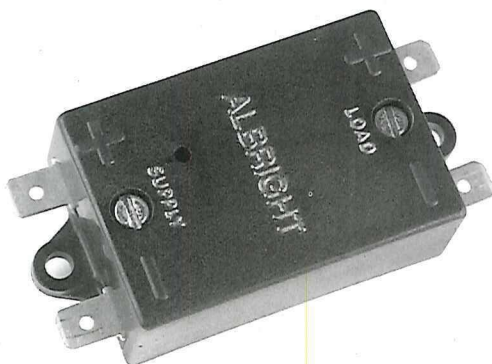




# *Albright International Ltd.*

## Power Consumption Reduction For Albright Contactors.



**ML52 & CC58 Coil Controller**

There are two new developments for Albright contactors which are designed to reduce or almost totally eliminate the power consumption of coils:

### (1) Magnetically Latched Contactors.

All the main ranges of Albright contactors are now available with magnetic latching - one short pulse to close the main contacts - one short pulse to reopen them again.

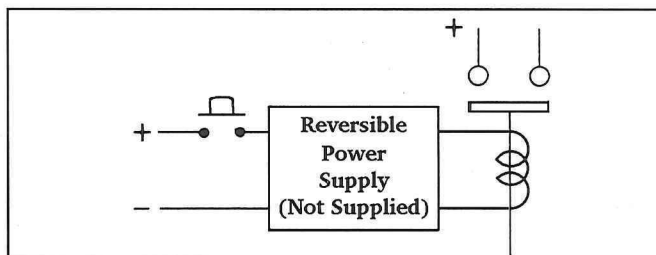
The result is a bistable device, the coil of which consumes no power except during the closing and opening strokes and because there is in effect no heating of the coil, the contactors can be engineered in the first place with more powerful coils and springs than with conventional contactors.

Contact ratings and all external dimensions are identical to those of the equivalent types which have conventionally energised coils.

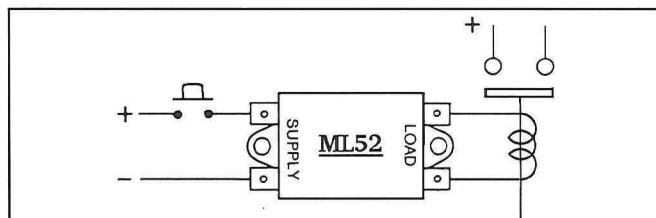
Similarly all the additional features which are available with Albright contactors can be found with the magnetically latched versions, eg auxiliary contacts, magnetic blowouts for the main contacts, wide selection of brackets, etc.

There are several operating modes for the magnetically latched contactor:

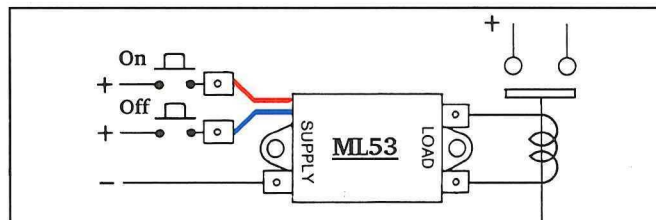
(1) Pulse the coil for a minimum of  $\frac{1}{2}$  second to close the contacts and then reverse the polarity of the supply and pulse the coil again for  $\frac{1}{2}$  second to open the contacts.



(2) By using the purpose designed "Albright" coil controller ML52, the supply to the contactor coil is automatically alternated with each new application of a supply voltage. Furthermore the duration of the pulse is limited to a maximum of  $\frac{1}{2}$  second and thus it is impossible to overheat the contactor coil even if the supply voltage is maintained indefinitely.



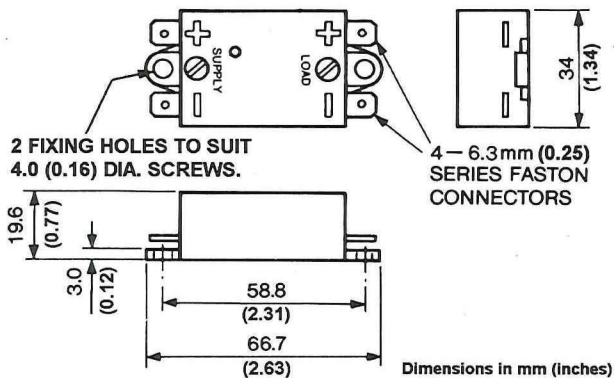
3) A third mode using an alternative version of the "Albright" coil controller ML53, is for there to be two inputs. The one will always give an "on" pulse, and the other will always give an "off" pulse.



### **Please Note, Very Important:**

**Magnetically Latched Contactors do not fail safe. If there is a power failure, or if the supply to the contactor coil is broken, the contactor contacts will not open or close, ie they will not change state. These devices should not therefore be used in applications where the failure of contacts to open or close could result in a hazardous situation for persons or equipment.**

### Dimension Drawing for ML52 & CC58



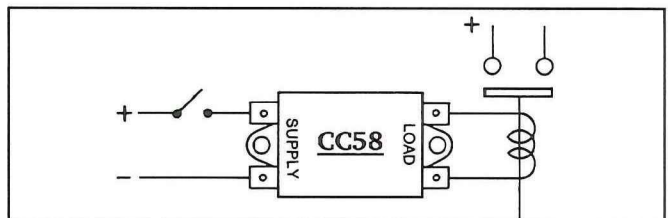
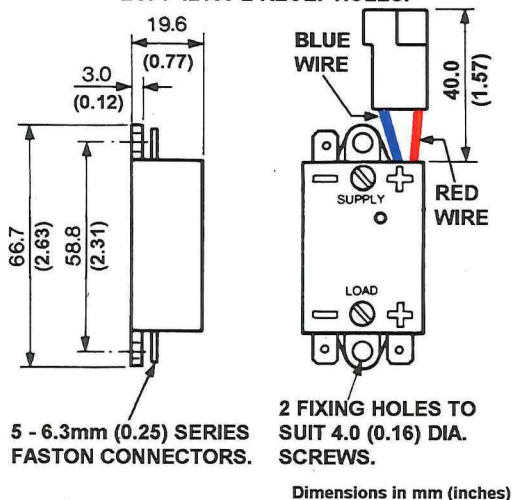
supply voltage is "chopped" back to a preset level. The contactor will thus remain closed on a much reduced power level.

The benefit from this system is that contactors can be engineered with powerful coils and springs but can be operated continuously producing very little heat. Typically an SW80 will run at 2 watts, an SW200 will run at 3 watts and an SW1500 at 5 watts.

Momentarily interrupting the supply to the coil automatically resets the device so that when re-energised the coil will see full supply voltage for approximately ½ second and then the chopped supply will resume.

### Dimension Drawing for ML53

ML53 FITTED WITH: AMP HOUSING 180908-0 WITH 2 X 42460-2, 6.3 (0.25) TABS.  
REQUIRES: AMP HOUSING 180907-0 WITH 2 X 1-42100-2 RECEPTICLES.



Contactors energised using this chopper are fundamentally fail safe in that interruption of the supply will cause the contacts to open.

For both magnetically latched and chopped coil contactors the operating voltage ranges are extended compared with conventionally powered contactors.

Typically + 25%, - 50% of nominal voltage will always reliably operate the contactors because of the reduced or zero coil running power, the operating voltage range applies under all conditions of extended running, or high ambient temperatures.

### (2) Contactors for use with Chopped Power Supplies.

All Albright contactors can be supplied with a module which initially provides full supply voltage to the contactor coil enabling the contactor to close on full power. Then after approximately ½ second the



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