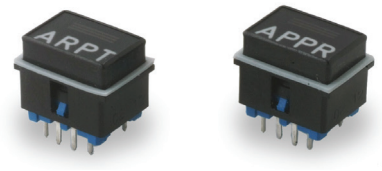
# PBA Series
# Illuminated Pushbutton

## *Features/Benefits*

- ***Illuminated display***
- ***Small size***
- ***Cold lighting***
- ***Tactile feed back***

## *Typical Applications*

- ***Avionic***




## Mechanical

ACTUATION FORCE: 5,5 N ± 0,5 N
MAXIMUM FORCE: 80 N
TRAVEL TO CONTACT: 1,2 ± 0,1 mm
OVERTRAVEL: >0,3 mm
TOTAL TRAVEL: 1,5 ± 0,1 mm
LIFE EXPECTANCY: $10^6$ operations 28 V - 10 mA
WEIGHT: 2 grams
VIBRATION: ± 0,45mm from 33 Hz to 75 Hz
ACCELERATION: 10 g max

## Electrical

CONTACTS: Gold plated
VOLTAGE: Max 100 V - Min 20 mV DC
CARRYING CURRENT: Max 250 mA - Min 50 µA
SWITCHING CURRENT: Max 50 mA - Min 50 µA
MAX SWITCHING POWER: 1 W
CONTACT RESISTANCE: < 50 Ω
DIELECTRIC STRENGTH: 500 V rms
INSULATION RESISTANCE (100 V): > 5000 M Ω
BOUNCE: < 3 ms
SWITCHING OF 2 POLES MATCHING: < 10 ms

## Environmental Data

STORAGE TEMPERATURE: -55°C TO 85°C
OPERATING TEMPERATURE: -30°C TO 85°C
TEMPERATURE OF KEY TO CAP: < Ambiant +25°C
HUMIDITY TEST: 21 days (-40°C - 93% HR)
ALTITUDE PRESSURE: From 20 hPa to 1070 hPa

## Soldering Data

MANUAL SOLDERING: 250°C / 2s
SEALING: According to IP64

## Plastic Material

Housing and Cap: UL-94 V0

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, please contact Customer Service.

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box.

| P | B | A | | | | | | Repeat sequence for 2nd Marking | | |
|---|---|---|---|---|---|---|---|---|---|---|

**Designation**
**PBA** PBA Series

**Size**
**1** 9,5 x 14
**2** 11,5 x 14
**3** 14 x 14

**Marking Location**
**H** High
**M** Middle
**L** Low

**Type of Marking**
**T** Text / Legend
**S** Status Indicator

**LED Color**

| | | |
|---|---|---|
| **0** | White | λ |
| **1** | Green | λ 560 nm |
| **2** | Yellow Green | λ 568 nm |
| **3** | Amber | λ 590 nm |
| **4** | Red | λ 660 nm |
| **5** | Other | λ |

**Display Type**

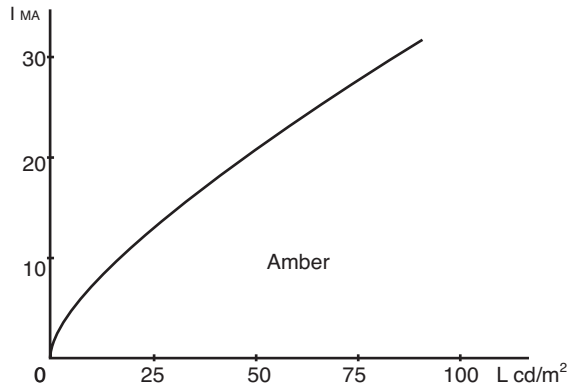
| | | LED Non-Illuminated | LED Illuminated |
|---|---|---|---|
| **N** | Text Marking | White | LED Color |
| | Background | Black | Black |
| **S** | Text Marking | Not visible | LED Color |
| | Background | Black | Black |
| **R** | Text Marking | White | LED Color |
| | Background | Red | Red |
| **G** | Text Marking | Green | Green |
| | Background | Black | Black |

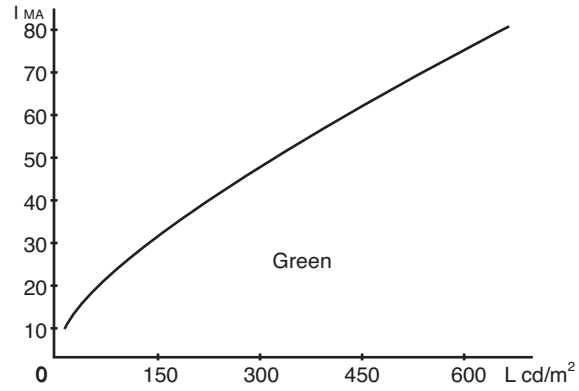
**LED Supply or Type**
**AC** Alternative
**DC** Direct
**XX** for each marking 1:6 LEDs in parallel for direct current

# PBA Series
# Illuminated Pushbutton

## LIGHTING DATA

The legends of function and the status indicator can be illuminated separately.



