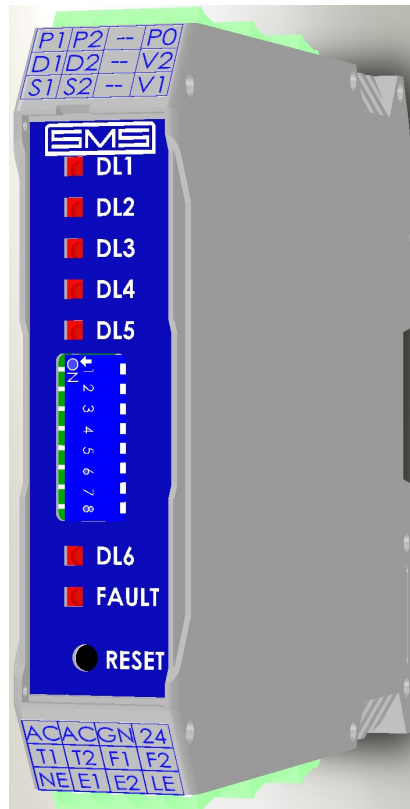




BOX

A3 TEST



3	20-07-2012	<i>D. Casoli</i>
REL.	DATE	R.T. Check and Approval

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1 – FOREWORD

Any elevators coming into service since 31-12-2011, must be in compliance with Amendment 3: 2009 of the EN81-1 & 2: 1998 Standards.

This means that *"lifts shall be provided with a means to stop unintended car movement away from the landing....."*.

The choice of the device to be used to obtain what is required is up to the lift manufacturer, however, the Standards state that such device shall be capable of performing as required without the assistance of any lift component that, during normal operation, controls the speed or deceleration, stops the car or keeps it stopped, **unless there is a "built-in redundancy" system and correct operation is self-monitored.**

SMS BOX A3 Test operates under this principle, providing the redundancy self-monitoring.

In detail:

➤ For Hydraulic Lifts:

BOX A3 TEST works in conjunction with a unit equipped with two hydraulic valves for down direction, electrically controlled and operating in series, which must be A3 certified .

Box A3 TEST periodically performs a separate check of the correct hydraulic sealing of each valve, under the static pressure of the empty car and in case of failure it provides a signal to prevent the subsequent start-up of the lift.

➤ For Traction Lifts:

BOX A3 TEST works in conjunction with a safety brake of the machine (geared or gearless) with built-in redundancy, which must be A3 certified.

During each run, Box A3 TEST checks the correct lifting and dropping of each single element of the brake and in case of failure it provides a signal to prevent the subsequent start-up of the lift.

When the self-monitoring has indicated a failure of one of the stopping element of the means, its release, and so the reset of the lift, requires the intervention of a competent person.

Standards require that the device for automatic monitoring is subject to type examination:

SMS device BOX A3 TEST is certified by **IMQ, CERTIFICATE N°749 dated 21-02-2012.**

Copy of the Certificate of Conformity is provided at the end of this Manual.

The device is only one, and can be used both for hydraulic lifts and for traction lift, choosing the proper operation type via Dip-Switch 8 (see Par. 2.3 and 3.3).

Please note that if the lift system is provided with the early door opening and/or the re-levelling operation with open doors, the full compliance to the Amendment 3 is assured only if the safety circuit which allows these operations is A3 certified as well.

2 – BOX A3 TEST FOR HYDRAULIC LIFTS

2.1 – GENERAL OPERATION

As previously stated, the hydraulic system to be in conformity with Amendment 3 has to include 2 redundant descent valves, A3 certified as well (defined in the following as E1 and E2).

BOX A3 TEST controls the valves during normal operation, as a result of the down command from the controller, and also it provides to check the hydraulic sealing at predetermined intervals, every 16 hours or every 100 travels, when the lift has been stopped at the bottom floor with closed doors for at least 1 minute. The choice of the moment to perform the check is linked both to the hours of operation and to the number of travels in order to assure at least one check within 24 hours, for all types of lift systems in any traffic condition. The E1 and E2 valves can operate at the same time, or E2 can open before and close after E1, depending on the type of operation requested by the hydraulic unit manufacturer.

If the check fails, a FAULT condition is signalled, that prevents the next start up of the lift and remains active until the intervention of a specialist.

2.2 – HOW THE CHECK OF THE VALVE HYDRAULIC SEALING IS PERFORMED

BOX A3 TEST commands the E2 opening (with E1 closed) for a while (10 or 30 seconds, depending on the operation requested by the hydraulic unit manufacturer) and checks if there is a re-levelling operation as a result (checking the up or down commands from the controller).

