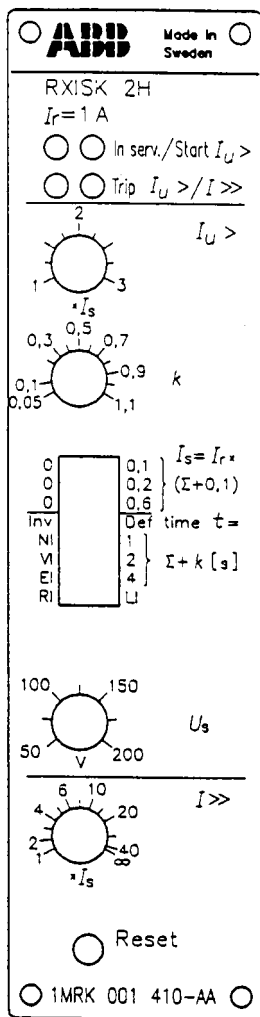


CONNECTION AND SETTING GUIDE



1MRK 000 117-101

Fig. 1 Front layout

CONNECTION:

The RXISK 2H relay requires a dc-dc converter type RXTUG for auxiliary voltage supply ± 24 V. Connection of voltage RL shall be made only when the binary input is used.

The relay is delivered with a short-circuiting connector RTXK for mounting on the rear of the terminal base. This connector will automatically short-circuit the current input when the relay is removed from its terminal base.

NOTE! The auxiliary voltage supply should be interrupted or the output circuits should be blocked to avoid the risk of unwanted alarm or tripping, before the relay is plugged into or withdrawn from its terminal base.

Rated current of the relay, I_r (available variants: 1 A or 5 A)

LED indicators:

- In serv. (green): indicates relay in service.
- Start I_{U>} (yellow): indicates operation of I_{U>} (no time delay).
- Trip I_{U>} (red): indicates operation of I_{U>} after the set time delay.
- I_{>>} (red): indicates operation of I_{>>} (no time delay).

I_{U>} (Voltage restraint overcurrent stage):

Potentiometer (P1) for setting of the operate value for the function I_{U>}.

Potentiometer (P2) for setting of the inverse-time factor k or definite-time delay t for the function I_{U>}.

8-pole programming switch (S1) for setting of the scale-constant I_s, time-delay characteristic and definite-time delay.

U_s (Restraint voltage)

Potentiometer (P3) for setting of the restraint voltage U_s.

I_{>>} (High current stage):

Potentiometer (P4) for setting of the operate value for the function I_{>>}.

Reset push-button.

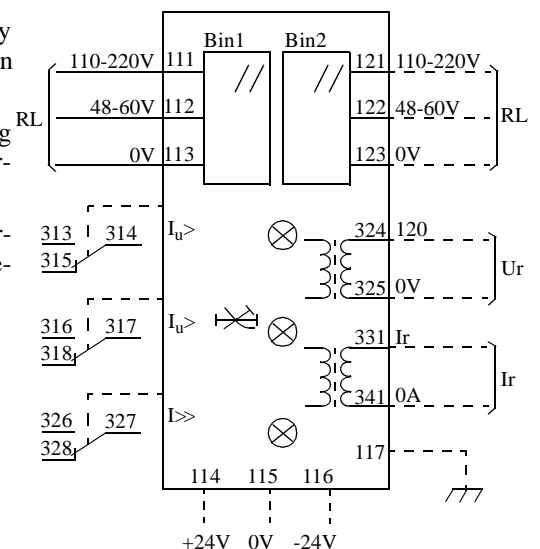


Fig. 2 Terminal diagram

SETTINGS:

All settings can be changed while the relay is in normal service.

1. Setting of the scale-constant I_s .

The scale constant I_s is equal to the rated current I_r times the sum of the set value of the switches S1:1, S1:2 and S1:3 plus 0,1. The setting range is from 0,1 to $1,0 \times$ the rated current I_r .

