

DESCRIPTION

- Large assortment of pin out schemes
- High life expectancy
- Low thermal versions available



FEATURES

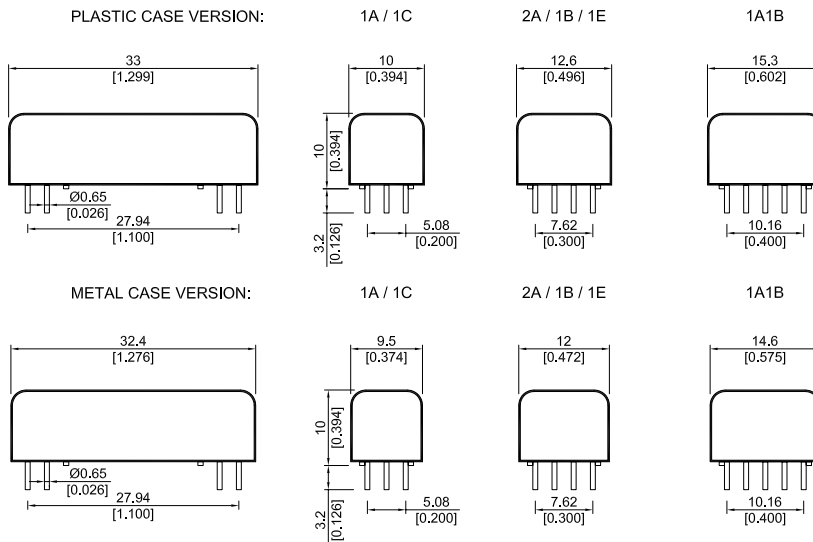
- 6 Volt coil option
- Up to 5 switches in a package (Consult factory)
- Normally closed option
- Insulation resistance up to $10^{14} \Omega$ available
- Metal and Plastic casings available
- Mercury wetted switch available
- Latching version available
- EX approved version (Intrinsically safe)
- 4.5 kVDC (3.0 kVRMS) contact to coil option
- High contact to coil voltage

APPLICATIONS

- Telecommunications
- Medical equipment
- Test and Measurement
- General applications

DIMENSIONS

All dimensions in mm [inches]



All Purpose Reed Relays

ORDER INFORMATION

RELAY SERIES	NOMINAL VOLTAGE	CONTACT FORM	SWITCH MODEL	PIN OUT	CASING OPTION (P, M, V) *	HIGH ** INSULATION RESISTANCE
BE	XX -	XX	XX -	XX	X	XX
OPTIONS	05, 12, 24	1A	66, 85, 88	10	P, M	HI
			66	11	V	
	05, 12, 24	1B	66	10	M	
			66	11	V	
	05, 12, 24	1C	90	15	P, M	
	05, 12	1E	66	14	P, M	
	05, 12, 24	2A	66	20	M	
05, 12, 24	66, 85, 88		20	P, M		
05, 12, 24	1A1B	66	23	M		

* P = plastic, M = metal, V = High isolation voltage
 Please note: Selecting option V offers 4.5 kVDC breakdown voltage contact to coil, but only for pin out 11.
 ** Selects the 10¹⁴ Ω option between contact to coil and plastic case.

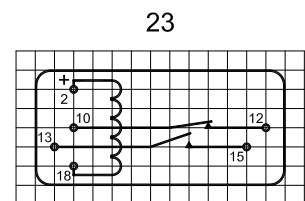
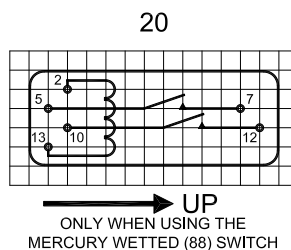
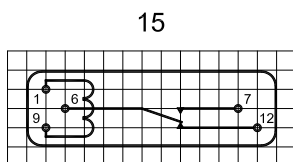
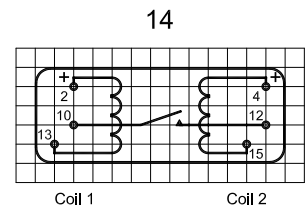
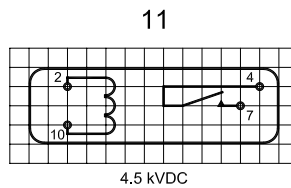
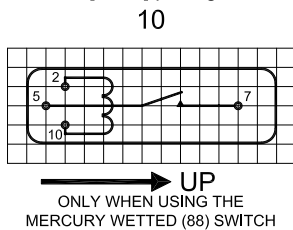
Part Number Example

BE05 - 1A85 - P

05 is the nominal voltage
 1A is the contact form
 85 is the switch model
 P is the casing

