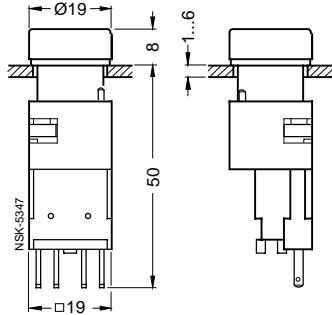


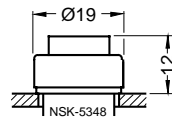
# Pushbutton Units and Indicator Lights

## 3SB2 pushbutton units and indicator lights 16 mm mounting diameter

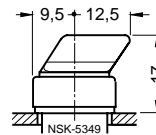
**Pushbutton or illuminated pushbutton unit**  
with flat button and holder for front plate mounting



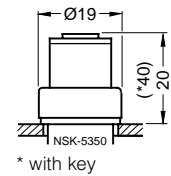
**Pushbutton or illuminated pushbutton unit**  
with raised button



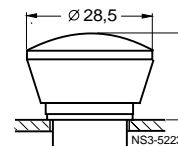
**Knob**



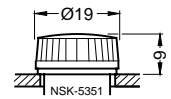
**CES safety lock**



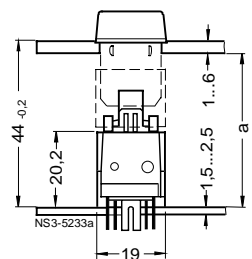
**Mushroom shaped EMERGENCY STOP pushbutton unit**



**Indicator light**



**Illuminated pushbutton unit**  
with contact block and lampholder with solder pins

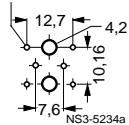


Length **a** of spacers  
 $a = 44^{+0.2}$  minus front panel thickness  
Length **a** is reduced by 0.8 mm when backing plates are used  
To avoid bending of the PCB caused by operating the unit, a sufficient number of spacers should be provided at the following spacings:

PCB thickness	max. distance between spacers
1.5 mm	80 mm
2.5 mm	150 mm

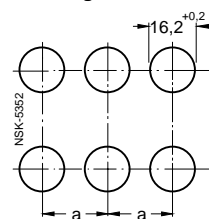
**Solder pin spacing**

Solder terminal  $\varnothing 1.3^{+0.1}$



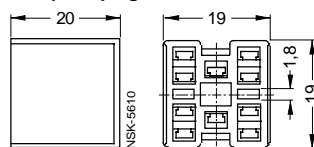
With EMERGENCY STOP units fitted generally 50 mm  
(The values apply to PCBs made from epoxy resin laminate with glass fabric base)

**Mounting dimensions**



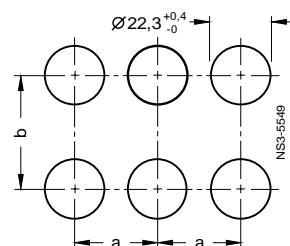
Minimum clearance	a	b
Round design	19	19
Square design without inscription plate	21	21
Round and square designs with inscription plates	21	32
Knobs with 3 switching positions, maintained contact, side by side	21	21

**Complete plug**

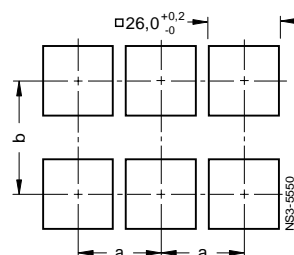


## SIGNUM 3SB3 pushbutton units and indicator lights

**Mounting dimensions**



for round design



for square design

**Minimum spacing**

Minimum spacing	a	b
Contact blocks (1 contact) and lampholder		
• for front plate mounting with screw connection	30 <sup>1)</sup>	45
• for front plate mounting with cage clamp connection	30 <sup>1)</sup>	30 <sup>1)</sup>
• for use on PCB with solder pins	30 <sup>1)</sup>	30 <sup>1)</sup>
Contact blocks with 2 contacts		
• for front plate mounting with screw connection	30 <sup>1)</sup>	50
When using holders for inscription plates		
• 12.5 mm × 27 mm	30 <sup>1)</sup>	45 <sup>2)</sup>
• 27.0 mm × 27 mm	30 <sup>1)</sup>	60
When using labelling system	40 <sup>3)</sup>	40 <sup>3)</sup>

1) Note mushroom diameter = 40 mm or 60 mm for mushroom pushbuttons, EMERGENCY STOP and push-pull button units.

