

MICRO SWITCHES SM1 SERIES



117

MICRO SWITCHES SM1(N/G) SERIES



122

MICRO SWITCHES SW2 SERIES



127

MICRO SWITCHES V3 SERIES Full-Disconnection-Gap > 3mm



131

MICRO SWITCHES V3 SERIES Micro-Disconnection-Gap < 3mm



135

MICRO SWITCHES V3 SERIES Full-Disconnection-Gap > 3mm



139

MICRO SWITCHES VA1 SERIES



143

MICRO SWITCHES VA2 SERIES



147

MICRO SWITCHES VK SERIES



152

MICRO SWITCHES VM SERIES



156

MICRO SWITCHES VMN SERIES



160

ROTARY SWITCHES AN SERIES



164

ROTARY SWITCHES ANL SERIES



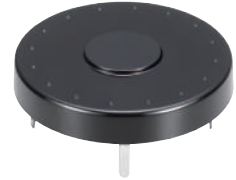
165

ROTARY SWITCHES ANO SERIES



166

ROTARY SWITCHES ANM SERIES



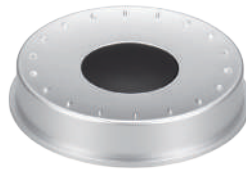
167

ROTARY SWITCHES ANQ SERIES



168

ROTARY SWITCHES KC SERIES



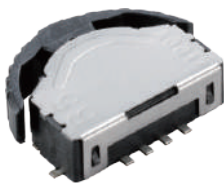
169

ROTARY SWITCHES KCL SERIES



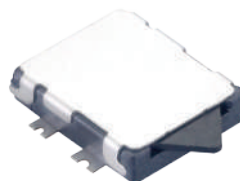
170

SLIDE SWITCHES B5 SERIES



171

SLIDE SWITCHES D4 SERIES



172

SIDE MINI SWITCHES BS SERIES



173

PUSH SWITCHES P1 SERIES



174

PUSH SWITCHES P2 SERIES



175

PUSH SWITCHES P3 SERIES



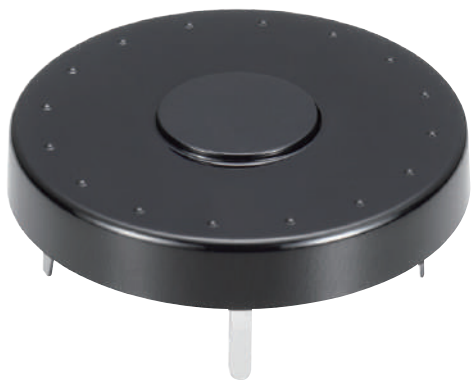
176

ROTARY SWITCHES



A	N	L	—	P	1	S	—	2	S	P	B	—	Z						
SERIES PREFIX			CODE		RATING CURRENT	CODE		OPERATING TORQUE	CODE		OPERATING FORCE	CODE		TERMINAL TYPE	CODE		LED COLOR	ROHS CODE	
			P1		1mA 10VDC	S		Rotation Max.50gf·cm	S		Push 220 ± 40gf	P		PCB TERMINAL	B		BULE		
															W		WHITE		
															R		RED		
															G		GREEN		
						CODE		TYPE											
						2		COVER IS NOT THROUGH Rotation Life :200,000 operations (C.W. 100,000 & C.C.W 100,000operations)											

ROTARY SWITCHES



ANM SERIES

SPECIFICATIONS

Operating Force

Rotation - Max.60 gf-cm

Push - Max. 300 gf

Contact Resistance (initial)

Max. 300mΩ

Measured by ohm meter - open voltage<1VDC, Driver current -100mA

Insulation Resistance (at 100VDC/minute)

Min. 100MΩ

Operating Temperature Range

0°C to 40°C (with no icing)

Vibration

10~55 Hz, displacement 0.75 mm (p-p)