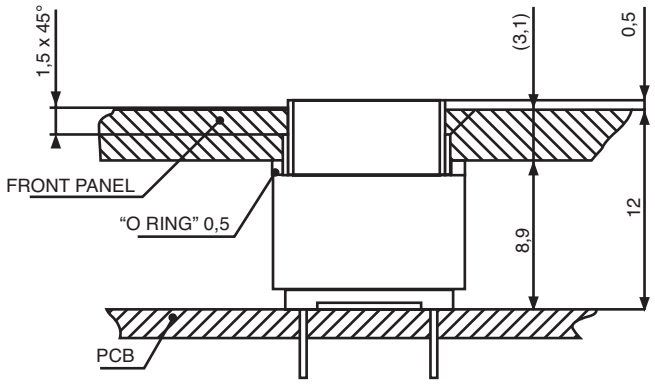



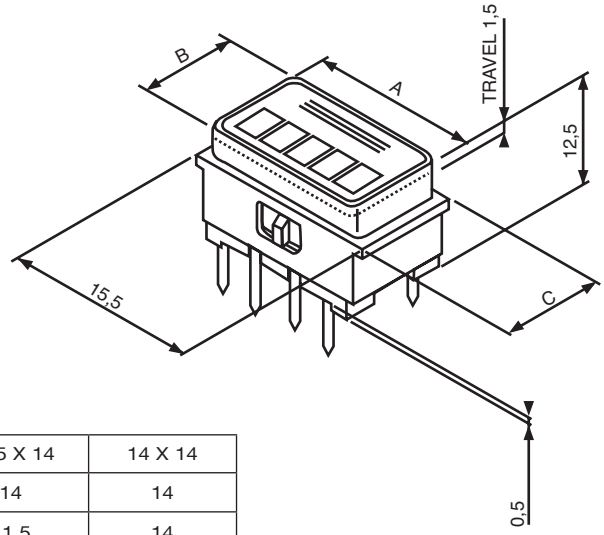

LIGHTING / CURRENT

| Color | | Amber | Green |
|---|---|---|---|
| Wave Length | | 586 < l < 592 | 555 < l < 560 |
| Current Max | | 80 mA | 80 mA |
| Chromaticity | X<br>Y | 0,54 < X < 0,58<br>0,40 < Y < 0,44 | 0,30 < X < 0,40<br>0,6 < Y |
| Contrast Min. | | 1,2 | 0,85 |

For other colors and displays, please contact Customer Service.

