DUAL LEVEL D.C. CURRENT RELAY

BI2/C

Microelettrica Scientifica

CAT. A6-88

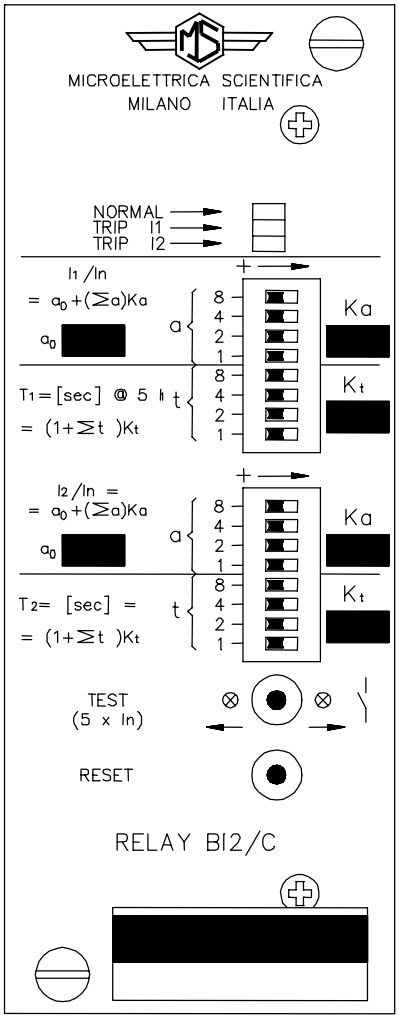
12-01-99

GENERAL CHARACTERISTICS

Five basic versions are available:

- **BI2/C/S** function 76 definite time + function 76 definite time
- **BI2/C/I** function 76 inverse time + function 76 definite time
- **BI2/C/VI** function 76 very inverse time + function 76 definite time
- **BI2/C/EI** function 76 extremely inverse time + function 76 definite time
- **BI2/C/IM** function 49 thermal image + function 76 definite time

On request all versions are fitted with blocking input and output associated to the second definite time element or with time start signalling relay.



SETTINGS

Settings are made on front face by means of four 4-pole DIP SWITCHES that allow to obtain a wide and accurate setting range for the following regulations:

- Trip level of first current element I_1
- Trip time delay T_1 of first current element
- Trip level of second current element I_2
- Trip time delay T_2 of second current element

SIGNALIZATIONS

- 1 Green led for signalization of auxiliary power supply presence and relay regular operation.
- 1 Red led for first level trip signalization.
- 1 Yellow led for second level trip signalization.

COMMANDS

- Three position spring lever switch for test: when operated it simulates a current flow of 5 times the rated input current and allows the complete functional check of the relay and of the trip time delays. In one position test function does not operate the output relays; in the other it also operates the output relays.
- Output relays reset after trip can be:
  - manual by reset push-button on front face
  - manual by remote push-button connected to the relevant terminals provided on relay terminal board
  - automatic by connecting a bridge on remote reset terminals

The trip signal LEDS can be reset only by the front face reset push button.

OUTPUT RELAYS

Three output relays are provided:

- R1+R2, always included, each with the following choice of contacts combination: 1 NO + 1 NC (standard version) or, on request, 2 NO or 2 NC
- R3, on request, with 1 contact NO (standard) or 1 NC.

The output relays are normally deenergized and are energized on tripping.
On request the relays R1 and R2 can be provided in the normally energized version (deenergized on tripping).

ORDERING DATA

- Relay Type
- Rated Input Current
- Auxiliary Power Supply
- Setting Ranges
- Output Relays Configuration
- Execution
- Options on Request

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OPTIONS

On request following options are provided:

- ❑ Blocking Input **(BI).**
- ❑ Blocking Output **(BO)** relay R3.
- ❑ Starting Time Output **(TO)** relay R3.

