

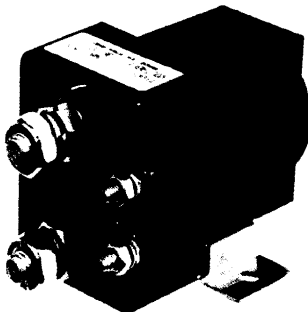


ALBRIGHT INTERNATIONAL LTD

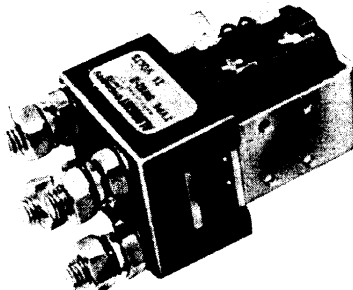
ALBRIGHT (Engineers) LTD

## SW80 SERIES OF D.C. CONTACTORS

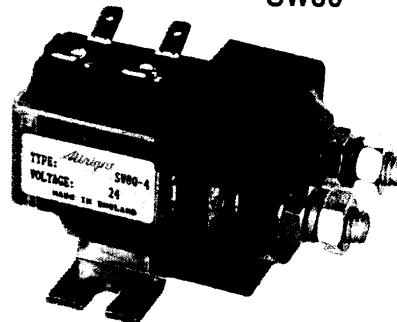
SW80P



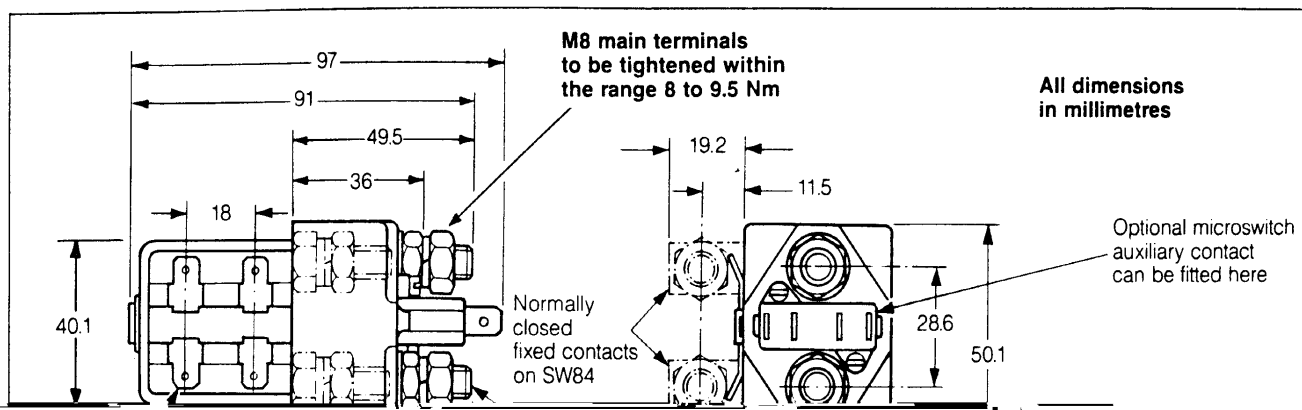
SW82



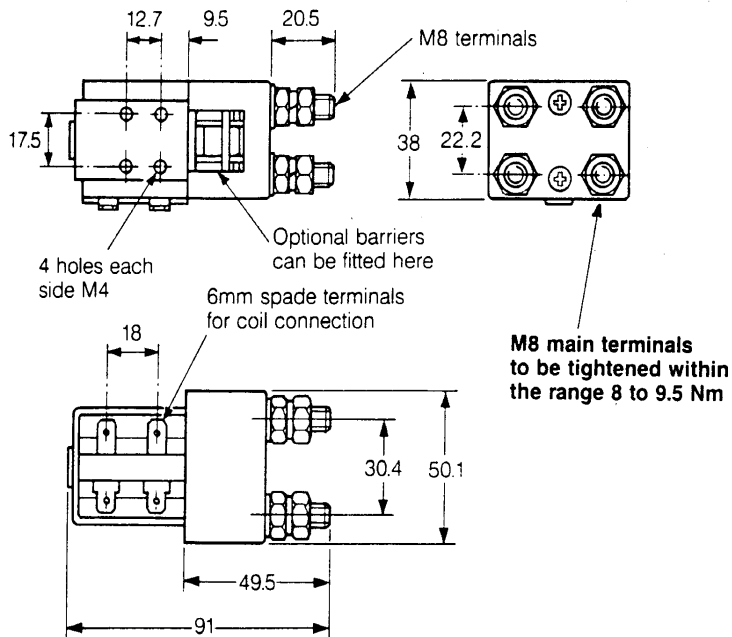
SW80



## DIMENSION DRAWINGS



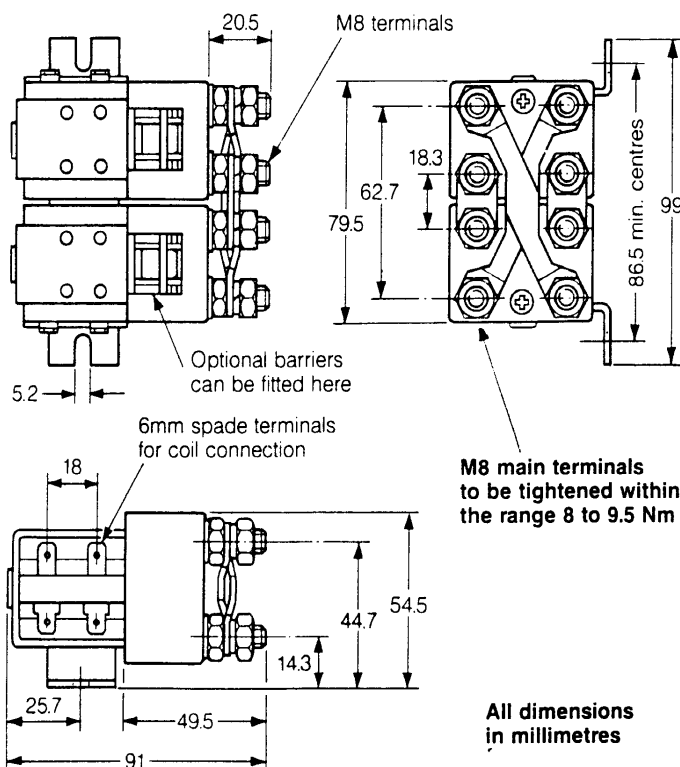
## DIMENSION DRAWINGS



All dimensions  
in millimetres

### SW82

The contactors can be mounted either horizontally or vertically. If mounted vertically the contact studs must point upwards.



All dimensions  
in millimetres

Pull-in voltages are approximately 60% and 66% of the rated voltage for intermittent and continuously rated types respectively.

Drop-out voltage is nominally 10% of rated voltage.

Variations from these pull-in and drop-out figures can be engineered to suit particular applications.

## CONTACTOR PAIRS

The contactors can be mounted in pairs on a common bracket together with inter-connecting electrical links. The most important of these arrangements are the motor reversing circuits provided by the SW88 and SW822 contactor pairs.

The SW88 type has a built in failsafe so that if both coils are energised simultaneously the contact design creates an open circuit situation.

The SW822 types have fast drop-out times (approx 5 m.sec.) and relatively slow pull-in times (approx 20 m.sec). Therefore motor direction changes can be undertaken without risk of all contacts being closed at the same time. However, certain types of coil suppression such as diodes substantially increase drop-out times and care must be taken to ensure suitable suppression is fitted, e.g. diode and resistor in series.

## MAGNETIC BLOWOUTS 'B'

The single pole types (excluding 'P' versions) can be fitted with permanent magnet blowouts. These enable the contacts to switch D.C. voltages of 48 or higher. Fitting of blowouts makes the contacts polarity sensitive and the **Positive markings** on the top cover of the contactor **must** be observed. The suffix 'B' denotes the fitting of magnetic blowouts, for example SW80B.