Electrical Service Life

Rotation – Min. 200,000 operations

C.W. 100,000 & C.C.W 100,000operations

Push – Min. 1,000,000 operations

Electrical Operating Frequency

Rotation – 30 operations per minute

Push – 120 operations per minute

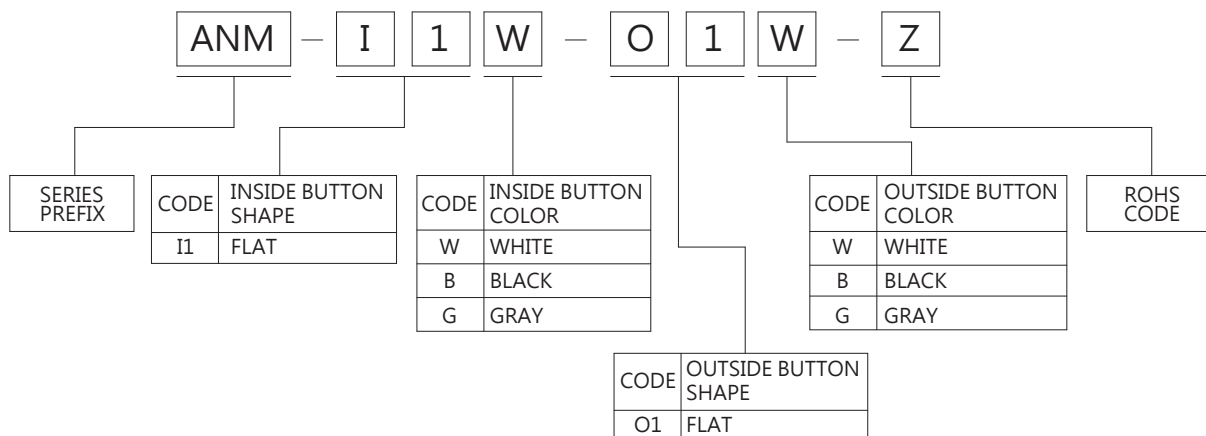
RATING

1mA 10VDC

APPLICATIONS

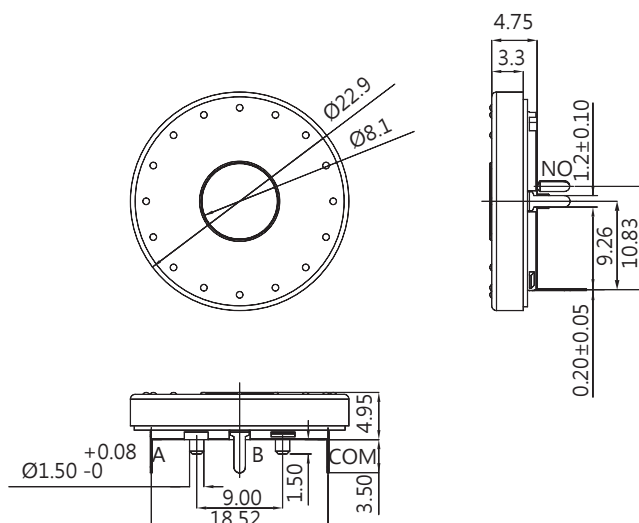
Remote control, Tablet, Keyboard, Audio, Mp3, NB, Mobile Phone

ORDERING INFORMATION



DIMENSIONS

Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions.



