Single Pole, Electrically Held, 1 Amp and Less

Series	M39016/7	M39016/23	M39016/24	
Product facts	-	Suppression diode	Suppression &	
			Protection diodes	
Electrical characterist	Electrical characteristics			
Arrangement		1 Form C (SPDT)		
Contact material				
Stationary	Gold/platinum	n/palladium/silver allo	y (gold plated)	
Moveable	Gold/platinum	n/palladium/silver allo	y (gold plated)	
Contact resistance				
Before life		100 milliohms max.		
	(mea	asured @ 10 mA @ 6	Vdc)	
After life		200 milliohms max.		
	(me	easured @ 1 A @ 28 \	/dc)	
Coil Voltage		5 to 26.5 Vdc		
Coil Power	512 mW max. @ 25°C			
Pick-up Voltage	Approximately 50% of nominal coil voltage			
Pick-up Sensitivity	100 mW max. @ 25°C			
Operating characteris	stics			
Operate time	2 ms max.			
Release time	2 ms max. 4 ms max.			
Contact bounce		1.5 ms max		
介電耐壓				
Between Open		500 Vrms 60 Hz		
Contacts				
Between Adjacent	500 Vrms 60 Hz			
Contacts				
Between Contacts	500 Vrms 60 Hz			
& Coil				
絕緣阻抗	10,000 Mega Ohms min. @ 500 Vdc			
Environmental characteristics				
Temperature range	-65°C to +125°C			

Single Pole, Electrically Held, 1 Amp and Less (Continued)

Series	M39016/10	M39016/25	M39016/26
Product facts	-	Suppression diode	Suppression &
			Protection diodes
Electrical characteristics			
Arrangement		1 Form C (SPDT)	
Contact material			
Stationary	Gold/platinum	n/palladium/silver allo	y (gold plated)
Moveable	Gold/platinum	n/palladium/silver allo	y (gold plated)
Contact resistance			
Before life		100 milliohms max.	
	(me	asured @ 10 mA @ 6	Vdc)
After life		200 milliohms max.	
	(me	easured @ 1 A @ 28 \	/dc)
Coil Voltage		5 to 40 Vdc	
Coil Power	506 mW max. @ 25°C		
Pick-up Voltage	Approximately 50% of nominal coil voltage		
Pick-up Sensitivity	40 mW max. @ 25°C		
Operating characteris	stics		
Operate time	4 ms max.		
Release time	2.5 ms max.	7.5 m	s max.
Contact bounce	1.5 ms max		
介電耐壓			
Between Open		500 Vrms 60 Hz	
Contacts			
Between Adjacent	500 Vrms 60 Hz		
Contacts			
Between Contacts	500 Vrms 60 Hz		
& Coil			
絕緣阻抗	10,000 Mega Ohms min. @ 500 Vdc		
Environmental characteristics			
Temperature range	-65°C to +125°C		

# Double Pole, Electrically Held, 1 Amp and Less

Series	M39016/9	M39016/15	M39016/20	
Product facts	-	Suppression diode	Suppression &	
			Protection diodes	
Electrical characterist	Electrical characteristics			
Arrangement	2 Form C (DPDT)			
Contact material				
Stationary	Gold/platinum	/palladium/silver allo	y (gold plated)	
Moveable	Gold/platinum	/palladium/silver allo	y (gold plated)	
Contact resistance				
Before life		100 milliohms max.		
	(mea	asured @ 10 mA @ 6	Vdc)	
After life		200 milliohms max.		
	(me	easured @ 1 A @ 28 \	/dc)	
Coil Voltage	5 to 3	0 Vdc	5 to 26.5 Vdc	
Coil Power	675 mW max. @ 25°C			
Pick-up Voltage	Approximately 50% of nominal coil voltage			
Pick-up Sensitivity	130 mW max. @ 25°C			
Operating characteris	stics			
Operate time	2 ms max.			
Release time	1.5 ms max. 4 ms max.		max.	
Contact bounce		1.5 ms max		
介電耐壓				
Between Open		500 Vrms 60 Hz		
Contacts				
Between Adjacent	500 Vrms 60 Hz			
Contacts				
Between Contacts	500 Vrms 60 Hz			
& Coil				
絕緣阻抗	10,000 Mega Ohms min. @ 500 Vdc			
Environmental characteristics				
Temperature range	-65°C to +125°C			