2) 60 mm with contact blocks having two contacts.

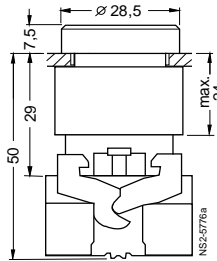
3) See operating instructions.

# Pushbutton Units and Indicator Lights

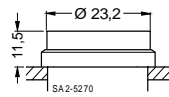
## SIGNUM 3SB3 pushbutton units and indicator lights

Round program, plastic version, 22 mm mounting diameter

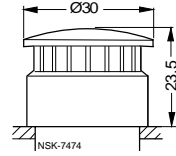
**Pushbutton and illuminated pushbutton unit, latching or non-latching types** with flat button and single pole contact block or lampholder



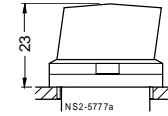
**Pushbutton or illuminated pushbutton unit** with raised button



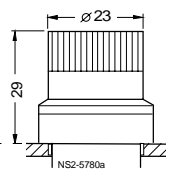
**Mushroom shaped pushbutton, illuminated push-pull button, normal or illuminated** Ø 30 mm



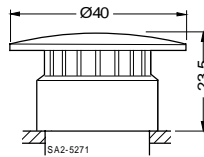
**Knob or illuminated knob** Ø 30 mm



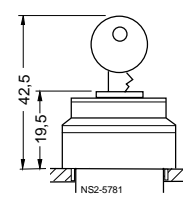
**Pushbutton unit** with raised button, latching



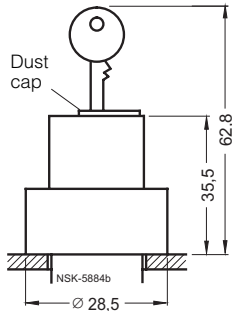
**Mushroom shaped pushbutton, illuminated push-pull button, normal or illuminated** Ø 40 mm



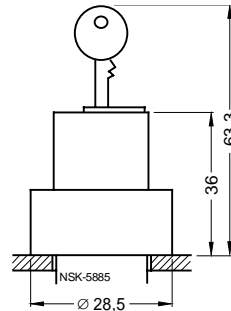
**RONIS safety lock** flat, with 2 keys



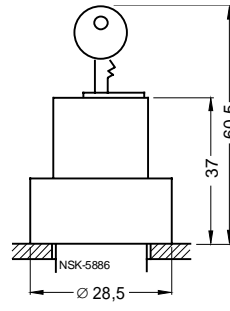
**CES safety lock**



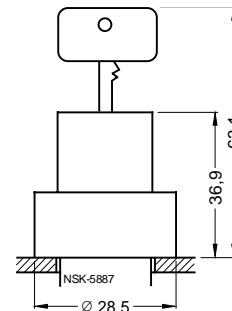
**BKS safety lock**



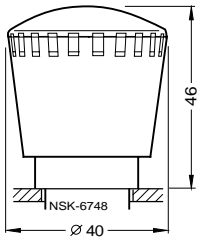
**IKON safety lock**



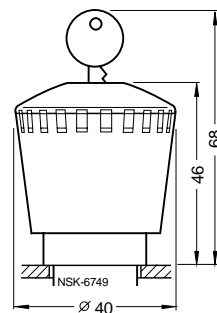
**O.M.R. safety lock**



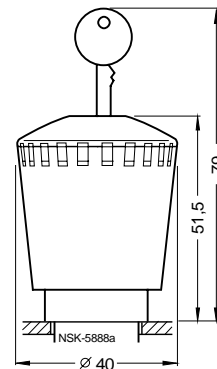
**EMERGENCY STOP mushroom pushbutton unit** with positive latching



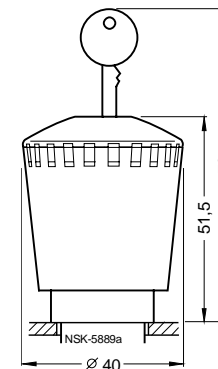
**EMERGENCY STOP mushroom pushbutton unit** with RONIS safety lock, flat



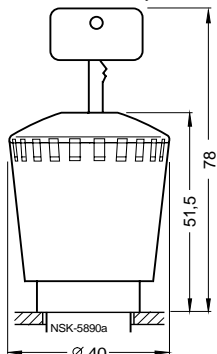
**EMERGENCY STOP mushroom pushbutton unit** with CES safety lock



