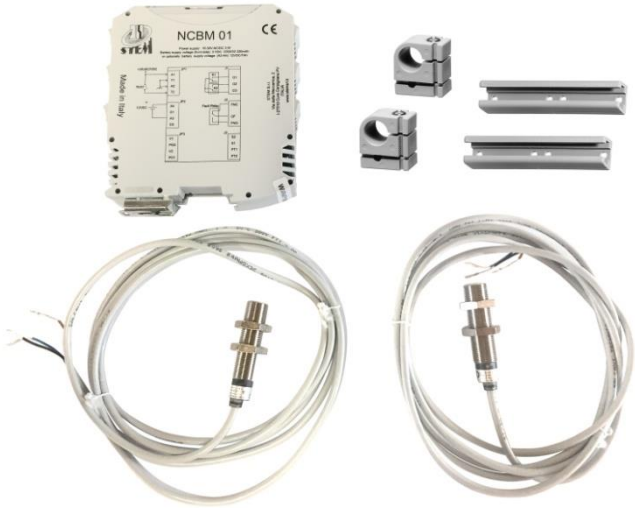
KIT BRAKE CONTROL SYSTEM

1 Introduction



The system allows you to control the proper functioning of the braking group by using two inductive proximity sensors that individually verify the opening and closing of the brake jaws.
The NCBM01 control unit checks the status of the two sensors each time the brake is opened and closed and in the event of a fault activates an alarm output (FNx). In the presence of this alarm, the control pannel must put the elevator out of service, preventing its use.
See the NCBM01 manual in the Electrical Mode section for details on operation.

2 KIT Composition

COMMON PARTS INCLUDED IN EACH KIT		
CODE	**DESCRIPTION**	**QUANTITY**
NCBM01BRAKE0	Control unit	1
111000000000	Sensors supports	2
112002000000	Installation guide 100mm length	2
HD12BRAKEMON02M		
HD12MMNAM6S200	Kit composed by 2 proximity sensors with cable length=2 m plus the common parts	1
HD12BRAKEMON05M		
HD12MMNAM6S500	Kit composed by 2 proximity sensors with cable length=5 m plus the common parts	1
HD12BRAKEMON10M		
HD12MMNAM6S10M	Kit composed by 2 proximity sensors with cable length=10 m plus the common partsi	1

