

B204777

Plastic Bodied Safety Switches with Separate Actuator

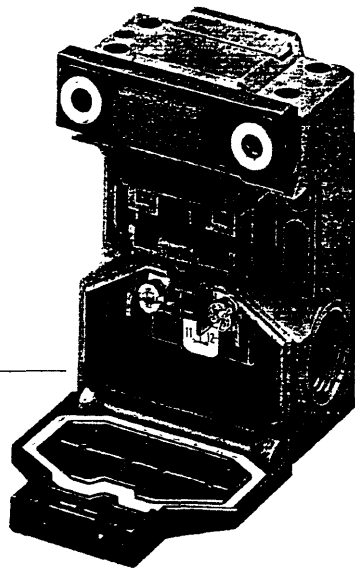
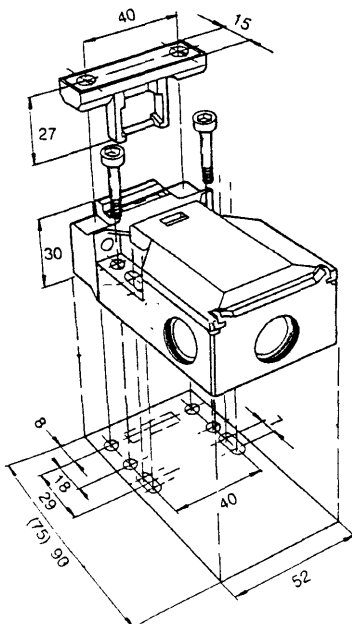
SK
SKC

Protection class IP 65

The SK and SKC safety position switches are ideal in different applications where protection of persons is important. Their constructive safety characteristics conform to DIN EN 60947-5-1, IEC 947-5-1 and the directive GS-ET 15. The main application field of the SK and SKC safety position switches, inside a process or at the machine, is to switch off the machine drive when a movable protective guard is opened.

System advantages

- high manipulation safety by triple coding of the operating device
- increased functional reliability by two independently operating locking systems
- tamper proof protection of the operating device by one-way locking of the protective cover
- ⊖ person-protection function
- fail-safe normally-closed contacts
- high reliability due to 2-pole switch-off (2 N.C.) and 1 additional signalling contact (switching function UV 15)
- galvanic isolation of contacts
- 3 x PG 11 cable inlets
- PA 6 housing and lid (UL 94-V0)

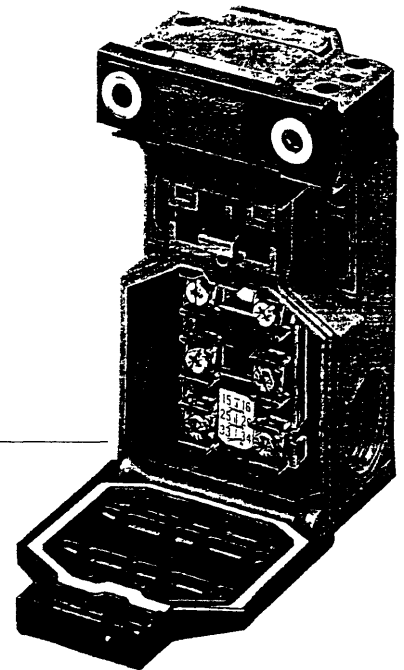


SKC Series
Housing length 75 mm

Switching function

- A1Z 1N.C. ⊕

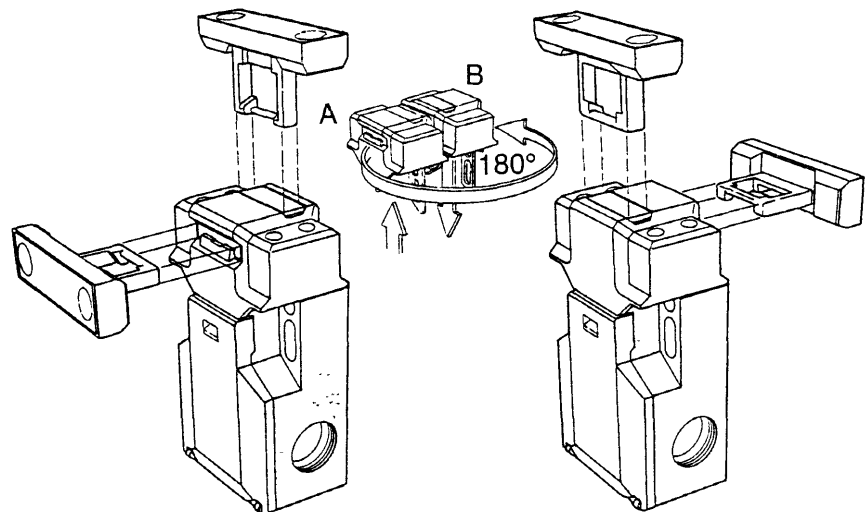
The SKC series is distinguished by its length of only 75 mm and is therefore especially suitable as a safety switch for confined spaces.



