SWITCH



INNOVATIVE DESIGN



WB®

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WB® WELL BUYING INDUSTRIAL CO.,LTD

PS013

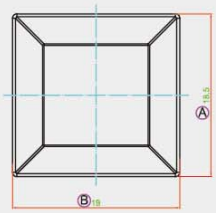
Feature

- Small size OLED tactile switch
- 0.5" OLED panel
- Color: white
- Gray scale: 2 (white/black)
- Resolution: 60*32 pixels
- External LED indicator design
- Switch Dimension: (L)18.5(W)19(H)19.5 cm

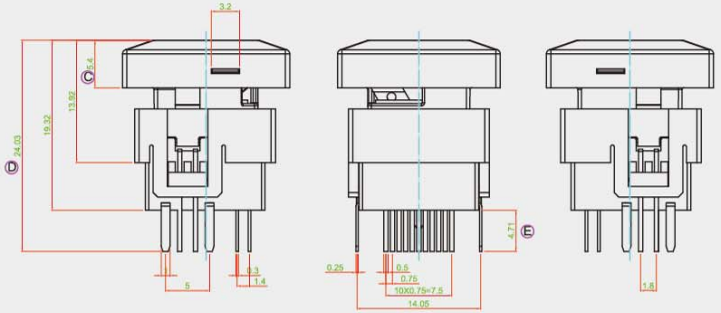


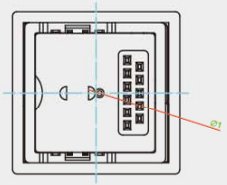
特　色

- 小形有機ELスイッチ
- 0.5インチ有機ELパネル
- 表示色：白色
- グレースケール ：2 (白 / 黒)
- 解像度：60*32 ピクセル
- 外部のLEDインジケータ設計
- スイッチのサイズ ：(長さ)18.5(広さ)19(高さ)19.5 センチ

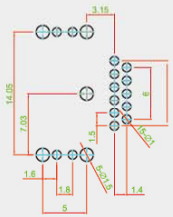








P.C.B. LAYOUT



RS006

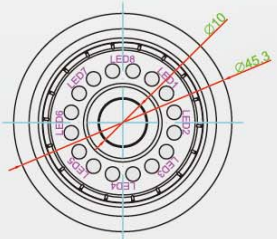
Feature

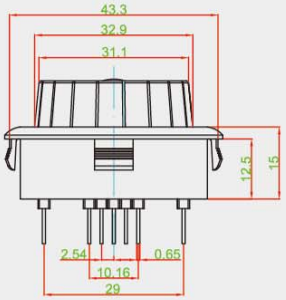
- Mechanical operating feel rotary switch
- Electrical signal (PWM)
- Non-stop 360 degree rotate
- Innumerable positions
- Wire and connector option is available
- Center push with either lock or non-lock function
- Center push with 2P2T option
- Bi-color LED
- Panel mount design frame
- Custom design knob available
- Knob Dimension: 32.9mm
- Panel Mount Frame Dimension: 43.3mm

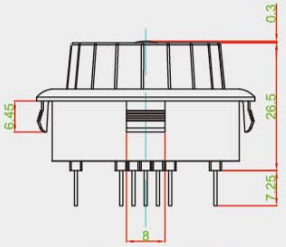


特　色

- 機械的な触感のロータリースイッチ
- 電子信号 (PWM)
- ノンストップで、360度は回転できます
- 無数のポジション
- ワイヤーとコネクタ・オプションは利用できます
- 中心は押しボタン。ロックまたはノンロックの機能がある
- 中心の押しボタンは2極2投オプション
- 2色のLED
- パネルはフレームを取り付けるデザイン
- カスタムのキャップが可能
- つまみのサイズ: 32.9mm
- パネルマウントフレームのサイズ: 43.3mm