Tab. 1 kits set up

3 Connection diagram

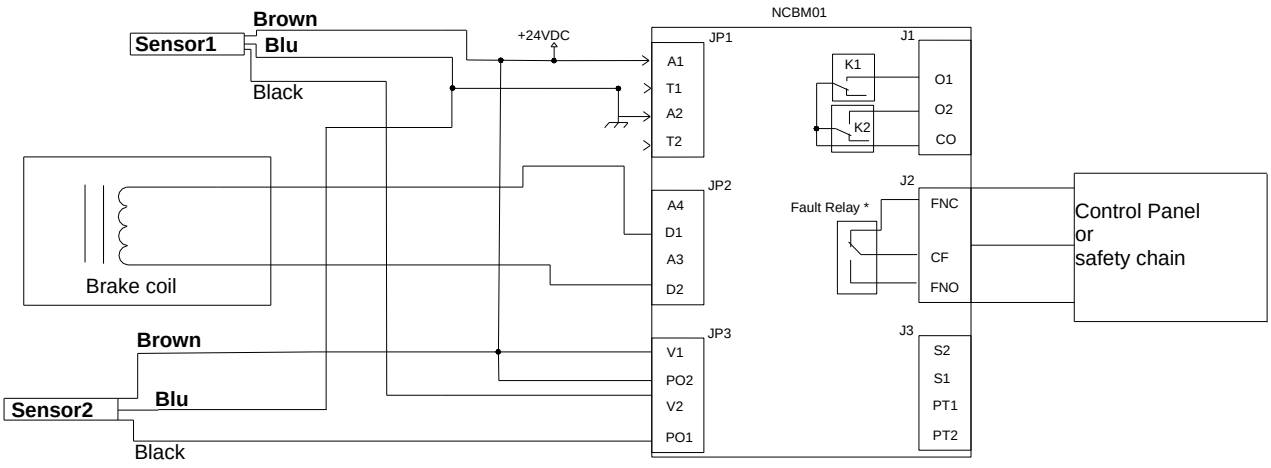


Fig. 1 Connection Diagram

4 Connections

SENSOR				
COLOR	TYPE	FUNCTION	MAX Range[VDC]	MAX I [mA]
Brown	Power Supply	Positive supply	10-30	10 (senza carico)
Blu	Alimentazione	Negative supply		
Black	Output	Digital output (Npn type, open collector)	0-30	100

TAB. 1 Sensor connections

NCBM01					
NAME	TYPE	FUNCTION	MAX Range [Vdc]	MAX [mA]	Max Power [W]
A1-A2	Power supply	Power supply	15 ÷30	100	3
D1-D2	Optoisolated input	Brake coil	24÷220	10	
V1-V2	Optoisolated input	Sensor 1	24÷220	10	
P01-P02	Optoisolated input	Sensor 2	24÷220	10	
CF	Relay common contact	Fault relay common contact	220VDC Switching	2	60
FNC	Relay NC contact	Fault relay NC contact	220VDC Switching	2	60
FNO	Relay NO contact	Fault relay NO contact	220VDC Switching	2	60

TAB. 2 NCBM01 connections

5 NCBM01 Configuration for brake control.

The brake control device (NCBM01) is already configured in the factory with the following setting:

Lift Type: Electric
Options: 2 NC contact
Fault relay polarity: FNO
Test duration:5s

However it is always possible to change the parameters through the USB configuration interface (see NCBM01 manual).

