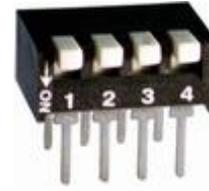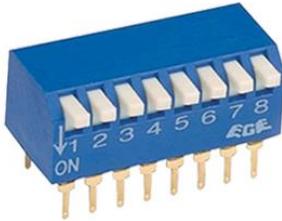# EPH/EPG/EPS SERIES
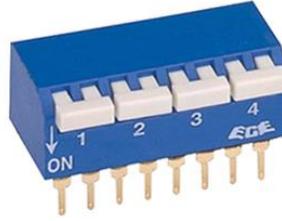# EDGE ACTUATED TYPE

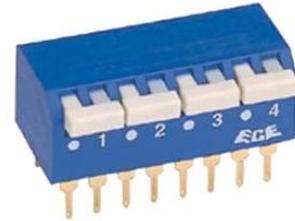**EPH
Housing Height 5mm Only!!**
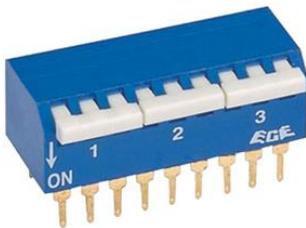
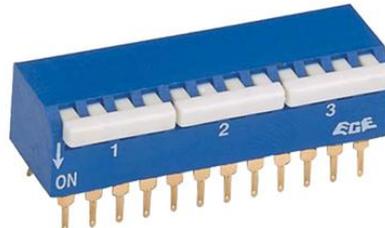**EPG/EPS SPST**   **EPG/EPS DPST**   **EPG/EPS SPDT**

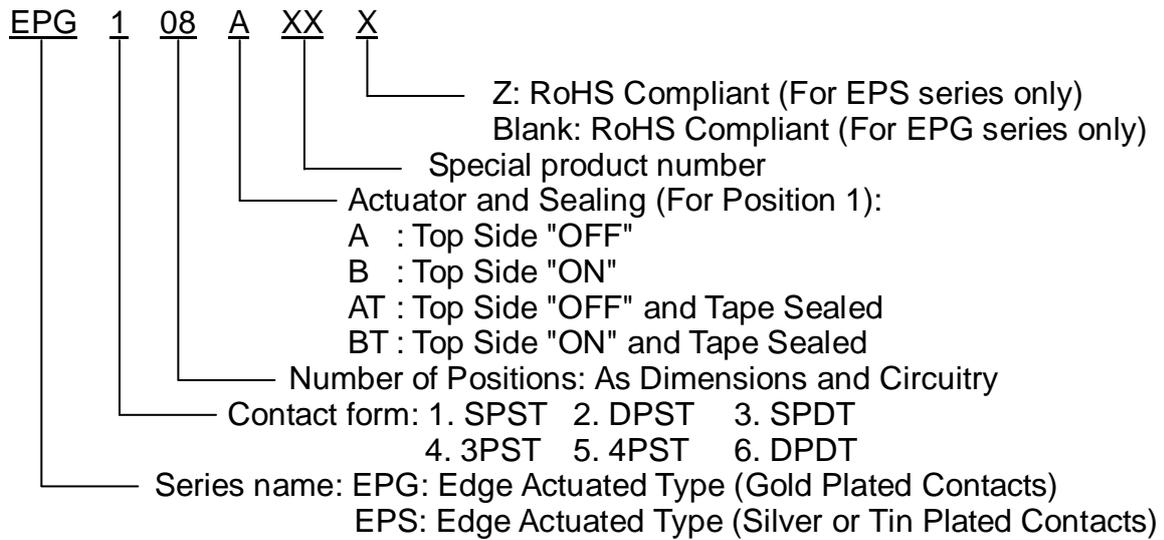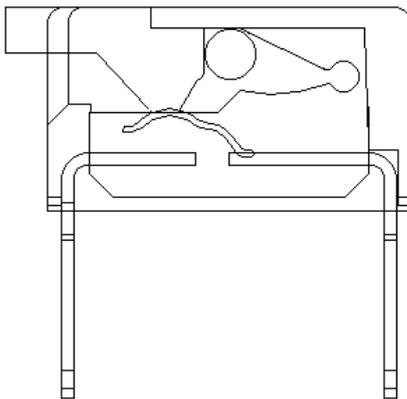**EPG/EPS 3PST**   **EPG/EPS 4PST**   **EPG/EPS DPDT**

