

A02 series

Pushbutton switches & indicators

Distinctive features and specifications

A02_AX1607USR2



- ❑ Panel Sealed to IP65
- ❑ Single pole to four pole changeover
- ❑ Engraving & film legends
- ❑ Captive screw & push on tab terminals
- ❑ 12A 250VAC

ELECTRICAL SPECIFICATIONS

- **Current/Voltage Rating** : 25mA 5VAC Min, 12A 250VAC max, 12A 12VDC max
- **Initial Contact Resistance** : 10mΩ max at 1A 4VDC
- **Insulation Resistance** : 50MΩ min
- **Dielectric Strength** : 2KV between open contacts, 4KV live to accessible
- **Electrical Life** : 50,000 cycles min
- **Contact Gap** : Double break 2 x 1,5mm (0.059)
- **Insulation** : Class 2
- **Lamp Life** : LED, 60,000 hours to 75% relative luminosity filament, approx. 5000 hours, neon, approx. 10,000 hours

MECHANICAL SPECIFICATIONS

- **Mechanical Life (operator)** : momentary, 1 million cycles, maintained 100,000 cycles
- **Lamp** : Midget grove T1 ¼ filament, neon or LED
- **Terminals** : M3 captive screw and push on tab terminal

GENERAL SPECIFICATIONS

- **Operating Temperature** : -20°C to +85°C
- **Sealing** : Panel sealed to IP65, rear of panel IP40

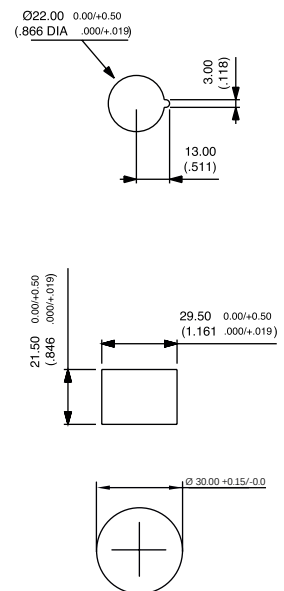
AGENCY APPROVALS



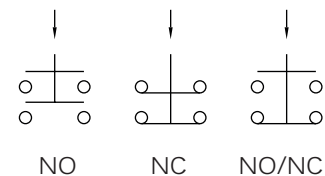
MATERIALS

- **Screens** : PC
- **Reflector Assembly** : PC
- **Optional Metal Bezel** : Nickel plated brass
- **Operator** : PBT
- **Nut** : ABS
- **Camtrack Momentary** : PPE
- **Camtrack Maintained** : PPSU
- **Switch Block 1 & 2 Pole** : PBT
- **Switch Block 3 & 4 Pole** : PEI
- **Contacts** : Gold plated silver

PANEL CUT OUT



CIRCUIT



Dimensions : first dimensions are in mm while inches are shown in brackets. Refer to the following pages for further information.