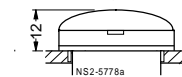
**EMERGENCY STOP mushroom pushbutton unit** with BKS safety lock



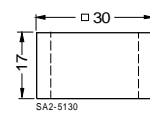
**EMERGENCY STOP mushroom pushbutton unit** with O.M.R. safety lock



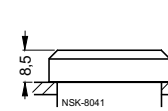
**Indicator light**



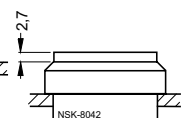
**Holder**



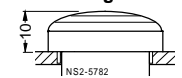
**Twin pushbutton** with flat buttons



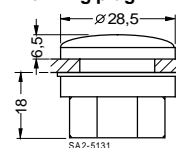
**Twin pushbutton** with flat or raised buttons



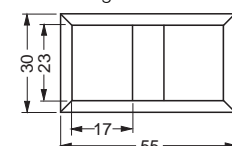
**Audible signal device**



**Blanking plug**



**Twin pushbutton** with or without indicator light

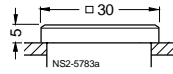


# Pushbutton Units and Indicator Lights

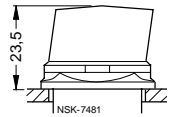
## SIGNUM 3SB3 pushbutton units and indicator lights

Square program, plastic version, 26 mm × 26 mm

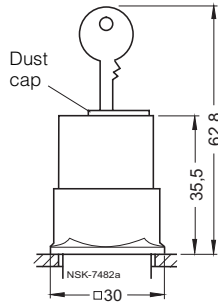
**Pushbutton and illuminated pushbutton unit, latching or non-latching types with flat button**



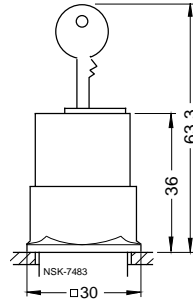
**Knob or illuminated knob**



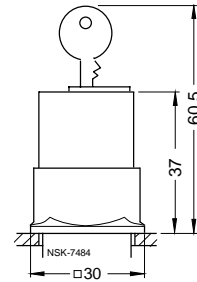
**CES safety lock**



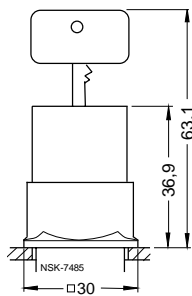
**BKS safety lock**



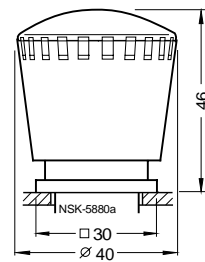
**IKON safety lock**



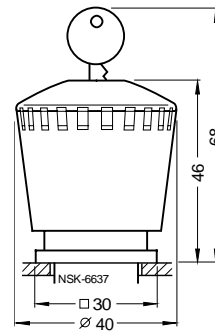
**O.M.R. safety lock**



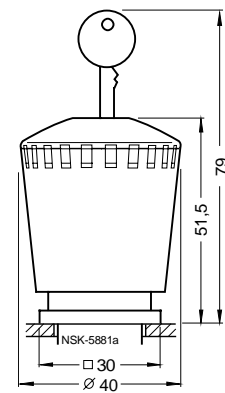
**EMERGENCY STOP mushroom pushbutton unit with positive latching**



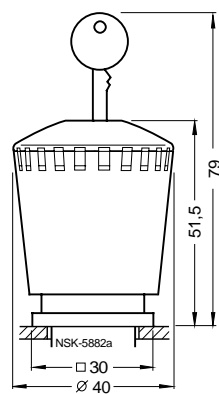
**EMERGENCY STOP mushroom pushbutton unit with RONIS safety lock, flat**



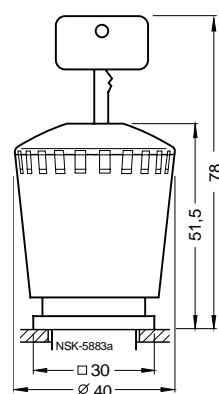
**EMERGENCY STOP mushroom pushbutton unit with CES safety lock**



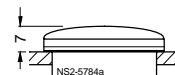
**EMERGENCY STOP mushroom pushbutton unit with BKS safety lock**