■ FEATURES

- Edge actuated type (Piano Type) easy setting on closely racked PCB.
- Tactile response is performed directly by larger contact pressure to ensure stable contact.
- All plastics are UL 94V-0 grade fire retardant.
- Bottom epoxy sealed to ensure free of flux immersion during wave soldering.
- Contact wiping on make and break.
- Gold, Silver, or Tin plated contacts to ensure low contact resistance and long operation life.
- Ideal for data processing, communications, remote controls and burglar alarm system use, where manual programming required.
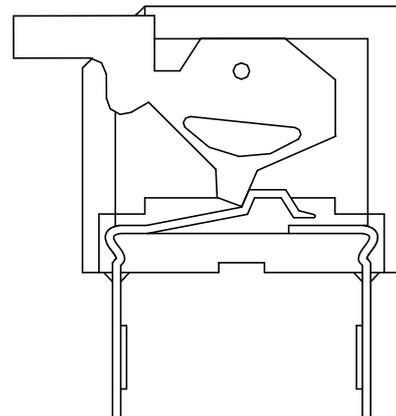- RoHS Compliant

■ APPLICATIONS

- Numerical setting for computer terminal equipment
- Price setting for vending machines
- Programming for game machines
- Programming for industrial equipment and measuring instruments

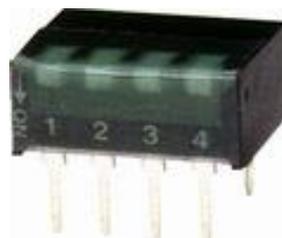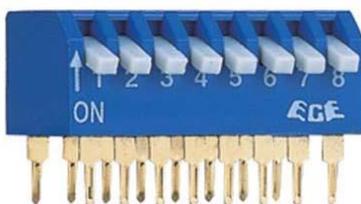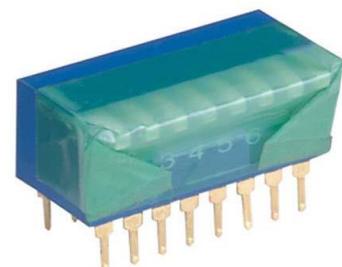For the latest product information, Please visit our website at http://www.ece.com.tw

■ SPECIFICATIONS

1.ELECTRICAL

● Contact rating	
switching	25mA, 24VDC
non-switching	100mA
● Contact resistance (After life test)	100mΩ Max. (300mΩ Max. for Tin plated type)
● Insulation resistance	1000MΩ Min. at 100VDC
● Dielectric strength	500VDC Min. for 60 seconds
● Leakage Current	2mA Max.
● Capacitance between adjacent switches 5pF Max.	

2.MECHANICAL AND ENVIRONMENTAL

● Temperature rating	
operating	-25℃ to +70℃
storage	-40℃ to +85℃
● Operation force	800g Max. (SPST only)
● Mechanical life	1000 operations (EPH) 2000 operations (EPG/EPS)
● Humidity	95% RH, 40℃ for 96 Hrs.
● Vibration	10Hz-55Hz-10Hz for 6 Hrs.
● Solderability	After flux 230±5℃ for 5±0.5 seconds, 95% coverage
● Soldering heat	After 260±5℃ for 5±1 sec. shall have no deterioration

■ PART NUMBERING SYSTEM

EPH 1 04 XX XX X

Z: RoHS Compliant
Special product number
Actuator and ON Positon:
E: Extended Actuator and Top Side "OFF"
L: Low Profile Actuator and Top Side "OFF"
BE: Extended Actuator and Top Side "ON"
Number of Positions: 2, 3, 4, 5, 6, 8, 10
Contact Form: SPST
Series Name: EPH: Piano type

EPG   1   08   A   XX   X

Z: RoHS Compliant (For EPS series only)
Blank: RoHS Compliant (For EPG series only)
Special product number
Actuator and Sealing (For Position 1):
    A : Top Side "OFF"
    B : Top Side "ON"
    AT : Top Side "OFF" and Tape Sealed
    BT : Top Side "ON" and Tape Sealed
Number of Positions: As Dimensions and Circuitry
Contact form: 1. SPST   2. DPST   3. SPDT
            4. 3PST   5. 4PST   6. DPDT
Series name: EPG: Edge Actuated Type (Gold Plated Contacts)
            EPS: Edge Actuated Type (Silver or Tin Plated Contacts)

■ CONSTRUCTION

EPH

EPG/EPS

■ OPTIONS

1.Special top or side marking available
2.Blue or black body color
3.Normal "ON" (top side "ON") available
4.Tape sealed
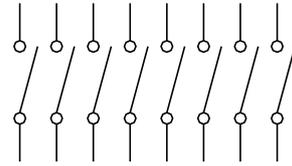
EPHxxxLT