## Double Pole, Electrically Held, 1 Amp and Less (Continued)

Series	M39016/11	M39016/16	M39016/21
Product facts	-	Suppression diode	Suppression &
			Protection diodes
Electrical characteristics			
Arrangement		2 Form C (DPDT)	
Contact material			
Stationary	Gold/platinum	/palladium/silver allo	y (gold plated)
Moveable	Gold/platinum	/palladium/silver allo	y (gold plated)
Contact resistance			
Before life		100 milliohms max.	
	(mea	asured @ 10 mA @ 6	Vdc)
After life		200 milliohms max.	
	(me	easured @ 1 A @ 28 \	/dc)
Coil Voltage	5 to 48 Vdc		
Coil Power	!	565 mW max. @ 25°C	
Pick-up Voltage	Approximately 50% of nominal coil voltage		
Pick-up Sensitivity	60 mW max. @ 25°C		
Operating characteris	stics		
Operate time	4 ms max.		
Release time	2 ms max.		s max.
Contact bounce	1.5 ms max		
介電耐壓			
Between Open		500 Vrms 60 Hz	
Contacts			
Between Adjacent	500 Vrms 60 Hz		
Contacts			
Between Contacts	500 Vrms 60 Hz		
& Coil			
絕緣阻抗	10,000 Mega Ohms min. @ 500 Vdc		
Environmental characteristics			
Temperature range	-65°C to +125°C		

# Double Pole, Electrically Held, 1 Amp and Less (Continued)

Series	M39016/17	M39016/18	M39016/19
Product facts	-	Suppression diode	Suppression &
			Protection diodes
Electrical characterist	tics		
Arrangement		2 Form C (DPDT)	
Contact material			
Stationary	Gold/platinum	n/palladium/silver allo	y (gold plated)
Moveable	Gold/platinum	n/palladium/silver allo	y (gold plated)
Contact resistance			
Before life		100 milliohms max.	
	(me	asured @ 10 mA @ 6	Vdc)
After life		200 milliohms max.	
	(m	easured @ 1 A @ 28 \	/dc)
Coil Voltage	5 to 26.5 Vdc		
Coil Power	660 mW max. @ 25°C		
Pick-up Voltage	Approximately 50% of nominal coil voltage		
Pick-up Sensitivity	130 mW max. @ 25°C		
Operating characteris	stics		
Operate time	2 ms max.		
Release time	1.5 ms max.	4 ms	max.
Contact bounce	1.5 ms max		
介電耐壓			
Between Open		500 Vrms 60 Hz	
Contacts			
Between Adjacent	500 Vrms 60 Hz		
Contacts			
Between Contacts	500 Vrms 60 Hz		
& Coil			
絕緣阻抗	10,000 Mega Ohms min. @ 500 Vdc		
Environmental characteristics			
Temperature range	-65°C to +125°C		

