Choose one component from each of the coloured sections to assemble a complete switch.
For other options or further information please contact your local sales office.

## Product Profile

The Series 56 is a high quality switch range that includes pushbuttons and indicators.
Options include double sided pushbuttons, glass mount pushbuttons, raised palm push lenses, raised tactile symbols and Braille front bezels.
Technical data see page 73
Technical drawings see pages 74-77

- IP67 front protection
- Switch Rating: Minimum: 5VDC, 5mA Maximum: 137VDC, 200mA
- Electrical Strength: $4000 \mathrm{VAC}, 50 \mathrm{~Hz}$ 1 min between all terminals and mounting plate
- 200mm cable standard
- Options for cable length and LED colours
- As standard AMP connector with plug in housing $2.8 \times 0.8 \mathrm{~mm}$

| Double sided pushbutton |  | Single sided pushbutton |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Single sided pushbutton



Single sided panel mount pushbutton switch with 24 VDC operated LEDs

| Part No. | LED colour | Lens style |  |
| :--- | :---: | :--- | :---: |
| $56-130.22 .200 .25 .{ }^{*}$ | Yellow | Raised metal |  |
| $56-130.22 .200 .23 .{ }^{*}$ | Green | Raised metal |  |
| $56-130.22 .200 .21 .{ }^{*}$ | Green/Red | Raised metal |  |
| $56-130.22 .200 .24 .{ }^{*}$ | Red | Raised metal |  |
| $56-130.22 .200 .22 .{ }^{*}$ | Red/Green | Raised metal |  |
| $56-030.05 .200 .00 .{ }^{*}$ | Without | Raised metal |  |
|  |  |  |  |
|  |  |  |  |
| *Denotes colour of lens add 04=blue, 02=yellow, |  |  |  |
| 03=green, 05=natural, 01=red |  |  |  |
| For complete switch also order |  |  |  |



Single sided panel mount pushbutton switch with $24 V D C$ operated LEDs

| Part No. | LED colour | Lens colour | Lens style |
| :--- | :---: | :---: | :---: |
| $56-120.22 .200 .25 .05$ | Yellow | Natural anodised | Flush metal |
| $56-120.22 .200 .23 .05$ | Green | Natural anodised | Flush metal |
| $56-120.22 .200 .22 .05$ | Red/Green | Natural anodised | Flush metal |
| $56-120.22 .200 .24 .05$ | Red | Natural anodised | Flush metal |
| $56-120.22 .200 .21 .05$ | Red/Green | Natural anodised | Flush metal |
| $56-020.05 .200 .00 .05$ | Without | Natural anodised | Flush metal |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



Single sided panel mount pushbutton switch with $24 V D C$ operated LEDs

| Part No. | LED colour | Lens style |
| :--- | :---: | :---: |
| $56-110.22 .200 .25$. . $^{*}$ | Yellow | Flush plastic |
| $56-110.22 .200 .23$. . $^{*}$ | Green | Flush plastic |
| $56-110.22 .200 .21 .{ }^{*}$ | Green/Red | Flush plastic |
| $56-110.22 .200 .24$. . $^{*}$ | Red | Flush plastic |
| $56-110.22 .200 .22 .{ }^{*}$ | Red/Green | Flush plastic |
| $56-010.05 .200 .00 .{ }^{*}$ | Without | Flush plastic |

[^0]$03=$ green, $05=$ natural, $01=$ red
For complete switch also order $\mathbf{A}$

## Single sided pushbutton



Single sided pushbutton for panel mount with 110VDC operated LED's

| Part No. | LED colour | Lens style |
| :--- | :---: | :--- |
| $56-530.22 .200 .25 .{ }^{*}$ | Yellow | Raised metal |
| $56-530.22 .200 .23 .{ }^{*}$ | Green | Raised metal |
| $56-530.22 .200 .21 .{ }^{*}$ | Green/Red | Raised metal |
| $56-530.22 .200 .24 .{ }^{*}$ | Red | Raised metal |
| $56-530.22 .200 .22 .{ }^{*}$ | Red/Green | Raised metal |
| $56-030.05 .200 .00^{*}$ | Without | Raised metal |
|  |  |  |
|  |  |  |
| *Denotes colour of lens add 04=blue, 02=yellow, |  |  |
| $03=$ green, 05=natural, 01=red |  |  |

For complete switch also order $\mathbf{A}$


Single sided indicator for panel mount with or without hidden legends/text, 24VDC. Up to three lines of text or a symbol can be shown

| Part No. | LED colour | Lens colour | Markings |
| :--- | :---: | :---: | :--- | :--- |
| $56-3213.90$ | Red | Red | Symbol $^{*}$ |
| $56-3213.91$ | Red | Red | 1 line $^{*}$ |
| $56-3213.92$ | Red | Red | 2 lines $^{*}$ |
| $56-3213.93$ | Red | Red | 3 lines $^{*}$ |
| $56-3213.8$ | Red | Red | Without |
| $56-9213.8$ | White | White | Without |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| *Text on symbol must be specified when ordering |  |  |  |
| For complete switch also order | A |  |  |