If a re-levelling operation is performed (there is an up command from the controller, without the high speed command), A3 TEST commands the immediate closing of the E2 valve and performs the same check again after 5 or 10 seconds from the re-levelling end.

If even the second check causes a re-levelling operation, a FAULT condition is detected, which is resettable only by a specialist, and a Led signals the failure of the E1 valve sealing.

If a re-leveling operation is NOT performed, the check goes on controlling the E1 opening (with E2 closed), in the same way as listed above; in case of FAULT, a Led signals the failure of the E2 valve sealing.

If during the check the car door opens and/or the high speed command is activated, the check is interrupted and it will be performed afterwards, as soon as the lift comes back to the bottom floor and stays stopped with closed door for 1 minute.

If the conditions for doing the sealing check do not occur within a maximum time of 24 hours, a FAULT condition is detected, with a proper diagnosis signal.

Any FAULT condition is not restored by removing power to the device, you must act on the RESET button, holding it pressed for at least 4 seconds.

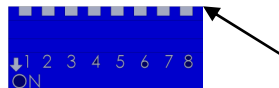
A Switch is provided (Dip-Switch 7, see Par.2.4) which directly enables the check, in order to facilitate the installation and the check of the correct operation.

To enable the check, the service technician must first of all place the car to the bottom floor with closed doors, then set the SW-7 switch to ON and then OFF again: the check will be performed after 1 minute.

The switch which enables the valve check does not reset the FAULT, the only possibility to reset the FAULT is acting on the RESET push-button (holding it pressed for at least 4 seconds).

2.3 – CONNECTIONS

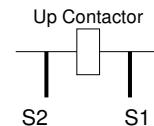
Without powering the BOX A3 TEST, select the operation for **HYDRAULIC LIFTS** setting the Dip-Switch 8 in position **OFF**.



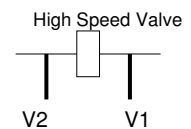
INPUTS

- AC – AC Supply Voltage: **18 ÷ 24 Vac** or **20 ÷ 28Vdc – 5W**.

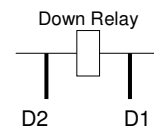
- S1 – S2 UP COMMAND:
connect in parallel to the Up Contactor coil
Allowed voltage 24V ÷ 110V, ac/dc.
(V_{min} : 22V ac/dc – V_{max} : 120V ac/dc)



- V1 – V2 HIGH SPEED COMMAND:
connect in parallel to the High Speed Valve coil
Allowed voltage 24V ÷ 110V, ac/dc.
(V_{min} : 22V ac/dc – V_{max} : 120V ac/dc)



- D1 – D2 DOWN COMMAND:
connect in parallel to the Down Relay coil
Allowed voltage 24V ÷ 110V, ac/dc.
(V_{min} : 22V ac/dc – V_{max} : 120V ac/dc)

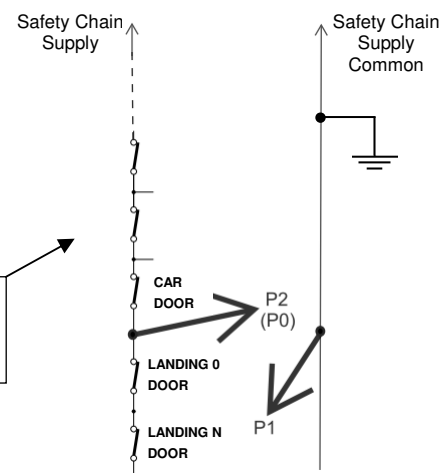


- P1 – P2 DOOR CLOSED:
connect in the safety chain, downstream of the Car Door Closed contact
Allowed voltage 24V ÷ 110V, ac/dc.
(V_{min} : 22V ac/dc – V_{max} : 120V ac/dc)

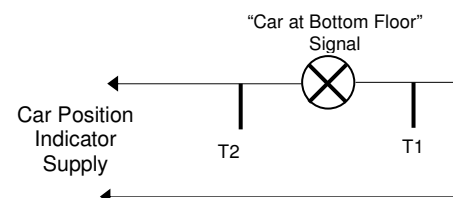
As an alternative:

P1 – P0 DOOR CLOSED (as above):
Allowed voltage 110V ÷ 230V, ac/dc.
(V_{min} : 100V ac/dc – V_{max} : 250V ac/dc)

EXAMPLE of connection for lift system with AUTOMATIC car and landing doors
In lift systems with MANUAL landing doors, connect downstream of the "Landing Door Closed" contacts.