2 Setting of the voltage restraint overcurrent stage $I_{U>}$ operate value.

The operate value is set with potentiometer P1 according to $I_{U>} = P1 \times I_s$. The setting range is $(1 - 3) \times I_s$.

3. The voltage restraint overcurrent stage time delay.

The voltage restraint overcurrent stage has six time characteristics, which are programmed on the programming switches S1:4 to S1:8.

Definite-time delay.

Set the programming switch S1:4 to position "Def. time t=", where $t = \Sigma + k$. Switches S1:5 to S1:7 are used for the main adjustment, $\Sigma = 0 - 7$ s, and potentiometer P2 is used for the fine adjustment $k = 0,05 - 1,1$ s. The minimum time delay is 50 ms and the maximum time delay is 8,1 s.

When selecting this characteristic, the position of switch S1:8 ("RI" or "LI") has no influence.

Inverse-time delay.

Set switch S1:4 in position "Inv". The inverse-time characteristic is selected with the switches S1:5 to S1:8 (NI = Normal Inverse, VI = Very Inverse, EI = Extremely Inverse, RI = ASEA RI-relay inverse, LI = Long-time Inverse).

By setting the selector switch S1 a precedence order is applied, from top (S1:5) to bottom (S1:8). That is, if the "NI" characteristic is selected (the switch in the left hand side position), it overrides the settings of switches S1:6 to S1:8. Another example; if the "LI" characteristic shall be used, the switches S1:5 to S1:8 must all be in the right hand side position.

After setting the time characteristic, the time-delay is determined by the time factor k, which is adjusted with potentiometer P2 and the magnitude of the current.

4 Setting of the restraint voltage U_s .

The $I_{U>}$ function operates according to the characteristic in fig. 3.

U_s is equal to the value set on the potentiometer P3. The setting range is 50 - 200 V.

5. Setting of the high current stage $I_{>>}$.

The operate value is set with potentiometer P4 according to $I_{>>} = P4 \times 0,25I_{U>}$.

This function can be blocked by setting potentiometer P4 to "∞".

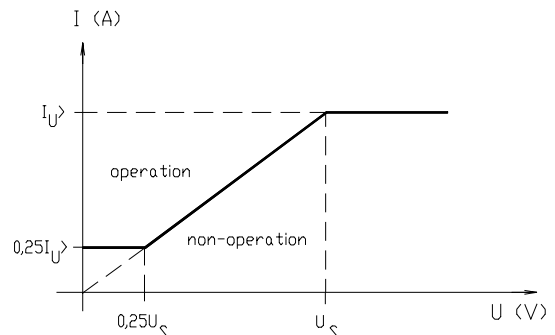


Fig. 3 Operate characteristic.

6. The binary input.

There are two binary inputs (Bin 1 and Bin 2) on the relay. Bin 1 (terminals 111/112-113) is used for external blocking of the $I_{U>}$ start and trip functions. Bin 2 (terminals 121/122-123) is used for resetting of the LED indicators. The functions are activated when a voltage RL is applied to the binary inputs.

INDICATION

There are four LED indicators. The trip indicators seal-in and are reset manually by the "Reset" push-button or electrically via the binary input Bin 2. The start indicator resets automatically when the relay resets.

When the "Reset" pushbutton is depressed during normal operating conditions, all LEDs except "In serv." will light up.

When connecting RXISK 2H to the auxiliary voltage, the relay performs a self test. The "In serv." LED is alight, after performing the self test and when the relay is ready for operation. In case of a fault, the LEDs will start flashing.

TRIPPING AND START OUTPUTS

The RXISK 2H relay has one start and one delayed tripping output for the voltage restraint overcurrent stage, and one tripping output for the high current stage. Each output is provided with one change-over contact. All outputs reset automatically when the energising quantity passes the resetting value of the relay.

ESD

The relay contains electronic circuits which can be damaged if exposed to static electricity. Always avoid to touch the circuit board when the relay cover is removed.