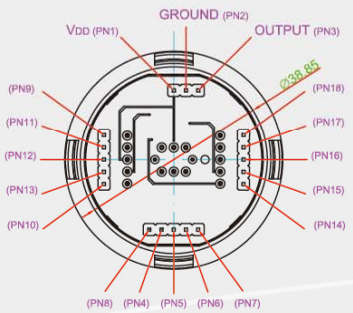


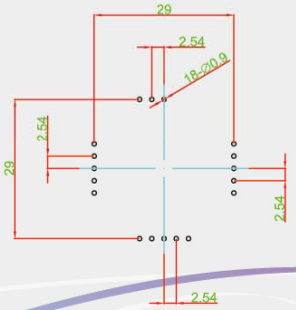






P.C.B. LAYOUT





NEW PRODUCT



PS003

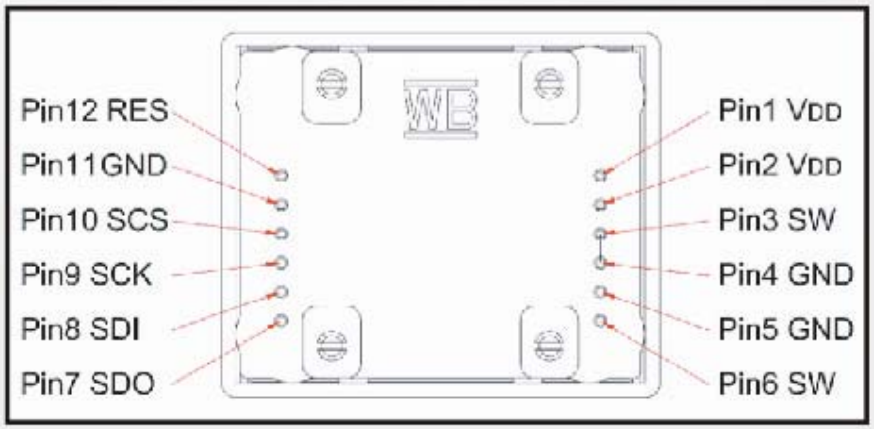
Feature

- Advanced Level Of Programmable Push Button Switch With OLED
- Small Molecular Organic Light Emitting Diode
- High Resolution Of Panel Matrix : 96*3*64
- 68/80 Series MPU 8 - bit,SPI 4 - Wire Interface

特　色

- プログラマブルの有機ELディスプレイ押しボタンスイッチ
- パネル解像度96 x 3 x 64
- 68/80 シリーズ、MPU8ビット、SP14ワイヤインターフェイス
- コントラスト比：2000：1；広視野角：160
- 防塵デザイン

Pin Structure



SYMBOL	PARAMETERS	MIN	TYP	MAX	UNIT
VDD	Logic Power Supply	2	3.3	3.6	V
VIH	Input High Level Voltage	0.8xVDD		VDD	V
VIL	Input Low Level Voltage	0		0.2xVDD	V
ILI	Input leakage current				
ILO	Output leakage current				

Series	PS003
Operating Mode	SPST, OFF-(ON) For Momentary Type
Rating	100mA , 12VDC
Contact Resistance	200mΩ Max
Operation Life	1,000,000 Cycles
Operating Temperature	- 20 ~ 70°C (Operation) - 40 ~ 85°C (Storage)
Operating Force	200 ± 100 gf

NEW PRODUCT

PS025



Feature

- 4P2T Push Button
- Bi-color LED
- Custom design knob available

特　色

- 4極2投 プッシュボタン
- 2色のLED
- カスタムのキャップが可能

RS005



Feature

- Mini size rotary module
- Max. 8 position rotary function
- Non-stop 360 degree rotate
- Center push with 2P2T option
- Center push with either lock or non-lock function
- Bi-color LED

特　色

- 超小形、回転式 (ロータリ)のモジュール
- Max. 8 ポジションのロータリー機能
- ノンストップで、360度は回転できます。
- 中心の押しボタンは 2 極 2 投オプション
- 中心の押しボタン。ロックまたは非ロックの機能がある。
- 2 色の LED

5D0003



Feature

- 5 Key Functional Module
- Vertical And Horizontal Push Design
- Center Push With Either Lock Or Non-Lock Function
- Center Push Switch With 2P2T Option
- Bi-Color LED
- Custom Design Knob Available

特　色

- ジョイスティックタイプ
- 上出し押しボタンと横出し押しボタン
- 中心の押しボタン：ロック／モーメンタリ、2極2投
- LED照光式（2色）
- カスタムのキャップが可能

TC017W IP67



Feature

- Mini Size Tact Switch
- Multi Knob Option
- PCB And SMD Terminal Type
- Bi-Color LED
- Water Proof IP67