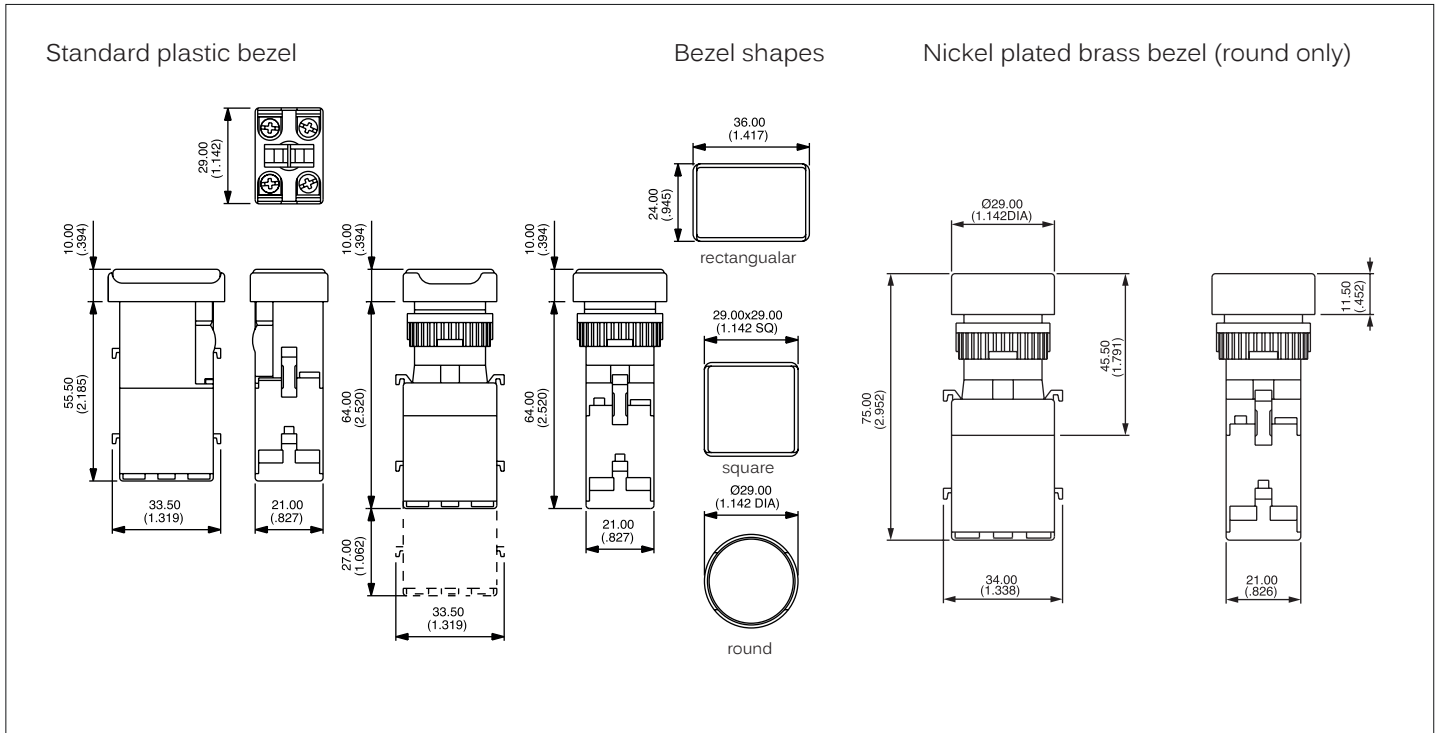
Mounting accessories : standard hardware 1 nut and 1 sealing washer.