# Double Pole, Electrically Held, 1 Amp and Less (Continued)

Series	M39016/41	M39016/42	M39016/43	
Product facts	-	Suppression diode	Suppression &	
			Protection diodes	
Electrical characteristics				
Arrangement		2 Form C (DPDT)		
Contact material				
Stationary	Gold/platinum	n/palladium/silver allo	y (gold plated)	
Moveable	Gold/platinum	n/palladium/silver allo	y (gold plated)	
Contact resistance				
Before life		100 milliohms max.		
	(me	asured @ 10 mA @ 6	Vdc)	
After life		200 milliohms max.		
	(me	easured @ 1 A @ 28 \	/dc)	
Coil Voltage		5 to 48 Vdc		
Coil Power	565 mW max. @ 25°C			
Pick-up Voltage	Approximately 50% of nominal coil voltage			
Pick-up Sensitivity	60 mW max. @ 25°C			
Operating characteris	stics			
Operate time	4 ms max.			
Release time	2 ms max.	7.5 m	s max.	
Contact bounce		1.5 ms max		
介電耐壓				
Between Open		500 Vrms 60 Hz		
Contacts				
Between Adjacent	500 Vrms 60 Hz			
Contacts				
Between Contacts	500 Vrms 60 Hz			
& Coil				
絕緣阻抗	10,000 Mega Ohms min. @ 500 Vdc			
Environmental characteristics				
Temperature range		-65°C to +125°C		

## Double Pole, Electrically Held, 2 Amps and Less

			1	
Series	M39016/6	M39016/22	M39016/44	
Product facts	Standard Half Size	Bifilar Half Size	Sensitive Half Size	
Electrical characterist	tics			
Arrangement		2 Form C (DPDT)		
Contact material				
Stationary		Hardened silver alloy	,	
Moveable	Gold p	olated hardened silve	r alloy	
Contact resistance				
Before life		50 milliohms max.		
	(mea	asured @ 10 mA @ 6	Vdc)	
After life		100 milliohms max.		
	(me	easured @ 1 A @ 28 \	/dc)	
Coil Voltage	5 to 48 Vdc	6 to 26.5 Vdc	5 to 36 Vdc	
Coil Power		1.4 W max. @ 25°C		
Pick-up Voltage	Approxima	tely 50% of nominal o	coil voltage	
Pick-up Sensitivity	145 to 260 mW	325 mW	100 to 125 mW	
Operating characteris	stics			
Operate time	4 ms max.	5 ms max.	6 ms max	
Release time	4 ms max.	5 ms	max.	
Contact bounce	2 ms max			
介電耐壓				
Between Open		500 Vrms 60 Hz		
Contacts				
Between Adjacent		1000 Vrms 60 Hz		
Contacts				
Between Contacts	1000 Vrms 60 Hz			
& Coil				
絕緣阻抗	10,000 Mega Ohms min. @ 500 Vdc			
Environmental chara	Environmental characteristics			
Temperature range		-65°C to +125°C		
	1			

# Double Pole, Electrically Held, 2 Amps and Less

Series	M39016/13	M39016/37	M39016/38	
Electrical characteristics				
Arrangement	2PDT			
DC resistive	2 Amps	6 @ 28 V (50,000 oper	rations)	
	1 Amp	@ 28 V (100,000 ope	rations)	
DC inductive	0.5	5 Amps @ 28 V, 200 n	nH	
AC resistive		0.5 Amps @ 115 V		
AC (case grounded)		0.125 Amps @ 115 V		
Low-level		50 μA at 50 mV		
Contact resistance				
Before life	0.05 ohms			
After life	0.15 ohms			
Life	100,000 operations at rated loads listed			
	1,000,000 operations at low-level loads			
Operating characteris	stics			
Operate time	4 ms max.	4 ms	max	
Release time	4 ms max.	6 ms	max.	
Contact bounce		1.5 ms		
介電強度				
Sea level	500 Vrms			
70,000 ft up	350 Vrms			
絕緣阻抗	1,000 Mega Ohms min. @ over temperature range			
Environmental characteristics				
Temperature range	-65°C to +125°C			

# Double Pole, Magnetic Latching, 2 Amps and Less

Series	M39016/32		
Electrical characteristics			
Arrangement	2PDT		
DC resistive	2 Amps @ 28 V		
DC inductive	0.5 Amps @ 28 V, 200 mH		
AC resistive	1 Amp @ 115 V (single coil), case not grounded		
	0.25 Amps @ 115 volts(dual coil), case not grounded		
Low-level	50 μA at 50 mV		
Contact resistance			
Before life	0.05 ohms		
After life	0.1 ohms		
Life	100,000 operations at rated loads listed		
	1,000,000 operations at low-level loads		
Operating characteristics			
Operate time	4 ms max.		
Release time	4 ms max.		
Contact bounce	2 ms		
介電強度			
Sea level	1,000 Vrms		
Across contact gap	700 Vrms		
絕緣阻抗	1,000 Mega Ohms min.		
Environmental characteristics			
Temperature range	-65°C to +125°C		

