

Relay module to replace the obsolete BT53 series of small signal relays. With coil voltages: 5V, 12V & 24V

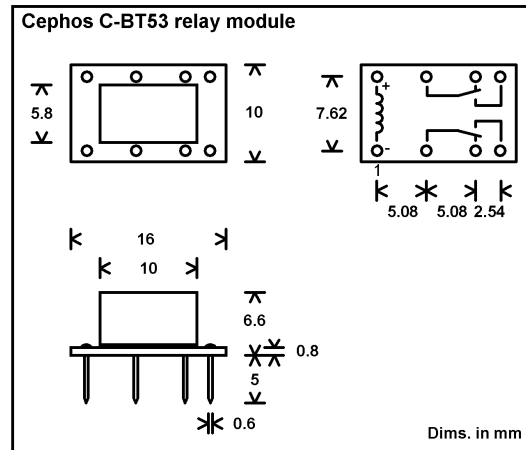
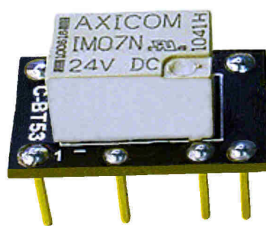
Direct replacement for the BT53 / BT53W series, Omron G5A-234P-53, Panasonic DF2 and Fujitsu FBR46 relays

The overall Cephos C-BT53 module dimensions are: 16 x 10mm, identical to the original BT53, G5A-234P-53, DF2 and FBR46 footprints. The gold finished module pins enable easy insertion into an existing 12W dil socket or direct soldering into a printed circuit board.

## 2 pole telecom / signal relay, polarised, 2 pole changeover / 2 Form C / DPDT

Max. Switching power  
 Max. Switching voltage  
 Max. Switching current  
 Bifurcated contacts  
 Low coil power consumption

60W / 62.5VA  
 220V<sub>DC</sub> / 250V<sub>AC</sub>  
 2A  
 Palladium-Ruthenium, gold covered  
 5V and 12V version: 140mW  
 24V version: 200mW



Nominal Voltage	Minimum Voltage	Maximum Voltage	Release Voltage Minimum	Coil Power mW	Coil Resistance $\Omega$ +/-10%	Relay Code
5	3.75	12.10	0.50	140	178	C-BT53/1
12	9.00	28.90	1.20	140	1029	C-BT53/3
24	18.00	48.50	2.40	200	2880	C-BT53/5

### General Data

Operate time at $V_{NOM}$ typ./max.	1ms/3ms
Release time without parallel diode typ./max.	1ms/3ms
Release time with parallel diode typ./max.	3ms/5ms
Bounce time at closing contact typ./max.	1ms/5ms
Max. switching rate without load	50 operations/s
Ambient temperature	-40 °C to +85 °C
Thermal resistance	<150K/W
Max. Permissible coil temperature	125 °C
Degree of protection / environmental	Immersion cleanable / IP67
Mounting position	Any
Minimum switching voltage	100 $\mu$ V
Initial contact resistance / measuring condition: 10mA/20mV	<50m $\Omega$
Thermoelectric potential	<10 $\mu$ V
Electrical endurance	
at contact application ( $\leq 30$ mV/ $\geq 10$ mA)	min. 2.5 x 10 <sup>6</sup> operations
at 125V <sub>DC</sub> / 0.24A - 30W	min. 5 x 10 <sup>5</sup> operations
at 220V <sub>DC</sub> / 0.27A - 60W	min. 1 x 10 <sup>5</sup> operations
at 250V <sub>AC</sub> / 0.25A - 62.5VA	min. 1 x 10 <sup>5</sup> operations
at 30V <sub>DC</sub> / 1A - 30W	min. 5 x 10 <sup>5</sup> operations
at 30V <sub>DC</sub> / 2A - 60W	min. 1 x 10 <sup>5</sup> operations

### Insulation

Insulation resistance at 500V <sub>DC</sub>	>10 <sup>9</sup> $\Omega$
Dielectric test voltage	
between coil and contacts	1800V <sub>RMS</sub>
between adjacent contact sets	1000V <sub>RMS</sub>
between open contacts	1000V <sub>RMS</sub>
Surge voltage resistance	
(according to Telcordia TR-NWT 001089 [2/10 $\mu$ s] according to EC60950 [10/700 $\mu$ s])	
between coil and contacts	2500V
between adjacent contact sets	1500V
between open contacts	1500V