

- Controls AC and DC currents
- 5 mA to 10 A RMS measurement range
- Normal or reverse relay selection by switch on front panel
- Threshold and hysteresis separately adjustable
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- Delay on upward crossing of the threshold can be set at 0.1 to 10 s on front panel : T_1
- Time-out of high threshold overrun adjustable from 0.1 to 3 seconds via front panel : T_2

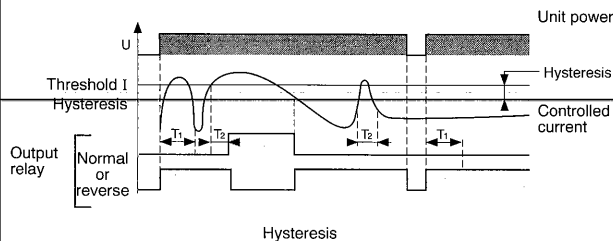
Operating principle

1 - Control of AC/DC current WITHOUT latching latched

When the value of the AC or DC current being controlled reaches the threshold (I_e) displayed on the front panel, the output relay changes status, at the end of timing T_2 , 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.

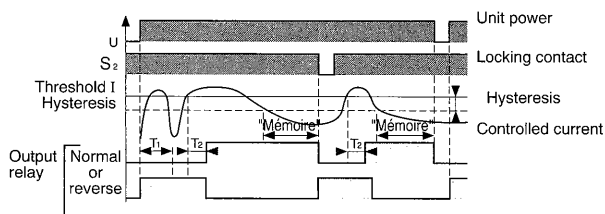
Changing the hysteresis value (via front panel) does not change the value of the preset threshold.



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_2 , and remains locked in this position.

To reset the relay contact S_2 , between Y1 and M (9 and 8), must be opened or the power supply to the unit must be cut.

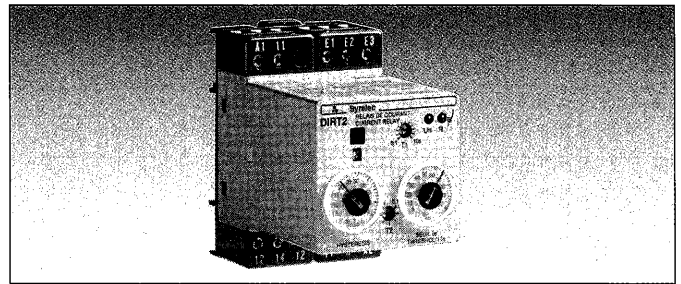


Note :

The power-up time-out T_1 (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_2 (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	± 0.1 % / °C

Timing on energization T_1	0.1 s • 10 s ± 30%
Delay on upward crossing of threshold T_2 (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, 1A, 10A
Input resistance	1Ω, 0.1Ω, 0.01Ω
overload.	Permanent to 20 °C: 1.5A, 3.5 A, 14A
Duration : 120 s	Overload Permanent to 60 °C: 1A, 3 A, 12A < 1 s peak 20 °C * : 5 A, 17 A, 55 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 :

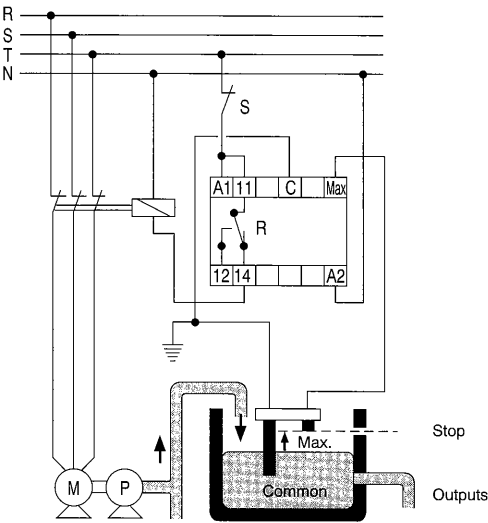
Standard products

Standard products non stocked

Part number

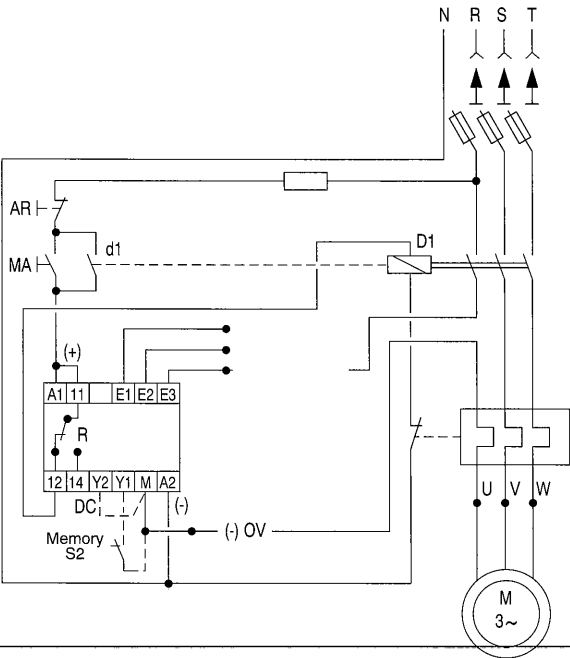
Example : Current control relay
84 893 213

DNRT2 / LNRT2



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

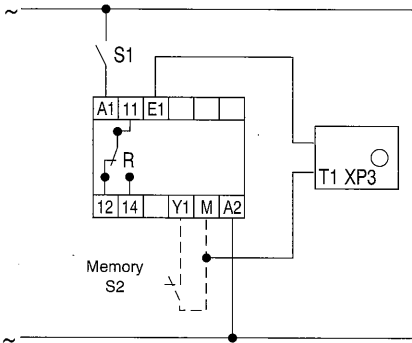
C1I - DIRT2 / LIRT2 - DIRTD2 / LIRTD2



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

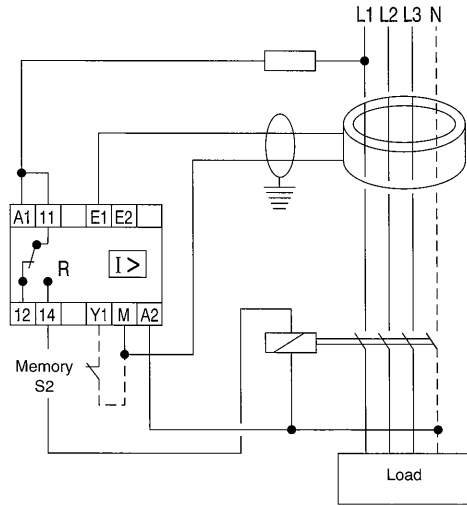
C1I - DIRT(D)2	A1	A2	11	12	14	E1	E2	E3	M	Y1	Y2
LIRT(D)2	2	10	1	4	3	5	6	7	8	9	11

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