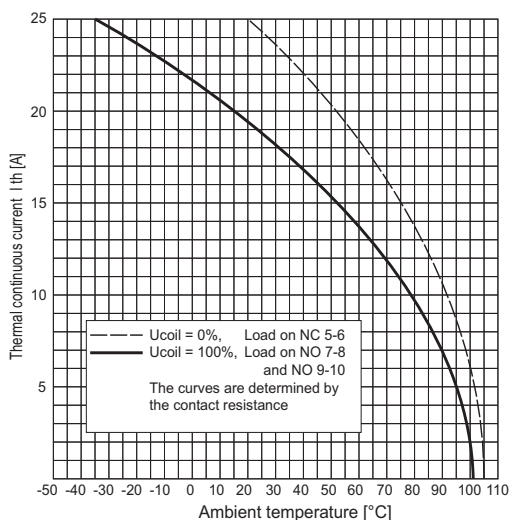


Contact current characteristics



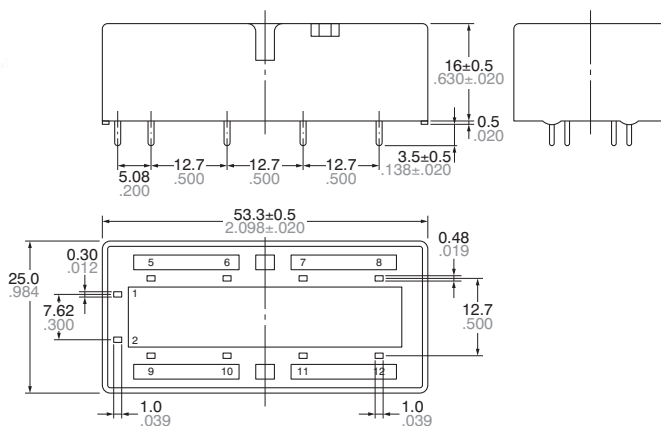
DIMENSIONS (mm inch)

Download [CAD Data](#) from our Web site.

CAD Data

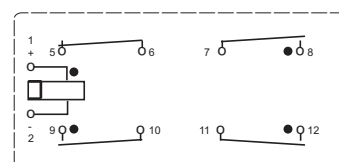


External dimensions



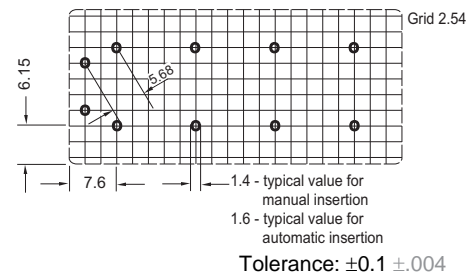
General tolerance: $\pm 0.3 \pm 0.12$

Schematic (Bottom view)

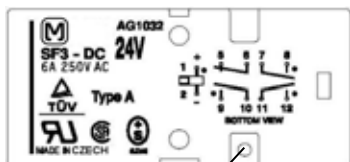


The contacts are shown in the deenergized condition.

PC board pattern (Bottom view)



APPLICATION NOTES



Nipple

If required a breathing hole can be made in the cover by removing the nipple. However be aware that the degree of protection will reduce from IP67 to IP30!

SF3

SAFETY STANDARDS

UL/C-UL (Recognized)		CSA (Certified)		TÜV (Certified)		SEV	
File No.	Contact rating	File No.	Contact rating	File No.	Rating	File No.	Contact rating
E43149	6A 250V AC	LR26550 etc.	6A 250V AC	R9919003 (SF3)	6A 250V AC	97.1 10376 99.1 10197.01	6A 250V AC

SAFETY STRUCTURE OF SF RELAYS

This SF relay design ensures that subsequent operations shut down and can automatically return to a safe state when the SF relay suffers overloading and other circuit abnormalities

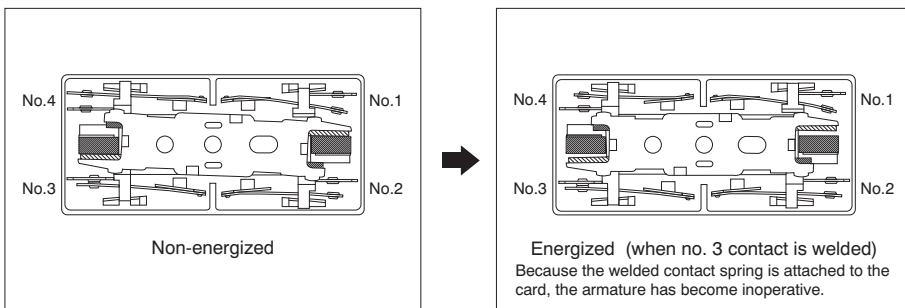
(unforeseen externally caused circuit or device breakdowns, end of life incidents, and noise, surge, and environmental influences) owing to contact welding, spring fusion or, in the worst-case

scenario, relay breakdown (coil rupture, faulty operation, faulty return, and fatigue and breakage of the operating spring and return spring), and even in the event of end of life.

	Structure	Operation
1. Forced operation method (3 Form A 1 Form B types)	<p>The two contacts "a" and "b" are coupled with the same card. The operation of each contact is regulated by the movement of the other contact.</p>	<p>Even when one contact is welded closed, the other maintains a gap of greater than 0.5 mm .020 inch.</p> <p>In the diagram on the left, the lower contact "b" have welded but the upper contact "a" maintain a gap of greater than 0.5 mm .020 inch. Subsequent contact movement is suspended and the weld can be detected</p>
2. Separate chamber method (3 Form A 1 Form B types)	<p>In independent chambers, the contacts "a" and "b" are kept apart by a body/case separator or by the card itself.</p>	<p>Prevents shorting and fusing of springs and spring failure owing to short-circuit current.</p> <p>As shown on the diagram on the left, even if the operating springs numbered 1 and 2 there is no shorting between "a" and "b" contacts.</p>
3. 3 Form A 1 Form B contact	Structure with independent COM contact of (3 Form A 1 Form B), contacts.	Independent COM enables differing pole circuit configurations. This makes it possible to design various kinds of control circuits and safety circuits.

Form "b" Contact Weld

If the form "b" contact (No. 3) welds, the armature becomes non-operational, the contact gaps at the three form "a" contacts are maintained at greater than 0.5 mm .020 inch. Reliable isolation is thus ensured.



If the No. 3 contact welds.
Each of the three form "a" contacts (No. 1, 2, and 4) maintain a gap of greater than 0.5 mm .020 inch.