## 

These safety cable pull switches are developed and manufactured according to IEC and EN European standards.
Easy to use, electromechanical safety switches provide:

- Visible operation
- Ability to switch large currents ( 10 A conventional thermal current)
- Precise operating points (consistency)
- Immunity to electromagnetic disturbances
- Electrically separated contacts (Zb)
- N.C. contacts with positive opening operation $\Theta$
- Actuation Speed: 0.5 to $0.01 \mathrm{~m} / \mathrm{s}$ [19.7 to $0.4 \mathrm{in} / \mathrm{s}$ ]
- Conduit opening - $1 / 2^{\prime \prime}$ NPT threaded or adapter



## Contacts Configuration Charts

Chart 1
X11 Slow action $1 \mathrm{NO}+1 \mathrm{NC}$


## Chart 2

W02 Simultaneous slow action 2NC


## Chart 3

X12 Slow action $1 \mathrm{NO}+2 \mathrm{NC}$


Chart 4
W03 Simultaneous slow action 3NC


## 

## Bar Charts For Cable Pulls

X11


W02


X12


W03


## Pull Tension from Center

A = Max. travel of the operator in mm
$B=$ Tripping travel
$\mathrm{P}=$ Point from which positive opening is assured
$R=$ Reset latch activates

## Lax Tension from Center

$A^{1}=$ Max. travel of the operator in mm
$B^{1}=$ Tripping travel
$R^{1}=$ Reset latch activates

| Part Series | Contact Configuration | Displacement Values mm[in] |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A1 | B1 | R1 | Center* | B | $R$ | P | A |
| $\begin{aligned} & \text { SBM2K9900 } \\ & \text { SCM2K9900 } \\ & \text { SDM2K9800 } \end{aligned}$ | X11 | 5.6 [0.22] | 3.0 [0.12] | 3.0 [0.12] | 0 [0] | 3.0 [0.12] | 3.0 [0.12] | 3.7 [0.15] | 4.0 [0.16] |
|  | W02 |  |  |  |  |  |  |  |  |
|  | X12 |  |  |  |  |  |  |  |  |
|  | W03 |  |  |  |  |  |  |  |  |

Note:
*At center line, green ring on switch will be visible.

| Part Series | Contact Configuration | Force Values N [lbit] |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A1 | B1 | $R 1$ | Center | B | $R$ | P | A |
| SBM2K9900 SCM2K9900 | X11 | 0 [0] | 80 [17.98] | 80 [17.98] | 120 [26.98] | 160 [35.97] | 160 [35.97] | 170 [38.22] | 170 [38.22] |
|  | W02 |  |  |  |  |  |  |  |  |
|  | X12 W03 |  |  |  |  |  |  |  |  |
| SDM2K9800 | X11 | 40 [8.99] | 80 [17.98] | 80 [17.98] | 120 [26.98] | 160 [35.97] | 160 [35.97] | 170 [38.22] | 170 [38.22] |
|  | W02 |  |  |  |  |  |  |  |  |


| General Specifications |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SBM | SCM | SDM | SP2 |
| Environmental |  |  |  |  |  |
| Degree of Protection |  | IP66 | IP66 | IP66 | IP65 |
| Temperature Range |  | $-30^{\circ} \text { to } 80^{\circ} \mathrm{C}\left[-22^{\circ} \text { to } 176^{\circ} \mathrm{F}\right]$ <br> Minimum temperatures assume that the atmosphere is free of moisture，which could cause moving parts to freeze up． |  |  |  |
| Rated Insulation Voltage |  | 500 V |  |  |  |
| Pollution Degree |  | Degree 3 |  |  |  |
| Mechanical Ratings |  |  |  |  |  |
| Mechanical Life |  | Cable Pull： 500,000 operations Interlock：1，000，000 operations |  |  |  |
| B10d |  | Cable Pull：1，000，000 operations Interlock：2，000，000 operations |  |  |  |
| Enclosure Material |  | Die－cast aluminum | Die－cast aluminum | Zinc alloy | Fiberglass reinforced plastic V0 class（UL94） |
| Contact Blocks Rating |  |  |  |  |  |
| Positive Opening |  | Yes |  |  |  |
| Electrical Ratings | AC15 | $\begin{aligned} & 24 \mathrm{VAC}=10 \mathrm{~A} \\ & 120 \mathrm{VAC}=6 \mathrm{~A} \\ & 400 \mathrm{VAC}=4 \mathrm{~A} \end{aligned}$ |  |  |  |
|  | DC13 | $\begin{gathered} 24 \mathrm{VDC}=6 \mathrm{~A} \\ 125 \mathrm{VDC}=0.55 \mathrm{~A} \\ 250 \mathrm{VDC}=0.4 \mathrm{~A} \end{gathered}$ |  |  |  |
| Maximum Switching Frequency |  | one cycle per second |  |  |  |
| Short Circuit Protection |  | Cartridge fuses，general purpose，gl 10A－500V 10．3x38 1 100KA |  |  |  |
| Contact Resistance |  | $25 \mathrm{~m} \Omega$ |  |  |  |
| Recommended Minimum Operating Speed |  | 500 mm per minute（applies only to slow－action contacts） |  |  |  |
| Terminals Marking |  | According to IEC 60947－5－1 |  |  |  |
| Wiring Connections |  | $2.08 \mathrm{~mm}^{2}$（14AWG）to $0.82 \mathrm{~mm}^{2}$（18AWG） |  |  |  |
| Terminal Max Tightening Torque |  | $0.8 \mathrm{~N} \cdot \mathrm{~m}$ |  |  |  |
| Wiring Terminal Type |  | Captive screw with self－ifiting pressure plate |  |  |  |
| Tools Needed |  |  |  |  |  |
| Phillips screwdriver，\＃1 \＃2／Hex wrench，10mm |  |  |  |  |  |

## Comepi Safety Switches Accessories



0 CCO


Saiety Limit Switches Cable Pull Accessories

| Part Number | Price | Description | Weight <br> (lb) |
| :--- | :---: | :---: | :---: |
| OCC08 | $\$ 1.00$ | Eye bolt | 0.2 |
| MOR05 | $\$ 1.00$ | Cable Clamp | 0.1 |
| RED05 | $\$ 1.00$ | Eye thimble | 0.0 |
| FUN05M015 | $\$ 15.50$ | 15 meter length steel cable 5 mm diameter, <br> Red | 2.0 |
| FUN05M025 | $\$ 23.50$ | 25 meter length steel cable, 5 mm diameter, <br> Red | 3.3 |



MORO5


RED05


All dimensions are in mm [in].

## FUN05M025

## Installation example

SM, SDM series: 6 m max
SBM, SCM series: 16m max


FUN05M025

## Safety Products



Warning: Safety products sold by AutomationDirect are Safety components only. The purchaserinstaller is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors'products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.

AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.