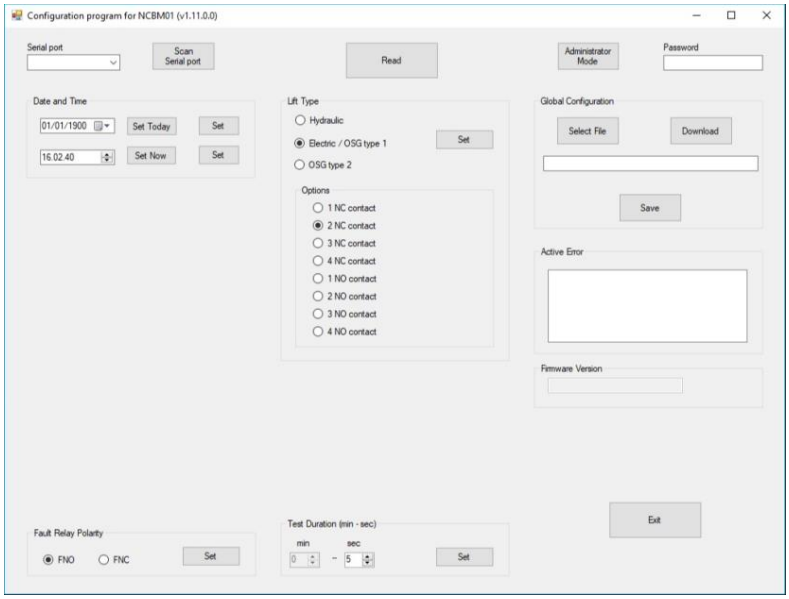


Fig. 2 NCBM01 configuration SW

6 Technical data

NCBM01	
Power supply	15-30V DC 3W
Voltage inputs at the connectors: : PO, PT,V,D,S	24 ÷220VAC/DC
Maximum switching capability at alarm fault output	220VAC, 60W
Maximum switching capability outputs O1-O2	400 VAC, 500W
Working temperature	0 – 70 °C
USB port	MINI USB typeB 5 contacts.
Mechanical Dimensions	Box ME MAX22, IP 20, thickness 22,5mm Height 125mm, width 105mm
Mechanical fixing system	DIN Type
Storage temperature	-40°C + 120°C
EMC compliance	EN12015:2005 – EN12016:2005
In accordance with	EN81-1:1998+A3:2009, EN81-2:1998+A3:2009, EN81-20:2014, EN81-50:2014
Approvals	IMQ certificate N°847
SENSOR	
Power supply	10-30 Vdc
Nominal detection distance	0÷3.2mm
Mechanical Dimensions	Diameter 12mm, Total body length 53.8mm
Output	Transistor open collecor NPN
Working temperature	0÷70°

TAB. 3 Technical data

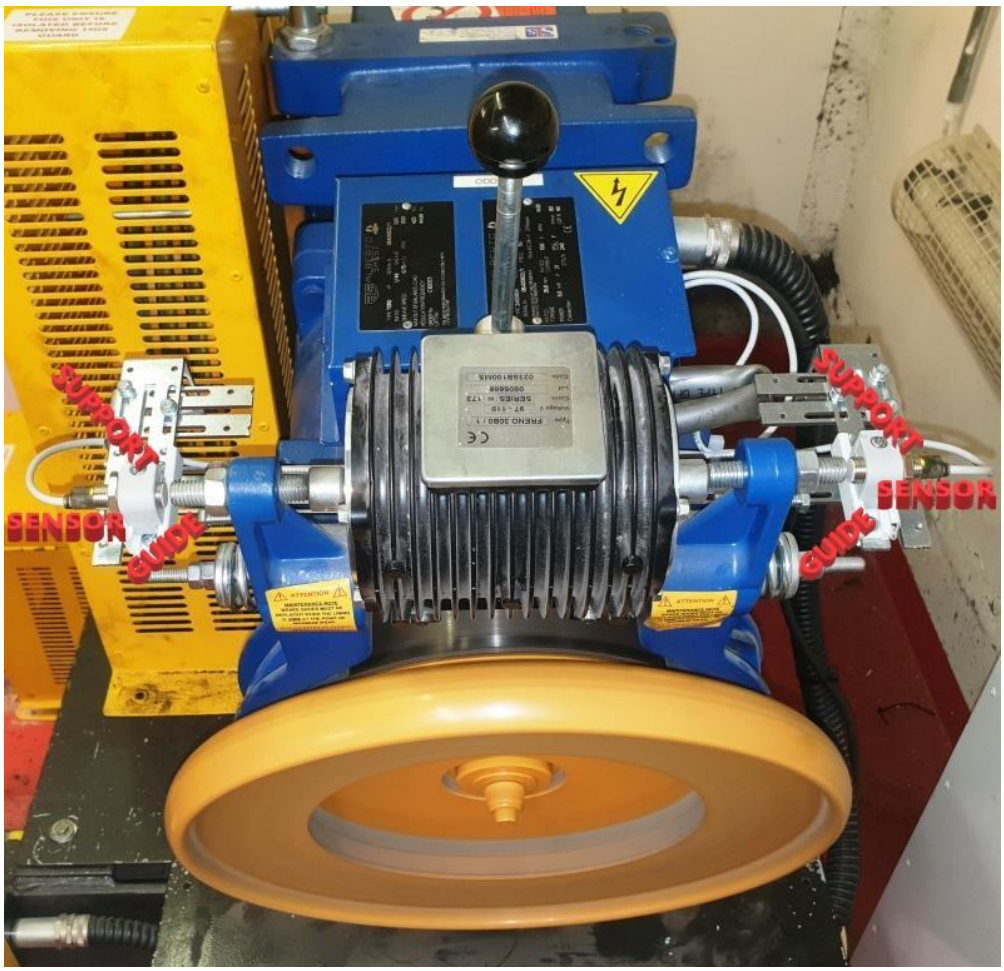


Fig. 3 Application Example