- T1 – T2 BOTTOM FLOOR:
connect in parallel to the car position indicator of the bottom floor.
Allowed voltage 12V ÷ 48V, ac/dc.
(V_{min} : 10,8V ac/dc – V_{max} : 60V ac/dc)



OUTPUTS

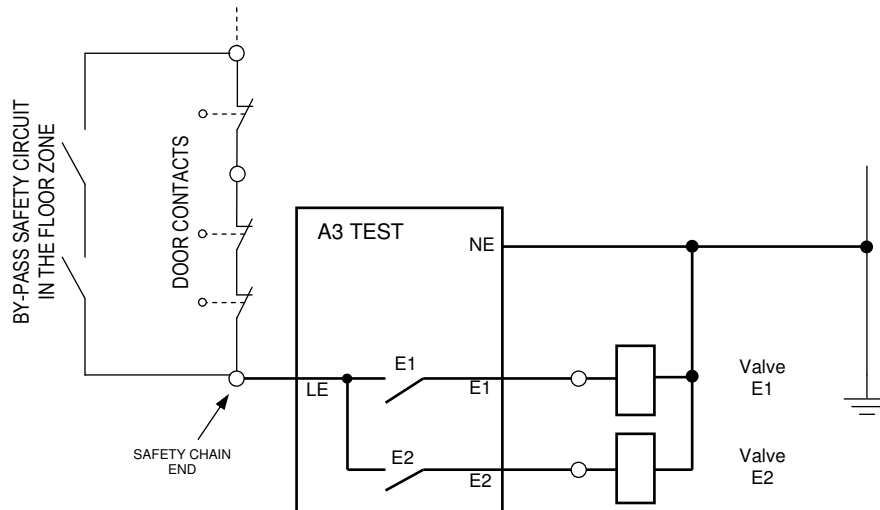
- N°2 RELAYS TO CONTROL THE E1 – E2 DOWN ELECTROVALVE

The control works both for the down run in normal operation, and for the check of the hydraulic sealing.

CONTACT (N.O.) Data:

Switching Power:	24Vdc / 8A 250Vac / 8A 110Vdc / 0,3A
Minimum switching load	5V / 5mA

Connect the contacts downstream of the safety chain, as shown in the following example of drawing:



IMPORTANT:

The example of drawing above must be complied in every part, especially:

1. The terminals LE – E1 – E2 to control the valves **must always be connected downstream of the safety chain**, if, for any reason, you need to supply the valves upstream of the safety chain (for example because of the current consumption), it is recommended that the transfer of the commands is carried out in accordance with the requirements of safety standards EN81-2.
2. the door contacts **must by bypassed by a safety circuit** when the car is in the floor zone where the re-levelling operation with open doors is allowed.

- N°1 FAULT RELAY

It switches ON when the device is powered up and it stays always energized, during normal operation with NO Faults.

CONTACT (N.O.) Data:

Switching Power:	24Vdc / 8A 250Vac / 8A 110Vdc / 0,3A
Minimum switching load	5V / 5mA

The relay is switched OFF, opening the N.O. contact to the terminals F1 – F2, whenever the BOX A3 TEST detects a failure, both during the check of the hydraulic sealing of the down valves, and during the normal operation, if it detects a failure of an input signal or the condition to perform the sealing check doesn't occur within deadlines.

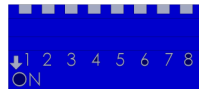
Connect the contact F1 — F2 to the controller, so that its opening prevents the normal operation of the lift.

The contact can be connected in different ways, for example as an input for the microprocessor board or PLC, in series to the call push-button common, in series to the operating voltage, etc, but **NOT DOWNSTREAM OF THE SAFETY CHAIN**.

Any FAULT condition is not restored by removing power to the device, you must act on the RESET button, holding it pressed for at least 4 seconds.

2.4 – CONFIGURATION AND SIGNALS

DIP-SWITCHES



SW

- 1 = E1 – E2 VALVE COMMAND
- 2 = CHECK TIME FOR EACH VALVE
- 3 = E1 OPENING DELAY (only if SW 1 = ON)
- 4 = E2 CLOSING DELAY (only if SW 1 = ON)
- 5 = LEDs DL1÷DL5 MEANING
- 6 = GAP TIME BETWEEN THE VALVE CHECKS
- 7 = MANUAL CHECK ENABLE
- 8 = TYPE OF OPERATION

OFF:

- Contemporary
- 10 seconds
- 100ms
- 100ms
- Group 2
- 5 seconds
- Disabled
- For HYDRAULIC Lifts

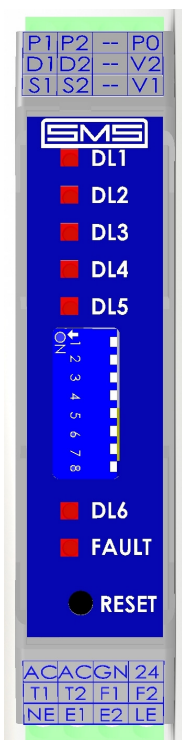
ON:

- E2 opens before and closes after E1
- 30 seconds
- 300ms
- 300ms
- Group 1
- 10 seconds
- Enabled
- For TRACTION Lifts

SIGNALS

The DL1 ÷ DL5 Leds take on a different meaning, depending on the state of the Dip-Switch SW-5, (the state of SW-5 is displayed through the DL6 Led):

- if SW-5 = OFF (DL6 OFF) and FAULT OFF, the DL1 ÷ DL5 Leds take on the meaning of the GROUP 2
- if SW-5 = ON (DL6 ON) and FAULT OFF, the DL1 ÷ DL5 Leds take on the meaning of the GROUP 1



	GROUP 2	GROUP 1
DL1	- E1 VALVE COMMAND	- UP
DL2	- E2 VALVE COMMAND	- DOWN
DL3	- 16 HOURS OR 100 TRAVELS ELAPSED	- HIGH SPEED
DL4	- DOOR CLOSED TIME (1 min) ELAPSED	- CAR DOOR CLOSED
DL5	- BOARD SUPPLY OK (flashing)	- BOTTOM FLOOR

DL6	- OFF (SW-5 = OFF)	- ON (SW-5 = ON)
FAULT	- OFF	- OFF

FAULTS

When the BOX A3 TEST detects a failure, the Led FAULT switches ON FLASHING (at the same time the N.O. contact at the terminals F1 – F2 opens) and the DL1 ÷ DL5 Leds display the corresponding FAULT CODE, according to the following Table:



	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
DL1	☀	○	○	○	○	●	●	●	●	○	○
DL2	○	☀	○	○	○	●	○	○	○	●	●
DL3	○	○	●	○	○	○	●	○	○	●	○
DL4	○	○	○	●	○	○	○	●	○	○	●
DL5	○	○	○	○	●	○	○	○	●	○	○

○ = LED OFF ● = LED STEADY ON ☀ = LED FLASHING

IMPORTANT

Any FAULT condition is not restored by removing power to the device, you must act on the RESET button, holding it pressed for at least 4 seconds.

DL6	DOES NOT MATTER											
FAULT	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀

- F1 = FAILURE IN THE E1 VALVE SEALING
- F2 = FAILURE IN THE E2 VALVE SEALING
- F3 = SPENT 24H WITHOUT PERFORMING A CHECK OF THE VALVE SEALING
- F4 = FAILURE IN THE E1 VALVE COMMAND
- F5 = FAILURE IN THE E2 VALVE COMMAND
- F6 = UP AND DOWN COMMANDS BOTH ACTIVE AT THE SAME TIME
- F7 = HIGH SPEED COMMAND MISSING
- F8 = CAR DOOR CLOSED INPUT ALWAYS ACTIVE
- F9 = HIGH SPEED INPUT ACTIVE WITHOUT AN UP/DOWN COMMAND
- F10 = CAR DOOR INPUT OPEN, WITH A STARTING COMMAND IN HIGH SPEED
- F11 = BOTTOM FLOOR INPUT ALWAYS ACTIVE

3 – BOX A3 TEST FOR TRACTION LIFTS

3.1 – GENERAL OPERATION

As previously stated, the traction lift system in conformity with Amendment 3 works in conjunction with a safety brake of the machine (geared or gearless), with built-in redundancy, A3 certified as well.

BOX A3 TEST automatically monitors the safety brake, checking at each run the state of the micro-switches provided on each brake mechanism, so it checks that each brake lifts at starting and properly drops while stopping.

BOX A3 TEST can manage safety brakes with 2, 3 or 4 elements, that is 2, 3 or 4 control micros, the configuration is set via Dip-Switches (see Par.3.4).

If the check of a single micro-switch opening/closing fails, a FAULT condition is signalled, that prevents the next start up of the lift and remains active until the intervention of a specialist.

3.2 – HOW THE CHECK OF THE BRAKE MICRO-SWITCHES IS PERFORMED

The controller gives to the A3 TEST device the BRAKE COMMAND input.

When the brake command input switches on, BOX A3 TEST checks that each micro-switch provided on the brake (2, 3 or 4, depending on the state of the Dip-Switches SW-1 and SW-2) switches properly, especially:

- if they are N.C. micro-switches (SW-3 = OFF), it checks that they open within 3 seconds
- if they are N.O. micro-switches (SW-3 = ON), it checks that they close within 3 seconds.

If it doesn't occur, a FAULT condition is detected, which is resettable only by a specialist, and a Led signals the BRAKE LIFTING failure, and which micro-switch has failed.