## AUXILIARY CONTACTS 'A'

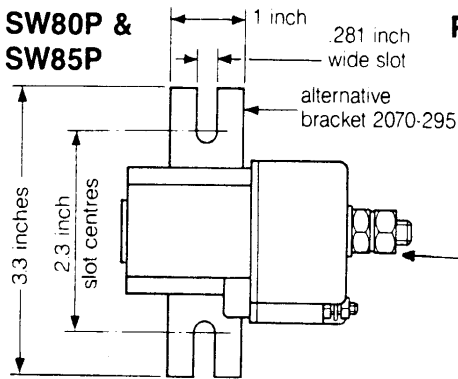
A double circuit normally open, normally closed microswitch can be fitted which has a D.C. resistive rating of 5 Amperes at 24v.

The suffix 'A' should be added to the type number when an auxiliary contact is required, for example, SW80A.

Note: Auxiliary contacts operate the

## DIMENSION DRAWINGS

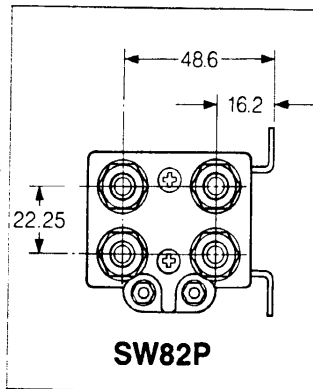
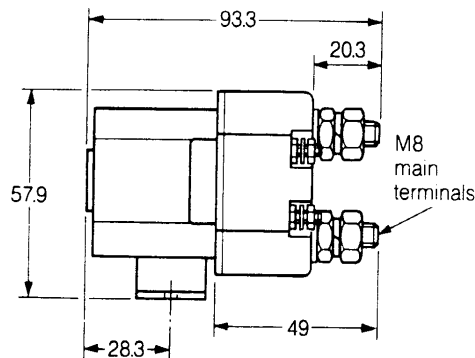
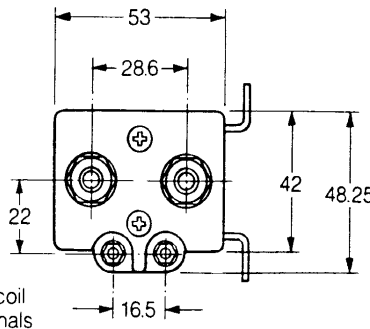
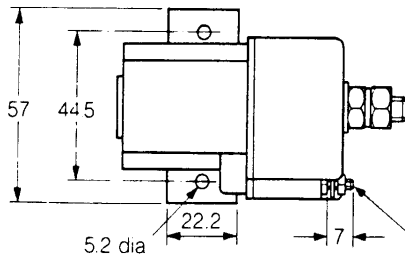
### SW80P & SW85P



### PROTECTED CONTACTORS

All dimensions in millimetres except where denoted 'in inches'

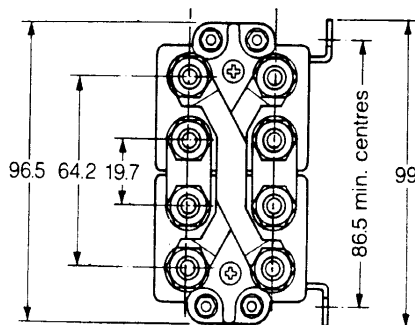
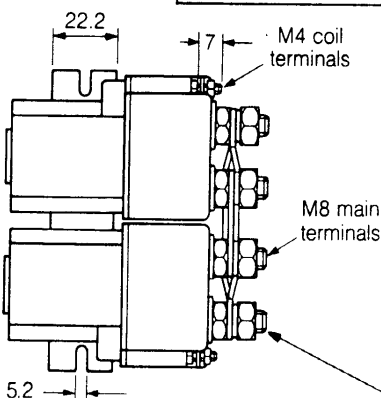
M8 main terminals to be tightened within the range 8 to 9.5 Nm