特　色

- 超小型タクトスイッチ
- キャップの種類が多い
- PCBと表面実装タイプ
- LED照光式（2色）
- 防水型IP67に適用

NEW PRODUCT

PS002 RGB



Feature

- 1P1T Push Button
- Full-color LED
- Custom desgin knob available

特　色

- 1極1投 プッシュボタン
- フルカーラー
- カスタムのキャップが可能

PS020L SMD



Feature

- Both vertical and horizontal push available
- Bi-color LED
- Lock or non-lock
- Custom design knob available

特　色

- 垂直方向と水平方向のプッシュが可能
- 2色のLED
- ロックまたはノンロック
- カスタムのキャップが可能

TC022



Feature

- Small right angle tact switch
- Bi-color LED
- Custom design knob available

特　色

- 小形の直角タクトスイッチ
- 2色のLED
- カスタムのキャップが可能

TC023 RGB



Feature

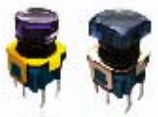
- Soft feeling tact switch
- Full-color LED
- Custom design knob available

特　色

- 手触りの柔らかいタクトスイッチ
- フルカーラー
- カスタムのキャップが可能

LED Tact Switch

								
Series	TC001	TC002	TC002W	TC003	TC004L	TC006	TC009L / Navigation Sets	TC011
Operating Mode	SPST, SMT type	SPST, SMT type available	SPST, SMT type available	SPST, right angle type,SMT type available	DPST	SPDT	SPST, SMT type, dip / right angle type available	SPST
Rating	50mA, 12VDC	50mA, 12VDC	50mA, 12VDC	50mA, 12VDC	50mA, 12VDC	100mA, 32VDC	50mA, 12VDC	1mA, 20VDC; 5mA, 5VDC
Contact Resistance	500mΩ Max.	100mΩ Max.	100mΩ Max.	100mΩ Max.	100mΩ Max.	250mΩ Max.	100mΩ Max.	200Ω Max.
Operation Life	100,000 cycles	500,000 cycles	500,000 cycles	500,000 cycles	500,000 cycles	50,000 cycles	500,000 cycles	1,500,000 cycles
Operating Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Operation Force	160+75/-30gf	180±50gf	300±100gf	160±50gf	160±50gf	400±125gf	200±80gf; 450±150gf	125±35gf

								
TC012	TC012W	TC013	TC014	TC015	TC016	TC017L	TC018 / Navigation Sets	TC019
SPST, SMT type available	SPST, SMT type available	SPST	SPST, SMT type available	SPST, SMT type available	SPST, SMT type available	SPST, SMT type, dip / right angle type available	SPST, SMT type available	SPST
50mA, 12VDC	50mA, 12VDC	50mA, 12VDC	1mA, 20VDC	1mA, 20VDC; 5mA, 5VDC	50mA, 12VDC	50mA, 12VDC	50mA, 24VDC	1mA, 20VDC
100mΩ Max.	100mΩ Max.	100mΩ Max.	200Ω Max.	200Ω Max.	200Ω Max.	500mΩ Max.	50mΩ Max.	200mΩ Max.
100,000 cycles	100,000 cycles	500,000 cycles	500,000 cycles	1,000,000 cycles	1,000,000 cycles	100,000 cycles	10,000,000 cycles	500,000 cycles
-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
220±50gf	220±50gf	180±50gf	125±50gf	125±35gf	180±50gf	160±50gf	300±100gf	60±20gf