When the brake command input switches off, BOX A3 TEST checks that each micro-switch provided on the brake (2, 3 or 4, depending on the state of the Dip-Switches SW-1 and SW-2) switches properly, especially:

- if they are N.C. micro-switches (SW-3 = OFF), it checks that they close within 3 seconds
- if they are N.O. micro-switches (SW-3 = ON), it checks that they open within 3 seconds.

If it doesn't occur, a FAULT condition is detected, which is resettable only by a specialist, and a Led signals the BRAKE DROPPING failure, and which micro-switch has failed.

Any FAULT condition is not restored by removing power to the device, you must act on the RESET button, holding it pressed for at least 4 seconds.

3.3 – CONNECTIONS

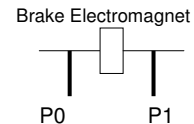
Without powering the BOX A3 TEST, select the operation for **TRACTION LIFTS** setting the Dip-Switch 8 in position **ON**.



INPUTS

- AC – AC Supply Voltage: **18 ÷ 24 Vac** or **20 ÷ 28Vdc**.

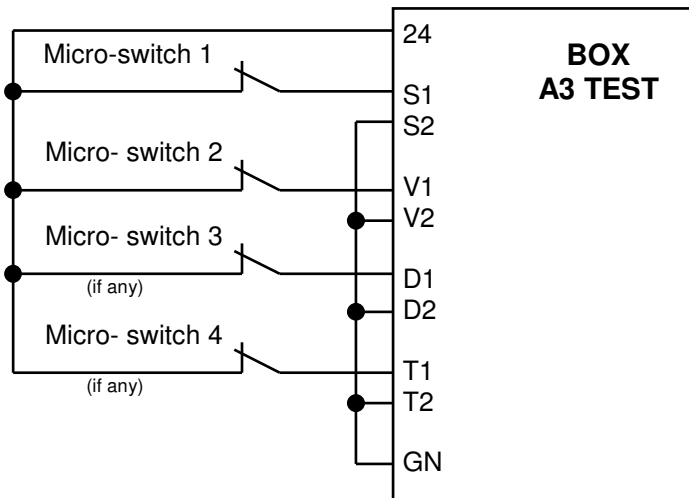
- P0 – P1 Brake Command:
connect in parallel to the safety brake coil
Allowed Voltage 48V ÷ 230V, ac/dc.
(V_{min} : 44V ac/dc – V_{max} : 250V ac/dc)



- S1 – S2 Brake Micro-switch 1
- V1 – V2 Brake Micro-switch 2
- D1 – D2 Brake Micro-switch 3 (if any)
- T1 – T2 Brake Micro-switch 4 (if any)

The brake micro-switches are “voltage free” contacts, N.O. or N.C. type, which must be connected to the 24Vdc voltage provided on the BOX A3 TEST.

Make the connections as shown in the following example, where we have chosen to indicate N.C. micro-switches:



OUTPUTS

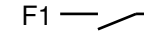
- N°1 FAULT RELAY

It switches ON when the device is powered up and it stays always energized, during normal operation with NO Faults.

CONTACT (N.O.) Data:

Switching Power:	24Vdc / 8A 250Vac / 8A 110Vdc / 0,3A
Minimum switching load	5V / 5mA

The relay is switched OFF, opening the N.O. contact to the terminals F1 – F2, whenever the BOX A3 TEST detects a failure, during the brake micro-switches opening or closing.

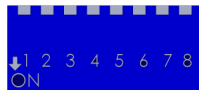
Connect the contact F1 —  F2 to the controller, so that its opening prevents the normal operation of the lift.

The contact can be connected in different ways, for example as an input for the microprocessor board or PLC, in series to the call push-button common, in series to the operating voltage, etc, but **NOT DOWNSTREAM OF THE SAFETY CHAIN.**

Any FAULT condition is not restored by removing power to the device, you must act on the RESET button, holding it pressed for at least 4 seconds.