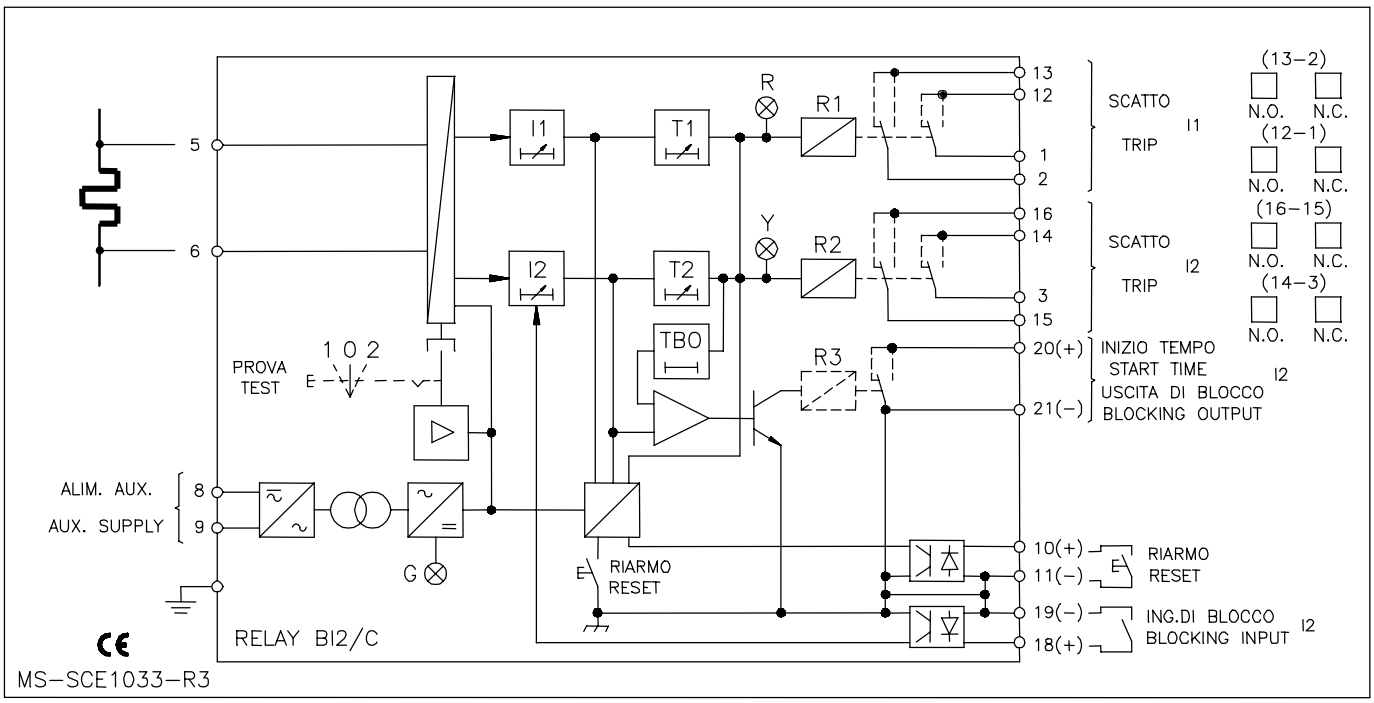
OVERALL DIMENSIONS

See Overall Dimensions - **1 Module Relay**.

ELECTRICAL CHARACTERISTICS

Rated input current via shunt	:	In/60mV or 100mV		Burden on current input	: R≥100Ω
				Burden on supply voltage	: 3W(d.c.); 6VA(a.c.)
Auxiliary supply standard voltage	:	Type 1	:	24-110 V d.c./a.c. ± 20% permanent	
		Type 2	:	90-220 V d.c./ a.c. ± 20% permanent	

STANDARD SETTING RANGES (Different on request) – time/current curves (page 78-79)

RELAY TYPE	CURRENT SETTING	step of	TIME DELAY SETTING	step of
BI2C/S	I1= 0,5-2 xIn	0,1xIn	T1= 1-16 sec.	1sec.
I1- Definite time	I1= 0,25-4 xIn	0,25xIn	T1= 0,5-8 sec.	0,5sec.
	I1= 0,5-8 xIn	0,5xIn	T1= 0,1-1,6 sec.	0,1sec.
I2- Definite time	I2= 1-16 xIn	1xIn	T2= 0,05-0,8 sec.	0,05sec.
BI2C/IM	I1= 0,5-2 xIn	0,1xIn	T1= 2-32 s @ 5xI1	2sec.
I1-Thermal image	I1= 0,25-4 xIn	0,25xIn	T1= 0,5-8s @ 5xI1	0,5sec.
I2- Definite time	I2= 1-16 xIn	1xIn	T2= 0,05-0,8 sec.	0,05sec.
BI2C/I	I1= 0,5-2 xIn	0,1xIn	T1= 1-16 s @ 5xI1	1sec.
I1-Inverse time	I1= 0,25-4 xIn	0,25xIn	T1= 0,5-8s @ 5xI1	0,5sec.
I2- Definite time	I2= 1-16 xIn	1xIn	T2= 0,05-0,8 sec.	0,05sec.
BI2C/VI	I1= 0,5-2 xIn	0,1xIn	T1= 0,5-8 s @ 5xI1	0,5sec.
I1-Very inverse time	I1= 0,25-4 xIn	0,25xIn	T1= 0,1-1,6s@ 5xI1	0,1sec.
I2- Definite time	I2= 1-16 xIn	1xIn	T2= 0,05-0,8 sec.	0,05sec.
BI2C/EI	I1= 0,5-2 xIn	0,1xIn	T1= 0,5-8 s @ 5xI1	0,5sec.
I1-Extremely inverse time	I1= 0,25-4 xIn	0,25xIn	T1= 0,1-1,6s@ 5xI1	0,1sec.
I2- Definite time	I2= 1-16 xIn	1xIn	T2= 0,05-0,8 sec.	0,05sec.

WIRING DIAGRAM