CONTACT CONFIGURATION

Push



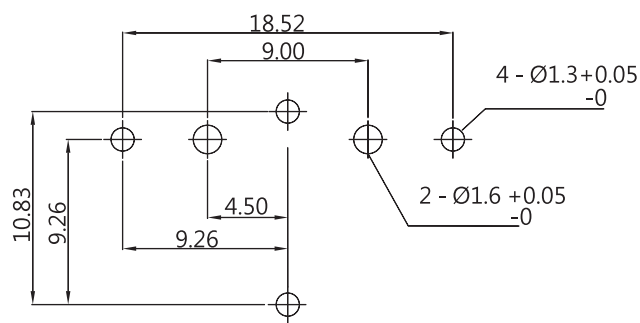
Rotation

NO.	ANGLE	-90°	-60°	-30°	0°	30°	60°	90°
(A) A-C	ON							
	OFF							
(B) B-C	ON							
	OFF							

CW ← → CCW

Numbers of detent : 24
Pulse/Rotation : 12 pulse/360°

MOUNTING HOLES

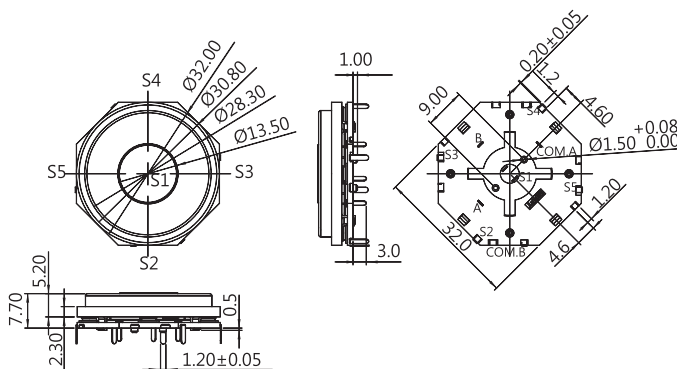


ROTARY SWITCHES



DIMENSIONS

Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions.



ANQ SERIES

SPECIFICATIONS

Operating Force

- Rotation - Max. 60 gf-cm
- 5 way switch - Max. 300 gf

Contact Resistance (initial)

- Max. 300m Ω
- Measured by ohm meter - open voltage < 1VDC, Driver current - 100mA

Insulation Resistance (at 100VDC/minute)

- Min. 100M Ω

Operating Temperature Range

- 0°C to 40°C (with no icing)

Vibration

- 10~55 Hz, displacement 0.75 mm (p-p)

Electrical Service Life

- Rotation - Min. 200,000 operations
- C.W. 100,000 & C.C.W 100,000 operations
- Push - Min. 200,000 operations

Electrical Operating Frequency

- Rotation - 30 operations per minute
- Push - 120 operations per minute

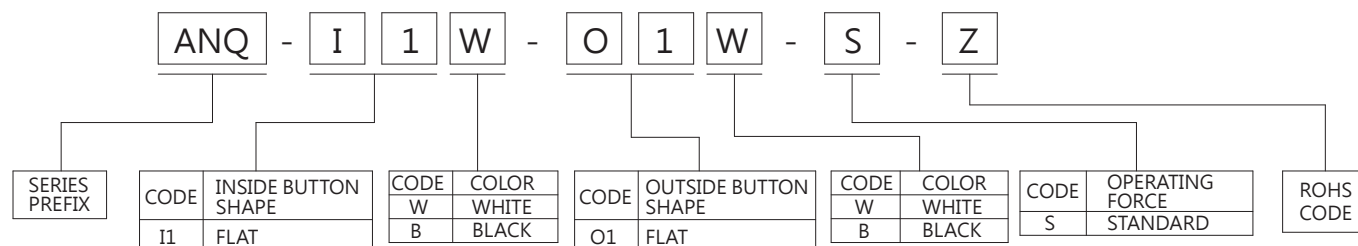
RATING

- 1mA 10VDC

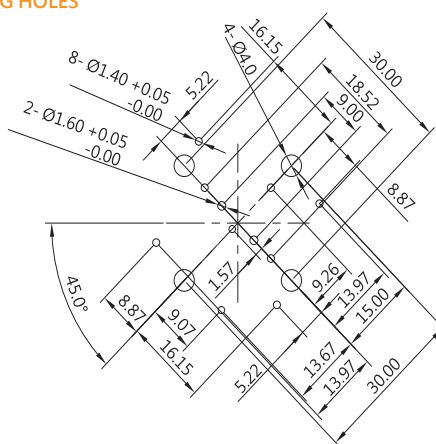
APPLICATIONS

- Remote control, Tablets, Keyboard, Audio, Mp3 player, Notebook,
- Mobile phone, Control Panel