LED Push Button Switch

								
Series	L / Protective Guard	LS	MLS	ML	PS001	PS001W	PS004	PS006
Operating Mode	SPDT, DPDT, lock / non-lock	DPST, lock /non-lock	SPST, non-lock	2P2T, 4P2T, lock / non-lock	SPST, non-lock	SPST, non-lock	SPDT, DPDT, lock / non-lock, right angle type available	SPST, DPST non lock, noiseless
Rating	500mA, 25VDC (silver plating) 100mA, 28VDC (gold plating)	0.2A, 36VDC	0.2A, 36VDC	0.2A, 36VDC	0.1A, 30VDC	0.1A, 30VDC	0.1A / 30VDC; 0.1mA / 5VDC	12mA, 12VDC
Contact Resistance	50mΩ Max. (silver plating) 100mΩ Max. (gold plating)	40mΩ Max.	40mΩ Max.	40mΩ Max.	50mΩ Max.	50mΩ Max.	50mΩ Max.	200mΩ Max.
Operation Life	1,000,000 cycles (non-lock) 200,000 cycles (latching)	500,000 cycles	500,000 cycles	500,000 cycles(non-lock) 50,000 cycles (latching)	1,000,000 cycles	1,000,000 cycles	500,000 cycles (non-lock) 50,000 cycles (latching)	1,000,000 cycles
Operating Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
Operation Force	200±100gf (SPDT) 300±150gf (DPDT)	200±100gf	300±100gf	200±100gf	250±100gf	400±100gf	250±100gf	150±100gf (SPST) 200±150gf (DPST)

SWITCH PRODUCT












PS010	PS011A / Protective Guard	PS016	PS018L	PS019	PS020/PS020L	PS021	PS022	PS023	PS024
SPST, DPDT, lock / non-lock	SPST, non lock	SPST, non lock	SPDT, DPDT, lock / non-lock	1P1T~8T DIP type	SPDT, DPDT, lock / non-lock	SPDT, lock / non-lock	1P2T, non-lock	SPDT, lock / non-lock FUNCTION	SPDT, lock / non-lock FUNCTION
0.1mA, 30VDC	100mA, 12VDC	100mA, 20VDC	1.7A, 13VDC: 3A, 125 VAC	1A, 30VDC	50mA, 12VDC	50mA, 12VDC	0.2A, 36VDC	300mA,12VDC	50mA, 12VDC
50mΩ Max.	200mΩ Max.	150mΩ Max.	50mΩ Max.	50mΩ Max.	100mΩ Max.	100mΩ Max.	40mΩ Max. @ 1.5VDC; 100mA	100mΩ Max.	50mΩ Max.
500,000 cycles (non-lock) 100,000 cycles (latching)	5,000,000 cycles	50,000,000 cycles	10,000 cycles	100,000 cycles	50,000 cycles	100,000 cycles	1,000,000 cycles	200,000 cycles	50,000 cycles
-40°C~85°C	-40°C~85°C	-5°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C	-40°C~85°C
250±100gf	200±80gf	250±50gf	400±200gf	450±150gf	250±50gf	300±100gf	300±100gf	300±100gf	250±50gf

LED Slide Switch | LED Rocker Switch | LED Touch Sensor Switch | Encoder and VR Switch | Ambient Light Sensor










Series	SS001L	RC001L	TS001	TS003 / TS004	TS005	TS006	TS002	PT
Operating Mode	2P2T, SMT type	SPDT	Digital Signal Output	Digital Signal Output	Digital Signal Output	Digital Signal Output	SPST	SPST, SPDT, DPST, DPDT lock / non-lock
Rating	0.3A, 6VDC	3A with resistive load @ 125VAC or 28 VDC	recommend operating voltage: 4.5~5.5 VDC	recommend operating voltage: 4.5~5.5 VDC	recommend operating voltage: 4.5~5.5 VDC	recommend operating voltage: 4.5~5.5 VDC	1.8~5.5 VDC	4A, 250VAC; 8A, 250VAC
Contact Resistance	50mΩ Max.	20mΩ Max.	N/A	N/A	N/A	N/A	N/A	100mΩ Max.
Operation Life	50,000 cycles	10,000 cycles	N/A	N/A	N/A	N/A	N/A	10,000 cycles
Operating Temperature	-40°C~85°C	-40°C~85°C	-20~70°C (Operation) -50~125°C (Storage)	-20~70°C (Operation) -50~125°C (Storage)	-20~70°C (Operation) -50~125°C (Storage)	-20~70°C (Operation) -50~125°C (Storage)	-20~70°C (Operation) -50~125°C(Storage)	-40°C~85°C
Operation Force	200±150gf	300±100gf	N/A	N/A	N/A	N/A	N/A	600±200gf

Push Button Switch | LED Rotary Switch With Center Push Function | LCD Display Switch | OLED Display Switch | Door Switch












