# Safety Rope Pull Switches <br> SR Plastic Body \& SRM Metal Body <br> Latching Style with Reset Button with Optional Emergency Stop Button 



## Safety Rope Pull Switches <br> SR Plastic Body \& SRM Metal Body For more safety on the production line

Whether on the conveyor belt or on the machine when maximum safety is required, BERNSTEIN rope pull switches provide a proven and reliable technical solution.
The switches can be deployed flexibly, are easy to install and convenient to handle. And most importantly: they offer maximum safety when it is needed.

## Advantages

- Rope status display allows fast and correct setting and inspection
- Integrated emergency stop impact button (optional for SR)
- Easy to use with a double function palm button (emergency stop and pull release)
- Economical installation due to the Quick-Fix clamping head
- A cover over the mechanical parts ensures the switches are tamper-proof

- Connection area and mechanical components are separate for extra safety
- Flexible application due to different lengths
- Manufactured in accordance with standards IEC 60947-5-1:
- IEC 60947-5-5
- ISO 13850
- DGUV, cCSAus and CCC approval

The SR and SRM series of safety rope pull switching devices developed and manufactured by BERNSTEIN AG are designed and approved in accordance with the standards IEC 947-5-5, IEC 60947-5-5 and ISO 13850. On actuation or in the event of cable breakage, the emergency stop switching device locks automatically and can only be reset to its initial setting by using the resetting device on the switch.

Before using the rope pull emergency stop switch, a risk assessment in accordance with ISO 13850 must be carried out. The safety standards requires a possible triggering of the emergency stop signal by pulling the rope in each actuation direction. This is realised by the integration of a return spring in the system.

A standard compliant system can be simply and easily installed using the safety rope pull emergency stop switches SR / SRM and the appropriate return spring.

## Safety Rope Pull Switches SR Plastic Body \& SRM Metal Body

Faster, easier, more cost-efficient quick clamping device Quick-Fix

The advantage of this system is not only the removal of the otherwise necessary cable eye stiffeners, cable grips and turnbuckles, but also the drastic reduction of the time required to install the cable.


Two rope pull return springs with the Quick-Fix quick-connect system are available as accessories:

- Rope pull counter-spring 391.1042.153 for SR...

100/SR...175/SRM... 175

- Rope pull counter-spring 391.1042.154 for SR... 300/SRM... 300


Insert rope into the quick fastening head


Secure clamping head with hexagon socket screw SW 4

Complete assembly A span of up to 75 metres can be achieved by using BERNSTEIN safety rope pull switches. Type- and temperature-related - for further accessories, please see our main catalogue. When a counter-spring is not used, temperature specifications must be halved.

|  | Span L max. in metres [m] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 50 | 55 | 60 | 65 | 70 | , |
| max. temperature variation in Kelvin (K) | +/-80 K; +/-110 K |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 70 | K; | /-1 | 00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | /-6 | 60 K | ;+/ | -90 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | +/-5 | 5 K | ;+/ | -70 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | -40 | K; | +/-50 | 5 K |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | -30 | K; | +/-4 | K K |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 20 K | K; | +/-2 | 26 K |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 10 | K; | /-1 | 4 K |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | +/-7K;+/-9 K |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SR... 100 | Max. span 25 metres |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SR...175/SRM... 175 | Max. span 37.5 metres |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SR...300/SRM... 300 | Max. span 75 metres |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Safety Rope Pull Switches <br> Additional features <br> Safety Rope Pull Switches SR and SRM



## Switching status indicator (SRM)

Highly readable switching status indicator located on the switch.

Yellow in the inspection window indicates locking status.

Green in the inspection window indicates operational readiness.


## Double function of palm button (SR / SRM)

The BERNSTEIN rope pull switch emergency stop buttons provide emergency stop function and pull release on actuation or in the event of cable breakage.

The SR series offers a choice of pull release or emergency stop function + pull release.

Switches with this dual function are marked with "NA" in the designation.

## Safety Rope Pull Switches <br> Additional features <br> Safety Rope Pull Switches SR and SRM



## Teleindication for monitoring the rope tension (SRM)

Critical rope conditions caused by any change in length of the rope are reported via an integrated sensor. Unnecessary downtime of the machine can be avoided by appropriately readjusting the tension.

This signal is not highly safety critical.

BERNSTEIN also offers additional indicator lights as optional extras.