A02 series

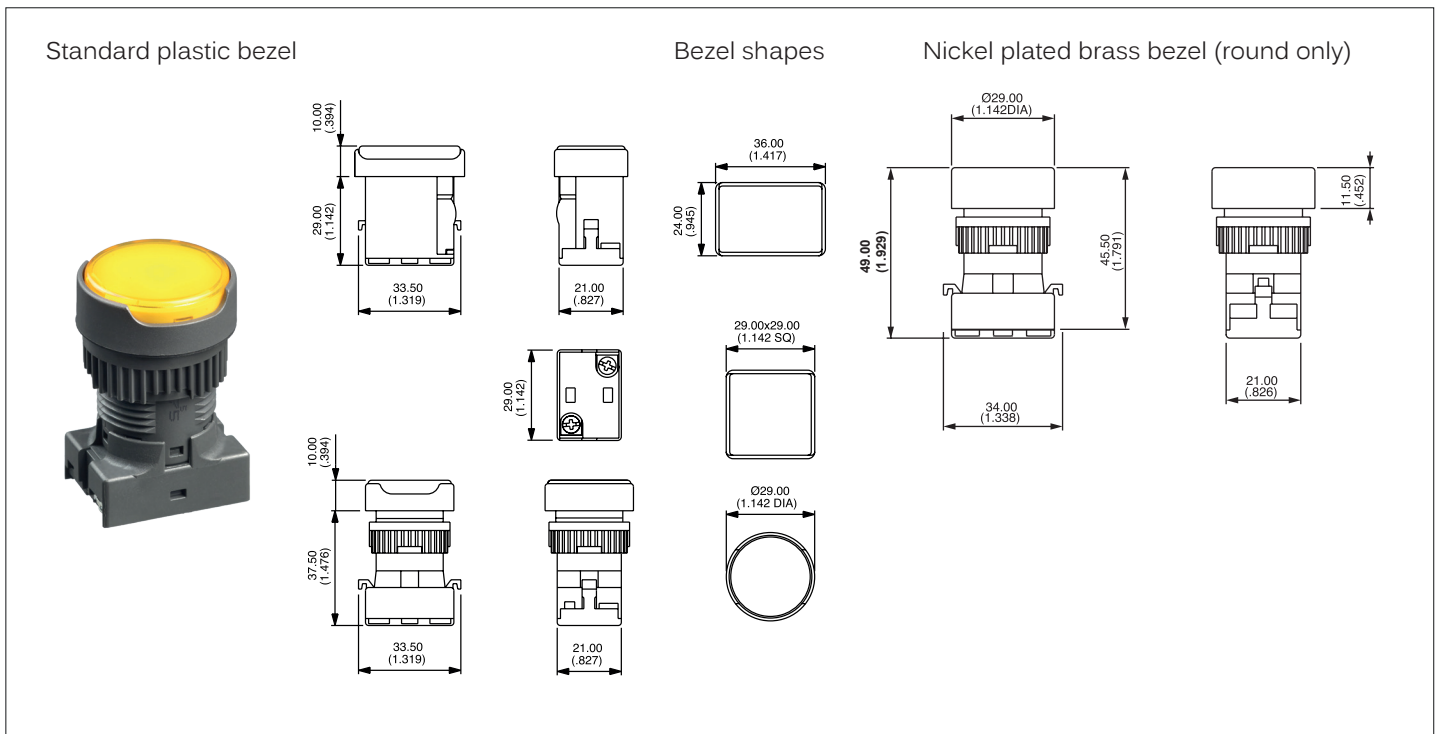
Pushbutton switches & indicators

Panel cut-out $\varnothing 22\text{mm}$ (0.866) or 29.5 (1.161) x 21.5(0.846)mm

$\varnothing 22\text{mm}$ or 29.5 x 21.5mm Surface mount pushbutton



$\varnothing 22\text{mm}$ or 29.5 x 21.5mm Surface mount indicator



A02 series

Pushbutton switches & indicators

Overview

Pushbutton

| Screen | | | Lamp (if required) | | | Operator (with standard bezel) | | | Switch block | | |
|--------|--------|---------|--------------------|-----------|---------|--------------------------------|-----------------------|---------------|--------------|---------------|---------|
| Bezel | Colour | Part No | Lamp | Voltage | Part No | Bezel | Description | Lamp type | Part No | Contacts | Part No |
| | black | A0261A | Filament | 6.3V | A0141A | | Illum, momentary | Lamp/LED bulb | A0201Y | 1 N.O. | A02501 |
| | red | A0261B | Filament | 14V | A0141B | | Illum, maintained | Lamp/LED bulb | A0201X | 1 N.C. | A02502 |
| | amber | A0261C | Filament | 28V | A0141C | | Non-illum, momentary | | A0203Y | 2 N.O. | A02503 |
| | yellow | A0261D | Filament | 36V | A0141D | | Non-illum, maintained | | A0203X | 2 N.C. | A02504 |
| | green | A0261E | Filament | 48V | A0141E | | Illum, momentary | Lamp/LED bulb | A0204Y | 1 N.O./1 N.C. | A02505 |
| | blue | A0261F | Filament | 60V | A0141F | | Illum, maintained | Lamp/LED bulb | A0204X | | |
| | clear | A0261G | Neon | 110V | A0143G | | Non-illum, momentary | | A0206Y | | |
| | white | A0261J | Neon | 220V | A0143H | | Non-illum, maintained | | A0206X | | |
| | black | A0262A | LED | 6V red | A0142L1 | | Illum, momentary | Lamp/LED bulb | A0207Y | | |
| | red | A0262B | LED | 6V green | A0142L2 | | Illum, maintained | Lamp/LED bulb | A0207X | | |
| | amber | A0262C | LED | 6V amber | A0142L3 | | Non-illum, momentary | | A0209Y | 1 N.O. | A02506 |
| | yellow | A0262D | LED | 12V red | A0142M1 | | Non-illum, maintained | | A0209X | 1 N.C. | A02507 |
| | green | A0262E | LED | 12V green | A0142M2 | | | | | 2 N.O. | A02508 |
| | blue | A0262F | LED | 12V amber | A0142M3 | | | | | 2 N.C. | A02509 |
| | clear | A0262G | LED | 12V blue | A0142M4 | | | | | 1 N.O./1 N.C. | A02510 |
| | white | A0262J | LED | 12V white | A0142M5 | | | | | | |
| | black | A0263A | LED | 24V red | A0142N1 | | Illum, momentary | Lamp/LED bulb | A0210Y | | |
| | red | A0263B | LED | 24V green | A0142N2 | | Illum, maintained | Lamp/LED bulb | A0210X | | |
| | amber | A0263C | LED | 24V amber | A0142N3 | | Non-illum, momentary | | A0212Y | | |
| | yellow | A0263D | LED | 24V blue | A0142N4 | | Non-illum, maintained | | A0212X | | |
| | green | A0263E | LED | 24V white | A0142N5 | | | | | | |
| | blue | A0263F | LED | 48V red | A0142P1 | | | | | | |
| | clear | A0263G | LED | 48V green | A0142P2 | | | | | | |
| | white | A0263J | LED | 48V amber | A0142P3 | | | | | | |