EPGxxxxT

3

■ DIMENSIONS AND CIRCUITRY

EPH SERIES
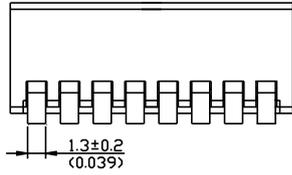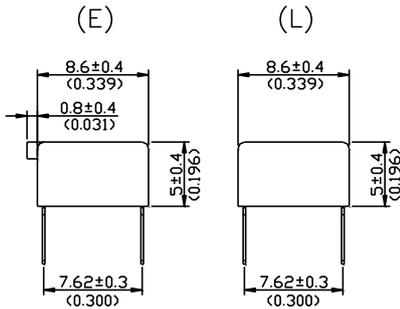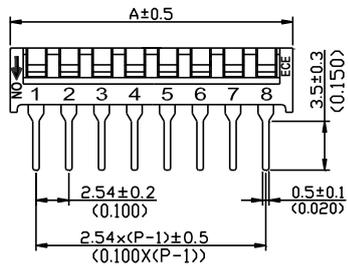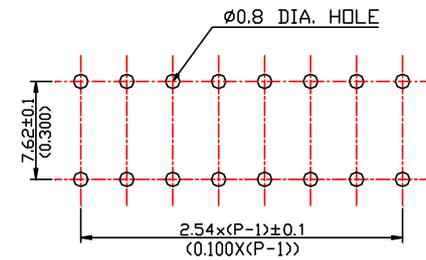
CIRCUIT DIAGRAM

1.3±0.2
(0.039)

Actuator top side "OFF"

A±0.5

NO. 1 2 3 4 5 6 7 8 ECE

3.5±0.3
(0.150)

2.54±0.2
(0.100)

0.5±0.1
(0.020)

2.54×(P-1)±0.5
(0.100X(P-1))

(E)

8.6±0.4
(0.339)

0.8±0.4
(0.031)

5±0.4
(0.196)

7.62±0.3
(0.300)

(L)

8.6±0.4
(0.339)

5±0.4
(0.196)

7.62±0.3
(0.300)

P.C.B. LAYOUT
(TOP VIEW)

Ø0.8 DIA. HOLE

7.62±0.1
(0.300)

2.54×(P-1)±0.1
(0.100X(P-1))

DIMENSION A   UNIT: mm(inch)

POLE	2	3	4	5	6	8	10
A	6.5 (0.256)	9.0 (0.354)	11.6 (0.457)	14.1 (0.555)	16.7 (0.657)	21.7 (0.854)	26.7 (1.050)

EPH SERIES B TYPE
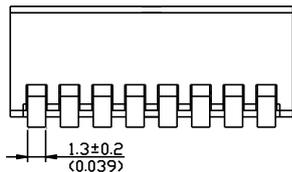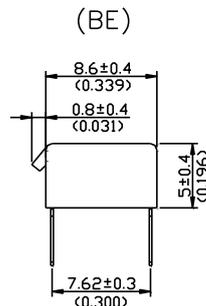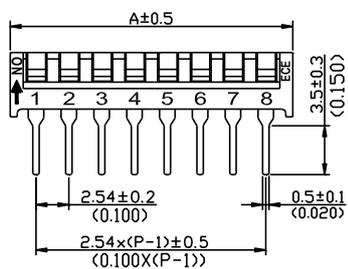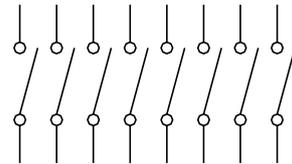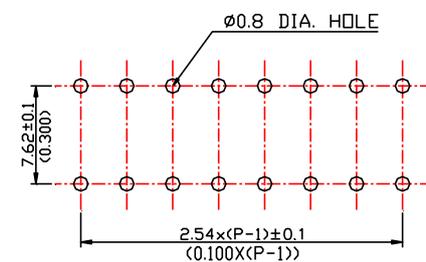
CIRCUIT DIAGRAM

1.3±0.2
(0.039)

Actuator top side "ON"

A±0.5

NO. 1 2 3 4 5 6 7 8 ECE

3.5±0.3
(0.150)

2.54±0.2
(0.100)

0.5±0.1
(0.020)

2.54×(P-1)±0.5
(0.100X(P-1))

(BE)

8.6±0.4
(0.339)