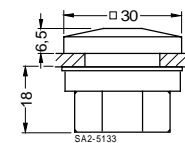
**EMERGENCY STOP mushroom pushbutton unit with O.M.R. safety lock**



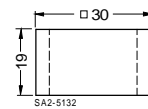
**Indicator light**



**Blanking plug**



**Holder**

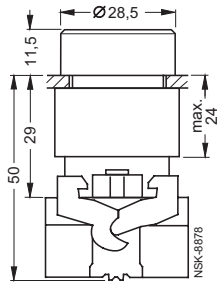


# Pushbutton Units and Indicator Lights

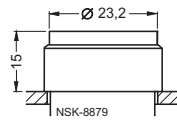
## SIGNUM 3SB3 pushbutton units and indicator lights

### Round program, metal version, 22 mm mounting diameter

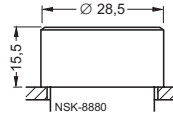
**Pushbutton and illuminated pushbutton unit, latching or non-latching types** with flat button and single pole contact block or lampholder



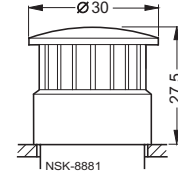
**Pushbutton or illuminated pushbutton unit** with raised button



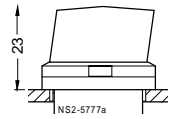
**Pushbutton unit** with raised front ring



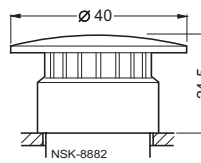
**Mushroom shaped pushbutton, push-pull button, normal or illuminated**  
Ø 30 mm



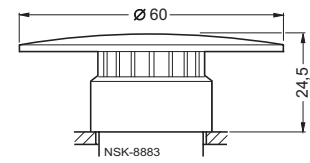
**Knob or illuminated knob**



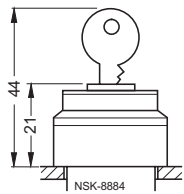
**Mushroom shaped pushbutton, illuminated push-pull button, normal or illuminated**  
Ø 40 mm



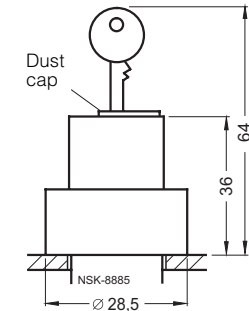
**Mushroom shaped pushbutton, illuminated push-pull button, normal or illuminated**  
Ø 60 mm



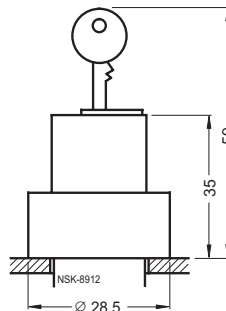
**RONIS safety lock**  
flat, with 2 keys



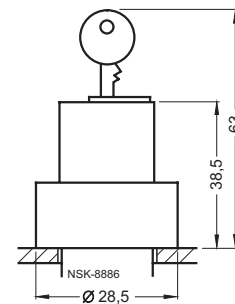
**CES safety lock**



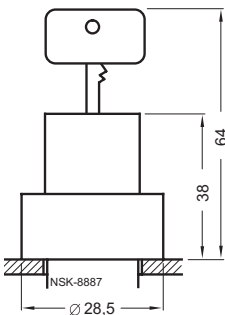
**BKS safety lock**



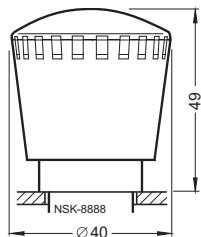
**IKON safety lock**



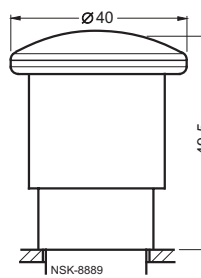
**O.M.R. safety lock**



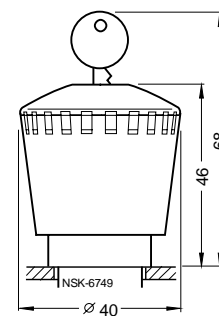
**EMERGENCY STOP mushroom pushbutton unit** with positive latching, twist to release



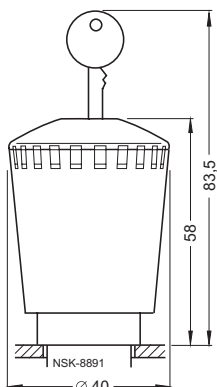
**EMERGENCY STOP mushroom pushbutton unit** with positive latching, pull to release



