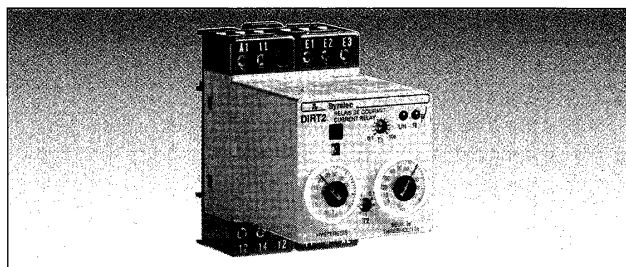


- Controls AC and DC currents
- 5 mA to 10 A RMS measurement range
- Normal or reverse relay selection by switch on front panel and hysteresis separately adjustable
- Normal or reverse relay selection by switch on front panel
- Delay on upward crossing of the threshold can be set at 0.1 to 10 s on front panel : T<sub>1</sub>
- Time-out of high threshold overrun adjustable from 0.1 to 3 seconds via front panel : T<sub>2</sub>



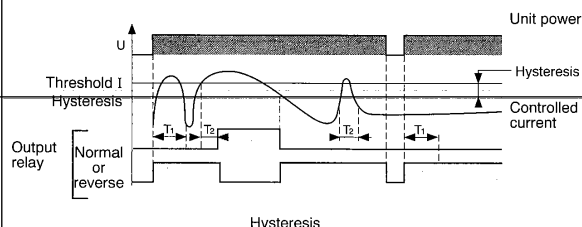
## Operating principle

### 1 - Control of AC/DC current WITHOUT latching latched

When the value of the AC or DC current being controlled reaches threshold (Ie) displayed on the front panel, the output relay changes status, at the end of timing T<sub>2</sub>, on upward crossing of the threshold (adjustable between 0.1 and 3 seconds via front panel).

The relay immediately returns to its initial status when the current drops to below 5 to 50% of the threshold (hysteresis) or if the power supply is cut.

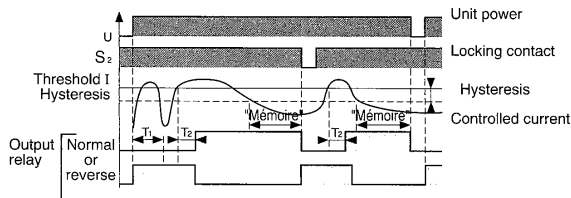
Changing the hysteresis value (via front panel) does not change the value of the preset threshold.



### 2 - Current control WITH fault storage : (Terminals Y1 - M or 9 - 8 connected)

When the value of the current being controlled reaches the threshold displayed, the output relay changes status, at the end of T<sub>2</sub>, and remains locked in this position.

To reset the relay contact S<sub>2</sub>, between Y1 and M (9 and 8), must be opened or the power supply to the unit must be cut.



### Note :

The power-up time-out T<sub>1</sub> (adjustable between 0.1 and 10 seconds via front panel) inhibits current peaks caused by motor start-up.

The delay on high threshold overrun T<sub>2</sub> (adjustable between 0.1 and 3 seconds via front panel) provides protection against power-line disturbance and other interference that can cause spurious triggering of the output relay.

To control a DC current, connect a link across terminals Y2 and M (11 - 8) Connections Y1-M (9 and 8) and Y0-M (11 and 8) should be as short as possible (less than 1 metre).

## Type

DIN rail or panel mounting	DIRT2	
11-pin plug-in		LIRT2

## Part numbers (and voltages)

24 V ~	84 893 212	84 893 222
24 V ~	84 893 213	84 893 223
48 V ~	84 893 215	84 893 225
110 V ~	84 893 216	84 893 226
230 V ~	84 893 217	84 893 227

## Technical specification

Supply voltage	Galvanic isolation by transformer	230V , 110 V , 48 V , 24 V ~ 50/60 Hz
Un	No galvanic isolation (1)	24 V ~

(1) In this case, the "negative" poles of the auxiliary power supply (terminal A2 or 10) and the measurement circuit (terminal M or 0) are connected inside the unit. Caution: This connection should not cause drift of the principal current measured.

Supply tolerance	0.85 • 1.15 x Un
Maximum power consumption	3 VA
Frequency of measured signal	10 Hz • 500 Hz
Adjustable hysteresis	5 • 50% of displayed threshold

Display accuracy of preset threshold	±10%
Repetition accuracy with constant parameters	± 0.1 %
Drifts with voltage variations	± 0.1 % (±10% Un)
with temperature variations	± 0.01 % / °C
with range 100 mA	± 0.03 % / °C
with range 1 A	± 0.05 % / °C
with range 10 A	± 0.05 % / °C

Timing on energization T <sub>1</sub>	0.1 s • 10 s ± 30%
Delay on upward crossing of threshold T <sub>2</sub> (including relay's own response time)	0.1 s • 3s, 0±20%

Availability delay	500 ms
Output relay (to meet AC1 requirements, resistive load)	1 AgCdO switch, 10 A ~ max.
Temperature limits	Use : -10 °C • + 60 °C Stored : -20 °C • + 70 °C