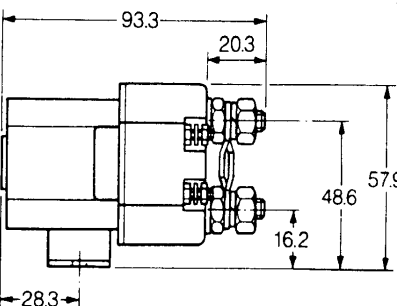
### SW82P

### SW80 'P', SW82 'P' AND SW85 'P'

The contactors can be mounted either horizontally or vertically. If mounted vertically the contact studs must point upwards with the exception of the SW85 and its derivatives which should be mounted with the contact studs pointing downwards.



M8 main terminals to be tightened within the range 8 to 9.5 Nm



All dimensions in millimetres

### PROTECTED CONTACTOR

### SW822 'P'

## LARGE CONTACTS 'L'

The SW80 range of contactors have standard contacts which are 8 mm diameter. These are suitable for the majority of applications where switching conditions are relatively light, particularly on electronically controlled vehicles. However, in applications where more severe conditions exist, e.g. pump motor switching, all types are available with larger contacts 10.3 mm diameter. The suffix 'L' denotes larger contacts.

## PROTECTED CONTACTORS 'P'

All types can be fitted with closed contact housings as a low cost option to provide protection against environmental dust.

However special versions of the SW80, SW82, SW85 and SW822 contactors are available which are protected against particularly adverse environments such as water spray, airborne dust etc. These contactors which have the suffix 'P' are sealed in an inert plastic case and are fitted with mounting brackets as shown in the drawings. Magnetic blowouts cannot be fitted to these types and therefore under normal circumstances the maximum voltage which can be switched by the SW80P is 48v D.C. although the types SW82P and SW822P by virtue of their double pole configuration may be used up to 96v D.C.

Auxiliary contacts can be fitted to the SW80P and SW85P but some loss of protection will result.

# NEW . . . D.C.88 and D.C.92 CONTACTORS

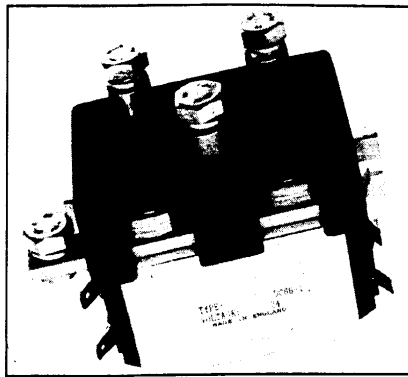
The DC88 is a new concept in reversing contactors for DC motors.

It has a monoblock construction and it comprises two single pole changeover contactors configured in such a way so that all the necessary links for DC motor reversing applications are contained within the contact housing.

This results in a neat compact design which is compatible with modern electronic control systems.

The main terminals can be configured in a variety of ways in order to suit the application layout.

All the features described in this brochure for the other contactors in the SW80 range apply to the DC88.



A variety of methods for mounting the contactor are available:

(1) An integral bracket. (2) Tapped holes in the contactor frame for direct panel mounting. (3) A separate bracket, part number 2070-40 for mounting the contactor at 90° to a panel.

The DC88 is physically and electrically interchangeable with the SW88 reversing contactor.