| Operator (with nickel bezel) | | |
|------------------------------|-----------------------|---------------|
| Bezel | Description | Lamp type |
| | Illum, momentary | Lamp/LED bulb |
| | Illum, maintained | Lamp/LED bulb |
| | Non-illum, momentary | |
| | Non-illum, maintained | |

Std bezel material : nickel plated brass
For optional black finish, add 'G' to the end of operator model number.

Bezel: rectangular square round. 'Illum' - illuminated, 'Non-illum' - non illuminated

Second switch block

| Contacts | Part No |
|---------------|---------|
| 1 N.O. | A02506 |
| 1 N.C. | A02507 |
| 2 N.O. | A02508 |
| 2 N.C. | A02509 |
| 1 N.O./1 N.C. | A02510 |

To achieve 3 or 4 pole switching, add second switch block from above table.

Indicator

| Screen | | | Lamp | | | Operator (with standard bezel) | | | |
|--------|--------|---------|----------|-----------|---------|--------------------------------|------------------|---------------|---------|
| Bezel | Colour | Part No | Lamp | Voltage | Part No | Bezel | Description | Lamp type | Part No |
| | black | A0261A | Filament | 6.3V | A0141A | | Indicator | Lamp/LED bulb | A0271 |
| | red | A0261B | Filament | 14V | A0141B | | Indicator | Lamp/LED bulb | A0273 |
| | amber | A0261C | Filament | 28V | A0141C | | Indicator | Lamp/LED bulb | A0275 |
| | yellow | A0261D | Filament | 36V | A0141D | | | | |
| | green | A0261E | Filament | 48V | A0141E | | | | |
| | blue | A0261F | Filament | 60V | A0141F | | | | |
| | clear | A0261G | Neon | 110V | A0143G | | Illum, indicator | Lamp/LED bulb | A0277 |
| | white | A0261J | Neon | 220V | A0143H | | | | |
| | black | A0262A | LED | 6V red | A0142L1 | | | | |
| | red | A0262B | LED | 6V green | A0142L2 | | | | |
| | amber | A0262C | LED | 6V amber | A0142L3 | | | | |
| | yellow | A0262D | LED | 12V red | A0142M1 | | | | |
| | green | A0262E | LED | 12V green | A0142M2 | | | | |
| | blue | A0262F | LED | 12V amber | A0142M3 | | | | |
| | clear | A0262G | LED | 12V blue | A0142M4 | | | | |
| | white | A0262J | LED | 12V white | A0142M5 | | | | |
| | black | A0263A | LED | 24V red | A0142N1 | | | | |
| | red | A0263B | LED | 24V green | A0142N2 | | | | |
| | amber | A0263C | LED | 24V amber | A0142N3 | | | | |
| | yellow | A0263D | LED | 24V blue | A0142N4 | | | | |
| | green | A0263E | LED | 24V white | A0142N5 | | | | |
| | blue | A0263F | LED | 48V red | A0142P1 | | | | |
| | clear | A0263G | LED | 48V green | A0142P2 | | | | |
| | white | A0263J | LED | 48V amber | A0142P3 | | | | |

