 4 mm
Terminal capacity (Cu only)	
1 rigid conductor	0,5 to 6 mm²
2 rigid conductors	0,5 to 2,5 mm²
1 flexible conductor	0,5 to 6 mm²
2 flexible conductors	0,5 to 2,5 mm²