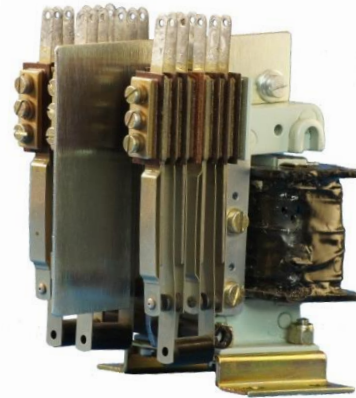


## CO1 Heavy Duty Relay

A general purpose multi contact open frame relay for application where shock resistant is required, or directly wired open style is preferred.

- Shock resistant.
- Relay coils up to 650V 50Hz or 250VDC supported.
- Special current coils available for operation up to 60 amps.
- Make, break, changeover and make before break (K action) changeover contact combinations available.
- Choice of mounting brackets.



### 1. Description

The relay design incorporates a laminated core and a laminated armature mounted on a stainless steel shaft with oilite bearings. Contact springs are mounted either side of the armature balance. Two types of mounting bracket are available, type CA or type CB. Type CA is supplied as standard; type CB is supplied when specified at time of ordering (see section 3 for diagrams).

### 2. Technical

#### 2.1 Contact ratings

Relays are supplied equipped with silver contacts as standard. Standard silver contact ratings: -

Standard Silver (Ag) Contacts	
Voltage	Resistive Load
440VAC	3 amps
250VAC	6 amps
24VAC	10 amps
50VDC	6 amps
24DC	10 amps

Other materials can be supplied to special order (contact Sales for details).

#### 2.2 Contact Configuration

Relay contacts are configured into 4 banks, when the relay is populated with the maximum number of contact sets. Each bank of contacts can accommodate a maximum of 6 individual contact springs. Two (2) springs per set of Make or Break contacts, or three (3) springs per set of Change over contacts (including K action). The relay can be populated with any combination of contact types providing each bank of contacts does not exceed the maximum number of permitted individual contact

springs. The maximum number of relay contacts of a single type is, 12 Make, or 12 Break, or 8 Changeover (including K action) contacts.

#### 2.3 Coil Data

The power requirements vary with the number and type of contacts fitted, approximately: -

1-4 contact sets:	5VA	2-3W
5-8 contact sets:	7-10VA	4W
8 + contact sets:	10-15VA	5-6W

Maximum rating: 24VA or 8 Watts.

Special current coils are available for operation up to 60 amps. All coils are vacuum impregnated.

Voltage tolerance:	AC -15% to +10%
	DC -20% to +10%

Current operated relays are adjusted to operate by the specified current. For certain applications spring tension adjusters can be fitted to give variable adjustment; this is particularly applicable to current operated relays.

#### 2.4 Operate Times (typical)

	DC	AC
Operate:	40ms	15ms
Release:	15ms	8ms

### 2.5 Life Expectancy

Mechanical: greater than  $10^7$   
 Contact\*: greater than  $10^6$

\*Anticipated life expectancy on full load, is dependent on type and magnitude of load and frequency of operation.

### 2.6 Insulation

2000 VAC 50Hz RMS for 1 minute.

### 2.7 Nominal Temperature Range

-10°C to +40°C. In certain applications this can be increased to +70°C.

### 2.8 Weight

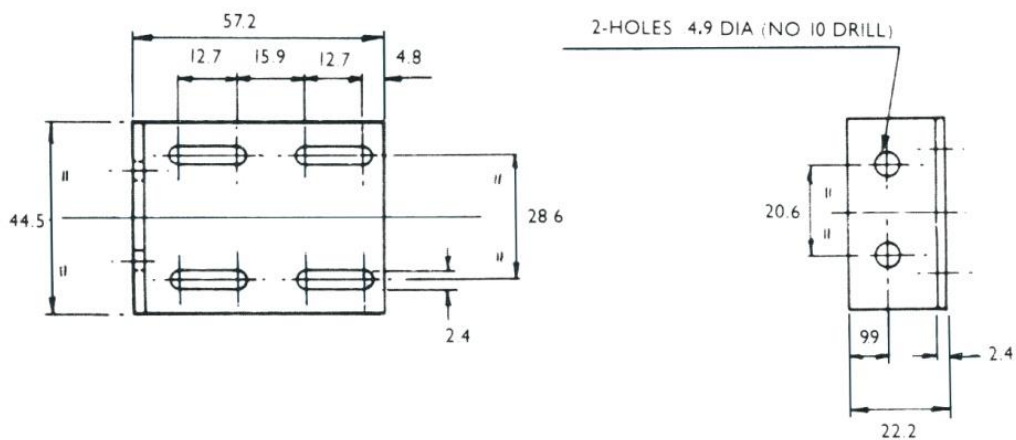
Approximately - 454 grams.

### 2.9 MOD Approved Relays

Special versions with balanced armatures are available to meet MOD requirements. Contact Sales for details.

## 3 Diagrams

BRACKET TYPE CA



BRACKET TYPE CB