Std bezel material : nickel plated brass
For optional black finish, add 'G' to the end of operator model number.

Bezel: rectangular square round. 'Illum' - illuminated, 'Non-illum' - non illuminated



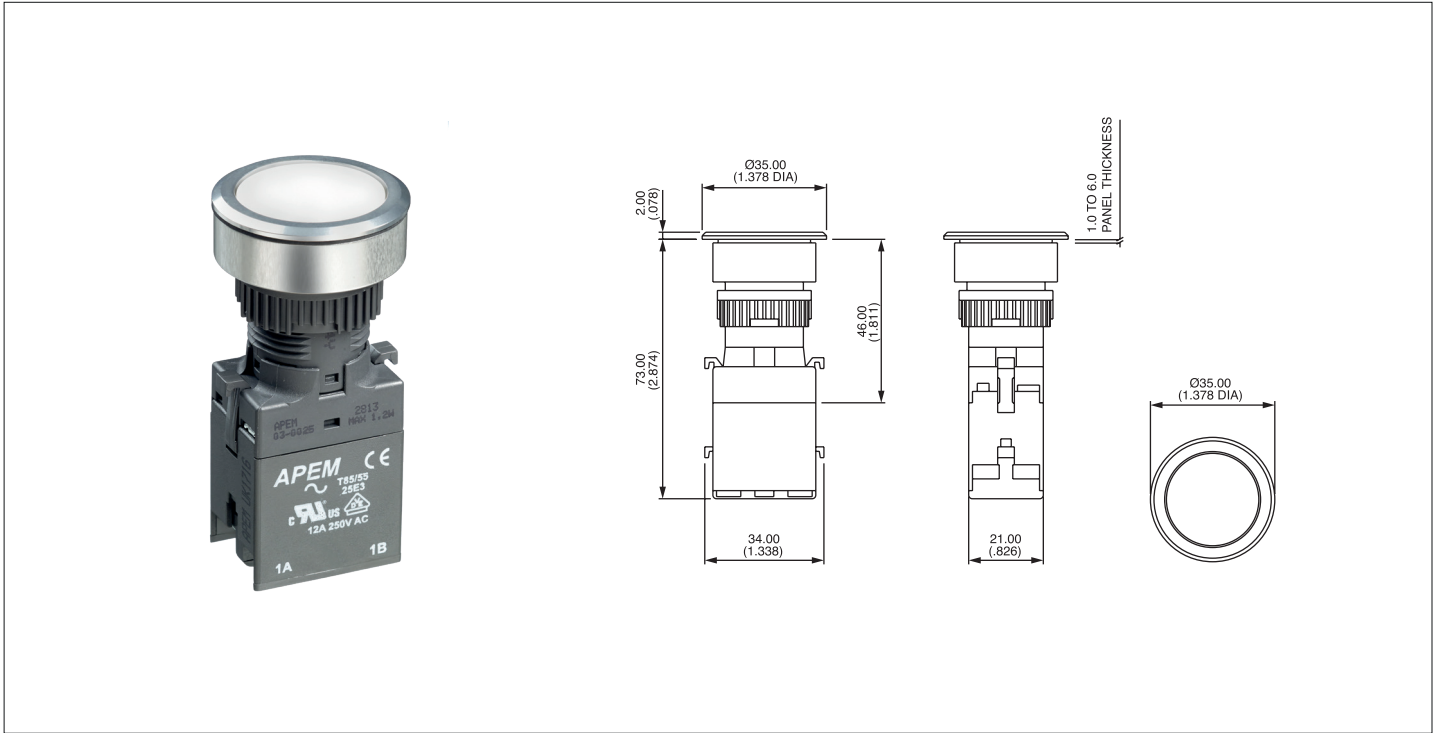
Unsealed switches & indicators (IP40) suffix 01 to the end of the part number.
Screen engraving insertable legends, & bi-color LED's please contact APEM
For 6.35mm push on tab terminals suffix the switch block part number with SP

