



1800 SERIES

THUMBWHEEL SWITCHES

LEAD-FREE!

EECO's 1800 Series features large, easy to read characters and a snap-in mounting design.

The *1800 Series* is a slim .315" (8 MM) wide to conserve front panel space. The *1800 Series* is offered in the most popular binary and decimal output codes for design flexibility. Other options include F-pins for attaching an accessory PC board, stop pins, and provision for diode installation. The *1800 Series* offers superior performance at a very economical price. The *1800 Series* is backed by EECO's one-year warranty.



SPECIFICATIONS

MECHANICAL

No. of Switching Positions	10
Life	Minimum 500,000 Detents @ 10 mA, 5 VDC @ 25°C
Tangential Operating Force	4-16 Oz.
Weight	0.15 Oz.

ELECTRICAL

Maximum Rated Load, Non-Switching	1A Per Common Terminal
Maximum Rated Load, Switching	100 mA at 28 VDC or VAC
Contact Resistance (Initial)	100 mΩ Maximum
(After Life)	200 mΩ Maximum
Insulation Resistance	1,000 MΩ Minimum At 100 VDC
Dielectric Withstanding Voltage	1000 VAC (Peak To Peak)

ENVIRONMENTAL

Operating Temperature	-20°C To +65°C
Seal	Dust Resistant

MATERIALS

Plastic	Nylon, Self Extinguishing
Circuit Board	
Base Material	Glass Epoxy
Plating	Gold Over Nickel Plating
Termination	Plated Through Holes
Contacts	Copper Alloy, Gold Over Nickel Plating

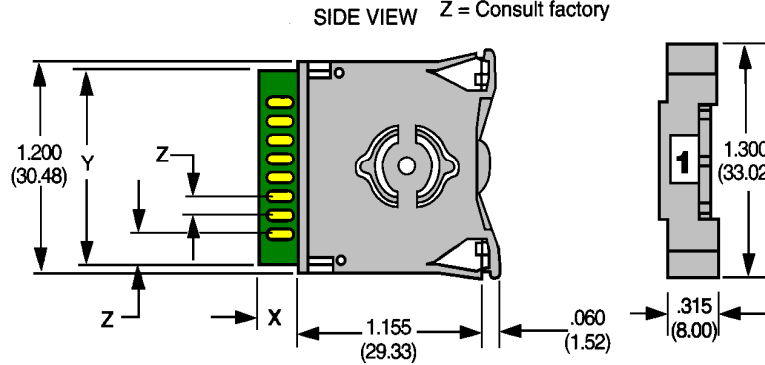
RoHS COMPLIANCE

EECO Switch is fully committed to complying with the European Lead-Free and RoHS directives. The 1800 Series is Lead Free and RoHS compliant.

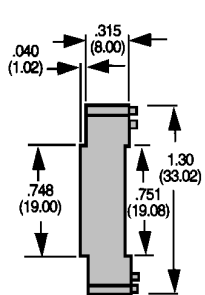
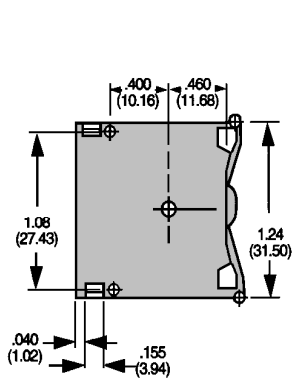
OUTLINE DIMENSIONS

FRONT MOUNT

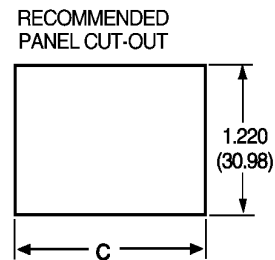
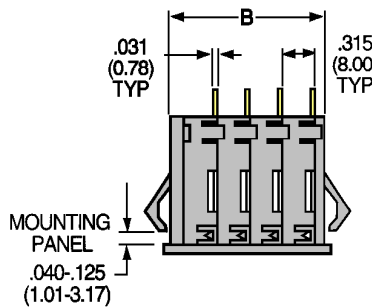
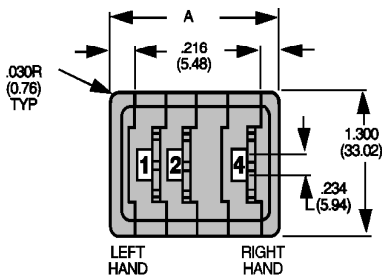
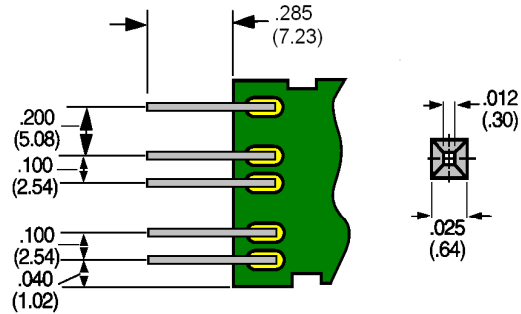
X = .262 (.665) all models except 180052J (diode provision)
 which is .695 (1.77)
 Y = 1.180 (2.99)
 Z = Consult factory



SPACER - S80SJ



"F" OPTION PINS



MOUNTING DIMENSIONS				
No. Of Stations	Dim A	Dim B	Dim C	
1	0.75 (19.0)	0.63 (15.9)	0.67 (17.0)	
2	1.06 (27.0)	0.94 (23.9)	0.99 (25.0)	
3	1.38 (35.0)	1.26 (31.9)	1.30 (33.0)	
4	1.69 (43.0)	1.57 (39.9)	1.62 (41.0)	
5	2.01 (51.0)	1.89 (47.9)	1.93 (49.0)	
6	2.32 (59.0)	2.20 (55.9)	2.25 (57.0)	
7	2.64 (67.0)	2.52 (63.9)	2.56 (65.0)	
8	2.95 (75.0)	2.83 (71.9)	2.88 (73.0)	
9	3.27 (83.0)	3.15 (79.9)	3.19 (81.0)	
10	3.58 (91.0)	3.46 (87.9)	3.51 (89.0)	

Assembly may exhibit expansion of .003" per station before installation, but will compress to recommended panel cutout when installed.