Weight	200 g
Measurement ranges - Inputs	E1-M (5-8) 5mA E2-M (6-8) 50mA E3-M (7-8) 0.5A
Authorized overloads (*) Transient current	100mA
Input resistance	1Ω
overload.	Permanent to 20 °C 1.5A Permanent to 60 °C 1A
Duration : 120 s	Overload < 1 s peak 20 °C * 5 A

### Note :

Higher AC currents can be controlled using a current transformer the secondary winding of which is connected to terminals E3 or E2 or E1 (7 or 6 or 5) and M (8)

## Other information

For compliance with standards etc., common characteristics, and dimensions, see page 5/53  
Wiring diagrams and application see page 5/49  
Other possible supply voltages : DIRT2/LIRT2 : 48 V ~ and 400 V ~  
Check with our nearest branch.

## To order, specify :

### Standard products



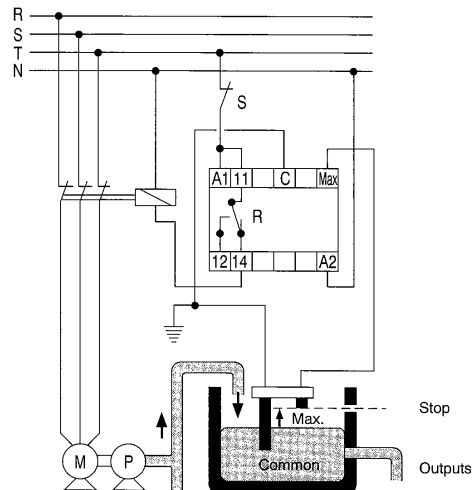
Part number

### Standard products not stocked

Example : Current control relay 84 893 213

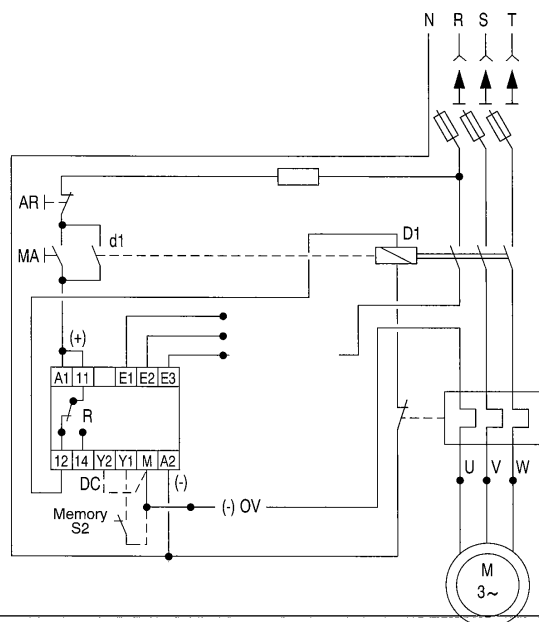
# Wiring diagrams and application

## DNRT2 / LNRT2



DNRT2	A1	A2	11	12	14	C	Max
LNRT2	2	10	1	4	3	6	5

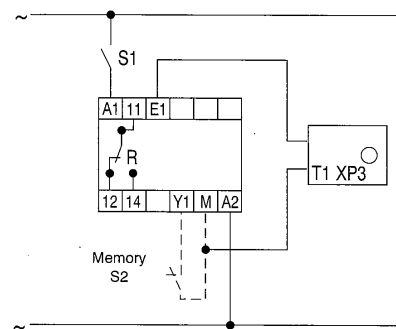
## C1I - DIRT2 / LIRT2 - DIRTD2 / LIRTD2



To control DC currents, short-circuit terminals Y2 and M (11 and 8).

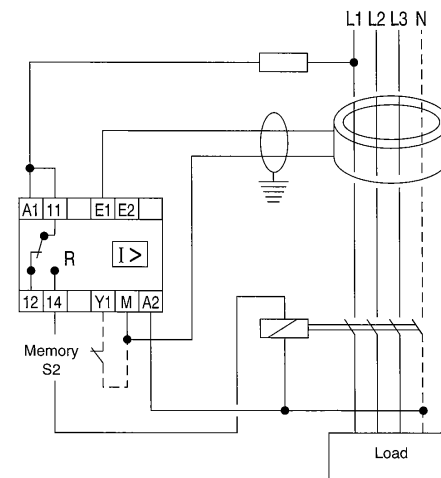
C1I - DIRT(D)2	A1	A2	11	12	14	E1	E2	E3	M	Y1	Y2
LIRT(D)2	2	10	1	4	3	5	6	7	8	9	11

## DIART2 / LIART2 - DIARTD2 / LIARTD2



DIART(D)2	A1	A2	11	12	14	E1	M	Y1
LIART(D)2	2	10	1	4	3	5	8	9

## DIMRT2 / LIMRT2



DIMRT2	A1	A2	11	12	14	E1	E2	M	Y1
LIMRT2	2	10	1	4	3	5	6	8	9

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