ORDERING INFORMATION

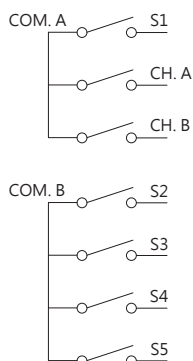


MOUNTING HOLES



CONTACT CONFIGURATION

Functional Block Diagram



Rotational Output Waveform

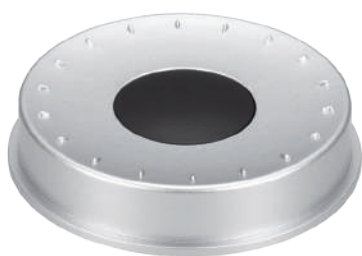
NO.	ANGLE	-90°	-60°	-30°	0°	30°	60°	90°
CH. A	ON							
CH. A	OFF							
CH. B	ON							
CH. B	OFF							

CW ← → CCW

Numbers of detent : 24

Pulse/Rotation : 12 pulse/360°

ROTARY SWITCHES



KC SERIES

SPECIFICATIONS

Operating Force

Rotation - Max.60 gf-cm

Push - Max. 300 gf

Contact Resistance (initial)

Max. 300mΩ

Measured by ohm meter - open voltage<1VDC, Driver current -100mA

Insulation Resistance (at 100VDC/minute)

Min. 100MΩ

Operating Temperature Range

0°C to 40°C (with no icing)

Vibration

10~55 Hz, displacement 0.75 mm (p-p)

Electrical Service Life

Rotation - Min. 200,000 operations

C.W. 100,000 & C.C.W 100,000 operations

Push - Min. 1,000,000 operations

Electrical Operating Frequency

Rotation - 30 operations per minute

Push - 120 operations per minute

RATING

1mA 10VDC

APPLICATIONS

Remote control, Tablet, Keyboard, Audio, Mp3, NB, Mobile Phone

ORDERING INFORMATION

K

C

—

I

1

B

—

O

1

G

—

Z

SERIES
PREFIX

CODE	INSIDE BUTTON SHAPE
I1	FLAT

CODE	INSIDE BUTTON COLOR
B	BLACK
G	GRAY
A	IRON GARY

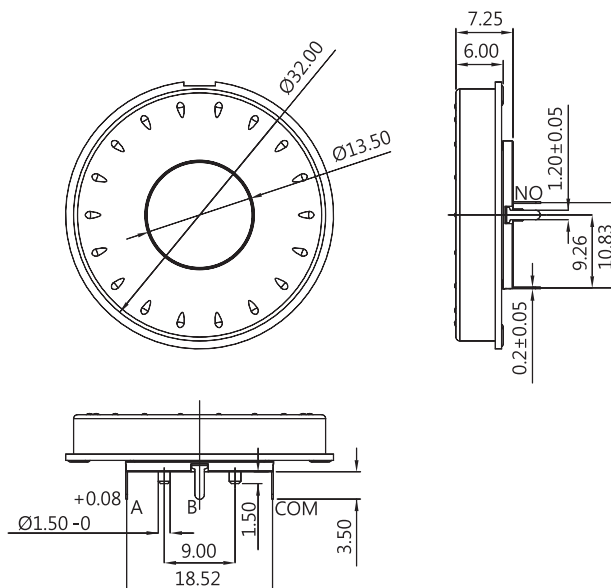
CODE	OUTSIDE BUTTON SHAPE
O1	FLAT

CODE	OUTSIDE BUTTON COLOR
G	GRAY
B	BLACK
A	IRON GARY

ROHS
CODE

DIMENSIONS

Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions.