- Rated operating voltage $\mathrm{U}_{\mathrm{e}} 24 \mathrm{~V}$ DC
- Rated operating current $\mathrm{I}_{\mathrm{e}} 50 \mathrm{~mA}$
- Utilisation category DC-13
- Protected against polarity reversal and short-


# Safety Rope Pull Switches SRM Metal Body 

## Product description

- Rope pull switch manufactured in accordance with IEC 60947-5-5 and ISO 13850
- Protection class IP67
- Stable and durable metal housing (Aluminium pressure die-casting)
- Suitable for outdoor use
- Can be deployed at temperatures between $-30^{\circ} \mathrm{C}$ and $+80^{\circ} \mathrm{C}$
- Easy to fasten due to hole template patterns common for most rope pull switch models
- Flexible handling with three M20 x 1.5 cable entries
- Easy installation due to the maximum connection space
- Up to four positively driven NC contacts $\Theta$
- Separate-action built-in switches
- AS-i Safety at Work versions available


## With Ring Cable Connection



## With Quick-Fix Cable Connection



## Safety Rope Pull Switches <br> SRM Metal Body - Ordering Details

| Article number * | Designation | Contact type | Max. span length ** | Features |
| :---: | :---: | :---: | :---: | :---: |
| 6012929087 | SRM-U1Z/U1Z-QF-300 | 2NC / 2NO | 75 m | Quick-Fix QF |
| 6012999096 | SRM-A2Z/U1Z-QF-300 | 3NC/1NO | 75 m | Quick-Fix QF |
| 6012929088 | SRM-U1Z/U1Z-QF-300-E | 2NC / 2NO | 75 m | Quick-Fix QF, remote indicator E |
| 6012999097 | SRM-A2Z/U1Z-QF-300-E | 3NC/1NO | 75 m | Quick-Fix QF, remote indicator E |
| 6012929085 | SRM-U1Z/U1Z-QF-175 | 2NC / 2 NO | 37,5 m | Quick-Fix QF |
| 6012999094 | SRM-A2Z/U1Z-QF-175 | 3NC/1NO | $37,5 \mathrm{~m}$ | Quick-Fix QF |
| 6012929086 | SRM-U1Z/U1Z-QF-175-E | 2NC / 2 NO | $37,5 \mathrm{~m}$ | Quick-Fix QF, remote indicator E |
| 6012999095 | SRM-A2Z/U1Z-QF-175-E | 3NC/1NO | $37,5 \mathrm{~m}$ | Quick-Fix QF, remote indicator E |
| 6012921091 | SRM-U1Z/U1Z-LU-300 | 2NC/2NO | 75 m | Eye LU |
| 6012991100 | SRM-A2Z/U1Z-LU-300 | $3 \mathrm{NC} / 1 \mathrm{NO}$ | 75 m | Eye LU |
| 6012921092 | SRM-U1Z/U1Z-LU-300-E | 2NC/2NO | 75 m | Eye LU, remote indicator E |
| 6012991101 | SRM-A2Z/U1Z-LU-300-E | 3NC/1NO | 75 m | Eye LU, remote indicator E |
| 6012921089 | SRM-U1Z/U1Z-LU-175 | 2NC / 2NO | $37,5 \mathrm{~m}$ | Eye LU |
| 6012991098 | SRM-A2Z/U1Z-LU-175 | 3NC/1NO | $37,5 \mathrm{~m}$ | Eye LU |
| 6012921090 | SRM-U1Z/U1Z-LU-175-E | 2NC / 2NO | $37,5 \mathrm{~m}$ | Eye LU, remote indicator E |
| 6012991099 | SRM-A2Z/U1Z-LU-175-E | $3 \mathrm{NC} / 1 \mathrm{NO}$ | $37,5 \mathrm{~m}$ | Eye LU, remote indicator E |
| 6073200007 | AS-i SRM-QF-175 |  | 37,5 m | Quick-Fix QF, AS-i Safety at Work |
| 6073200008 | AS-i SRM-QF-300 |  | 75 m | Quick-Fix QF, AS-i Safety at Work |
| 6073200009 | AS-i SRM-LU-175 |  | $37,5 \mathrm{~m}$ | Eye LU, AS-i Safety at Work |
| 6073200010 | AS-i SRM-LU-300 |  | 75 m | Eye LU, AS-i Safety at Work |

* further articles on request; ** temperature dependent - for more information see page 5


## SRM-U1Z/U1Z-QF-300-E-...



$\square \sqrt{\square}$. For special types please refer to separate information and product documentation
E Electronics for monitoring rope tension
300 Newton max. spring force for tensioning rope
LU Pulling eye with rope thimble
QF "Quick-Fix" quick-action fastening and quick-connect system
$\mathbf{U 1 Z}=1 \mathrm{NC} / 1 \mathrm{NO} ; \mathrm{A} 2 \mathrm{Z}=2 \mathrm{NC}$ Switching function of built-in switch S2
$\mathbf{U 1 Z}=1 \mathrm{NC} / 1 \mathrm{NO} ; \mathrm{A} 2 \mathrm{Z}=2 \mathrm{NC}$ Switching function of built-in switch S1
SRM Safety rope pull switch (switching device range)