PIN OUT

View from top of component
 2.54mm [0.10"] pitch grid



RELAY DATA

All data at 20 °C	Switch Model --> Contact Form -->	Switch 66 Form A / B			Switch 85 Form A			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Contact Ratings	Conditions							
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			10			100	W
Switching Voltage	DC or peak AC			200			1000	V VRMS
Switching Current	DC or peak AC			0.5			1.0	A
Carry Current	DC or peak AC			1.25			2.5	A
Static Contact Resistance	w/ 0.5V & 50mA			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5V & 50mA 1.5 ms after closure			200			200	mΩ
Insulation Resistance (100 Volts applied)	Across contacts Contact to coil	10 ¹⁰ 10 ¹²			10 ¹² 10 ¹²			Ω
Breakdown Voltage	Across contacts Contact to coil	225 2.0 *			4000 2.0			VDC kVDC
Operate Time, incl. Bounce	Measured w/ 100% overdrive			0.5			1.0	ms
Reset Time	Measured w/ no coil suppression			0.1			0.1	ms
Capacitance	Across contacts Contact to coil		0.2 5.0			0.2 5.0		pF
Life Expectancies								
Switching 5 Volts@ 10mA	DC only & <10 pF stray cap.		1000			500		10 ⁶ Cycles
For other load requirements please see our life test section located on page 151.								
Environmental Data								
Shock Resistance	1/2 sine wave duration 11ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10 °C/ minute max. allowable	-20		70	-20		70	°C
Storage Temperature	10 °C/ minute max. allowable	-40		105	-40		105	°C
Soldering Temperature	5 sec. dwell			260			260	°C

* 4.5 kVDC / 3.0 kVRMS when the V option is selected.

**All Purpose
Reed Relays**

RELAY DATA

All data at 20 °C	Switch Model --> Contact Form -->	Switch 88 Form A / Hg wetted			Switch 90 Form C			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Contact Ratings	Conditions							
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			35			3	W
Switching Voltage	DC or peak AC			1000			175	V
Switching Current	DC or peak AC			1.0			0.25	A
Carry Current	DC or peak AC			2.0			1.2	A
Static Contact Resistance	w/ 0.5V & 50mA			60			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5V & 50mA 1.5 ms after closure			200			250	mΩ
Insulation Resistance (100 Volts applied)	Across contacts Contact to coil	10 ¹⁰ 10 ¹²			10 ⁹ 10 ¹²			Ω
Breakdown Voltage	Across contacts Contact to coil	1500 2000			200 2000			VDC
Operate Time, incl. Bounce	Measured w/ 100% overdrive			2.5			0.7	ms
Reset Time	Measured w/ no coil suppression			2.0			1.5	ms
Capacitance	Across contacts Contact to coil		0.4 5.0			1.0 5.0		pF
Life Expectancies								
Switching 5 Volts@ 10mA	DC only & <10 pF stray cap.		1000			100		10 ⁶ Cycles
For other load requirements please see our life test section located on page 151.								
Environmental Data								
Shock Resistance	1/2 sine wave duration 11ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10 °C/ minute max. allowable	-20		55	-20		70	°C
Storage Temperature	10 °C/ minute max. allowable	-35		105	-40		105	°C
Soldering Temperature	5 sec. dwell			260			260	°C

COIL DATA

CONTACT FORM	SWITCH MODEL	COIL VOLTAGE		COIL RESISTANCE			PULL-IN VOLTAGE		DROP-OUT VOLTAGE		NOMINAL COIL POWER
All data at 20°C *		VDC		Ω			VDC		VDC		mW
		Nom.	Max.	Min.	Typ.	Max.	Min.	Max.	Min.	Max.	Typ.
1A	66	5	7.5	450	500	550	0.85	3.5	0.75	3.4	50
		12	16	1080	1200	1320	1.9	8.4	1.8	8.3	120
		24	30	2700	3000	3300	3.7	16.8	3.6	16.7	190
	88 85	5	7.5	126	140	154	0.85	3.5	0.75	3.4	180
		12	16	675	750	825	1.9	8.4	1.8	8.3	190
		24	30	2700	3000	3300	3.7	16.8	3.6	16.7	190
1B **	66	5	7.5	450	500	550	0.85	3.5	0.75	3.4	50
		12	16	1080	1200	1320	1.9	8.4	1.8	8.3	120
		24	30	2700	3000	3300	3.7	16.8	3.6	16.7	190
1C	90	5	7.5	450	500	550	0.85	3.5	0.75	3.4	50
		12	16	1080	1200	1320	1.9	8.4	1.8	8.3	120
		24	30	2700	3000	3300	3.7	16.8	3.6	16.7	190
1E ***	66	5	7.5	450	500	550	0.85	3.5	0.75	3.4	50
		12	16	1080	1200	1320	1.9	8.4	1.8	8.3	120
		24	30	2700	3000	3300	3.7	16.8	3.6	16.7	190
2A	66	5	7.5	180	200	220	0.85	3.5	0.75	3.4	125
		12	16	720	800	880	1.9	8.4	1.8	8.3	180
		24	30	1800	2000	2200	3.7	16.8	3.6	16.7	290
	88 85	5	7.5	90	100	110	0.85	3.5	0.75	3.4	250
		12	16	450	500	550	1.9	8.4	1.8	8.3	290
		24	30	1440	1600	1760	3.7	16.8	3.6	16.7	360
1A1B**	66	5	7.5	90	100	110	0.85	3.5	0.75	3.4	250
		12	16	450	500	550	1.9	8.4	1.8	8.3	290
		24	30	1440	1600	1760	3.7	16.8	3.6	16.7	360

* The pull-in / drop-out voltage and coil resistance will change at the rate of 0.4% per degrees C.
 ** Reclosure of the Form B may occur if the max. voltage is exceeded. Coil polarity on Form B must be observed. Pin two is positive.
 *** Coil polarity must be observed. Applying a 2 ms pulse to coil number one with nominal voltage will latch the contacts.
 Applying a 2 ms pulse to coil number two will unlatch the contacts.