CONTACT CONFIGURATION

Push



Rotation

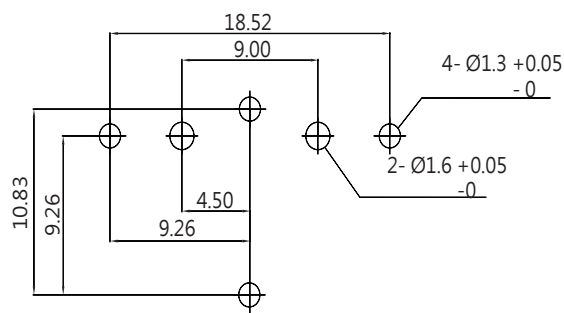
ANGLE	-90°	-60°	-30°	0°	30°	60°	90°
NO.							
Ⓐ A-C	ON	ON	ON	ON	ON	ON	ON
Ⓑ B-C	OFF	OFF	OFF	OFF	OFF	OFF	OFF

CW ← → CCW

Numbers of detent : 24

Pulse/Rotation : 12 pulse/360°

P.C.B MOUNTING HOLES



ROTARY SWITCHES



KCL SERIES

SPECIFICATIONS

Operating Force

Rotation – Max. 60gf-cm

Push – Max. 300 gf

Contact Resistance (initial)

Max. 300mΩ

Measured by ohm meter –Open Voltage<1VDC, Driver current -100mA

Insulation Resistance (at 100VDC/minute)

Min. 100MΩ

Operating Temperature Range

0°C to 40°C (with no icing)

Vibration

10~55Hz, displacement 0.75 mm (p-p)

Electrical Service Life

Rotation – Min. 200,000 operations

C.W. 100,000 & C.C.W 100,000operations

Push – Min. 1,000,000 operations

Electrical Operating Frequency

Rotation – 30 operations per minute

Push – 120 operations per minute

RATING

1mA 10VDC

APPLICATIONS

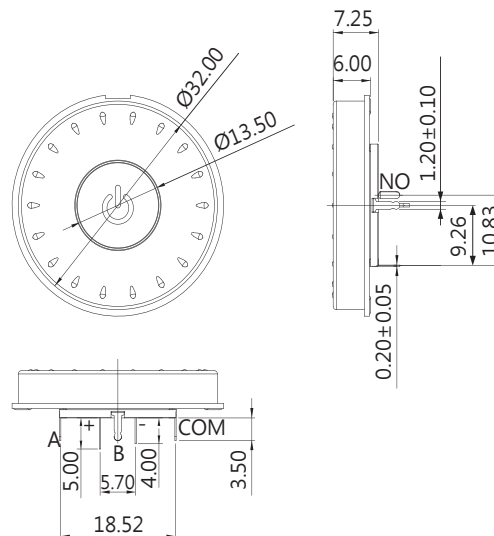
Remote control , Tablet , Keyboard , Audio , Mp3, NB, Mobile Phone

ORDERING INFORMATION

K	C	L	—	I	B	1	B	—	O	1	G	—	Z	
SERIES PREFIX				C O D E	INSIDE BUTTON COLOR	C O D E	INSIDE BUTTON MARKING		C O D E	OUTSIDE BUTTON SHAPE	C O D E	OUTSIDE BUTTON COLOR	ROHS CODE	
				IB	BLACK	1			B	BULE	O1	FLAT	G	GRAY
									W	WHITE				
									R	RED				
									G	GREEN				

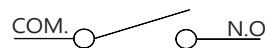
DIMENSIONS

Unless otherwise specified, a tolerance of $\pm 0.4\text{mm}$ applies to all dimensions



CONTACT CONFIGURATION

Push



Rotation

NO.	ANGLE	-90°	-60°	-30°	0°	30°	60°	90°
Ⓐ	A-C	ON	OFF	ON	OFF	ON	OFF	ON
Ⓑ	B-C	ON	OFF	ON	OFF	ON	OFF	ON

CW ← → CCW

Numbers of detent : 24
Pulse/Rotation : 12
pulse/360°

MOUNTING HOLES