A02 series

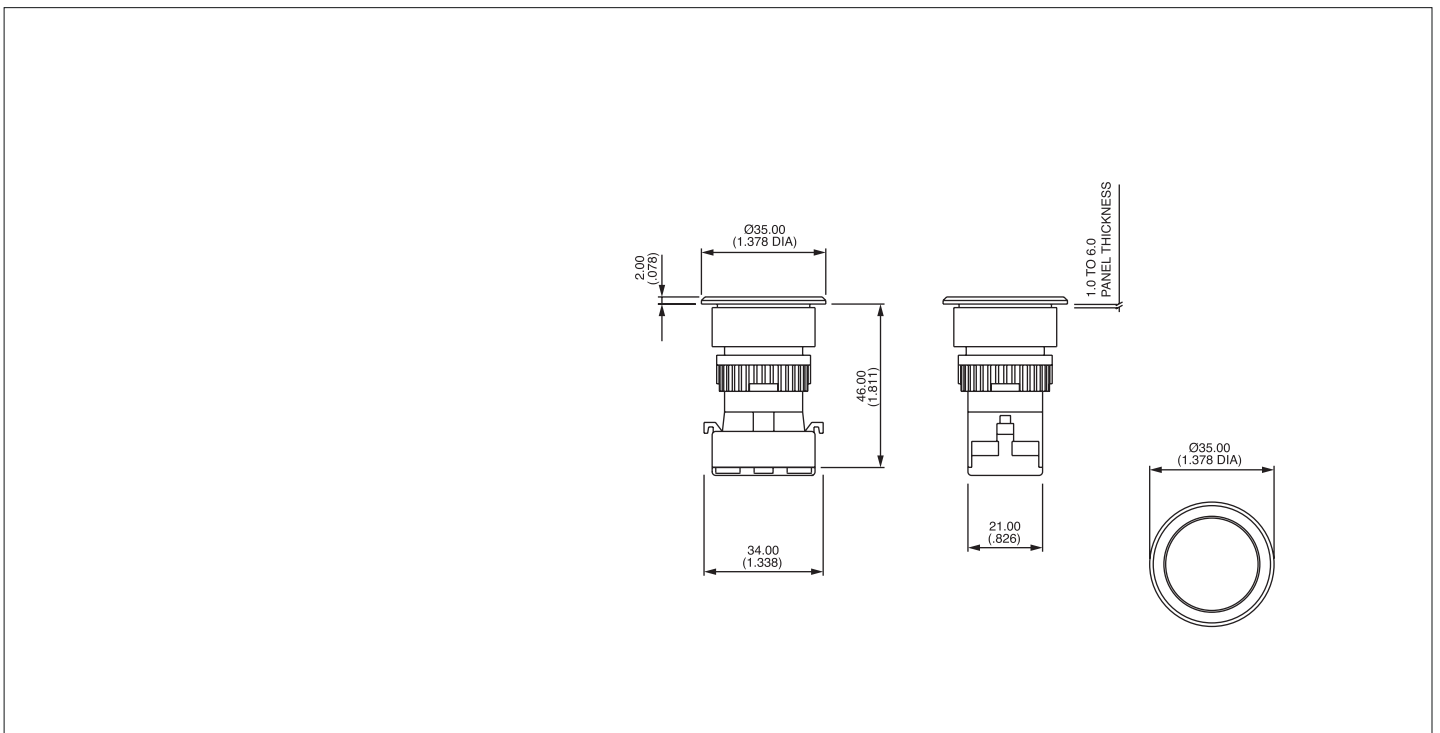
Flush mount pushbutton switches & indicators

