## AP T

Pushbutton
EN60947-5-1,GB 14048.5,

Instructions
Drawing No.: APTO. 463. 024. 2

## Before installing the device, please read the instructions.

## 1 Summary

LA39 series pushbutton is fully functional. It could meet the demand of domestic and overseas digital control(programme control) equipment and electrical and electronic control.It's widely used in machine tool (AC power 50 Hz or $60 \mathrm{~Hz}, \mathrm{AC}$ voltage $660 \mathrm{~V} / \mathrm{DC}$ voltage below 440 V ), textile industry, ship areas, aviation, automobile , tobacco industry, electric power, medical devices etc.And supporting the use of circuit cont rol, signal control, interlock.
.2 The composition and significance of models

(1) (2) (3) (4) (5) (6) (7) (9) (10) (11)
(7) Symbolic code
8) Button colour
9) Action of rotary switch or key switch
(1) Voltage code for pilot lamp
(11) Operator shell protection grade
(12) Assist code

## (1) Pushbutton type <br> (2) Design number

(3) Operator style and bracket style
(4) Quantity of normally open contacts
(5) Quantity of normally close contacts
(6) Assist type

## 2 Notes

1) Power must be turned off while installing the switch, wiring the line etc.
2) The wire must meet the requirement.
3) Cover the switch during installation to prevent impurities into product, such as metal powder.
4) The switch should be used in rated voltage and electric current.
3 Technical Characteristics
3.1 Technical Parameters (Uated insulation voltage (Ui):
5) Conventional free air thermal current (lth):
6) Rated impulse withstand voltage(Uimp):
7) Power frequency withstand voltage :
8) Electrical life:
9) Using categories: AC-15, DC-13;

10A
4000 V

| AC-15 | Ue | 660 V | 380 V | 220 V | 110 V | 48 V | 24V | Table1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | le (Instantaneous) | 0.8A | 1.5A | 2.5A | 5A | 10A | 10A |  |
|  | le (Peristaltic) | 2A | 4A | 6A | 10A | 10A | 10A |  |
| DC-13 | Ue | 440 V | 220 V | 110V | 48 V | 24 V | 1 |  |
|  | le (Instantaneous) | 0.2A | 0.4A | 0.8A | 1.8A | 3.6A | 1 |  |
|  | le (Peristaltic) | 0.25A | 0.5A | 1A | 3A | 6A | 1 |  |

## 7) Rated operating voltage corresponds to the voltage code see table2;

| Code |  | $27 \mid 36$ | 28 | 33 | 35 | 31 | 40 | 41 | 42 | 37 | 32 | 38 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Power supply | AC.DC |  |  |  |  | $50 \sim 60 \mathrm{~Hz} \mathrm{AC}$ |  |  |  |  |  |  |



picture 2
1890 V (AC valid values) / 5 s ;
$6 \times 10^{5}$ times
$6 \times 10^{5}$ times
AC-15, DC-13
http://www.china-apt.com

Type of fuse in test of rated conditional short-circuit current : NT00-10A;
) The largest cross-section: $1.5 \mathrm{~mm}^{2}$, the least cross-section: $0.5 \mathrm{~mm}^{2}$, the maximum number of conductors connected to the terminal : 2;
10) Diameter of the thread:M3.5, tightening torque: $0.8 \mathrm{~N} \cdot \mathrm{~m}$;
11) Rotate pushbutton operating moment $<0.5 \mathrm{~N} \cdot \mathrm{~m} ;$ Pushbutton head operating moment $0.2 \mathrm{~N} \cdot \mathrm{~m}$;(without switch body)
32 Work Environment

1) Use environment temperature :- $25^{\circ} \mathrm{C} \sim+55^{\circ} \mathrm{C}$
2) Air relative humidity: $\leq 90 \%$
3) The altitude is less than 2000 m ;
4) Installation category is II ;
5) Pollution degree is 3 ;(When the operational voltage exceed 500 V , pollution degree is 2 )

## picture 1



## 4 Installation method and Installation dimension

4.1 Installation method
4.1.1 Insert the operator into the mounting hole from the front of panel.
4.1.2 For Z 1 Z 2 type,twist the mounting base in the back of the panel,fasten both screws(max torque is $25 \mathrm{~N}-\mathrm{cm})$. When the panel material is plastic and other non-metal, a mounting plate could be put at the back the panel before mounting;

Inset washer into pushbutton from the back of the panel.Acording to panel thickness,it could change installation.(Only for Z 5 type);
4.1.3 The gasket from the opposite side of the panel set into the button head, positive and negative can be adjusted according to the thickness of the panel installation ( $Z 5$ only need)
4.1.4 Install the screw nut and fixing device from the back side of the panel by turning $30^{\circ}$ clockwise of th screw, then fasten the fixing device by the special assemble element. Noting the white mark of the screw $r$ must be upper and aligning the nick with the actuator housing. Sheath the fixing device with the body of flange, and then fasten the body by pushing the locking piece according to the arrow. The locking piece mu: be upper(it's suitable for $Z 3 Z 4 Z 5$ type).
4.1.5 Button on the contact module (in separate contact module and the bracket)

Tips: 1 , all C button to match the $\mathrm{Z1}$ a default with a C gasket and F5, mounting plate thickness $\leqslant 1.5 \mathrm{~mm}$ when need to order
A. Mounting plate thickness $<1.5 \mathrm{~mm}$, except the $\mathrm{Cl}-\mathrm{X}(\mathrm{S}) \mathrm{D} /$ model increase as shown in figure 22 gas C1 - X (S) D / 1 .
B. when Mounting plate thickness $1.5-3 \mathrm{~mm}$, add 1 C gasket;
C. when installing thickness $3-6 \mathrm{~mm}$, all models don't c gasket

2, If Z3 bracket rotary switch or key switch, it need add a piece of space gasket. units:mm 4.2 Installation dimension


\begin{tabular}{|c|c|c|c|}
\hline \multirow[t]{2}{*}{diameter} \& \multirow[t]{2}{*}{a} \& \multicolumn{2}{|l|}{b} <br>
\hline \& \& A. B type \& C type <br>
\hline general \& $$
\begin{aligned}
& \text { A type Ø29.7, } \\
& \text { C tume } \begin{array}{l}
\text { an4.5 }
\end{array}
\end{aligned}
$$ \& \multirow[t]{5}{*}{A, Btype

$53.2+2.3$} \& \multirow{5}{*}{$64.6 \pm 2.3$} <br>
\hline nushroon \& ¢40 or 660 \& \& <br>
\hline selector switch \& short handle $\$ 29.7$ long handle $40 * 29.7$ \& \& <br>
\hline energency stop \& 840 \& \& <br>
\hline Key swich \& 629.7 \& \& <br>
\hline
\end{tabular}


$\frac{\$ 22.3{ }^{+0.40}}{\$ 30.50_{0}^{+0.50}}$


A/B type mounting hole diameter Ctype mounting hole diameter
Siemens Electrical Apparatus Ltd., Suzhou, Tiantai Branch
Jigong Avenue 699-10 Tiantai, Zhejiang,China
Sales Dept :Tsidi Building No.55,Lane 777,West Guangzhong Road Shanghai Tel: 021-56553757
http://www.china-apt.com
2016/11

