

TECHNICAL SPECIFICATIONS

WE STRIVE TO SET OUR CUSTOMERS UP FOR SUCCESS

with a complete breakdown of technical specifications for charting the proper use of our products. Contact our experienced team if you are seeking additional details.

CONTACT: INFO@OCCORP.COM



★ GENERAL ★

A multi-pole, solenoid actuated relay in Dust-Tight enclosure (Series 801/901, 807/907), Environmentally-Sealed enclosure (Series 831/931, 837/937), or Hermetically-Sealed enclosure (Series 881/981, 887/987).

MECHANICAL LIFE: @ 20 CPM million operations except latching relays which are 2,000,000 operations.

WEIGHT:

USES	801/901		831/931		881/981	
	oz.	gms	oz.	gms	oz.	gms
12	4.5	127	10	283	17	481
24	7.0	198	13	368	22	623
36	7.5	212	15	425	23	652
48	8.5	240	16	453	23	652
52,60	9.0	255	18	510	24	680

*Add 3 oz./84 gms for latching units.

INSULATION RESISTANCE: MIL-STD-202 Method 302, Condition B (500 VDC). 5,000 megohms between all insulated points. 50,000 megohms available on special order.

DIELECTRIC WITHSTANDING VOLTAGE: MIL-STD-202 Method 301: 1000 Volts RMS, 60 cycle AC, between all insulated points. 1500 Volt available on special order.

ENVIRONMENTAL SPECIFICATIONS:

AMBIENT TEMPERATURE: -55°C to 85°C

VIBRATION: .06" DA 10 to 55 CPS. No physical damage. Refer to factory for other values.

SHOCK: 50G peak sawtooth. No physical damage. Refer to factory for other values.

SEALING:

- 831/931 Series MIL-R-5757E, Para. 4.8.4.1,
- 881/981 Series MIL-R-5757D, Para. 4.7.2.3,
- Test III for MIL-R-5757E, refer to factory.

MOISTURE RESISTANCE: MIL-R-5757E, Para. 4.8.19

SALT SPRAY: Series 831/931 and 881/981. MIL-R-5757E, Para. 4.8.13.

CONNECT WITH US AT (847) 742-3566 FOR MORE INFORMATION. PRODUCTS OR SERVICE OPPORTUNITIES.

★ CONTACTS ★

CONFIGURATIONS AVAILABLE:

DUST-TIGHT, ENVIRONMENTAL & HERMETICALLY-SEALED

NO. OF POLES	FORM NO.
4, 8, 12, 24 & 36	A, B, C or D
48 & 52	A, B, or C
60	A
HERMETICALLY-SEALED	
24, 36, 48 or 51	A
24, 34	C
FORM DESCRIPTION	
A = Normally open	
B = Normally closed	
C = Double throw break before make	
D = Double throw make before break	

CONTACT MATERIAL:

800 SERIES:

- Fine silver, rhodium, gold-plated
- 50 millionths min. (bright finish)

900 SERIES:

- Moveable contact (common). Fine silver button with gold plated diffusion bond. Then 5 millionths rhodium plate, then gold, 80 millionths min. Bright finish. Fixed contact (N.C. and N.O.) bifurcated: gold plated 200 millionths min.

CONTACT RATINGS (TYPICAL):

800 SERIES:

GENERAL PURPOSE

- 5 Amp, 28 VDC resistive, switched
- 5 Amp, 120 VAC 60 Hz resistive

900 SERIES:

Microvolts, dry circuit

- 1 Amp, 28 VDC resistive
- 1/8 Amp 120 VAC 60 Hz resistive
- 2 Amp, 120 VAC carry only (refer to factory for other values)

CONTACT LIFE (RESISTIVE @ 20 CPM):

800 SERIES:

- Minimum current, i.e. 100 ma @ 10 VDC: 5,000,000 cycles
- High level, i.e. 5 Amp @ 28 VDC: 100,000 cycles

900 SERIES:

- Low level, i.e. 10 ma @ 30 MV: 20,000,000 cycles
- High level, i.e. 1 Amp @ 28 VDC: 100,000 cycles

ORDER INFORMATION

View our products online at tbarrelay.com, connect at info@occorp.com or call (847) 742-3566.

★ COIL ★

RELAYS @ 25°C (801/901/831/931/881/981)

	POLES		FORM		POLES		FORM	
	COIL	VOLTAGE	POLES	FORM	POLES	FORM	POLES	FORM
	12		A, B, C		24	A, B, C	48	A
	4			D	12		36	A, B, C
	8					D	48	B, C
							36	D
	3 WATTS		3.5 WATTS		5.25 WATTS		6.6 WATTS	
	Res. ± 10%	I (ma)	Res. ± 10%	I (ma)	Res. ± 10%	I (ma)	Res. ± 10%	I (ma)
(DC)								
6	12	500	11	545	7	857	5.5	1090
12	49	245	45	267	28	429	22	545
24	193	125	174	138	111	216	94	255
28	258	109	229	123	150	187	120	233
48	778	62	674	71	438	110	350	137
110	3963	28	3450	32	2355	47	1930	57
(AC)	Impd.	rms.	Impd.	rms.	Impd.	rms.	Impd.	rms.
115 VAC	4107	28	3594	32	2500	46	2018	57

OPERATE: (pull-in) at less than 80% of nominal coil voltage.

RELEASE: (drop out) at greater than 10% of nominal coil voltage.

OPERATE CONTINUOUSLY at 120% of nominal coil voltage.

OPERATE TIME:

- 4, 8 or 12 poles 15 ms max.
- 24 poles 25 ms max.
- 36 poles 30 ms max.
- 48 poles 35 ms max.
- 52 or 60 poles 45 ms max.

NOTE: Coil suppression causes negligible change in operate time.

RELEASE TIME: 5 ms typical. Diode coil suppression can increase release time by a multiple of 7.

CONTACT BOUNCE:

- 2 ms typical for normally open contacts.
- 6 ms typical for normally closed contacts.

MAGNETIC LATCHING RELAYS (807/907/837/937/887/987)

STANDARD			POLES	
ALL CONFIGURATIONS			ALL CONFIGURATIONS	
6 WATTS			10 WATTS/COIL	
	Res. ± 10%	I (ma)	Res. ± 10%	I (ma)
6	6	1000	3.6	1667
12	24	500	14.4	833
24	96	250	58	414
28	132	212	78	359
48	390	123	230	209
110	2000	55	1210	91

LATCH OR UNLATCH: at less than 80% nominal coil voltage with 50 ms pulse.

ZENER OR VARISTOR SUPPRESSION of standard latching coils causes negligible change in latch or unlatch time.

DIODE SUPPRESSION of (–°F – S) coils may increase latch or unlatch time.

CONTACT BOUNCE 4 ms typical during contact closure.

ALL COIL TERMINALS: Solder tab to accept two #22 AWG WIRES.

★ ORDERING KEY ★

907-36CG-24F-S



PATENT RECOGNITION:

T-Bar Switches and Relays are manufactured under one or more of the following **U.S. patents; 3206990, 3226508, 3689856** and various foreign patents. Specifications subject to change by engineering developments.