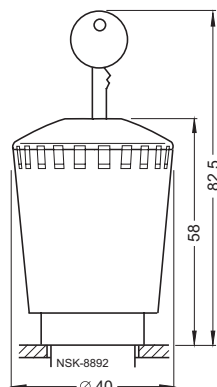
**EMERGENCY STOP mushroom pushbutton unit** with RONIS safety lock, flat



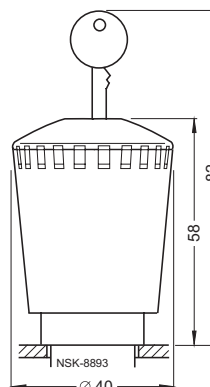
**EMERGENCY STOP mushroom pushbutton unit** with CES safety lock



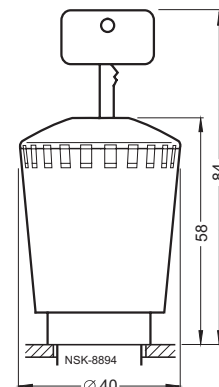
**EMERGENCY STOP mushroom pushbutton unit** with IKON safety lock



**EMERGENCY STOP mushroom pushbutton unit** with BKS safety lock



**EMERGENCY STOP mushroom pushbutton unit** with O.M.R. safety lock



# Pushbutton Units and Indicator Lights

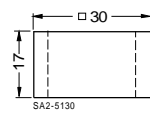
## SIGNUM 3SB3 pushbutton units and indicator lights

Round program, metal version, 22 mm mounting diameter

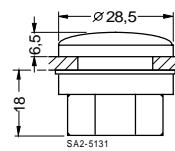
Indicator light



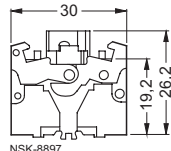
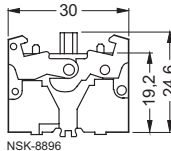
Holder



Blanking plug

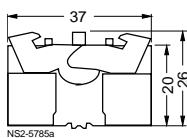


Contact blocks and lampholders with cage clamp connection, for front panel mounting

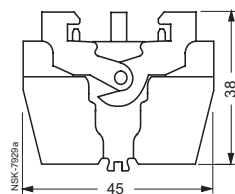


Contact blocks and lampholders with screw connection, for front panel mounting

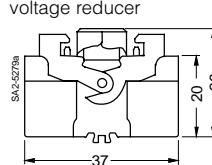
Contact block 1 NO or 1 NC or lampholder



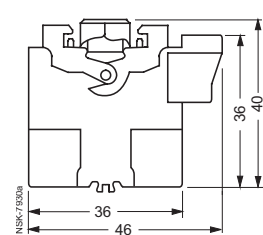
Contact block 2 NO, 2 NC or 1 NO + 1 NC



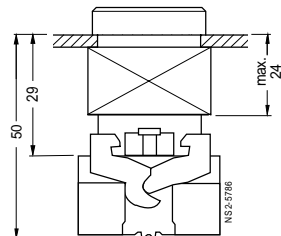
Lampholder with or without integral voltage reducer



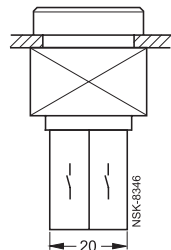
Lampholder with decoupled lamp test facility



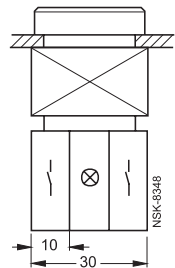
Pushbutton unit or illuminated pushbutton unit with contact blocks 1 NO or 1 NC



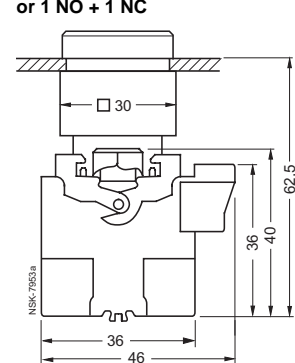
Pushbutton unit with contact blocks 1 NO or 1 NC



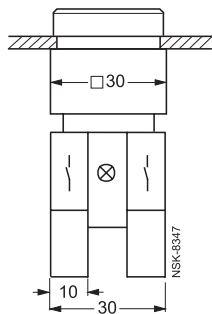
Illuminated pushbutton unit with contact blocks 1 NO or 1 NC and lampholder