Single sided pushbutton for panel mount with 110VDC operated LED's

| Part No. | LED colour | Lens colour | Lens style |
| :--- | :---: | :---: | :---: |
| $56-520.22 .200 .25 .05$ | Yellow | Natural anodised | Flush metal |
| $56-520.22 .200 .23 .05$ | Green | Natural anodised | Flush metal |
| $56-520.22 .200 .22 .05$ | Red/Green | Natural anodised | Flush metal |
| $56-520.22 .200 .24 .05$ | Red | Natural anodised | Flush metal |
| $56-520.22 .200 .21 .05$ | Red/Green | Natural anodised | Flush metal |
| $56-020.05 .200 .00 .05$ | Without | Natural anodised | Flush metal |
|  |  |  |  |
|  |  |  |  |
| For complete switch also order | A |  |  |

For complete switch also order A

## Single sided raised indicator



Single sided indicator for panel mount with raised front lens. The illumination can be red, yellow, green, blue or white. Standard voltage 24VDC or 110VDC

| Part No. | LED colour | Lens colour | Voltage |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 56-2213.70 | Green | Green | 24VDC |  |  |
| $56-3213.70$ | Red | Red | 24VDC |  |  |
| $56-6213.70$ | Yellow | Yellow | 24VDC |  |  |
| $56-8213.70$ | Blue | Blue | 24VDC |  |  |
| $56-9213.70$ | White | White | 24VDC |  |  |
| $56-2913.70$ | Green | Green | 110VDC |  |  |
| $56-3913.70$ | Red | Red | 110VDC |  |  |
| $56-6913.70$ | Yellow | Yellow | 110VDC |  |  |
| $56-8913.70$ | Blue | Blue | 110VDC |  |  |
| 56 -9913.70 | White | White | 110VDC |  |  |
| For complete switch also order |  |  |  |  | A |

## Accessories



Round front bezel for single sided glass mount pushbutton, single pushbutton switches, indicators, and mounting on the exterior side of the double sided switch

| Part No. | Colour | Bezel material |
| :---: | :---: | :--- |
| $56-1000$ | Black | Plastic |
| $56-1600$ | Blue RAL 5017 | Plastic |
| $56-1800$ | Dark grey RAL 7043 | Plastic |
| $56-1800 A$ | Light Grey RAL 7040 | Plastic |
| $56-1500$ | Green RAL 6024 | Plastic |
| $56-1300$ | Orange RAL 2003 | Plastic |
| $56-1200$ | Red RAL 3020 | Plastic |
| $56-1400$ | Yellow RAL 1023 | Plastic |
| $56-3600$ | Matt Chrome | Metal |
| Also available in square |  |  |
| For complete double sided switch also order |  |  |
| Interior Front Bezel |  |  |



Choose one component from each of the coloured sections to assemble a complete switch. For other options or further information please contact your local sales office.

## A Accessories



Round front bezel for mounting on the interior side of double sided glass mount pushbuttons

| Part No. | LED/Colour | Bezel material |
| :---: | :---: | :---: |
| $56-5600$ | Blue RAL 5017 | Plastic |
| $56-5800$ | Dark grey RAL 7043 | Plastic |
| $56-5800 \mathrm{~A}$ | Light Grey RAL 7040 | Plastic |
| $56-5500$ | Green RAL 6024 | Plastic |
| $56-5300$ | Orange RAL 2003 | Plastic |
| $56-5200$ | Red RAL 3020 | Plastic |
| $56-5400$ | Yellow RAL 1023 | Plastic |
| $56-7600$ | Matt Chrome | Metal |
|  |  |  |
|  |  |  |

For complete double sided switch also order External Front Bezel


Round plastic front bezel with text and braille for use with single sided glass mount pushbutton, single pushbutton switches and indicators

| Part No. | LED/Colour | Markings |
| :---: | :---: | :---: |
| 56-1491 | Yellow RAL 1023 | Open |
| $56-1492$ | Yellow RAL 1023 | Close |
| $56-1391$ | Orange RAL 2003 | Open |
| $56-1392$ | Orange RAL 2003 | Close |
|  |  |  |
|  |  |  |



Symbols available for front lens, engraved or embossed. Many more available on request. Quote symbol number when ordering switch

| Marking | Symbol No. |
| :---: | :---: |
| S2 | 00.868 |
| $83$ | 00.869 |
| $\langle\\|\rangle$ | 00.835 |
| $D<$ | 00.836 |
| $\zeta$ | 40089 |



Dismantling tool for front bezel
$\qquad$


## Switching system

Self-cleaning, double-breaking snap-action switching system 1 normally open contact, momentary function

