LCD Switches

Programmable LCD Switches IS Series

Enhanced LED Illumination:

» Broad and even light diffusion
» Consistent backlighting
» Low energy consumption

Programmable LC Display

Variety of LED Backlighting

Rubber Dome

Epoxy Sealed Straight PC Terminals

IS15ABCP4CF
with Yellow LCD Mode

IS15ABFP4RGB
with RGB LED Option and Black & White LCD Mode

RGB backlighting provides infinite color availability.
Programmable to display graphics, alphanumeric characters and animated sequences.
Integrated liquid crystal display provides wide viewing angle with high contrast and clarity.
Wide viewing area 15.0mm x 10.8mm (horizontal x vertical) at 36 x 24 pixels.
Dome gives crisp tactile feedback to positively indicate circuit transfer.
High reliability and long life of one million actuations minimum.
Epoxy sealed terminals prevent entry of solder flux and other contaminants.
Optional accessories available to enhance panel design and simplify production process.

STANDARD LED BACKLIGHTING

Part Number	Switch Description	LCD Mode	LED Color		
IS15AACP4CF	SPST Momentary ON Gold Contacts Straight PC Terminals	Yellow STN Positive	Red/Green	RED	GREEN / RED GREEN *

* Simultaneous illumination of both colors achieves third color.

SUPER BRIGHT LED BACKLIGHTING

Part Number	Switch Description	LCD Mode	LED Color		
IS15ABCP4CF		Yellow STN Positive	Red/Green	RED	GREEN / RED GREEN *
IS15ABCP4E		Yellow STN Positive	Yellow		YELLOW
IS15ABCP4EF		Yellow STN Positive	Yellow/Green	GREEN	YELLOW / YELLOW GREEN *
IS15ABDP4E	SPST Momentary ON Gold Contacts Straight PC Terminals	Blue STN Negative	Yellow		YELLOW
IS15ABDP4EG		Blue STN Negative	Yellow/Blue	BLUE	YELLOW / YELLOW BLUE *
IS15ABDP4B		Blue STN Negative	White		WHITE
IS15ABFP4B		Black & White FSTN Positive	White		WHITE

* Simultaneous illumination of both colors achieves third color.

RGB LED BACKLIGHTING

Part Number	Switch Description	LCD Mode	LED Color
IS15ABFP4RGB	SPST Momentary ON Gold Contacts Straight PC Terminals	Black & White FSTN Positive	Red/Green/Blue — RED GREEN BLUE *

* Simultaneous RGB illumination achieves infinite colors.

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Programmable LCD Switches   IS Series

GENERAL SPECIFICATIONS OF SWITCH

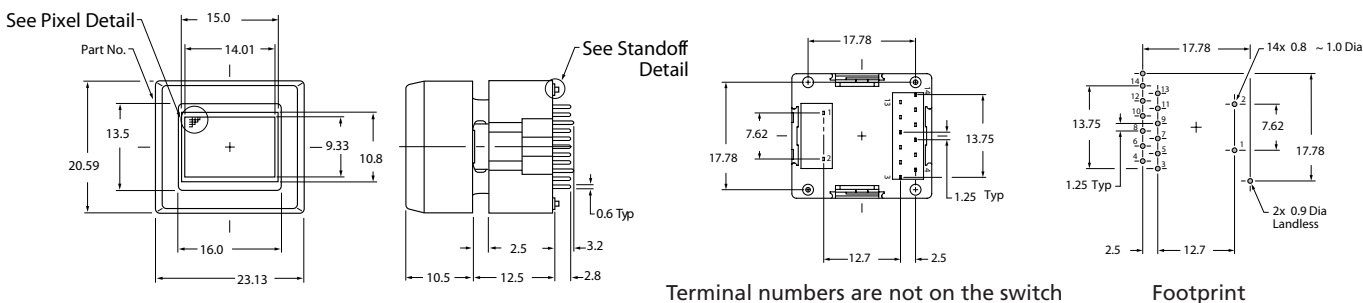|	
Circuit	SPST normally open
Electrical Capacity (Resistive Load)	100mA@12VDC
Contact Resistance	200 milliohms max. @ 20 mV 10mA
Insulation Resistance	100 megaohms min. @ 100VDC
Dielectric Strength	125VAC for 1 minute min.
Mechanical Endurance	1,000,000 operations min.
Electrical Endurance	1,000,000 operations min.
Operating Force	2.2 ± 0.5 Newtons
Total Travel	1.8mm
Operating Temperature Range	0°C ~ +40°; contact factory for wide temperature range options
Storage Temperature Range	-10°C ~ +60°C; contact factory for wide temperature range options

