

## 2 Series

Miniature Screened 0.5A, 1.5kV



- **1.5kV Isolation**
- **1A Carry current (up to 30MHz)**
- **1" Package size**
- **Custom versions can be designed to meet particular applications**
- **Long life expectancy**

A subminiature package relay for RF applications in the 1-30MHz band.

The use of vacuum reed switches with Ruthenium over Rhodium contacts offers high isolation voltages, low contact resistance and long operating lifetime.

Additional RF screening is available to enhance the RF performance for more demanding applications.

All connections are via PCB.

Available with SPNO (Form A), SPNC (Form B) or latching (Bistable) switching action.

Contact Specification	unit	condition	TAR212SM	TBR212SM	TLR212SM
Contact material			Ruthenium*	Ruthenium*	Ruthenium*
Switch action			SPNO	SPNC	Bistable
Carry Current max	A	RMS@30MHz	1.0	1.0	1.0
Switching Current	A	DC max	0.5	0.5	0.5
Switching Power	W	max	10	10	10
Switching Voltage Max	V	dc or ac peak	300	300	300
Isolation across contacts	kV	DC max	1.5	1.5	1.5
Capacitance	pF	coil/screen gnd	<0.4	<0.4	<0.4
Contact connections		pin position	1 & 4	1 & 4	1 & 4
Lifetime operations		dry switching	10 <sup>9</sup>	10 <sup>9</sup>	10 <sup>9</sup>
Contact Resistance	mW	max	200	200	200
insulation Resistance	mW	max (typical)	10 <sup>10</sup> (10 <sup>13</sup> )	10 <sup>10</sup> (10 <sup>13</sup> )	10 <sup>10</sup> (10 <sup>13</sup> )

\* Ruthenium over Rhodium

### Coil at 20°C

Operating Voltage	V	Nominal	12	12	12
Must Operate Voltage	V		8	8	8
Must Release Voltage	V		2	2	N/A
Resistance	W	Nominal	200	900	1530
RF Screening			Full	Full	Full
RF Screening Connection		pin position	8	8	8
Coil Connection		pin position	6 & 7	6 & 7	6 & 7

### Relay

Construction			Covered	Covered	Covered
Operate Time	ms	max incl bounce	1.0	1.0	1.0
Release Time	ms	max incl bounce	0.5	0.5	N/A
Isolation Contact to all other terminals	kV	DC max	1.5	1.5	1.5
Isolation Contact to Screen	V	DC max	250	250	250

### Environmental

Storage Temperature	°C	range	-40 to +125		
Operating Temperature	°C	limited current	-40 to +85		
Weight	gm	typical	20	20	20

Please refer to this document for circuit design notes:-

<http://www.cynergy3.com/blog/application-notes-reed-relays-0>

Cynergy3 Components Ltd.  
7 Cobham Road  
Ferndown Industrial Estate  
Wimborne, Dorset BH21 7PE  
Telephone +44 (0) 1202 897969

Email: [sales@cynergy3.com](mailto:sales@cynergy3.com)

ISO9001 CERTIFIED

2 Series 2016

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### Part Numbering

T A R 2 12 S M

Reed switch size

Contact Form: A=SPNO, B=SPNC, L=Bistable

Contact Material: R=Ruthenium over Rhodium

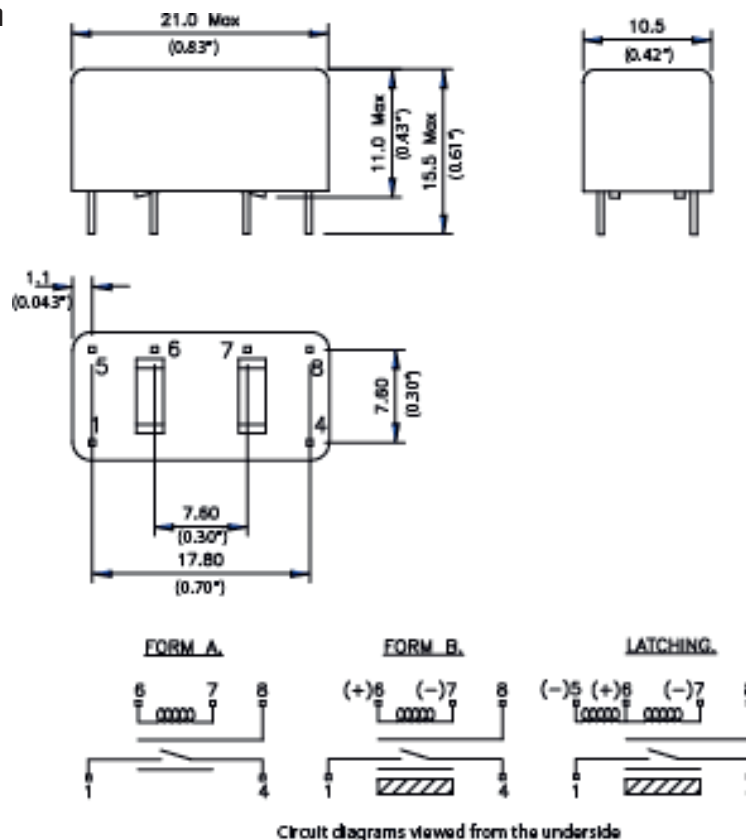
Relay Series Number

Coil Voltage: 5=5V, 12=12V, 24=24V

RF Screening: S=Screened, N=Unscreened

Magnetic Screening: M=Screened, N=Unscreened

### Mechanical Diagram



Cynergy3 Components Ltd.  
7 Cobham Road  
Ferndown Industrial Estate  
Wimborne, Dorset BH21 7PE  
Telephone +44 (0) 1202 897969

Email:sales@cynergy3.com

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