

AC CURRENT RELAY WITH VOLTAGE COMPENSATED SETPOINT

Type: IUAB

FEATURES

- LED guidance for easy installation
- Two ranges for precise setting
- Red and green LEDs indicate the state of the input and the relay

Description:

The current relay IUAB is designed for monitoring up to 10 parallel connected equal loads. As soon as one of the loads is defective, and no longer draws current, the relay will give an alarm by dropping out.

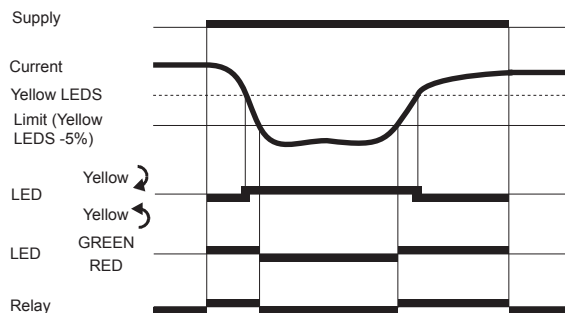
If the load is resistive or in general dependent on the supply voltage, the load current will vary with the actual voltage. A supply voltage change of -10% will cause the load current to drop 10%, or the same as if one of the loads was lost at normal supply voltage. Commonly used current relays would send a false alarm as this is still an OK condition. With this relay the current set point is related to the actual supply voltage and the set point will vary with the same percentage as the supply voltage change. By using this set point compensation it is possible, without getting false alarms, to monitor load changes down to 10% or detect one defect load out of ten equal loads.

In order to simplify the installation the IUAB has two yellow LED's suggesting the direction of the adjustment on the current setting spindle. When the two yellow LED's are equally lit the current set point is precisely 5% under the actual current. This means that the unit is adjusted to give an alarm if the current drops by 5% from the current value.

The current setting on the front refers to a current set point at nominal voltage.

The standard unit is made with a 1:1 voltage current relation as for resistive loads. If the relation is different from this or even inverse as for switch mode supplies used in e.g. fluorescent tubes, the voltage current relation can be modified to the actual application.

FUNCTION DIAGRAM

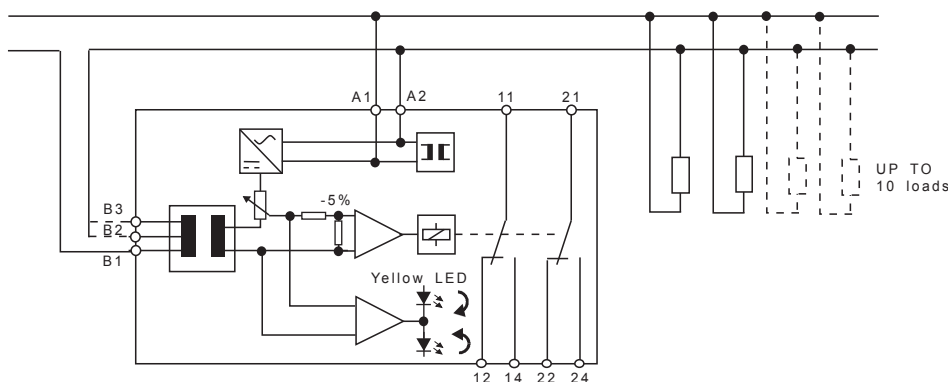


Application:

Monitoring e.g. heaters and lamps.

CONNECTION DIAGRAM

Rail mounting



SPECIFICATIONS

INPUT	AC current
Input Range: B1-B2 B1-B3	Setpoint Range 0,2 - 1A 0,5 - 2,5A
AC frequency range Max. continuous input Input resistance	45 to 440 Hz 1,5 x I range 0,05W / I range
Power up time	Fixed 2 sec.
Differential	Fixed 1% of setting
PERFORMANCE PARAMETERS	
TIMING	
Response time	Approx. 100 msec.
ELECTRICAL	
Temp. dependence	Typ. $\pm 0.02\%$ / °C
OUTPUT	Relay, 2 C/O
Contact rating	6 A, 250 VAC, 1500 W
Mechanical life	30 Million operations
DC output	0 to 20 mA at max. setpoint range
SUPPLY	AC voltage
AC supply range with transformer	24 V (From 20 to 28 V) 110 V (From 85 to 121 V) 230 V (From 187 to 264 V) 400 V (From 323 to 484 V) 460 V (From 374 to 506 V)
AC frequency range	45 to 440 Hz
Power consumption	4 VA, 2 W
GENERAL	
Temperature range	- 25 °C to + 55 °C ambient
Humidity	Up to 90 % RH non-condensing
Dielectric test voltage	Input to supply 4000 VAC Coil to relay contacts 4000 VAC Pole to pole 2500 VAC
Weight	0.19 kg in 35 mm. housing



	International Standards
EMC directive 89/336:	EN50081 - Emission EN50082 - Immunity
Low voltage directive 73/23:	EN60255 - Electrical Relays

ORDERING INFORMATION

EXAMPLE:

TYPE
Multifunction current relay

SUPPLY
AC with transformer

SUPPLY VOLTAGE
From 20 to 28 VAC
From 85 to 127 VAC
From 187 to 264 VAC
From 323 to 457 VAC
From 374 to 506 VAC

ADJUSTMENT
Trimpot and dipswitch adj.

HOUSING
Rail mounting (internal transformer)

SIZE
35 mm. 2 C/O 3

CODE
Code end
Extended code