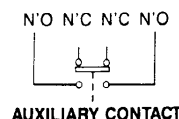
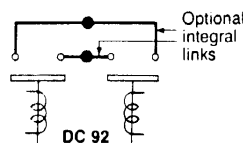
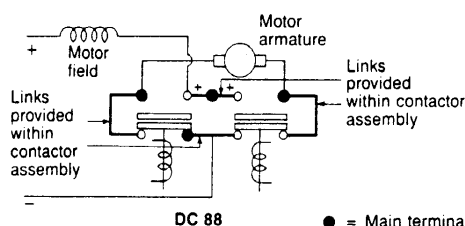
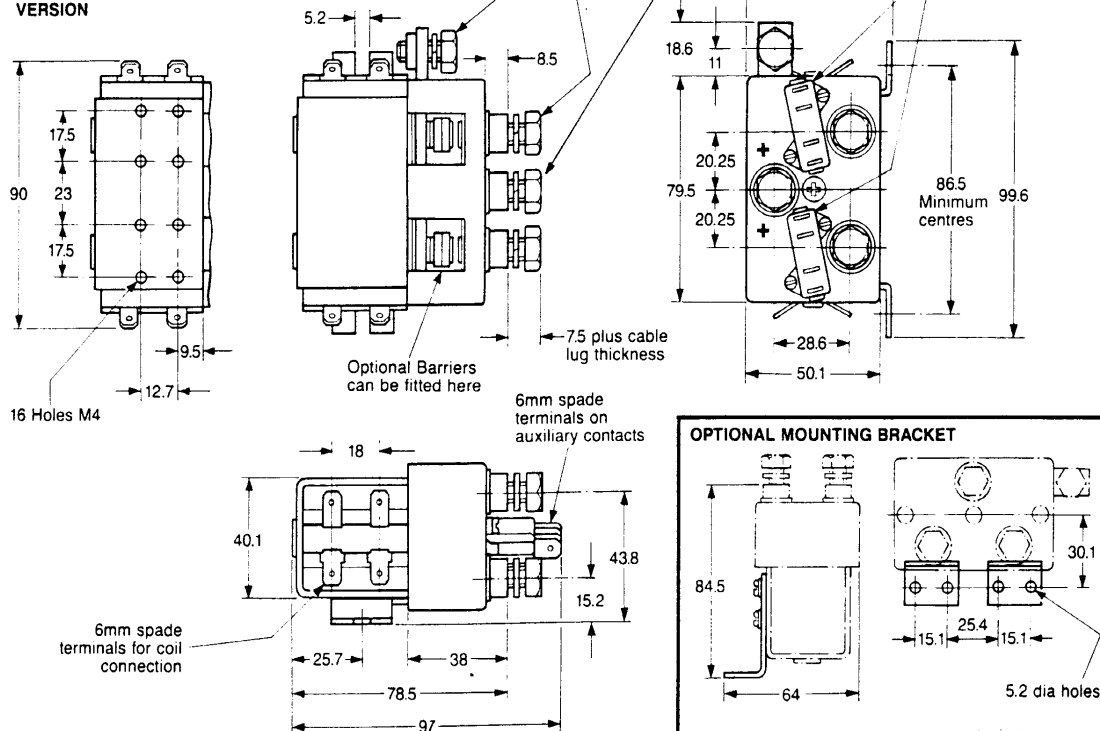
Similarly all the optional extras listed apply:

Magnetic blowouts (suffix B)  
Auxiliary contacts (suffix A)  
Large contact tips (suffix L)

A paired single pole on/off contactor can also be supplied. This is the type DC92 and this contactor can also have integral links for the main poles if required.

## NEW DC88

### PANEL MOUNTING VERSION



The contactor can be mounted horizontally or vertically. If mounted vertically, main terminals must point upwards.

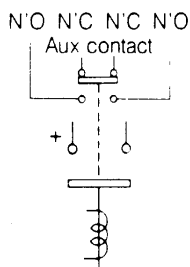
All Dimensions in mm.

All the performance data for these new types are included in the last page of this brochure.

## CONNECTION DIAGRAMS

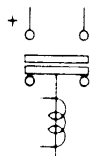
### SW80

Single Pole Single Throw (On/Off) Contactor



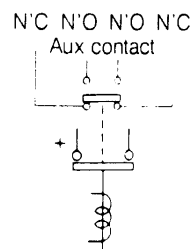
### SW84

Single Pole Double Throw (Changeover) Contactor



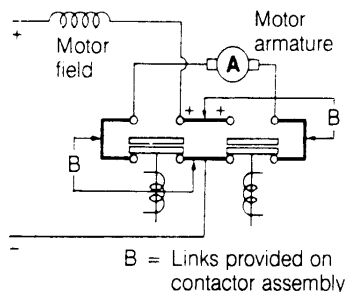
### SW85

Single Pole Single Throw (Off/On) Normally Closed Contactor



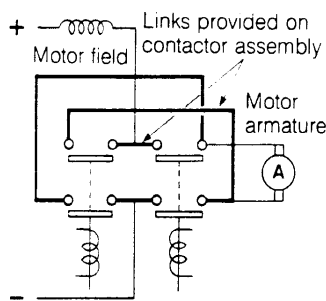
### SW88

Paired Single Pole Double Throw Contactor. Complete with necessary links for motor reversing