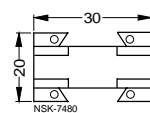
Pushbutton unit or illuminated pushbutton unit with contact blocks 2 NO, 2 NC or 1 NO + 1 NC



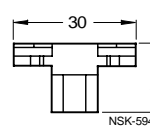
Illuminated pushbutton unit with contact blocks 2 NO, 2 NC or 1 NO + 1 NC and lampholder



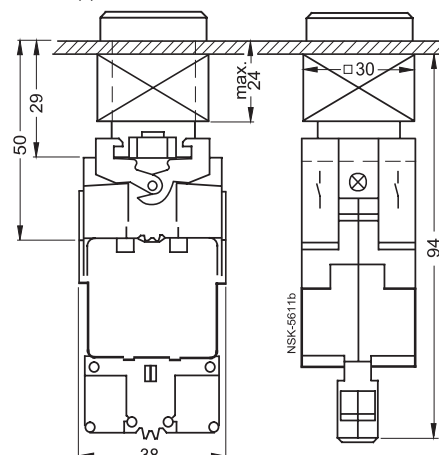
Holder for snap-on mounting



Holder with pressure pads for rotary drive



Illuminated pushbutton unit with contact blocks 1 NO or 1 NC and lampholder with snapped-on transformer

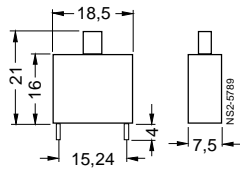


# Pushbutton Units and Indicator Lights

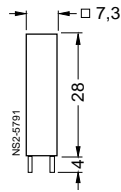
## SIGNUM 3SB3 pushbutton units and indicator lights

### Contact blocks and lampholders with soldering pins for use on printed circuit boards

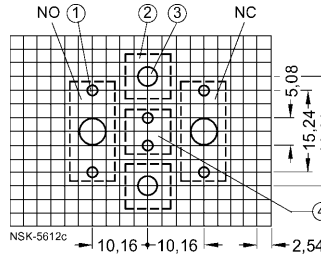
Contact block 1 NO and 1 NC



Lampholder

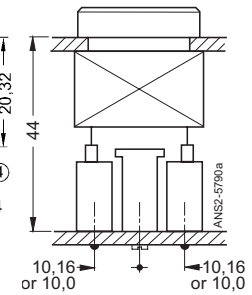


Spacing of solder pins



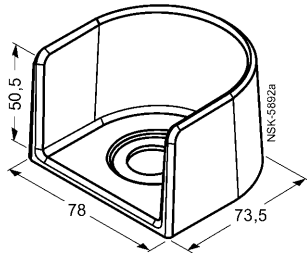
- ① Solder pin  $\varnothing 1.3^{+0.1}$
- ② PCB holder
- ③ Centring hole  $\varnothing 4.2^{+0.1}$
- ④ Lampholder

Pushbutton unit with contact blocks 1 NO or 1 NC and PCB carrier

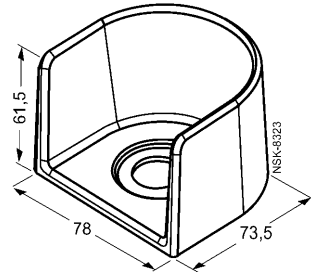


### Accessories

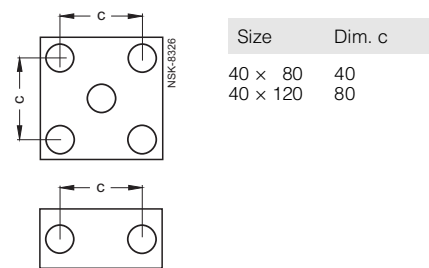
3SB39 21-0AK protective collar for front panel mounting, for mushroom EMERGENCY STOP pushbutton unit without lock



3SB39 21-0AX protective collar for front panel mounting, for mushroom EMERGENCY STOP pushbutton unit with lock

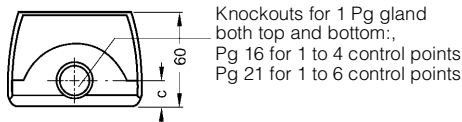


Inscription plate 40 mm x 80 mm, 40 mm x 120 mm, 120 mm x 120 mm for EMERGENCY STOP