3.4 – CONFIGURATIONS AND SIGNALS

DIP-SWITCHES

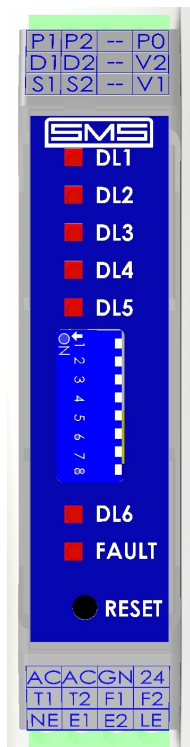


SW		SW		SW	
1 = ON	Check on 2 brake micro-switches	1 = ON	Check on 3 brake micro-switches	1 = OFF	Check on 4 brake micro-switches
2 = OFF		2 = ON		2 = ON	

SW	OFF:	ON:
3 = BRAKE MICRO-SWITCHES TYPE	N.C. (normally CLOSED)	N.O. (normally OPEN)
4 = NOT USED		
5 = NOT USED		
6 = NOT USED		
7 = NOT USED		
8 = TYPE OF OPERATION	For HYDRAULIC Lifts	For TRACTION Lifts

SIGNALS

The DL1 ÷ DL5 Leds take on a different meaning, depending on the state of the Led FAULT:
 - if FAULT is OFF, the DL1 ÷ DL6 Leds take on the meaning shown in the following Table:



DL1	- BRAKE COMMAND
DL2	- BRAKE MICRO-SWITCH 1 STATUS
DL3	- BRAKE MICRO-SWITCH 2 STATUS
DL4	- BRAKE MICRO-SWITCH 3 STATUS (if any)
DL5	- BRAKE MICRO-SWITCH 4 STATUS (if any)

DL6	- BOARD SUPPLY OK
FAULT	- OFF

FAULTS

When the BOX A3 TEST detects a failure, the Led FAULT switches ON FLASHING (at the same time the N.O. contact at the terminals F1 – F2 opens) and the DL1 ÷ DL5 Leds display the corresponding FAULT CODE, according to the following Table:



	F1	F2	F3	F4	F5	F6	F7	F8
DL1	☼	☼	☼	☼	○	○	○	○
DL2	○	○	○	○	☼	☼	☼	☼
DL3	●	○	○	●	●	○	○	●
DL4	○	●	○	●	○	●	○	●
DL5	○	○	●	○	○	○	●	○

○ = LED OFF

● = LED STEADY ON

☼ = LED FLASHING

IMPORTANT

Any FAULT condition is not restored by removing power to the device, you must act on the RESET button, holding it pressed for at least 4 seconds.

DL6	OFF							
FAULT	☼	☼	☼	☼	☼	☼	☼	☼

F1 = BRAKE LIFTING FAILED – MICRO 1 ERROR

F2 = BRAKE LIFTING FAILED – MICRO 2 ERROR

F3 = BRAKE LIFTING FAILED – MICRO 3 ERROR (if any)

F4 = BRAKE LIFTING FAILED – MICRO 4 ERROR (if any)

F5 = BRAKE DROPPING FAILED – MICRO 1 ERROR

F6 = BRAKE DROPPING FAILED – MICRO 2 ERROR

F7 = BRAKE DROPPING FAILED – MICRO 3 ERROR (if any)

F8 = BRAKE DROPPING FAILED – MICRO 4 ERROR (if any)

4 – PUTTING ON DUTY AND PERIODIC CHECKS OF CONFORMITY

4.1 –HYDRAULIC LIFTS

During the installation of the lift system, when some components such as for example the car doors, are not yet mounted, it's necessary to put the BOX A3 TEST in "SET UP MODE", in order to avoid being detected inappropriate FAULT.

Before powering up the device, put ALL SWITCHES in ON position:

at the next power up, the 5 Leds DL1 ÷ DL5 flash simultaneously and the Led DL6 flashes when the card is properly powered, while the FAULT LED remains off.

In this configuration the BOX A3 TEST activates the outputs E1 - E2 in response to the DOWN command (D1 - D2) but does not perform any other function, it doesn't control the testing of the valves and doesn't check the status of the inputs.

This allows you to finish the lift system installation without any problem.

Once the lift installation is finished and it works properly, check the conformity to the Amendment 3, as follows:

A) CHECK OF THE VALVE HYDRAULIC SEALING

1. With the BOX A3 TEST not powered up, put the switches SW-5, SW-7 and SW-8 in OFF position.
2. Set SW-1, SW-2, SW-3, SW-4, SW-6 according to the hydraulic unit specifications.
3. Make the lift to perform at least 20 test runs, in up and down direction, checking via the DL1 ÷ DL5 Leds (GROUP 1 and GROUP 2) that the inputs coming from the controller are good and the FAULT Led doesn't switch on.
4. Simulate at least 5 re-leveling runs and check via the DL1 ÷ DL5 Leds that the inputs coming from the controller are good and the FAULT Led doesn't switch on.
5. If the FAULT Led goes ON, check the Fault Code on the DL1÷DL5 Leds and the kind of problem detected.
6. In order to reset the FAULT you must act on the RESET button, holding it pressed for at least 4 seconds.
YOU CANNOT RESET THE FAULT REMOVING POWER TO THE BOX A3 TEST, AND THEN POWERING IT AGAIN !
7. Bring the car to the bottom floor with closed door, set the SW-7 switch to ON and then OFF again; the BOX A3 TEST, after 1 minute, will perform a valve sealing check: verify that it is properly carried out, without any FAULT.
8. Repeat step 7, simulating a re-levelling movement during the E1 valve sealing check and verify that the BOX A3 TEST performs the sealing check again, on the same valve.
9. Repeat step 8, simulating again a re-levelling movement during the second sealing check on the E1 valve, verify that the system detects a FAULT condition, and that the normal operation of the lift is prevented.
10. Repeat steps 7), 8), 9) for the E2 valve.