# Four Pole, Electrically Held, 2 Amps and Less

Series	M39016/40		
Electrical characteristics			
Arrangement	4 Form C (4PDT)		
Contact material			
Stationary	Gold plated hardened silver alloy		
Moveable	Gold plated hardened silver alloy		
Contact resistance			
Before life	50 milliohms max.		
	(measured @ 10 mA @ 6 Vdc)		
After life	100 milliohms max.		
	(measured @ 2 A @ 28 Vdc)		
Coil Voltage	6 to 26.5 Vdc		
Coil Power	2.6 W max. @ 25°C		
Pick-up Voltage	Approximately 50% of nominal coil voltage		
Pick-up Sensitivity	475 mW		
Operating character	ristics		
Operate time	5 ms max.		
Release time	5 ms max.		
Contact bounce	5 ms max		
介電耐壓			
Between Open	350 Vrms 60 Hz		
Contacts			
Between Adjacent	500 Vrms 60 Hz		
Contacts			
Between Contacts	500 Vrms 60 Hz		
& Coil			
絕緣阻抗	1,000 Mega Ohms min. @ 500 Vdc		
Environmental chara	acteristics		
Temperature	-65°C to +125°C		
range			

# Four Pole, Electrically Held, 2 Amps and Less (Continued)

Series	M39016/14	M39016/53	M39016/54	
Electrical characteristics				
Arrangement	4PDT			
DC resistive		2 Amps @ 28 V		
DC inductive	0.5	5 Amps @ 28 V, 200 n	nH	
AC resistive	0.5 Aı	mps @ 115 V, 400 or	60 Hz	
AC (case grounded)		0.125 Amps @ 115 V		
Low-level	30 μA at 50 mV	50 μA a	t 50 mV	
Contact resistance				
Before life		0.05 ohms max.		
After life	0.15 ohms			
Life	100,000 operations at rated loads listed			
	1,000,000 operations at low-level loads			
Operating characteris	Operating characteristics			
Operate time	4 ms max.	4 ms	max	
Release time	4 ms max.	6 ms	max.	
Contact bounce	1.5 ms	2 ו	ms	
介電強度				
Sea level	500 Vrms			
70,000 ft up	350 Vrms			
絕緣阻抗	1,000 Mega Ohms min. @ over temperature range			
Environmental characteristics				
Temperature range	-65°C to +125°C			

# Four Pole, Magnetic Latching, 2 Amps and Less

Series	M39016/31	M39016/35	M39016/36	
Electrical characteristics				
Arrangement	4-pole double-throw (4C)			
Operate sensitivity	-	Single-coil fo	rm, 100 mW	
		Dual-coil form, 2	180 mW per coil	
DC resistive		2 Amps @ 28 V		
DC inductive	0.5	5 Amps @ 28 V, 200 n	nH	
AC resistive		0.5 Amps @ 115 V		
AC (case grounded)		0.125 Amps @ 115 V		
Low-level		50 μA at 50 mV		
Contact resistance				
Before life		0.05 ohms max.		
After life	0.15 ohms			
Life	100,000 operations at rated loads listed			
	1,000,000 operations at low-level loads			
Operating characteristics				
Operate time	4 ms max.			
Release time	4 ms max.			
Contact bounce	1.5 ms			
介電強度				
Sea level	500 Vrms			
70,000 ft up	350 Vrms			
絕緣阻抗	1,000 Mega Ohms min. @ over temperature range			
Environmental charac	Environmental characteristics			
Temperature range	-65°C to +125°C			