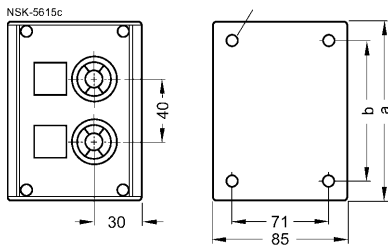


### SIGNUM 3SB3 enclosed pushbutton units and indicator lights, 22 mm mounting diameter

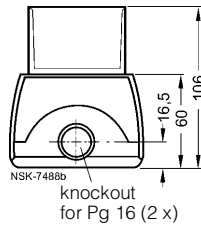
Enclosure without protective collar



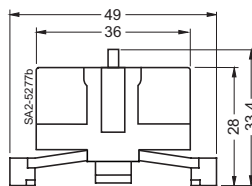
Rear view for M4 screw



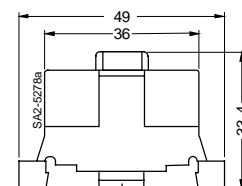
Enclosure with protective collar



Base mounting contact block 1 NO, 1 NC



Base mounting lampholder with or without integral voltage reducer



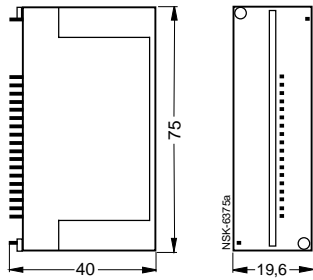
Number of control points	Length a	Spacing b	Spacing c
1	85	54	17,5
2	114	83	17,5
3	154	123	17,5
4	194	163	17,5
6	280	249	20,5

# Pushbutton Units and Indicator Lights

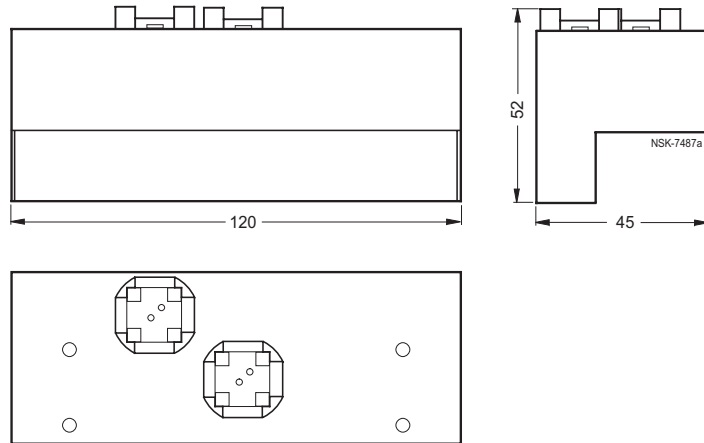
## SIGNUM 3SB3 pushbutton units and indicator lights

AS-i and PROFIBUS-DP interfaces, with soldering pins, for use on printed circuit boards

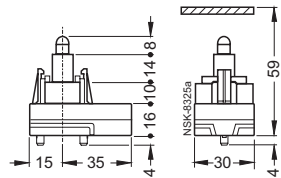
**AS-Interface application module**



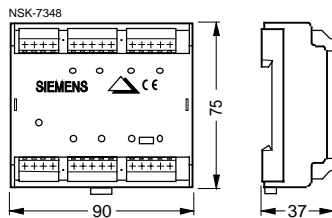
**AS-Interface front panel module**



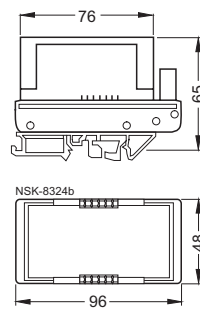
**AS-Interface individual module, PROFIBUS-DP individual module**



**PROFIBUS-DP slave for individual interface**  
for mounting on 35 mm standard mounting rail



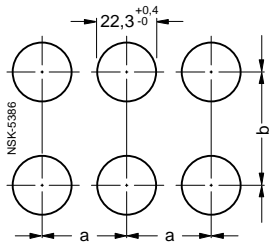
**AS interface slave for individual interface**  
for mounting on 35 mm standard mounting rail