0.8±0.4
(0.031)

5±0.4
(0.196)

7.62±0.3
(0.300)

P.C.B. LAYOUT
(TOP VIEW)

Ø0.8 DIA. HOLE

7.62±0.1
(0.300)

2.54×(P-1)±0.1
(0.100X(P-1))

DIMENSION A   UNIT: mm(inch)

POLE	2	3	4	5	6	8	10
A	6.5 (0.256)	9.0 (0.354)	11.6 (0.457)	14.1 (0.555)	16.7 (0.657)	21.7 (0.854)	26.7 (1.050)

EPG/EPS SPST SERIES
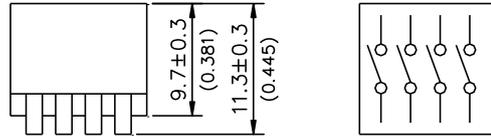
Dimension A					UNIT: mm(inch)
Positions	2	3	4	5	6
A	6.7 (0.264)	9.2 (0.362)	11.7 (0.461)	14.2 (0.559)	16.7 (0.657)
Positions	7	8	9	10	12
A	19.2 (0.756)	21.7 (0.854)	24.4 (0.953)	26.7 (1.05)	31.8 (1.25)

9.7±0.3 (0.381)
11.3±0.3 (0.445)

A±0.3
9.7±0.3 (0.381)
3±0.3 (0.118)
1 2 3 4
ON

0.6±0.1 (0.024)
2.54±0.2 (0.1)
0.25±0.1 (0.01)
7.62±0.3 (0.300)

P.C.B. LAYOUT (TOP VIEW)
Ø0.8 +0.2 −0 HOLE
7.62±0.1 (0.300)
2.54x(P−1)±0.1 (0.100x(P−1))
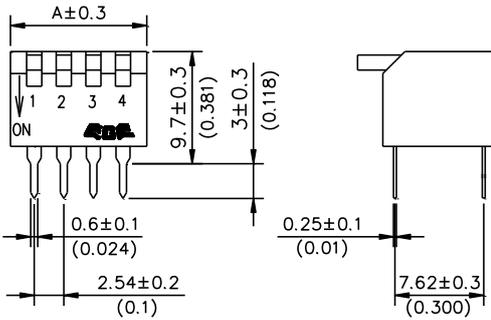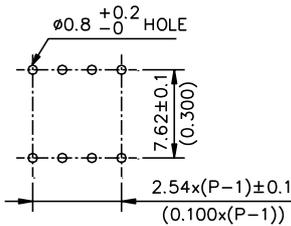
EPG/EPS DPST SERIES

Dimension A			UNIT: mm(inch)
Positions	1	2	3
A	6.7 (0.264)	11.7 (0.461)	16.7 (0.657)
Positions	4	5	6
A	21.7 (0.854)	26.7 (1.05)	31.8 (1.25)

9.7±0.3 (0.381)
11.7±0.3 (0.461)

A±0.3
9.7±0.3 (0.381)
3±0.3 (0.118)
1 2
ON

0.6±0.1 (0.024)
2.54±0.2 (0.1)
0.25±0.1 (0.01)
7.62±0.3 (0.300)

P.C.B. LAYOUT (TOP VIEW)
Ø0.8 +0.2 −0 HOLE
7.62±0.1 (0.300)
2.54x(P−1)±0.1 (0.100x(P−1))
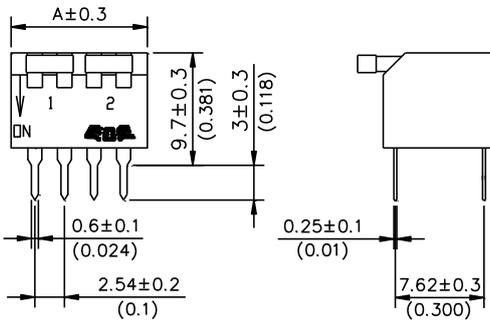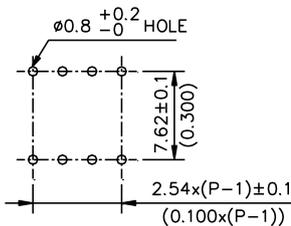
EPG/EPS SPDT SERIES

Dimension A			UNIT: mm(inch)
Positions	1	2	3
A	6.7 (0.264)	11.7 (0.461)	16.7 (0.657)
Positions	4	5	6
A	21.7 (0.854)	26.7 (1.05)	31.8 (1.25)

9.7±0.3 (0.381)
11.7±0.3 (0.461)