SK Series
Housing length 90 mm

Switching functions

- U1Z 1N.C. ⊖ / 1 N.O.
- UV1Z 1N.C. ⊖ / 1 N.O. leading
- A2Z 2N.C. ⊖
- UV15Z 2N.C. ⊖ / 1 N.O. leading
- UV16Z 1N.C. ⊖ / 2 N.O. leading



Fixing

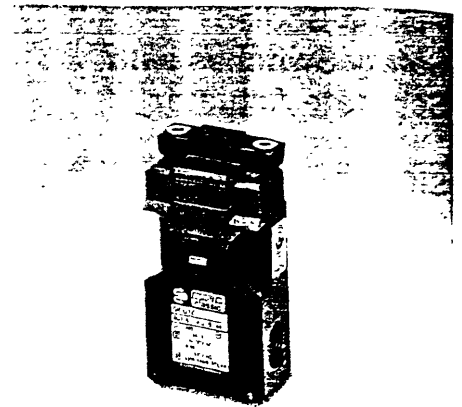
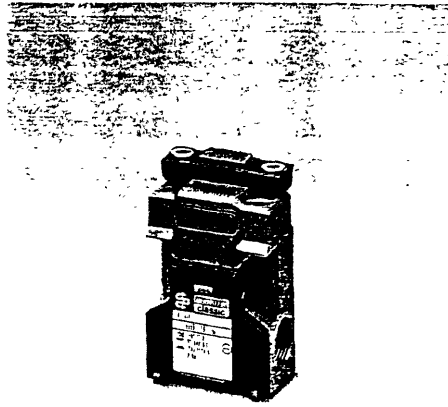
- 2 x M 5 screws, fixing using elongated holes
- 2 x M 5 screws, circular holes for safety applications without additional fixing
- front fixing using 2 x M 5 screws/nuts
- all operating devices with circular holes for M 5 screws spaced 40 mm apart

After opening the clip-on lid, the head can be removed from above (version A); after rotating through 180° (version B), the head can be pushed back onto the housing and can then be secured using the clip-on lid. This results in a total of 4 travel directions.

Plastic Bodied Safety Switches with Separate Actuator

SKC
SK

Protection IP 65



Reference type
Part number
Circuit diagram
⊖ Forced disconnect to IEC 947-5-1 chapter 3
Za not galvanically separated contacts
Zb galvanically separated contacts
Slow make & break/snap-action
Internal seal (iw)/external seal (w)

SKC-A1Z M
601.6169.039

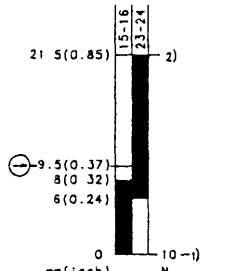
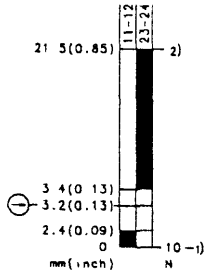
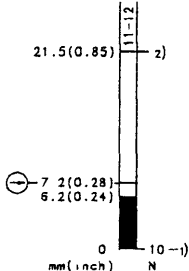
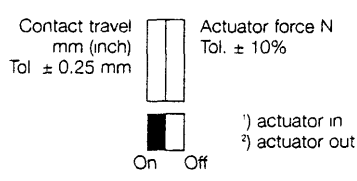
⊖ Zb
●/-
iw

