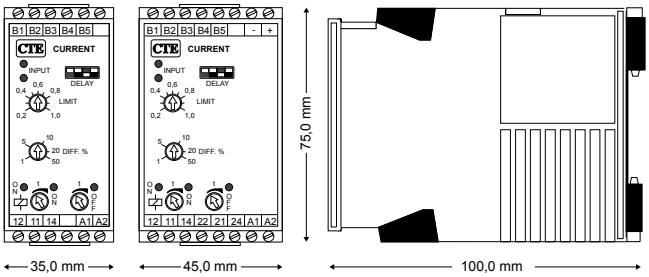


MULTIFUNCTION CURRENT RELAY

Type: IMCA

FEATURES

- **For AC and DC current**
- **Balanced input for noise immunity**
- **Input current range from 0.5 mA to 10 A**
- **12 programmable input ranges**
- **4 programmable times for power up reset**
- **4 programmable time ranges**
- **Separate adjustable ON and OFF delay**
- **Relay function can be inverted**
- **Adjustable upper or lower limit and differential**
- **Latch function available**
- **LEDs indicate the state of the input**
- **LEDs indicate the timing function**
- **LED indicates the state of the relay**
- **SMD technology**
- **0-1 V DC control output for full scale**
  (Only in 45 mm. housing)

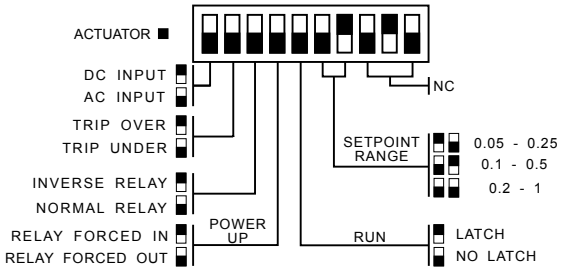
Description:
The current relay is designed with a microcontroller. With programmable range, function and timing it can be programmed to cover all kinds of applications.

The monitored current is fed through an internal shunt with a voltage drop of 50 mV at full range. For extreme noise immunity the voltage is then amplified in a balanced amplifier, rectified, averaged and compared with a preset reference voltage.
AC and DC current between 1 mA and 10 A can be measured directly. By means of a current transformer or a shunt resistor the range can be extended without limits.

Application:
Level comparator used with transducers and transmitters. Over- or undercurrent monitoring of loads, batteries, generators, mains etc.

PROGRAMMABLE FEATURES

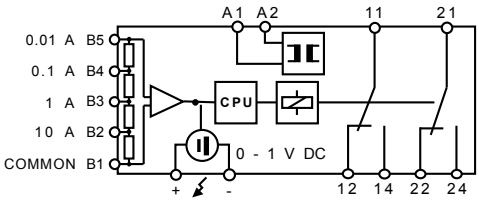
Range and relay function



CONNECTION DIAGRAM

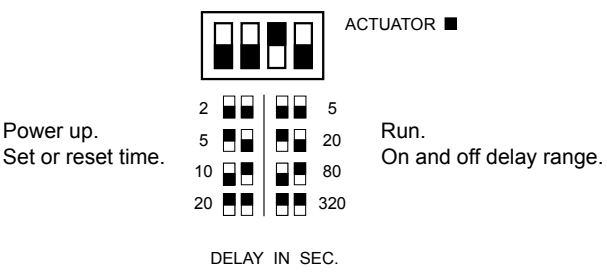
Rail mounting

Max. current input: Supply



Control output and 2 relays, only in 45 mm. housing.

Time function



Thiim A/S
Transformervej 31
2730 Herlev - Denmark
Tel.: +45 4485 8000
Fax: +45 4485 8005
Web: www.thiim.com
Webshop: shop.thiim.com

SPECIFICATIONS

INPUT DC or AC current

Range	From 0.5 mA to 10 A
Input Range:	Setpoint Range
B1 and B5	0.5 - 2.5 mA
0.01 A	1 - 5 mA
socket type 1008	2 - 10 mA
B1 and B4	5 - 25 mA
0.1 A	10 - 50 mA
socket type 1009	20 - 100 mA
B1 and B3	50 -250 mA
1 A	0.1 - 0.5 A
socket type 1000	0.2 - 1 A
B1 and B2	0.5 - 2.5 A
10 A	1 - 5 A
socket type 1001	2 - 10 A
AC frequency range	45 to 440 Hz
Max. continuous input	1.42 x I_{NOM}
Input resistance	0.1 / I_R Ω (10 Ω, 1 Ω, 0.1 Ω, 0.01 Ω)
Power up, set or reset	Dip switch settings. Fixed 2 sec. 5 sec. 10 sec. 20 sec.
Time range during run	Dip switch settings. Adjustable 0 - 5 sec. 0 - 20 sec. 0 - 80 sec. 0 - 320 sec.
Differential	Adjustable from 1 to 50 % of setting

PERFORMANCE PARAMETERS

TIMING	
Response time	Approx. 100 msec.
ELECTRICAL	
Temp. dependence	Typ. ± 0.02 % / °C
Supply dependence	Typ. ± 0.01 % / % DU

OUTPUT Relay, 1 C/O or 2 C/O

Contact rating	6 A, 250 VAC , 1500 W
Mechanical life	30 Million operations
DC output	0 - 1 V DC (Only in 45 mm.)

SUPPLY

AC and DC with isolated switchmode	18-360 VDC and 20-264 VAC
AC supply range with transformer	24 V (From 20 to 28 V) 110 V (From 99 to 140 V) 230 V (From 198 to 264 V) 400 V (From 342 to 484 V)
AC frequency range	45 to 440 Hz
Power consumption	4 VA, 3 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 (45 mm.) 2500 VAC
Weight	0.19 kg in 35 mm. housing 0.26 kg in 45 mm. housing

CE

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

ORDERING INFORMATION

EXAMPLE, Rail mounting: IMCA B230 D A 3 C

TYPE
Multifunction current relay — IMCA

SUPPLY VOLTAGE

18-360 VDC and 20-264VAC	E400
20-28 VAC	B024
99-140 VAC	B110
198-264 VAC	B230
342-484 VAC	B400

ADJUSTMENT
Trimpot and dipswitch adj. — D

HOUSING
Rail mounting.(internal transformer) — A

SIZE

35 mm.	1 C/O	3
45 mm. (with 0 - 1 VDC output)	2 C/O	4

CODE END — C

EXAMPLE, Socket mounting 11-Pin.: IMCA 1001 B230 D E 3 C

TYPE
Multifunction current relay — IMCA

INPUT CURRENT RANGE

From 0,5 to 10 mA	1008
From 5 to 100 mA	1009
From 0,05 to 1 A	1000
From 0,5 to 10 A	1001

SUPPLY VOLTAGE

18-360 VDC and 20-240VAC	E400
20-28 VAC	B024
99-140 VAC	B110
198-264 VAC	B230
342-484 VAC	B400

ADJUSTMENT
Trimpot and dipswitch adj. — D

HOUSING
Socket mounting 11-Pin.(internal transformer) — E

SIZE
35 mm. — 2 C/O — 3

CODE END — C

Socket mounting