## DIMENSIONS (applicable for any size)

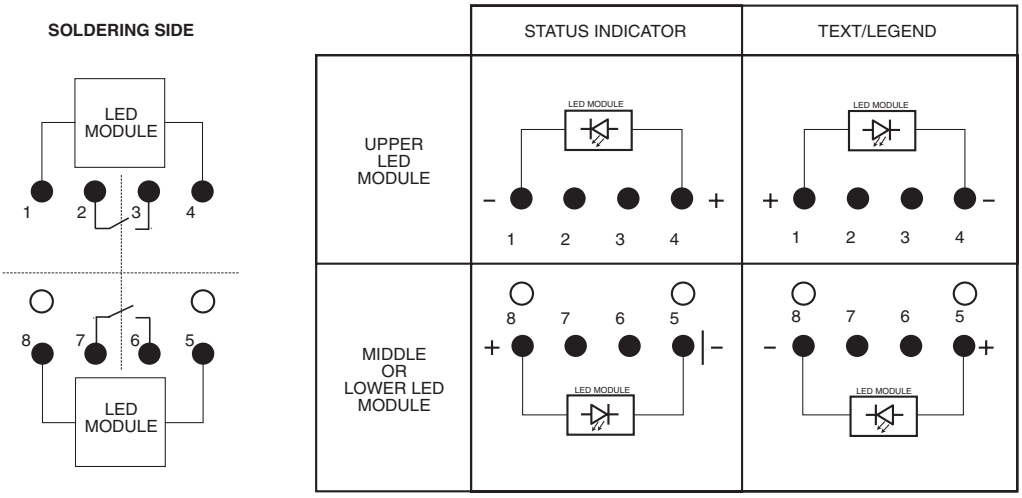


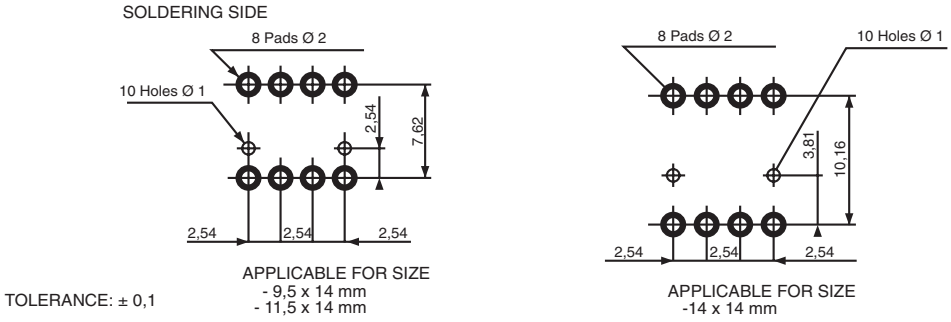

| | 9,5 X 14 | 11,5 X 14 | 14 X 14 |
|---|---|---|---|
| A | 14 | 14 | 14 |
| B | 9,5 | 11,5 | 14 |
| C | 11 | 11,5 | 15,5 |

Tolerance: ± 0,1 mm

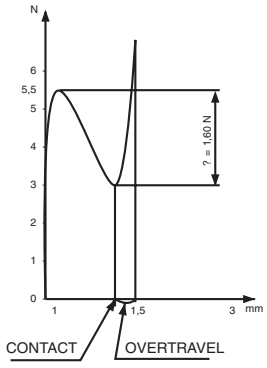
## LED MODULE LAYOUT




## PCB Layout



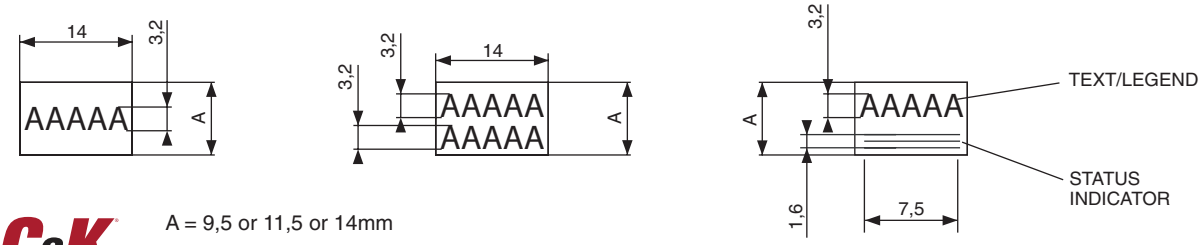

## TACTILE EFFECT




TRAVEL
- TRAVEL TO CONTACT: 1,2 ± 0,1 mm
- OVERTRAVEL: > 0,3 mm
- TOTAL TRAVEL: 1,5 ± 0,1 mm

FORCE
- ACTUATOR FORCE: 5,5 N ± 0,5 N
- TACTILE FEELING: 1,6 N

1 or 2 markings are available in any combination of text / legend or status indicator.




A = 9,5 or 11,5 or 14mm

*Dimensions are shown: mm*
*Specifications and dimensions subject to change*

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## C&K Aerospace:

PBA1SSMODULEFONDNOIR

## C&K Switches:

PBA1MS1SDC PBA3HS1LS1SDC PBA1HS1SLT3NDC3LIGATT PBA1HS1SLT3NDC3LIGCALL PBA1HS1SLT3NDC3LIGCRZ PBA1HS1SLT3NDC3LIGCSTR PBA1HS1SLT3NDC3LIGDEC PBA1HS1SLT3NDC3LIGARPT PBA1HS1SLT3NACDC3LIGFD PBA1HS1SLT3NACDC3LIGLS PBA1HS1SLT3NACDC3LIGNDB PBA1HS1SLT3NACDC3LIGWPT PBA1HS1SLT3NDC3LIGALT PBA1HS1SLT3NDC3LIGAPPR PBA1HS1SDC3LIG PBA1HS1SLT3NACDC3LIGALT PBA1HS1SLT3NACDC3LIGAPPR PBA1HS1SLT3NACDC3LIGARPT PBA1HS1SLT3NACDC3LIGCSTR PBA1HS1SLT3NACDC3LIGEXPED PBA2HS1SLT3NDC3LIGALT PBA1HT3SLT3SDCL0WPAPER PBA3HT3SLT3SDCL0WPAPER PBA1DUMMY PBA1FACTICE PBA1MT3NDCSTD PBA1MT3NDCTEST PBA1MT3SDCFAIL PBA20ALTA340DCDCPN7516900 PBA20EXPA320ACDCPN7516901 PBA20EXPA340DCDCPN PBA3HS1SLT3NACDC3LIGATHR PBA3HS1SLT3NDC3LIGATHR PBA1MT2NACSLEW PBA1MT3NDCALL PBA1MT3NDCRCL PBA1MT3NDCSLEW PBA1MT1NDC PBA1SSM0DULEF0NDN0IR PBA2HS1SLT3NDCL0C PBA2HS1SLT3NDCSANS0PER PBA2HS1SLT3NDCV0R.D PBA2SSM0DULEF0NDN0IR PBA1HS1SLT3NACDC3LIGL0C PBA1HS1SLT3NACDC3LIGV0R.D PBA1HS1SLT3NDC3LIGL0C PBA1HS1SLT3NDC3LIGV0R.D PBA1HS3SLT3NDC3LIG0FF PBA1HT2NLS2SACDCP0WER3LIGN PBA3HS1SLT3NDC3LIGAP1 PBA3HS1SLT3NDC3LIGAP2 PBA3HT1NLS1SDCSLEW3LIG PBA3HT1NLS1SDCTEST3LIGN PBA3HT1NLT1NDCALERTRESET PBA3MT3SDCFAIL PBA2HS1SLT3NDCILS PBA2HS1SLT3NDCNDB PBA2HS1SLT3NDCWPT PBA3HS1SLT3NACDC3LIGAP1 PBA3HS1SLT3NACDC3LIGAP2 PBA3HS1SLT3NACDC3LIGAPPR PBA1HT3SLT3SDCPAPERALARM PBA2HS1SLT3NDCAPPR PBA2HS1SLT3NDCARPT PBA2HS1SLT3NDCCSTR PBA2HS1SLT3NDCEXPED PBA2HS1SLT3NDCFD PBA1HS1SLT3NDC3LIGWPT PBA1HT1NLT3NDCSDEG PBA1HT1NLT3NDCSSEC

PBA1HT2NLS2SACDCRESET3LIGN PBA1HT2NLS2SACDCTEST3LIGN PBA1HT2NLT2NACPAPERCUT PBA1HS1SLT3NDC3LIGEVS PBA1HS1SLT3NDC3LIGFD PBA1HS1SLT3NDC3LIGLS PBA1HS1SLT3NDC3LIGMECH PBA1HS1SLT3NDC3LIGNDB PBA1HS1SLT3NDC3LIGVMC PBA2HS1SLT3NDCLOC PBA2HS1SLT3NDCSANSOPER PBA2HS1SLT3NDCVOR.D PBA2SSMODULEFONDNOIR PBA1HS1SLT3NAC/DC3LIG+LOC PBA1HS1SLT3NAC/DC3LIG+VOR.D PBA1HS1SLT3NDC3LIG+LOC PBA1HS1SLT3NDC3LIG+VOR.D PBA1HS1SLT3SDC3LIG+MECH PBA1HS3SLT3NDC3LIG+OFF PBA1HT2NLS2SACDCPOWER+3LIGN. PBA1HT3SLT3SDCLOW+PAPER PBA1HS1SLT3NDC-3LIG+ALT PBA1HS1SLT3NDC-3LIG+APPR PBA1HS1SLT3NDC-3LIG+ARPT PBA1HS1SLT3NDC-3LIG+CSTR PBA1HS1SLT3NDC-3LIG+FD PBA1HS1SLT3NDC-3LIG+LS PBA1HS1SLT3NDC-3LIG+NDB PBA1HS1SLT3NDC-3LIG+WPT PBA3HS1SLT3NDC-3LIG+AP1