SK-U1Z M
601.6119.016

⊖ Zb
●/-
iw

SK-UV1Z M
601.6139.034

⊖ Zb
●/-
iw



Voltage max 500 V AC
Permanent current max 10 A
In-rush current complies with standards IEC 947-5-1 AC 15/DC 13
Switching frequency max 30/min
Mechanical life – number of switching actions 1 x 10⁶
Operating temperature min /max -30 °C/+80 °C
-22 °F/+176 °F

Approvals UL, CSA
BG
Weight 0.11 kg/0.24 lb
Stock status: Ex stock/Built to order

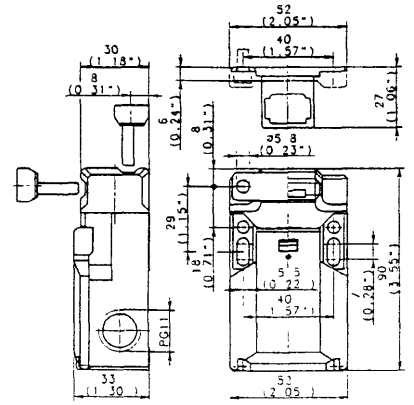
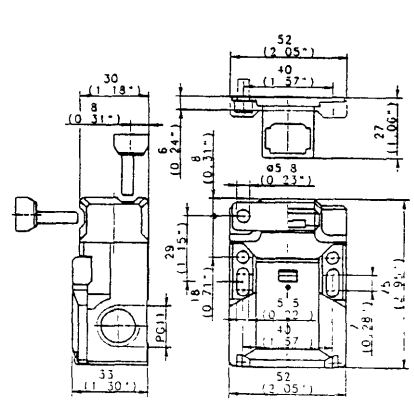
500 V AC
10 A
●
30/min
1 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F

UL, CSA
BG
0.13 kg/0.29 lb
●/-

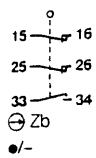
500 V AC
10 A
●
30/min.
1 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F

UL, CSA
BG
0.13 kg/0.29 lb
●/-

All measurements in mm (inch)

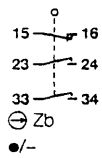


SK-UV15Z M
601.6169.026



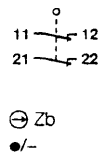
●/-
IW

SK-UV16Z M
601.6169.027

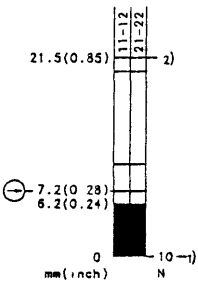
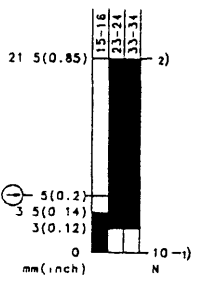
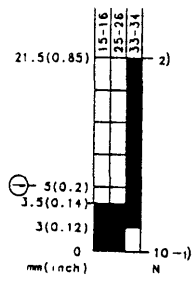


●/-
IW

SK-A2Z M
601.6169.036



●/-
IW



400 V AC
6 A
●

400 V AC
6 A
●

500 V AC
10 A
●

30/min
1 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F

30/min.
1 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F

30/min.
1 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F


UL, CSA
BG
0.13 kg/0.29 lb
●/-

UL, CSA
BG
0.13 kg/0.29 lb
●/-

UL, CSA
BG
0.13 kg/0.29 lb
●/-

Selection Table: Actuators

Safety switch
DIN EN 60947-5-1

-  NC contact forced disconnect
- Galvanically separated contacts according to Zb form

Approvals

- UL, CSA
- BG



Actuator M

- Metal
- Stainless steel

Actuator P

- Thermoplastic
- Polyamide

Radius actuator MRH

- Horizontally adjustable
- Metal

Radius actuator MRV

- Vertically adjustable
- Metal

Standard models	Actuator	Contact diagram
Single & two pole	retention force	
SKC-A1Z	10N	
SKC-A1Z F 20	20N	11 — 12
SKC-A1Z F 30	30N	
SK-U1Z	10N	
SK-U1Z F 20	20N	11 — 12
SK-U1Z F 30	30N	23 — 24
SK-UV1Z	10N	
SK-U1Z F 20	20N	15 — 16
SK-UV1Z F 30	30N	23 — 24
SK-A2Z	10N	
SK-A2Z F 20	20N	11 — 12
SK-A2Z F 30	30N	21 — 22
SK-SU1Z	10N	
SK-SU1Z F 20	20N	13 — 14
SK-SU1Z F 30	30N	21 — 22