Panel cut-out $\varnothing 30\text{mm}$

$\varnothing 30\text{mm}$ Flush mount pushbutton



$\varnothing 30\text{mm}$ Flush mount indicator



A02 series

Flush mount pushbutton switches & indicators

Overview

Pushbutton

| Screen | | | Lamp <small>(if required)</small> | | | Operator | | | Switch block | | |
|--------|--------|---------|-----------------------------------|-----------|---------|---|-----------------------|---------------|--------------|---------------|---------|
| Bezel | Colour | Part No | Lamp | Voltage | Part No | Bezel | Description | Lamp type | Part No | Contacts | Part No |
| ○ | black | A0263A | Filament | 6.3V | A0141A | ○ | Illum, momentary | Lamp/LED bulb | A0214Y | 1 N.O. | A02501 |
| ○ | red | A0263B | Filament | 14V | A0141B | ○ | Illum, maintained | Lamp/LED bulb | A0214X | 1 N.C. | A02502 |
| ○ | amber | A0263C | Filament | 28V | A0141C | ○ | Non-illum, momentary | | A0215Y | 2 N.O. | A02503 |
| ○ | yellow | A0263D | Filament | 36V | A0141D | ○ | Non-illum, maintained | | A0215X | 2 N.C. | A02504 |
| ○ | green | A0263E | Filament | 48V | A0141E | ⌋ | Illum, indicator | Lamp/LED bulb | A02791 | 1 N.O./1 N.C. | A02505 |
| ○ | blue | A0263F | Filament | 60V | A0141F | Std bezel material : silver anodised aluminium. For optional black anodised aluminium, add 'G' to the end of operator model number. | | | | | |
| ○ | clear | A0263G | Neon | 110V | A0143G | | | | | | |
| ○ | white | A0263J | Neon | 220V | A0143H | | | | | | |
| | | | LED | 6V red | A0142L1 | | | | | | |
| | | | LED | 6V green | A0142L2 | | | | | | |
| | | | LED | 6V amber | A0142L3 | | | | | | |
| | | | LED | 12V red | A0142M1 | | | | | | |
| | | | LED | 12V green | A0142M2 | | | | | | |
| | | | LED | 12V amber | A0142M3 | | | | | | |
| | | | LED | 12V blue | A0142M4 | | | | | | |
| | | | LED | 12V white | A0142M5 | | | | | | |
| | | | LED | 24V red | A0142N1 | | | | | | |
| | | | LED | 24V green | A0142N2 | | | | | | |
| | | | LED | 24V amber | A0142N3 | | | | | | |
| | | | LED | 24V blue | A0142N4 | | | | | | |
| | | | LED | 24V white | A0142N5 | | | | | | |
| | | | LED | 48V red | A0142P1 | | | | | | |
| | | | LED | 48V green | A0142P2 | | | | | | |
| | | | LED | 48V amber | A0142P3 | | | | | | |

Bezel: rectangular square round. 'Illum' - illuminated, 'Non-illum' - non illuminated

Second switch block

| Contacts | Part No |
|---------------|---------|
| 1 N.O. | A02506 |
| 1 N.C. | A02507 |
| 2 N.O. | A02508 |
| 2 N.C. | A02509 |
| 1 N.O./1 N.C. | A02510 |

To achieve 3 or 4 pole switching, add second switch block from above table.

