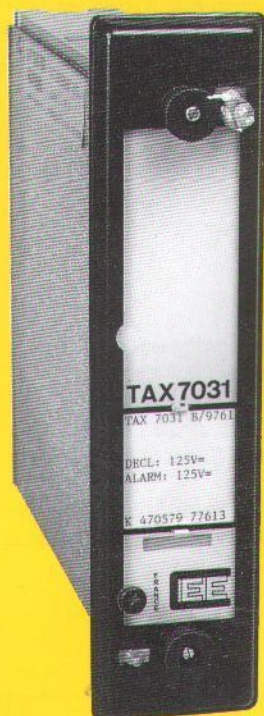


## Trip circuit supervision relay



The TAX 7031 relay supervises the trip circuit of a breaker, and brings up an alarm if the supply or the operation of the mechanism is faulty. The design of this relay complies with specifications issued by the Central Electricity Generating Board in Great Britain. Supervision is provided with the breaker in the open or closed state.

Its plug-in modular case type R may be mounted :

- either as a separate relay : projecting or flush,
- or by insertion into a standard 19" rack cradle.

### DESCRIPTION AND OPERATION

The units used in the TAX 7031 relay are the basic attracted armature units, of a simple and robust design, with a positive, vibration-free action.

The relay incorporates three of these units connected according to the annexed drawing.

In normal operation with the breaker closed, the units "a" and "c" are picked up. If the trip circuit becomes open-circuited, or if the supply fails, unit "a" is no longer held picked up, and contact "a1" opens, causing unit "c" to drop out.

If the breaker is in the open position, unit "b" is supplied via the breaker auxiliary contact (NC), and unit "c" is picked up via the contact "b1". Thus unit "b" detects anomalies in the trip circuit with the breaker open in a similar way to unit "a" with the breaker closed.

The units are time-delayed on drop-out (using copper "slugs") for a total of 200 ms, in order to avoid spurious alarms caused by brief voltage dips due to faults on other circuits, or during a normal trip when unit "a" is temporarily short-circuited by the self-reset contact of the trip relay. If this latter does not reset normally, due perhaps to a mechanical fault in the breaker tripping system, the alarm will operate.

### SUPPLY VOLTAGES

The relay may be provided for any combination of the trip and alarm supply voltages as follows :

- Nominal voltage 48, or 110, or 125, or 220 V/DC. Operation is assured between 80% and 120% of nominal voltage.
- External resistors are supplied in order to limit the current to an acceptable value in the event that the relay is accidentally short-circuited.
- Maximum circuit resistance : 400 Ohm.

### BURDEN

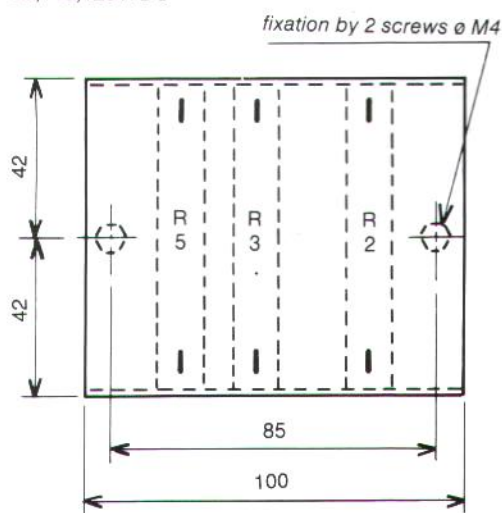
	Voltage	48	110	125	220
Maximum Watt	Trip supply	0.85	1.7	2.2	3.0
	Alarm supply	3.33	6.0	7.8	12.0