## Material

## Connection cable

Halogene free polydefine mixture

## Lens

Aluminium anodized or thermoplastic polybutylenterephthalat (PBT), as per UL 94 V0

## Front bezel

Zinc matt chromium plated or thermoplastic polybutylenterephthalat (PBT), as per UL 94 V0

## Actuator

Polycarbonate (PC), as per UL 94 V0
Material of contacts
gold-plated silver

## Mechanical characteristics

## Connection method

Cable 4-poles with plug-in connection $2.8 \times 0.8 \mathrm{~mm}$
flat plug-in housing rectangular, AMP No. 626 057-0
Counterpart to AMP flat plug-in housing (not part of delivery)
receptacle housing AMP No. 626 056-0
receptacle socket AMP No. 160 655-2
Other version:
cable 4 poles with plug-in connection $6.3 \times 0.8 \mathrm{~mm}$
flat plug-in housing rectangular, AMP No. 180 901-0
Counterpart to AMP flat plug-in housing
(not part of delivery)
receptacle housing AMP No. 180 900-0
receptacle socket AMP No. 160 860-2

## Wire cross-section

$0.5 \mathrm{~mm}^{2}$

## Fixing screws

Single pushbutton I indicator for standard mounting M4 x 8mm double pushbutton for glass mounting M4×25 mm single pushbutton for glass mounting $\mathrm{M} 4 \times 20 \mathrm{~mm}$ (for glass up to 5 mm )
single pushbutton for glass mounting M4×16 (for 4 mm glass)

## Tightening torque

Screws at the single pushbutton I indicator for front panel mounting 80 Ncm... 100 Ncm
Screws at the single pushbutton I double pushbutton for glass mounting 50 Ncm

## Actuation force

6 N... 12 N

## Actuation travel

$\sim 0.5 \mathrm{~mm}$

## Mechanical life

2 million operations
Key (mounting I dismantling) hexagon socket wrench size 2.5 mm

## Electrical characteristics

## Illumination

Ready status, 8 LED green or red or yellow optical switch on status, 2 LED green or red (3 LED for special versions)
supply voltage 24/36/48/72/96/110 VDC
tolerance +25\%...-30\%
Current consumption < 50 mA
Switch rating
min. 5 VDC, 5 mA
max. 137 VDC/VAC, max. 200 mA
EMC approved, as per
IEC/EN 61000-4-6
IEC/EN 61000-4-3
IEC/EN 61000-4-4
IEC/EN 61000-4-2
IEC/EN 61000-4-5
CISPR 22, EN 55022
Electric strength
$4000 \mathrm{VAC}, 50 \mathrm{~Hz}, 1 \mathrm{~min}$, between all terminals and mounting plate

## Environmental conditions

## Storage temperature

$-45^{\circ} \mathrm{C} . . .+90^{\circ} \mathrm{C}$

## Operating temperature

$-40^{\circ} \mathrm{C} . . .+80^{\circ} \mathrm{C}$

## Protection degree

Front IP 67
Back IP 65

## Climate resistance

Damp heat, cyclic:
6 cycles, $+25^{\circ} \mathrm{C} . . .+55^{\circ} \mathrm{C} / 95 \% . . .100 \%$ relative humidity,
as per IEC 60068-2-30
Damp heat, state:
56 days, $+40^{\circ} \mathrm{C} / 93 \%$ relative humidity, as per IEC 60068-2-56
Rapid change of temperature:
100 cycles, $-40^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$, as per IEC 60068-2-14

## Shock resistance

(semi-sinusoidal)
max. $250 \mathrm{~m} / \mathrm{s}^{2}$, pulse width 11 ms , as per IEC 60068-2-27
Vibration resistance
(sinusoidal)
max. $100 \mathrm{~m} / \mathrm{s}^{2}$ at $10 \mathrm{~Hz} . . .2000 \mathrm{~Hz}$, as per IEC 60068-2-6

## Approvals

CE (declaration of conformity)

56 Single pushbutton
For glass mounting


## 56 Indicator

For front panel mounting standard mounting


56 Double pushbutton
For glass mounting


## 56 Single pushbutton

For front panel mounting standard mounting


## 56 Indicator

For front panel mounting flush mounting


56 Single pushbutton
For front panel mounting flush mounting


56 Indicator
For front panel mounting


## 56 Single / Double pushbutton

For glass mounting


56 Single pushbutton
For front panel mounting flush mounting


56 Single pushbutton
For front panel mounting


## 56 Indicator

For front panel mounting flush mounting


56 Indicator
For front panel mounting standard/flush


56 Single pushbutton
For front panel mounting/standard mounting


56 Single pushbutton
For front panel mounting


## 56 Single pushbutton

For front panel mounting/standard mounting, non-illuminated



[^0]:    *Denotes colour of lens add 04=blue, 02=yellow,