## Safety Rope Pull Switches SR Plastic Body

## Product description

- Rope pull switch manufactured in accordance with IEC 60947-5-5 and ISO 13850
- Protection class IP67
- Stable and durable plastic housing (PA 6 GV)
- Can be deployed at temperatures between $-25^{\circ} \mathrm{C}$ and $+70^{\circ} \mathrm{C}$
- Flexible handling with three M20 $\times 1.5$ cable entries
- Easy installation due to the maximum connection space
- Up to four positively driven NC contacts $\Theta$


## Technical data SR

- Rated insulation voltage $\mathrm{U}_{\mathrm{i}} 250 \mathrm{~V}$ AC
- Rated operating voltage $\mathrm{U}_{\mathrm{e}} 240 \mathrm{~V}$
- Utilization category / switching capacity: AC-15, 240 V / 3 A
- Mechanical switching frequency max. $\leq 20 / \mathrm{min}$.
- Mechanical service life $1 \times 10^{5}$ switching cycles
- B10d: $1 \times 10^{5}$ million
- Admissible ambient temperature $-25^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$
- Protection class IP67 in accordance with IEC 60529
- Enclosure: glass fibre-reinforced polyamide PA 6


## With Quick-Fix <br> Cable Connection Reset/E-Stop Button



With Quick-Fix
Cable Connection
Reset Only Button


With Ring
Cable Connection
Reset Only Button


## Safety Rope Pull Switches SR Plastic Body - Ordering Details

| Article number * | Designation | Contact type | Max.span length ** | Features |
| :---: | :---: | :---: | :---: | :---: |
| 6011629072 | SR-U2Z-0-QF-300-L0-0-0 | 2NC / 2NO | 75 m | Quick-Fix QF |
| 6011691082 | SR-A4Z-0-QF-300-L0-0-0 | 4NC | 75 m | Quick-Fix QF |
| 6011629069 | SR-U2Z-NA-QF-300-L0-0-0 | 2NC / 2NO | 75 m | Emergency stop NA, Quick-Fix QF |
| 6011691079 | SR-A4Z-NA-QF-300-L0-0-0 | 4NC | 75 m | Emergency stop NA, Quick-Fix QF |
| 6011629071 | SR-U2Z-0-QF-175-L0-0-0 | 2NC / 2NO | 37,5 m | Quick-Fix QF |
| 6011691081 | SR-A4Z-0-QF-175-L0-0-0 | 4NC | $37,5 \mathrm{~m}$ | Quick-Fix QF |
| 6011629068 | SR-U2Z-NA-QF-175-L0-0-0 | 2NC / 2NO | $37,5 \mathrm{~m}$ | Emergency stop NA, Quick-Fix QF |
| 6011691078 | SR-A4Z-NA-QF-175-L0-0-0 | 4NC | $37,5 \mathrm{~m}$ | Emergency stop NA, Quick-Fix QF |
| 6011629070 | SR-U2Z-0-QF-100-L0-0-0 | 2NC / 2NO | 25 m | Quick-Fix QF |
| 6011691080 | SR-A4Z-0-QF-100-L0-0-0 | 4NC | 25 m | Quick-Fix QF |
| 6011629067 | SR-U2Z-NA-QF-100-L0-0-0 | 2NC/2NO | 25 m | Emergency stop NA, Quick-Fix QF |
| 6011691077 | SR-A4Z-NA-QF-100-L0-0-0 | 4NC | 25 m | Emergency stop NA, Quick-Fix QF |
| 6011621066 | SR-U2Z-0-LU-300-L0-0-0 | 2NC / 2NO | 75 m | Eye LU |
| 6011691076 | SR-A4Z-0-LU-300-L0-0-0 | 4NC | 75 m | Eye LU |
| 6011621065 | SR-U2Z-0-LU-175-L0-0-0 | 2NC / 2NO | $37,5 \mathrm{~m}$ | Eye LU |
| 6011691075 | SR-A4Z-0-LU-175-L0-0-0 | 4NC | 37,5 m | Eye LU |
| 6011621064 | SR-U2Z-0-LU-100-L0-0-0 | 2NC / 2NO | 25 m | Eye LU |
| 6011691074 | SR-A4Z-0-LU-100-L0-0-0 | 4NC | 25 m | Eye LU |

* further articles on request; ** temperature dependent - for more information see page 5


## SR-U2Z-NA-QF-175-L0-K5.5-...