GENERAL SPECIFICATIONS OF DISPLAY

Display Operation Mode	STN positive, STN negative, FSTN positive
Display Condition	Transflective with built-in LED backlight
Viewing Angle	Adjustable
Driving Method	1/24 duty. 1/5 bias (built-in driving circuit)
Viewing Area	15.0mm x 10.8mm (horizontal x vertical)
Pixel Format	36 x 24 dots (horizontal x vertical)
Pixel Size	0.36mm x 0.36mm (horizontal x vertical)
Backlight LED	Single color: yellow, white Bicolor: red/green, yellow/green, yellow/blue RGB: red/green/blue

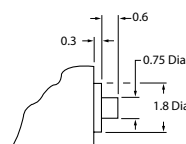### TYPICAL SWITCH DIMENSIONS WITH SINGLE OR BICOLOR LEDS

Terminal numbers are not on the switch   Footprint
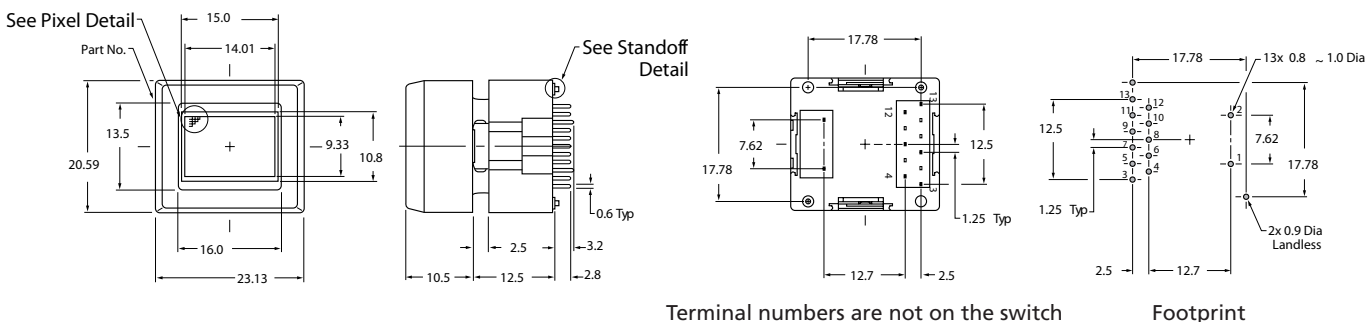
TYPICAL SWITCH DIMENSIONS WITH RGB LED