A±0.3
9.7±0.3 (0.381)
3±0.3 (0.118)
1 2

0.6±0.1 (0.024)
2.54±0.2 (0.1)
0.25±0.1 (0.01)
7.62±0.3 (0.300)
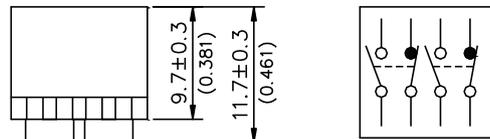
P.C.B. LAYOUT (TOP VIEW)
Ø0.8 +0.2 −0 HOLE
7.62±0.1 (0.300)
2.54x(P−1)±0.1 (0.100x(P−1))
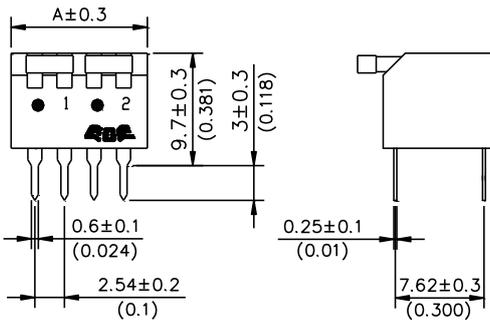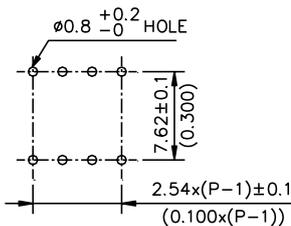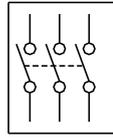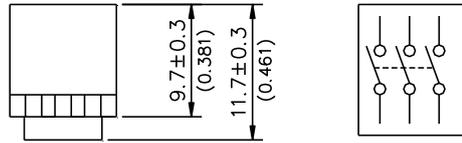
EPG/EPS 3PST SERIES

Dimension A			UNIT: mm(inch)	
Positions	1	2	3	4
A	9.2 (0.362)	16.7 (0.657)	24.2 (0.953)	31.8 (1.25)
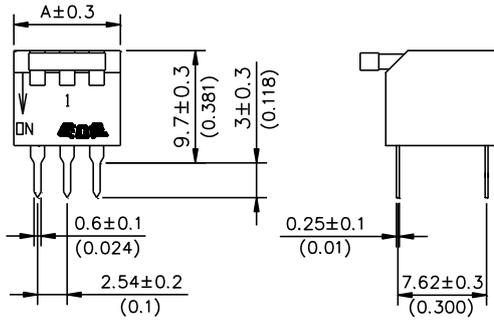
P.C.B. LAYOUT (TOP VIEW)
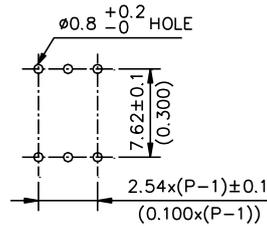
EPG/EPS 4PST SERIES

Dimension A			UNIT: mm(inch)
Positions	1	2	3
A	11.7 (0.461)	21.7 (0.854)	31.8 (1.25)
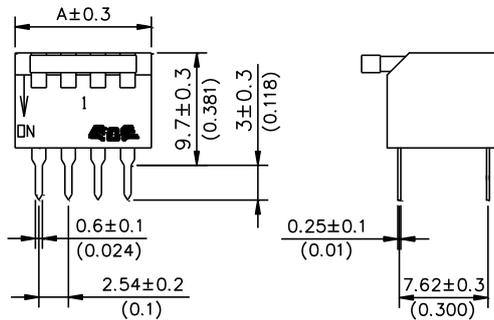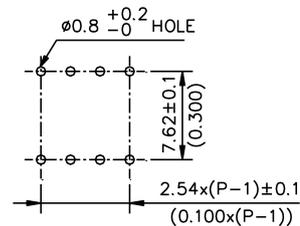
P.C.B. LAYOUT (TOP VIEW)
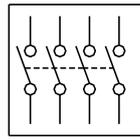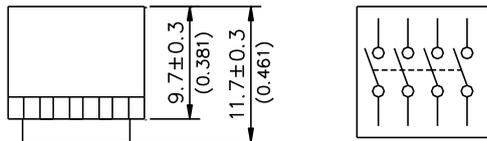
EPG/EPS DPDT SERIES

Dimension A			UNIT: mm(inch)
Positions	1	2	3
A	11.7 (0.461)	21.7 (0.854)	31.8 (1.25)

P.C.B. LAYOUT (TOP VIEW)