

TYCO MT4 Relay Replacements

MT4 / V23104 replacement

Following the obsolescence of the MT4 Axicom relay at the end of 2005 it has now been decided due to market requirements to develop an alternative product.

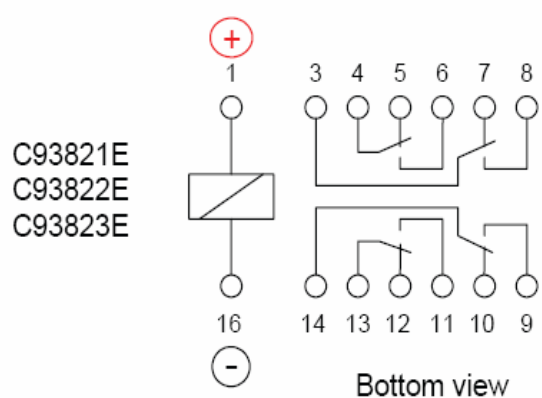
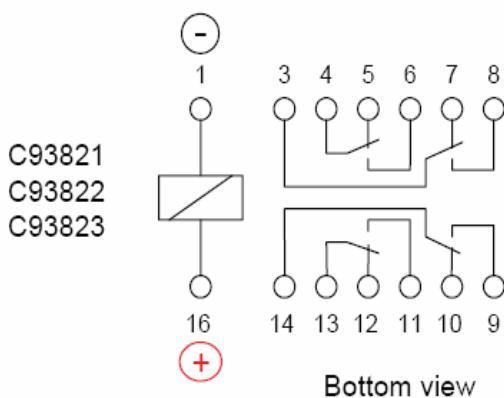
The MT4 relay (formerly also known as the Siemens V23104 series) was a unique product with no drop in replacement available from Tyco or other relay companies.

The replacement solution is a PCB with 2 x IM series relays fitted and pinning to match the MT4 standard. As the IM relay has a polarised coil and the MT4 was not polarised there are 2 replacement options for each coil voltage.

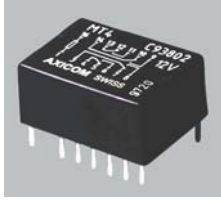
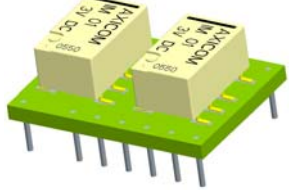
Part numbers cross reference is as follows:

Coil	MT4 Part No	Old Siemens V23104 No	Replacement part No	Polarity		
5V	MT4-C93801 (RS422-6947)	1462032-1	V23104A1001B101 1393764-1	C93821 (RS 148-575)	2-1462032-1	16 +ve
				C93821E (RS 148-569)	2-1462032-5	1 +ve
12V	MT4-C93802 (RS422-6953)	1462032-4	V23104A1003B101 1393764-2	C93822 (RS 148-547)	2-1462032-2	16 +ve
				C93822E (RS 148-553)	2-1462032-6	1 +ve
24V	MT4-C93803 (RS422-6975)	1462032-7	V23104A1005B101 1393764-3	C93823 (RS 148-525)	2-1462032-3	16 +ve
				C93823E (RS 148-531)	2-1462032-7	1 +ve

Polarity & pin configuration



Product comparison MT4 v Replacemt IM solution

Manufacturer Type		Tyco / Axicom MT4	2 x IM on PCB
			
<u>Contacts</u>		4 Changeover	4 Changeover
Design		AgNi + Au covered, Bifurcated	PdRh + Au covered, Bifurcated
Material			
dc rating	V dc	150	220
ac rating	V ac	150	250
Max switch current	A	1.25	2
Rated dc power	W	30	60
Rated ac power	VA	62.5	62.5
Max continuous current	A	1.25	2
<u>Electrical life</u>			
30W (24Vdc 1.25A)	ops	200,000	
30W (150Vdc 0.2A)	ops	200,000	
30W (30Vdc 1A)	ops		500,000
30W (125Vdc, 0.24A)	ops		500,000
Mechanical life	ops	100,000,000	100,000,000
Initial contact resistance	Ohms	< 70mOhms at 10mA / 20mV	<50mOhms at 10mA / 20mV
<u>General</u>			
Temp range	deg C	-55 to +85	-40 to +85
Maximum switching rate	ops/s	50	50
<u>Dielectric (1 minute)</u>			
- coil to contacts	V rms	1800	1800
- open contacts	V rms	750	1000
- pole to pole	V rms	750	1000
Surge strength	FCC P68	2500	2500
Operate / release time	msecs	4 / 1 (typical)	3 / 3 (max.)
<u>Coil (all data at 23deg C)</u>			
Design		1 coil monostable	1 coil monostable, polarised
Coil voltages available	Vdc	5, 12, 24, 48	5, 12, 24
Nominal coil power	mW	300	280
Must operate voltage	% V nom	70%	75%
Must release voltage	% V nom	10%	10%
Coil resistance - 5V	Ohms	83 +/-10%	89 +/-10%
- 12V	Ohms	480 +/-10%	514 +/-10%
- 24V	Ohms	1920 +/-10%	2060 +/-10%
Dimensions (l x w x h)	mm	20 x 14.8 x 11	TBA
Approvals		UL, CSA, CECC	cULus