B) PERIODIC CHECKS

The following checks must be carried out at each periodic maintenance visit on the lift, and/or at the frequency indicated by the hydraulic unit manufacturers in their instructions:

- Steps A.7 ÷ A.10.

4.2 – TRACTION LIFTS

Once the lift installation is finished and it works properly, check the conformity to the Amendment 3, as follows:

A) CHECK OF THE BRAKE MECHANISM LIFTING / DROPPING

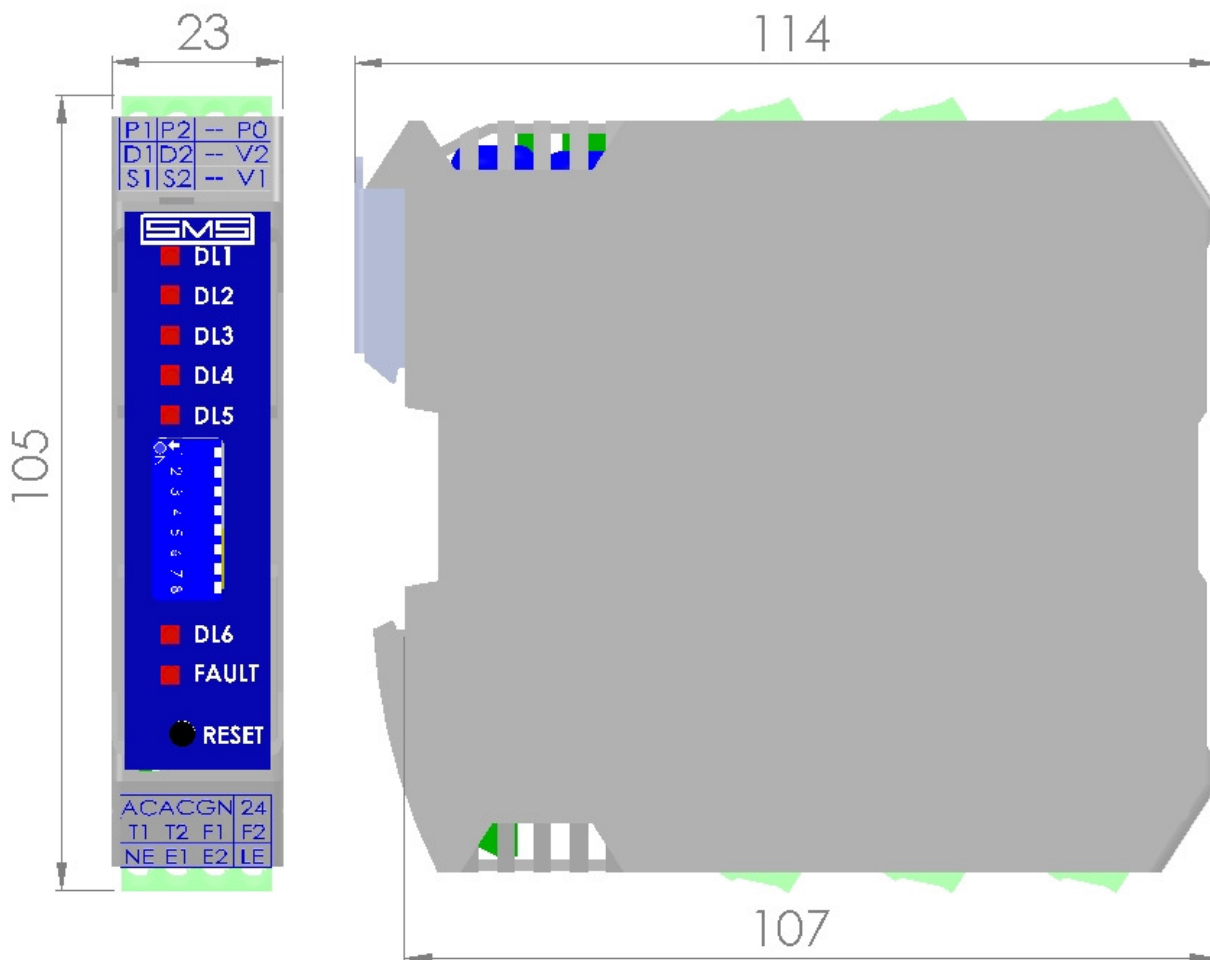
11. Set the switches SW-1, SW-2 and SW-3 according to the number of the brake micro-switches connected and their type (N.O. or N.C.).
12. Make the lift to perform a test run and check that the FAULT Led doesn't switch on.
13. If the FAULT Led switches on, check via the DL1 ÷ DL5 Leds if the problem occurs during the brake lifting or dropping, and which is the micro-switch that has failed.
Check the cabling, the mechanical mounting and the adjustment.
14. In order to reset the FAULT you must act on the RESET button, holding it pressed for at least 4 seconds.
YOU CANNOT RESET THE FAULT REMOVING POWER TO THE BOX A3 TEST, AND THEN POWERING IT AGAIN !
15. During the normal operation of the lift, simulate an opening and a closing failure of one or more micro-switches and check that the FAULT Led switches on.