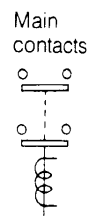
### SW822

Paired Double Pole Single Throw Contactor complete with links for motor reversing



### SW82

Double Pole Single Throw Contactor



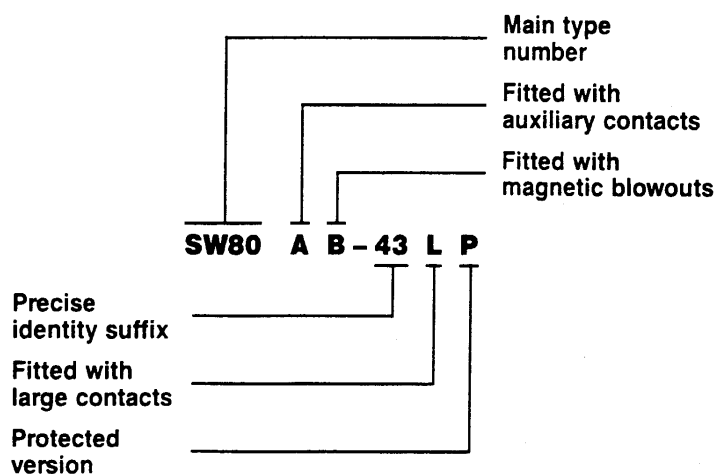
## CONTACTOR WEIGHTS

Add 20 gms for each auxiliary

Add 50 gms for each set of blowout magnets.

SW80	350 gms	SW82P	450 gms	SW84	430 gms	SW88	910 gms	SW93	750 gms
SW80P	390 gms	SW822	920 gms	SW85	360 gms	SW90	810 gms		
SW82	430 gms	SW822P	960 gms	SW86	890 gms	SW92	730 gms		

## EXPLANATION OF CONTACTOR TYPE NUMBERS



	Auxiliary Contacts	Magnetic Blowouts	Mounting Brackets	Large Contact Tips	Closed Contact Housing	Environmentally Protected
SW80	O	O	O	O	O	O
SW82	N	N	O	O	O	O
SW822	N	N	S	O	O	O
SW84	O	O	O	O	O	N
SW85	O	O	O	O	O	O
SW86	O	O	S	O	O	N
DC88	O	O	S	O	O	N
SW88	O	O	S	O	O	N
SW90	O	O	S	O	O	N
DC92	O	O	S	O	O	N
SW92	O	O	S	O	O	O
SW93	O	O	S	O	O	O

O = Optional Extra. S = Standard Feature N = Not Available

## COIL RESISTANCES FOR POPULAR VOLTAGES

	12V DC	24V DC	36V DC	48V DC	60V DC	72V DC	80V DC
Intermittently rated coils (ohms)	9	29	73	120	212	305	365
Continuously rated coils (ohms)	14	52	120	212	305	458	600

## PERFORMANCE DATA

Thermal current rating (100%)

100 Amperes

Intermittent current rating

30% duty

180 Amperes

40% duty

160 Amperes

50% duty

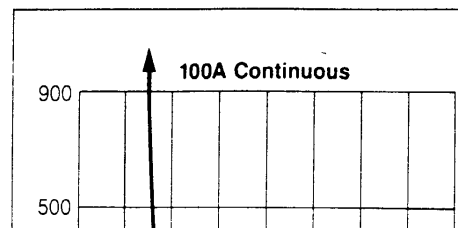
150 Amperes

60% duty

130 Amperes

70% duty

120 Amperes



Typical fault currents which can be sustained for 1/2 second