OUTPUT RELAYS

The Protection Relay unit includes four (R1, R2, R3, R4) user programmable plus one diagnostic (R5) output relays.
The number of output relays can be increased by the addition of one or two optional Relay Expansion modules REX-8.
The modules REX-8 are for protruding mounting and are controlled by the Master Protection Relay via a twisted pair of cables connecting dedicated RS485 serial ports (see diagram herebelow).
The module REX-8 includes eight (RA, RB, RC, RD, RE, RF, RH, RG) user programmable plus one (R-Diag) diagnostic output relays
The Master Protection Relay can control altogether up to sixteen output relays

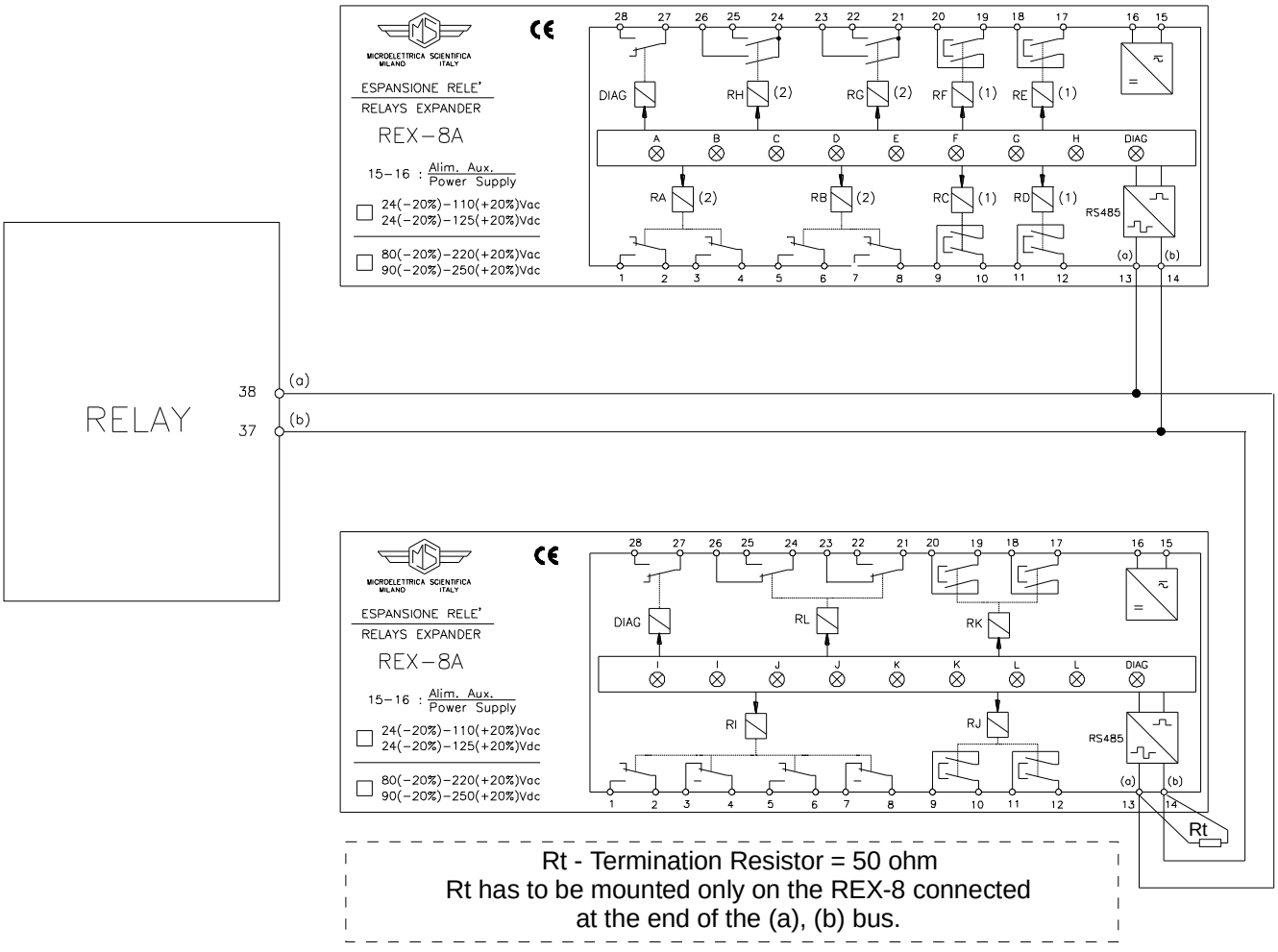
- 4 internal R1 – R2 – R3 – R4

- 8 from the first optional REX-8 module RA – RB – RC – RD – RE – RF – RG – RH

- 4 from a second optional REX-8 module RI(RA+RB) – RJ(RC+RD) – RK(RE+RF) – RL(RG+RH)

This second unit REX-8 is configured (by internal Dip-Switch) to operate the eight relays two by two in parallel (only four user programmable outputs with double number of available contacts)

Any of the functions featured by the Master Protection Relay can be programmed to control up to four out of the sixteen user programmable output relays



Rt - Termination Resistor = 50 ohm
Rt has to be mounted only on the REX-8 connected at the end of the (a), (b) bus.

The user programmable relays (all but R5, DIAG) are normally deenergized, i.e. energized on trip. These relays pick-up as soon as the tripping cause appears (relays controlled by the instantaneous functions) or at the end of the set trip time delay (relays controlled by time delayed functions).

a) - The reset after trip can only take place if the relevant tripping cause has been cleared.

The reset function is programmable as follows :

- Automatic instantaneous (Rxtr AUT.)

- Automatic after adjustable time delay 0.05 to 99.99 (Rxtr xx,xx s)

- Manual (Rxtr MAN.) : in this mode the reset is operated either by the ENTER/RESET push button on the relay's front face or via serial bus or via the digital input D3.

b) - The relays R5, R DIAG are not user programmable; they are normally energized and get deenergized on :

R5
- internal fault of Protection Relay
- power supply failure of Protection Relay
- during the programming

R DIAG
- Internal fault of REX-8
- REX-8 power supply failure
- Interruption/fault on the serial control communication