B) PERIODIC CHECKS

The following checks must be carried out at each periodic maintenance visit on the lift, and/or at the frequency indicated by the brake manufacturers in their instructions:

- Step A.15

5 – MECHANICAL DIMENSIONS



CERTIFICATO DI CONFORMITÀ N. 749

CERTIFICATE OF CONFORMITY N.

TIPO DI PRODOTTO: **SCHEDA DI CONTROLLO PER ASCENSORI**
Type of products *Control board for lifts*

MARCA / Trade mark: **SMS**

SERIE / Series: **BOX A3 TEST**

COSTRUITI DA: **SMS SISTEMI E MICROSISTEMI SRL**
Manufactured by *Via Guido Rossa 46/48/50 – 40056 Crespellano - BO*

NORMA DI RIFERIMENTO: **EN 81-1:1998 + A3:2009; EN 81-2:1998 + A3:2009**
Reference Standards

DESCRIZIONE / Description: **SCHEDA DI CONTROLLO CON FUNZIONI DI MONITORAGGIO DEL FRENO E DELLE VALVOLE DI DISCESA. LE FUNZIONI SVOLTE DALLA SCHEDA SONO RIPORTATE IN ALLEGATO.**
Control board with monitoring function of the brake and valves. The function performed by the control board are described in Annexes.

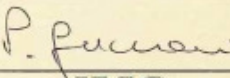
(ULTERIORI INFORMAZIONI SONO RIPORTATE IN ALLEGATO / FURTHER INFORMATION ARE ENCLOSED)

PRATICA IMQ: **50AM00002**
IMQ Assessment file

ULTERIORI INFORMAZIONI : **Prodotto soggetto a procedura di controllo della produzione. Procedura adottata: Allegato XI della Direttiva 95/16/CE. Organismo incaricato del controllo: IMQ S.p.A.**
Additional information *Product subject to a production checks procedure. Procedure adopted: Annex XI at Directive 95/16/EC. Body carrying out the production checks: IMQ S.p.A.*

2012-02-21

DATA/DATE


IMQ

ALLEGATO – CERTIFICATO DI CONFORMITÀ N. 749
ANNEX - CERTIFICATE OF CONFORMITY N.

PRATICA IMQ / IMQ Assessment file: 50AM00002

MARCA / Trade mark: SMS

SERIE / Series: BOX A3 TEST

Eventuali informazioni supplementari
Additional information

Funzione 1 / Function 1

Monitoraggio di due valvole idrauliche in serie comandate elettricamente in accordo a 9.13.3 della EN 81-2:1998 + A3:2009.
Self monitoring of two electrically commanded hydraulic valves in series, according to 9.13.3 of EN 81-2:1998 + A3:2009.

Funzione 2 / Function 2

Monitoraggio della corretta apertura e chiusura del freno della macchina in accordo a 9.11.3 della EN 81-1:1998 + A3:2009.
Monitoring of correct lifting or dropping of the machine brake according to 9.11.3 of EN 81-1:1998 + A3:2009.

Data / Date : 2012-02-21

For further information contact:

SMS SISTEMI e MICROSISTEMI s.r.l. (Gruppo SASSI HOLDING)

Cap. Soc. 260.000€ i.v.

Via Guido Rossa, 46/48/50 40056 Crespellano (BO) Italy

R.E.A 272354 CF - Reg. Imprese Bo 03190050371 P.IVA IT 00601981202

Tel. : +39 051 969037 Fax : +39 051 969303 Technical Service: +39 051 6720710

Website : www.sms.bo.it E-mail : sms@sms.bo.it