PS015	T	M	MS	RS004	PS007	PS009	PS003	PS012	DR001
SPST lock / non-lock	2P2T, up to 16P2T, lock/non-lock	1P2T, 2P2T, 4P2T lock/non-lock	1P2T, 2P2T, lock/non-lock	Rotary 1P8T Push Button 2P2T	SPST, off-(on) for momentary type	SPST, off-(on) for momentary type	SPST, off-(on) for momentary type	SPST, off-(on) for momentary type	SPDT, non-lock
2A, 30VDC; 6A, 30VDC	1A, 25VDC; 0.2A, 125VAC	1A, 30VDC; 0.3A, 30VDC 1A, 250VAC	0.3A, 30VDC 1A, 30VDC	0.1A, 30VDC; 0.1mA, 5VDC	100mA, 12VDC	100mA, 12VDC	100mA , 12VDC	50mA, 12VDC	0.1A; 125 / 250VDC
100mΩ Max.	40mΩ Max.	50mΩ Max.	30mΩ Max.	200mΩ Max.	200Ω Max.	200mΩ Max.	200Ω Max.	200mΩ Max.	50mΩ Max.
10,000 cycles	200,000 cycles (non-lock) 50,000 cycles (latching)	200,000 cycles (non-lock) 50,000 cycles (latching)	200,000 cycles (non-lock) 50,000 cycles (latching)	50,000 cycles	1,000,000 cycles	1,000,000 cycles	1,000,000 cycles	1,000,000 cycles	100,000 cycles
-40°C~85°C	-40°C~85°C	-40°C~85°C	-30°C~85°C	-30°C~85°C	-10~60°C (Operation) -20~80°C (Storage)	-10~60°C (Operation) -20~80°C (Storage)	-20~70°C(Operation) -40~85°C (Storage)	-20~70°C(Operation) -40~85°C (Storage)	-25°C~75°C
300±150gf	350±150gf (2P2T, up to 6P2T) 600±150gf (8P2T, up to 16P2T)	450±150gf	200±100gf (1P2T) 250±100gf (2P2T)	non-lock 200±100gf lock 300±100gf	200±100gf	250±100gf	250±100gf	250±100gf	220±100gf

Feature

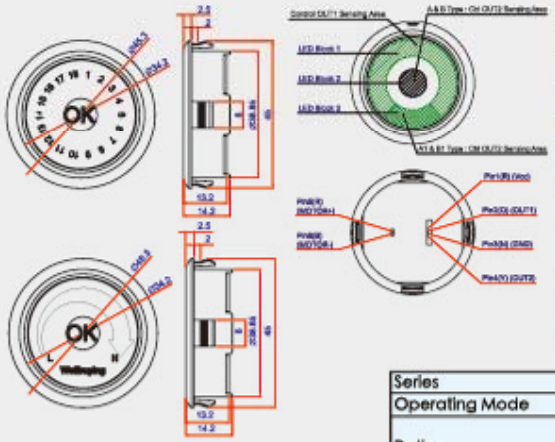
- Touch Sensor Switch
- Encoder：According To The Application Design, User Can Segment 18 Pulses To Other Functional Extension Pulses
- VR：14Position Scroller Output, And One Key Center Output
- LED Illumination
- Vibration available

