

GENERAL CHARACTERISTICS

Four basic versions are available:

- PB0/S** function 51N definite time + function 50N definite time
- PB0/I** function 51N inverse time + function 50N definite time
- PB0/VI** function 51N very inverse time + function 50N definite time
- PB0/EI** function 51N extremely inverse time + function 50N definite time

All versions are fitted with blocking input and output associated to the element F50N or with time start signalling relay.

SETTINGS

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

- Trip threshold of the first current level I_1
- First level trip time delay T_1
- Trip threshold of the second current level I_2
- Second level trip time delay T_2

SIGNALIZATIONS

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

COMMANDS

- Test spring lever switch: when pressed 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.

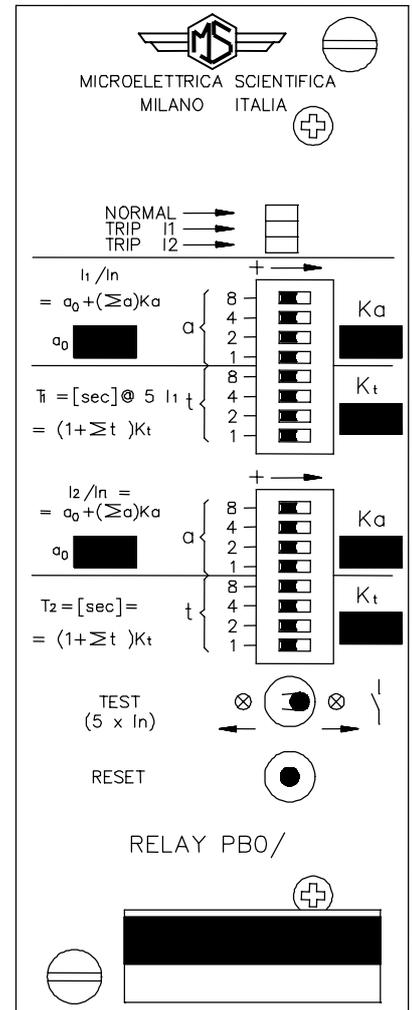
The trip signal leds can be reset only by the front face reset push button.

OUTPUT RELAYS

3 output relays are provided:

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

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

OPTIONS

On request 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	: 1A or 5A	Burden on input current	: 0.005VA@0,2A ; 0.002VA@0,5A
		Burden on power supply	: 3W(d.c.); 6VA(a.c.)
Auxiliary power supply	:	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
PB0/S				
I1-Definite time	I1= 0,5-8 xlon	0,5xlon	T1= 0,5-8 sec.	0,5sec.
I2-Definite time	I2= 1-16 xlon	1xlon	T2= 0,05-0,8 sec.	0,05sec.
PB0/I				
I1-Inverse time	I1= 0,5-8xlon	0,5xlon	T1= 0,5-8s @ 5xI1	0,5sec.
I2- Definite time	I2= 1-16 xlon	1xlon	T2= 0,05-0,8 sec.	0,05sec.
PB0/VI				
I1-Very inverse time	I1= 0,5-8 xlon	0,5xlon	T1= 0,5-8s@ 5xI1	0,5sec.
I2- Definite time	I2= 1-16 xlon	1xlon	T2= 0,05-0,8 sec.	0,05sec.
PB0/EI				
I1-Extremely inverse time	I1= 0,5-8 xlon	0,5xlon	T1= 0,5-8s@ 5xI1	0,5sec.
I2- Definite time	I2= 1-16 xlon	1xlon	T2= 0,05-0,8 sec.	0,05sec.

Different inputs are provided:

- terminals (5-4): I_{on} = 500mA - terminals (6-4): I_{on} = 200mA, for connection to CT/1A or CT/5A or to 100/1A core balance CT
- terminals (7-4): I_{on} = 20mA, only for connection to 100/1A core balance transformers,

WIRING DIAGRAM