Indicator

| Screen | | | Lamp | | | Operator | | | |
|--------|--------|---------|----------|-----------|---------|---|------------------|---------------|---------|
| Bezel | Colour | Part No | Lamp | Voltage | Part No | Bezel | Description | Lamp type | Part No |
| ○ | black | A0263A | Filament | 6.3V | A0141A | ○ | Illum, indicator | Lamp/LED bulb | A02791 |
| ○ | red | A0263B | Filament | 14V | A0141B | Std bezel material : silver anodised aluminium. For optional black anodised aluminium, add 'G' to the end of operator model number. | | | |
| ○ | amber | A0263C | Filament | 28V | A0141C | | | | |
| ○ | yellow | A0263D | Filament | 36V | A0141D | | | | |
| ○ | green | A0263E | Filament | 48V | A0141E | | | | |
| ○ | blue | A0263F | Filament | 60V | A0141F | | | | |
| ○ | clear | A0263G | Neon | 110V | A0143G | | | | |
| ○ | white | A0263J | Neon | 220V | A0143H | | | | |
| | | | LED | 6V red | A0142L1 | | | | |
| | | | LED | 6V green | A0142L2 | | | | |
| | | | LED | 6V amber | A0142L3 | | | | |
| | | | LED | 12V red | A0142M1 | | | | |
| | | | LED | 12V green | A0142M2 | | | | |
| | | | LED | 12V amber | A0142M3 | | | | |
| | | | LED | 12V blue | A0142M4 | | | | |
| | | | LED | 12V white | A0142M5 | | | | |
| | | | LED | 24V red | A0142N1 | | | | |
| | | | LED | 24V green | A0142N2 | | | | |
| | | | LED | 24V amber | A0142N3 | | | | |
| | | | LED | 24V blue | A0142N4 | | | | |
| | | | LED | 24V white | A0142N5 | | | | |
| | | | LED | 48V red | A0142P1 | | | | |
| | | | LED | 48V green | A0142P2 | | | | |
| | | | LED | 48V amber | A0142P3 | | | | |

Bezel: rectangular square round. 'Illum' - illuminated, 'Non-illum' - non illuminated



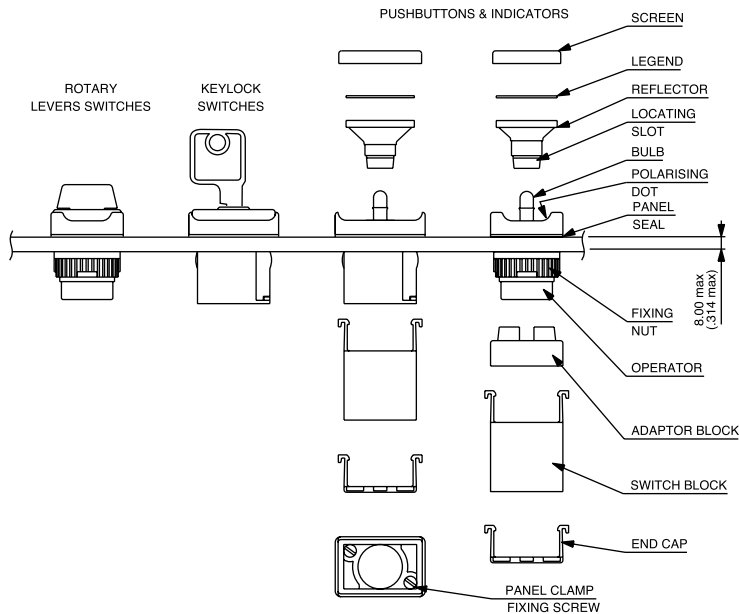
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Pushbutton switches & indicators

Installation & tools

Installation guide



PANEL MOUNTING ASSEMBLY

- Drill/punch hole shaped as shown on page one.
- Assemble front operator through hole and
 - a) Round & square types, tighten nut to a maximum torque of 0.8Nm using tool no. 30-0001. Snap on the adaptor block fit fixing nut and tighten to a maximum
 - b) Rectangular types, tighten the two panel fixing screws in the front to a maximum torque of 6cNm
- Wire chosen switch block as required and snap onto back of operator with optional end cap
- Fit bulb if required using tool No. 30-0002.
- Snap screen onto reflector assembly with legend in between if required and snap onto front operator, take care to line up the locating slot with the polarising dot and not to damage the internal seal
- To place/remove the bulb use the bulb extractor 30-0002.

SWITCH BLOCK ASSEMBLY

The switch block snaps onto the adaptor block, to remove, lever out the latches using a small screwdriver taking care not to overbend, pull off the block from the adaptor block.

Tools

Nut fixing key



30-0001

Bulb remover



30-0002

Accessories

Switch block end cap, terminal guard



14-0005

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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