

# Circuit Protection

## L5110 L5210

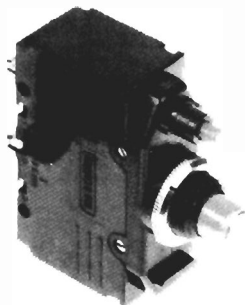
Cuts-outs

## L5111 L5411 L5511

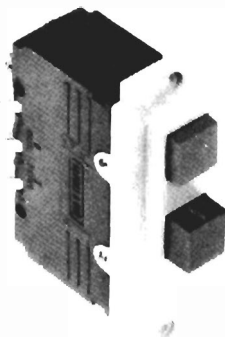
## L5211

Miniature Circuit Breakers

**Series L5100  
and L5200**



**Series L5400  
and L5500**



These robust, precision devices combine circuit protection, switching and indication in a single compact unit. L5110, L5111 and L5411 operate thermally on moderate over-current. L5210, L5211 and L5511 incorporate a magnetic coil which takes charge when large fault currents occur (above 6-10 times rated current), tripping the mechanism in milli-seconds.

L5411 and L5511 have an attractive front flange plate suitable for front or rear panel mounting.

These units restore a circuit rapidly after faults have been cleared. However, the action is 'trip-free', i.e. a circuit cannot be held closed by the 're-set' button while faults exist.

L5110 and L5210 do not incorporate a 'trip' button and, unlike the circuit breakers, cannot be used to open the circuit manually.

**Selection of ratings:** The specified rating is determined at a nominal ambient temperature of 20°C. Ambient temperature variants will, however, affect performance. At lower temperatures the rating may be increased and at higher temperatures decreased and it is prudent to allow for this variation.

All cut-outs and circuit breakers can be supplied without signalling contacts, but are subject to minimum ordering quantities of each type/rating.

**Preferred current ratings:** 0, 3, 0,5, 0,7, 1, 2, 3, 5, 8, 10 and 15A The circuit breaker will hold in indefinitely on all currents up to 1,1 times the rated value.

**Breaking capacity:** 300A for ratings up to 3A. (maximum)  
500A for ratings up to 5A and over (maximum). (At 0,8 power factor.)



<b>Tripping times:</b> _____	At $1,5 \times I_n < 5$ min.
<b>thermal:</b> _____	At $2 \times I_n < 60$ s.
	At $5,5 \times I_n < 7$ s.
<b>thermal magnetic:</b> _____	At $10 \times I_n$ a.c. $< 10$ ms.
	At $15 \times I_n$ d.c. $< 10$ ms.
<b>Breakdown voltage:</b> _____	$> 4$ kV between terminals.
	$> 6$ kV between linked terminals and metal panel.
<b>Working voltage:</b> _____	275 V a.c. rms 60 V d.c. (maximum)
<b>Insulation resistance:</b> _____	$< 10^3$ megohms
<b>Insertion resistance:</b> _____	Rating Nominal Tol.
<b>(typical)</b>	0,3A 9,2 ohm $\pm 16\%$
	0,5A 3,3 ohm $\pm 16\%$
	0,7A 1,8 ohm $\pm 16\%$
	1A 0,9 ohm $\pm 16\%$
	2A 0,12 ohm $\pm 16\%$
	3A 80 milliohms $\pm 16\%$
	5A 50 milliohms $\pm 16\%$
	8A 26 milliohms $\pm 16\%$
	10A 18,5 milliohms $\pm 25\%$
	15A 10 milliohms $\pm 30\%$
<b>Temperature range:</b> _____	$- 55^\circ\text{C}$ to $+ 70^\circ\text{C}$ (ambient)
<b>Signalling contacts:</b> _____	Single pole change-over
	Maximum rating 1A at 250 V a.c. or 50 V d.c. substantially non-inductive.
<b>Maximum wire size:</b> _____	7/0,85 mm
<b>Panel Mounting L5110 L5111 L5210 L5211:</b> _____	These units are panel mounted by means of a central threaded boss.
	Maximum panel thickness 4 mm.
<b>L5411 L5511:</b> _____	These are suitable for front or rear panel mounting by means of the pre-drilled front flange plate. The flange plate on each unit is provided with two counter-bored holes of 3,6mm diameter.
	Maximum panel thickness (rear of panel) 5mm.

**For drawings and dimensions, please see P. 45**

#### **Ordering reference**

##### **Thermal:**

**L5110 Cut-out with signalling contacts.**

**L5111 Circuit breaker with signalling contacts.**

**L5411 Circuit breaker with signalling contacts with flange plate for front or rear panel mounting.**

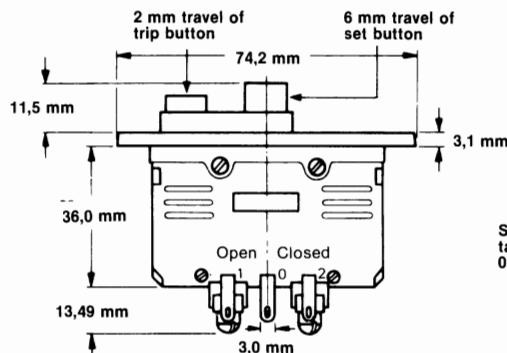
##### **Thermal magnetic:**

**L5210 Cut-out with signalling contacts.**

**L5211 Circuit breaker with signalling contacts.**

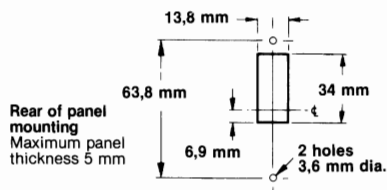
**L5511 Circuit breaker with signalling contacts with flange plate for front or rear panel mounting.**

# Circuit Protection

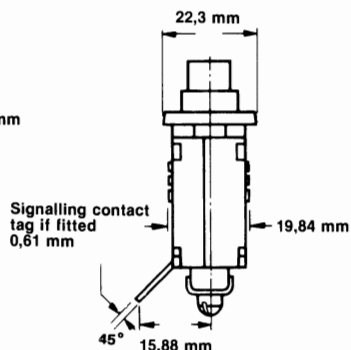


Series L5400 and L5500

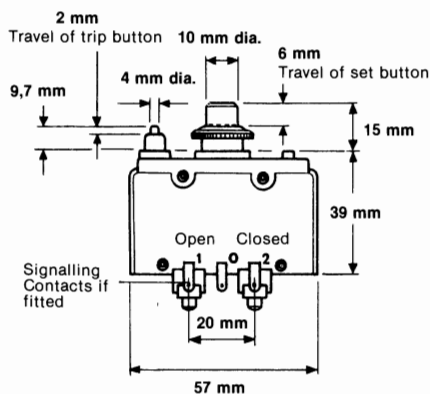
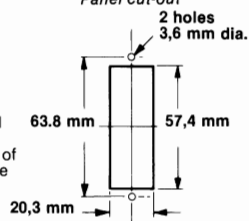
Panel cut-out



Front of panel mounting  
Panel may be of any reasonable thickness



Panel cut-out



Series L5100 and L5200