TS005

特　色

- タッチセンサスイッチ
- エンコーダー：18パルスのスクロール出力
- 可変抵抗器：14ポジションのスクロール出力
- LED照明式
- 振動機能





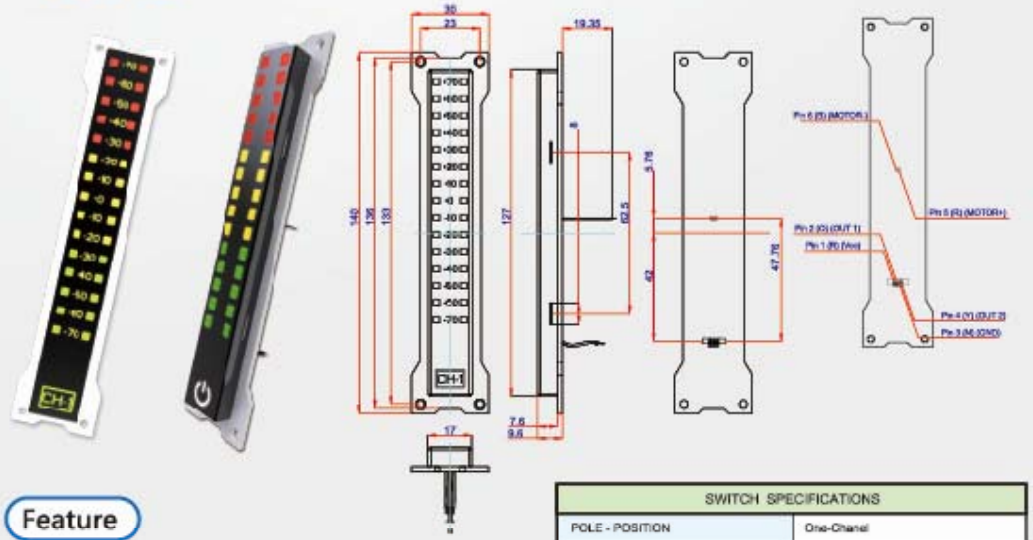
SWITCH SPECIFICATIONS	
POLE - POSITION	One-Chanel
CIRCUIT FEATURE	Capacitive analog signal
OPERATING TEMPERATURE RANGE	-20°C ~ 70°C
SEALING	PANEL SEALED TO IP67

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test Conditions		MIN.	TYP.	MAX.	Units
		V_{DD}	Conditions				
V_{CC}	Input Voltage	–	–	4.5	5.0	5.5	V
V_{DD}	Operating Voltage	–	–	3.0	3.3	3.6	V
I_{DD}	Operating Voltage - No Load	3.3V	3.3V	2	3	5	mA
V_{OH}	Output High Voltage	3.3V	I_{OH} = - 4.0mA	2.1	–	–	V
V_{OL}	Output Low Voltage	3.3V	I_{OH} = 8.0mA	–	–	0.9	V
V_K	Input ports	3.3V	–	–	200	–	Hz

Series	TS005	TS006
Operating Mode	Signal Output	Signal Output
Rating	Recommend Operating Voltage : 4.5 ~ 5.5 VDC	Recommend Operating Voltage : 4.5 ~ 5.5 VDC
Contact Resistance	N/A	N/A
Operation Life	N/A	N/A
Operating Temperature	- 20 ~ 70℃ (Operation) - 50 ~ 125℃ (Storage)	- 20 ~ 70℃ (Operation) - 50 ~ 125℃ (Storage)
Operating Force	N/A	N/A

TS006



Feature

- LED Touch Fader
- 15 Pulse Scroller Output,and One Key Out put
- Vibration available

特　色

- 照光式タックセンサフェーダー
- 15パネルのスクロール出力
- 振動機能

SWITCH SPECIFICATIONS	
POLE - POSITION	One-Chanel
CIRCUIT FEATURE	Capacitive analog signal
OPERATING TEMPERATURE RANGE	-20°C ~ 70°C
SEALING	PANEL SEALED TO IP67

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test Conditions		MIN.	TYP.	MAX.	Units
		V_{DD}	Conditions				
V_{CC}	Input Voltage	–	–	4.5	5.0	5.5	V
V_{DD}	Operating Voltage	–	–	3.0	3.3	3.6	V
I_{DD}	Operating Voltage - No Load	3.3V	3.3V	2	3	5	mA
V_{OH}	Output High Voltage	3.3V	I_{OH} = - 4.0mA	2.1	–	–	V
V_{OL}	Output Low Voltage	3.3V	I_{OH} = 8.0mA	–	–	0.9	V
V_K	Input ports	3.3V	–	–	200	–	Hz

PS012



Feature

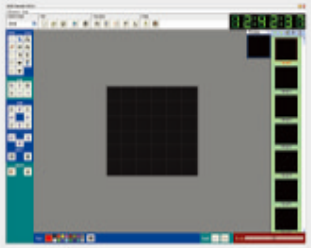
- OLED display panel on the switch button
- Acceptable for External Signal Source (CVBS) And Simultaneously Display
- High Efficiency MCU (68/80 Series, 16/8/6 bit)
- Programmable text,graphic, and video display
- Low power consumption
- Resolution: 96*96 pixels
- Color mode: 65K
- Momentary function
- Switch is Dust Proof
- Application：Audio / video switchers, instrumentation, telecommunication, broadcast system, security system, POS (point of sale) system, gambling machines.