Part number	Part number	Part number	Part number
Type reference	Type reference	Type reference	Type reference
601.6169.039	601.6169.054	601.6169.071	601.6169.072
SKC-A1Z M	SKC-A1Z P	SKC-A1Z MRH	SKC-A1Z MRV
601.6169.069	601.6169.070	○	○
SKC-A1Z F 20 M	SKC-A1Z F 20 P	○	○
○	○	○	○
601.6119.016	601.6119.035	601.6119.041	601.6119.040
SK-U1Z M	SK-U1Z P	SK-U1Z MRH	SK-U1Z MRV
○	○	○	○
611.6119.109	○	601.6119.075	○
SK-U1Z F30 M	○	SK-U1Z F 30 MRH	○
601.6139.034	○	○	601.6139.055
SK-UV1Z M	○	○	SK-UV1Z MRV
○	○	○	○
○	○	○	○
601.6169.036	○	601.6169.043	601.6169.042
SK-A2Z M	○	SK-A2Z MRH	SK-A2Z MRV
○	○	○	○
601.6169.053	○	○	○
SK-A2Z F 30 M	○	○	○
601.6109.062	○	○	○
SK-SU1Z M	○	○	○
○	○	○	○
○	○	○	○

Standard models	Actuator	Contact diagram
Three pole	retention force	
SK-UV15Z	10N	
SK-UV15Z F 20	20N	15 — 16
SK-UV15Z F 30	30N	25 — 26
		33 — 34
SK-UV16Z	10N	
SK-UV16Z F 20	20N	15 — 16
SK-UV16Z F 30	30N	23 — 24
		33 — 34

Part number	Part number	Part number	Part number
Type reference	Type reference	Type reference	Type reference
601.6169.026	○	601.6169.064	601.6169.065
SK-UV15Z M	○	SK-UV15Z MRH	SK-UV15Z MRV
601.6169.061	○	○	○
SK-UV15Z F 20 M	○	○	○
○	○	○	○
601.6169.027	○	○	○
SK-UV16Z M	○	○	○
○	○	○	○
○	○	○	○

Technically possible (on request)

- Not available



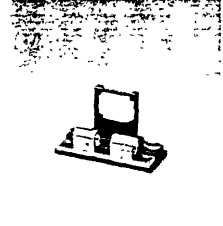
Actuator F

- Spring mounted
- Stainless steel or polyamide



Actuator MRU

- Adjustable horizontally & vertically
- Flexible
- Stainless steel



Actuator F 100

- Latching device
- Stainless steel or polyamide

Part number	Part number	Part number
Type reference	Type reference	Type reference
601.6169.087	SKC-A1Z MRU	611.6169.202
○	○	-
○	○	-
601.6119.084	SK-U1Z MRU	611.6119.174
○	○	SK-U1Z F 100 M
○	○	-
○	○	-
○	○	-
○	○	-
601.6169.085	SK-A2Z MRU	611.6169.175
○	○	SK-A2Z F 100 M
○	○	-
○	○	-
○	○	-
○	○	-

Technical Data
Standard models Single & two pole

- Insulation voltage
U_i = 500 V
- Thermal constant current
I_{th} = 10 A
- Switching frequency
Max 30/min
- Mechanical life
1 x 10⁶ strokes
- Operating temperature
-30 °C/+80 °C
- Weight
0.13 kg/0.29 lbs

Part number	Part number
Type reference	Type reference
601.6169.086	611.6169.161
SK-UV15Z MRU	SK-UV15Z F 100 P
○	-
○	-
○	○
○	-
○	-

Technical Data
Standard models three pole

- Insulation voltage
U_i = 400 V
- Thermal constant current
I_{th} = 6 A
- Switching frequency
Max. 30/min
- Mechanical life
1 x 10⁶ strokes
- Operating temperature
-30 °C/+80 °C
- Weight
0.13 kg/0.29 lbs

Important note:
To ensure safety integrity, actuators should only be purchased together with the safety switch