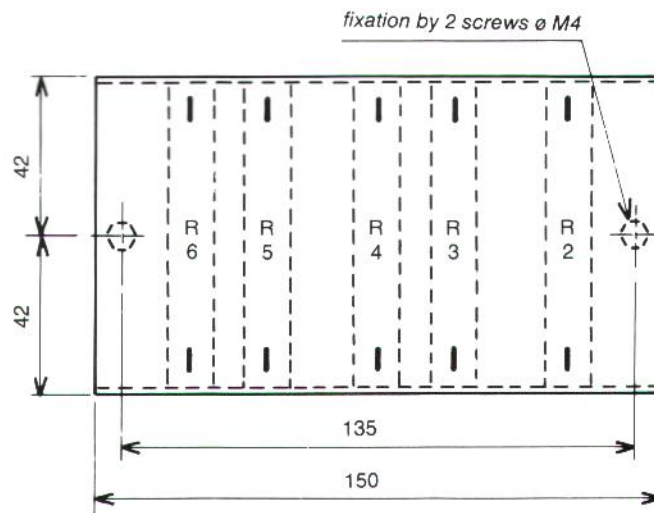
*The ultimate in power network supervision*

Trip supply

30,110,125V/DC



220V/DC



Additional case for resistors

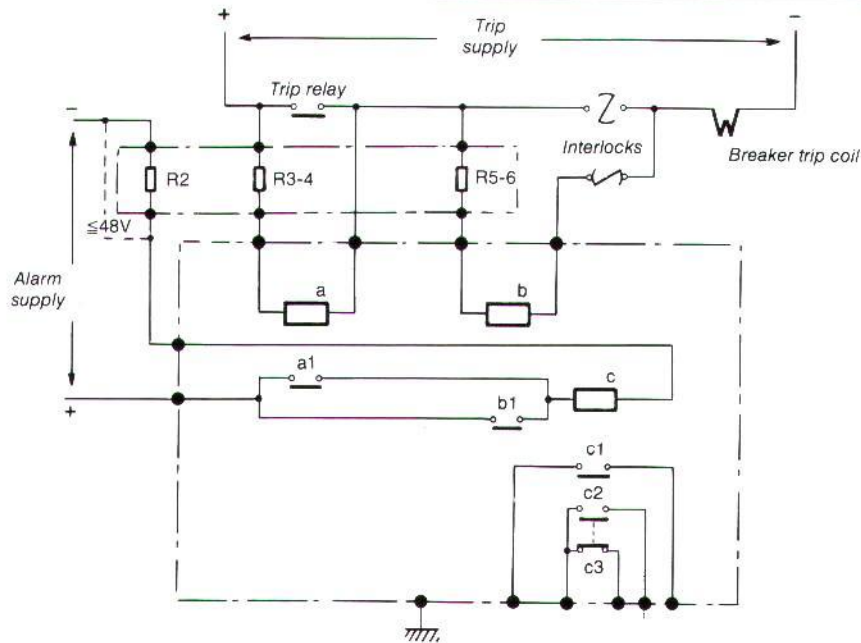
NOTA : The number of resistors in a function of the alarm and trip supply voltages.

## GENERAL CHARACTERISTICS

<b>1</b> Contacts ..... . Closing capacity ..... . Breaking capacity on drop-out with zero current in the coil ..... . Maximum continuous operating current .....	2 NO + 1 NC or 2 NC + 1 NO <b>Alternating current</b> 2500 VA with max. of 10 A or 500 V 1250 VA with max. of 5 A or 500 V 5 A <b>Direct current</b> 2500 W with max. of 10 A or 500 V 100 W(r) - 50 W(i) with max. of 3 A or 500 V 5 A
<b>2</b> Mechanical operation indicator .....	hand-reset
<b>3</b> Cases : . TAX 7031 ..... . external resistors .....	R1 See annexed diagram
<b>4</b> Identifying drawing to be used when ordering .....	9761
<b>5</b> Weight .....	3 kg



		projecting front connection	projecting rear connection	flush rear connection
CASE DIMENSIONS	CONNECTING SCREWS $\varnothing$ M4			
		$x = 89$ for panel th. $< 2$ $x = 90,5$ for panel th. $> 2$		
R1	ENCOMBREMENTS CASE DIMENSIONS			
	PERÇAGES ET DÉCOUPES DRILLING AND CUT OUT			



TAX 7031 — Simplified operation and connection diagram

Only documents supplied with our acknowledgement are to be considered as binding



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