Spacers are counted as switches in this table.

Add .315" (8 mm) per station to each dimension shown for assemblies over 10 stations

Tolerances are :

.XXX ± 0.010" .XX ± 0.030"

() Metric equivalents in mm

1800 SERIES STANDARD MODELS

PART NUMBER	PART DESCRIPTION	NO. OF POSITIONS	TRUTH TABLE
180001J	1 Pole Decimal	10	A02
180002J	1 Pole BCD	10	B02
180052J	1 Pole BCD w/Diode Provision	10	B02
180006J	2 Pole BCD w/Complement	10	C02
180012J	1 Pole BCD Complement Only	10	C12
180005J	2 Pole Repeating 0, 5	10	S01
180010J	2 Pole Repeating 0, 1	10	S01
180011J	2 Pole Repeating + / -	10	S01

A02

DECIMAL 1 Pole 10 Position										
DIAL	Common (C) Connected To ●									
	0	1	2	3	4	5	6	7	8	9
0	●									
1		●								
2			●							
3				●						
4					●					
5						●				
6							●			
7								●		
8									●	
9										●

B02

BCD 1 Pole 10 Position				
DIAL	Common (C) Connected To ●			
	1	2	4	8
0				
1	●			
2		●		
3	●	●		
4				●
5	●			●
6		●	●	
7	●	●	●	
8				●
9	●			●

C02

BCD w/Complement 1 Pole 10 Position								
DIAL	Common (C) Connected To ●							
	1	2	4	8	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$
0					●	●	●	●
1	●					●	●	●
2		●			●		●	●
3	●	●					●	●
4			●		●	●		●
5	●		●			●		●
6		●	●		●			●
7	●	●	●					●
8				●	●	●	●	
9	●			●	●	●		

C12

BCD Complement 1 Pole 10 Position				
DIAL	Common (C) Connected To ●			
	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$
0	●	●	●	●
1		●	●	●
2	●		●	●
3			●	●
4	●	●		●
5		●		●
6	●			●
7				●
8	●	●	●	
9		●	●	

S01

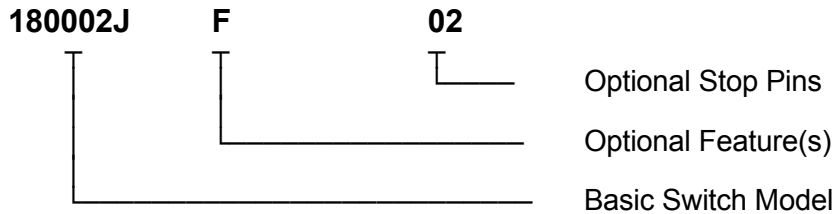
A/B Repeating Code Double Pole 10 Position							
DIAL			Common (C1) and (C2) Connected To ●				
			C1		C2		
			A1	B1	A2	B2	
0	0	+		●		●	
1	5	-	●		●		
0	0	+		●		●	
1	5	-	●		●		
0	0	+		●		●	
1	5	-	●		●		
0	0	+		●		●	
1	5	-	●		●		
0	0	+		●		●	
1	5	-	●		●		

AVAILABLE OPTIONS

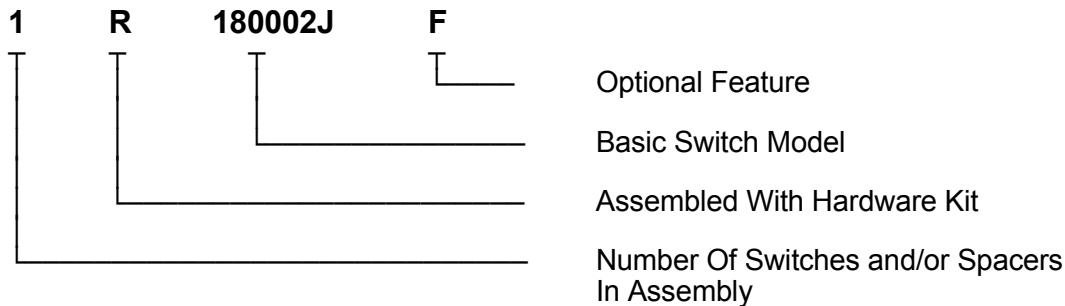
- A** Diodes Installed Anode To Common
- C** Diodes Installed Cathode To Common
- D** Decimal Point
- P** +/- Rotor Marking
- Stop Pins

Consult Factory for Custom Rotor Marking, Custom Output Codes and Other Special Requests

ORDERING EXAMPLE - SWITCH



ORDERING EXAMPLE - ASSEMBLY



Certain combinations of switches and options may require a special part number. Consult factory for additional ordering information.

HARDWARE KITS AND ACCESSORIES

80SJ-X Hardware Kit: Endpieces, Speed Nuts, Aluminum Rod (Factory Assembled Only)

81SJ-X Hardware Kit: Endpieces, Threaded Rod, Nuts and Washers

Note: Replace "X" With Number of Stations Required When Ordering Separate Hardware Kits.

E80SJ Endpiece, Right (234147-09)

E81SJ Endpiece, Left (234146-09)

S80SJ Spacer (234149-09)