特　色

- スイッチボタンの上にOLEDディスプレ－パネルがある
- プログラマブル
- グラフィック
- 動画ディスプレ－
- 電源低消耗
- 解像度96 x 96；65K色
- SPST
- モーメンタリ
- 防塵型
- 製品応用面：オ－ディオ／ビデオ－スイッチ、器械、テレコミュニケーション、放送システム、賭博機器、セキュルティ－システム、POSシステム



*Hardware Interface：USB & RS-232



*Communication Software

SWITCH SPECIFICATIONS	
Pole-Position	OFF –(ON) FOR MOMENTARY TYPE ; SPST
Rating	50mA 12 VDC
Contact Resistance	200 mΩ MAX
Insulation Resistance	100 MΩ MIN
Operating Force	250 ± 100 gf
Operating Life With Load	1,000,000 MIN
ELECTRICAL	
Panel Type	OLED
Resolution	96(W) by (R x G x B) by 96(H) (Unit:dot)
Diagonal A/A Size	1.1 (Unit:inch)
Color	65K
Input	2.4V-3.3V DC
Panel Operation Life	16,000 hours (60 cd/m², 50% checkerboard) 10,000 hours (100 cd/m², 50% checkerboard)
Interface	Com Port
Note	The Brightness Will Decay After life time

PS007

Feature

- FSTN LCD display resolution: 64*32 pixels
- view size: 0.9"
- SPST
- Momentary function
- Application :
  Audio / video switchers, instrumentation, telecommunication, broadcast system, security system



特　色

- FSTN LCD ディスプレ－
- 解像度：64*32画素
- ビュ－サイズ：0.9インチ
- 製品応用面：オ－ディオ／ビデオ、器械、通信機器、放送システム、セキュルティ－システム

PS009

Feature

- FSTN LCD display resolution: 64*32 pixels
- view size: 0.9"
- SPST
- Momentary function
- Application :
  Audio / video switchers, instrumentation, telecommunication, broadcast system, security system



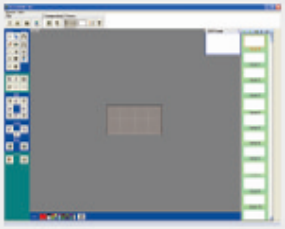
特　色

- FSTN LCD ディスプレ－
- 解像度：64*32画素
- ビュ－サイズ：0.9インチ
- SPST
- モーメンタリ
- 製品応用面：オ－ディオ／ビデオ、器械、通信機器、放送システム、セキュルティ－システム



*Hardware Interface：USB & RS-232

Series	PS007	PS009
Pole-Position	SPST,OFF-(ON) For Momentary type	SPST,OFF-(ON) For Momentary type
Contact Rating	100mA , 12VDC	100mA , 12VDC
Contact resistance	200mΩ Max	200mΩ Max
Operation Life	1,000,000 Cycles	1,000,000 Cycles
Operating Temperature	- 10 ~ 60℃ (Operation) - 20 ~ 80℃ (Storage)	- 10 ~ 60℃ (Operation) - 20 ~ 80℃ (Storage)
Operating Force	250 ± 100 gf	250 ± 100 gf
DIMENSION	L : 24.5mm W : 23.5mm H : 26.0mm	L : 23.6mm W : 21.6mm H : 23.6mm
Total Travel	2.0 ± 0.2 mm	3.3 ± 0.2 mm



*Communication Software

ODM CONNECTOR SET1-6


1


2


3




4


5


6

START ENGINE TOUCH SENSOR SWITCH



Feature

- Water Proof IP67 Sealed
- Panel Mount
- Full Color LED Illuminated Available
- Recommend Operating Voltage 3.0~24.0VDC

・防水型IP67に適用
・パネルマウント
・フルカラーLED照光式
・薦めの動作電圧：3.0-24.0VDC









ODM PUSH SWITCH



PS023

Feature

- SPDT, Lock/NON-Lock Function
- Panel Mount
- LED Illuminated
- Use with 5 pin connector

・単極双投、ロック / モーメンタリ
・パネルマウント
・LED照光式
・5ピンコネクターと使用



PS024

ODM MODULE SET