Terminal numbers are not on the switch   Footprint

PIXEL DETAIL

STANDOFF DETAIL

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Programmable LCD Switches
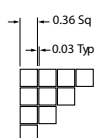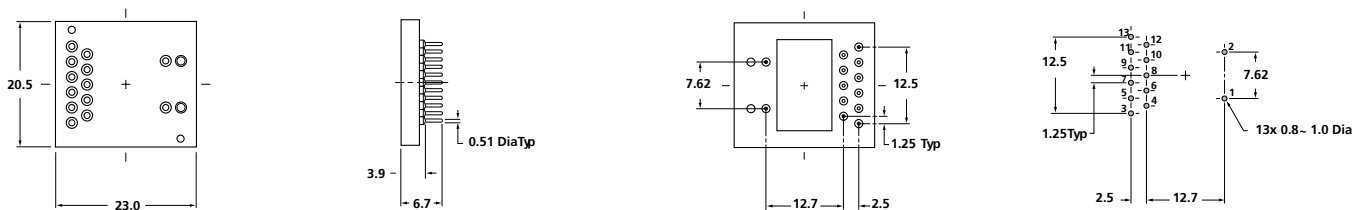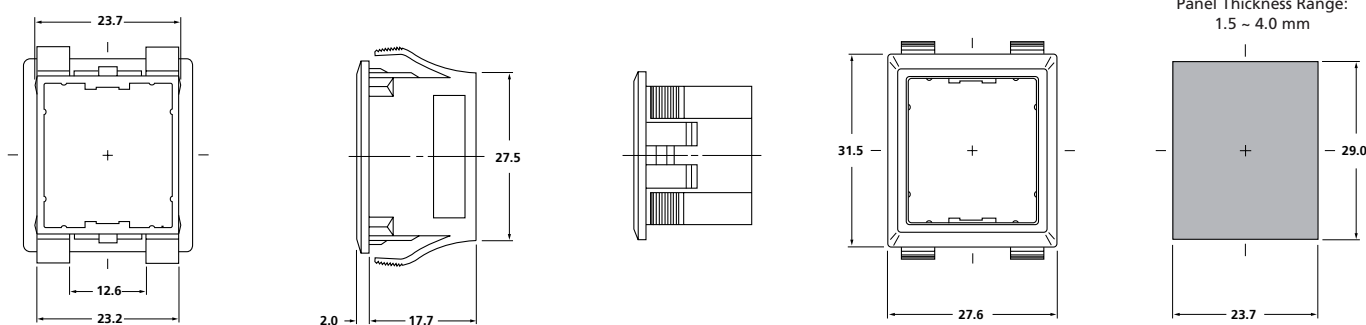
OPTIONAL ACCESSORIES: AT9704-02YC SOCKET FOR SINGLE & BICOLOR LED MODELS

Materials: Base - Glass Fiber Reinforced PBT Terminals - Brass/Beryllium Copper

20.5 · 23.0 · 0.51 DiaTyp · 3.9 · 6.7 · 7.62 · 12.5 · 1.25 Typ · 12.7 · 2.5 · 12.5 · 1.25Typ · 13 12 11 10 9 8 7 6 5 4 3 · 2 1 · 7.62 · 13x 0.8~ 1.0 Dia · 2.5 · 12.7

OPTIONAL ACCESSORIES: AT548 PANEL MOUNT HOUSING

Materials: Polyamide

Panel Thickness Range:
1.5 ~ 4.0 mm

23.7 · 12.6 · 23.2 · 27.5 · 2.0 · 17.7 · 31.5 · 27.6 · 29.0 · 23.7

OPTIONAL ACCESSORIES: AT542 COUPLER

Material: PBT

1.0 · 16.0 · 4.2 · 1.0 · 16.0 · 4.2 · 0.97Typ

Top · Side · Bottom

DEMONSTRATION KIT

Demonstration Kits 1 und 2 are shipped with a LCD Switch or LC Display, USB cable for PC connection, User Guide and CD with software. Optional Battery Box is available.

IS-DEM KIT-1 · IS-DEM KIT-2

IS-DEM KIT-1: Switch Demonstration Kit
IS-DEM KIT-2: Display Demonstration Kit

The demonstration kit is used for displaying bitmaps, up to 64, that have been created on your PC via the Easy Editor software and USB cable (supplied). This kit contains a LCD Switch or LC Display with red/green bicolor LED.

DEVELOPMENT KIT

All development kits have been preprogrammed and designed to work with software.

IS-DEV KIT-1 · IS-DEV KIT 2

IS-DEV KIT-1: One programmable LCD display module and two PCB mounted tact switches, with flash memory, power and programming connections.

IS-DEV KIT-2: Two LCD programmable pushbutton switches on a PC board with flash memory, power and programming connections.

This development kit consists of 2 LCD Switches with red/green bicolor LED.   The kit is designed to show how 2 switches interact together to accomplish numerous tasks.

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