# Pushbutton Units and Indicator Lights

## 3SB1 pushbuttons and indicator lights 22 mm mounting diameter

### Mounting dimensions



#### for round design

Minimum spacing		a	b	
Contact blocks with	1 contact	30	40	
	2 contacts	30	50 <sup>1)</sup>	
	1 contact, short version	30	50	
Contact blocks and lampholders with soldering pins	for use on PCBs	30	30	
Lampholder with transformer	60 mm mounting depth	40	40	
Joystick switches	without inscription plate	2 positions, horizontal	75	50
		vertical	30	75
	4 positions	75	75	
	with inscription plates	2 positions, horizontal	89	50
		vertical	30	89
	4 positions	89	89	
Use with	3SB 19 01-0 .. label holders	30	50	
	3SB 19 06-0 .. label holders	30	60	
	protective cap	35	40	
	sealable cap	35	40	
Use with	Potentiometer drive	40	40	
Use with	Contact blocks retro-fitted with 3SB19 02-0AW tab connectors	30	100	
	Safety locks with key monitoring	40	40	
	Safety locks with lock cylinder Ø 28,5 mm for pass key systems	40	40	
	Holder for 5 contact blocks	51.5	40 <sup>2)</sup>	

Please take account of the diameter of the button in the case of mushroom-shaped pushbutton units.

Safety locks with Ø 28.5 mm lock cylinder for pass key systems cannot be installed.

Minimum spacing according to IEC 947-5-1:  $a \times b = 30 \text{ mm} \times 50 \text{ mm}$

\* The minimum spacing of 30 mm must be observed.

#### for square design

	Versions without inscription plate		Versions for 12.5 × 27 mm inscription plate		Versions for 27 × 27 mm inscription plate	
	a	b	a	b	a	b
<b>Single frames</b>						
Contact blocks						
• with 1 contact	32	40	32	46,2	32	60
• with 2 contacts	32	50	32	50	32	60
• for 43 mm mounting depth	32	50	32	50	32	60
<b>Double and triple frames</b>						
Contact blocks						
• with 1 contact	30*	40	30*	46,2	30*	60
• with 2 contacts	30*	50	30*	50	30*	60
• for 43 mm mounting depth	30*	50	30*	50	30*	60

1) Minimum spacing! Depending on the number of components fitted per control point and the method of connection used, a spacing of 55 mm or more may be required.

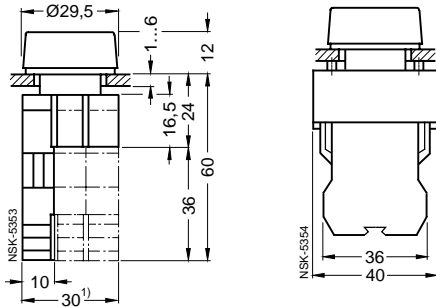
2) 50 mm for contact blocks with 2 contacts.



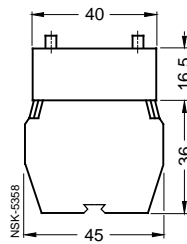
# Pushbutton Units and Indicator Lights

## 3SB1 pushbuttons and indicator lights 22 mm mounting diameter

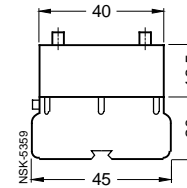
**Pushbutton unit, illuminated pushbutton unit and audible signal device holder for front panel mounting**  
with 1 NO or 1 NC contact or with lampholder or lampholder with integral voltage reducer



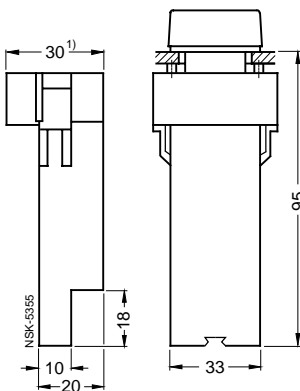
**Contact block 1 NO + 1 NC or 2 NC or 2 NO or lampholder with decoupled lamp test function**  
with holder



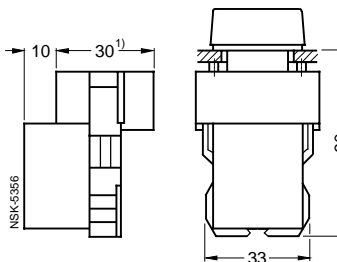
**Contact block 1 NO or 1 NC or lampholder**  
short version  
with holder



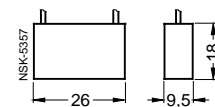
**Lampholder with transformer**  
long version



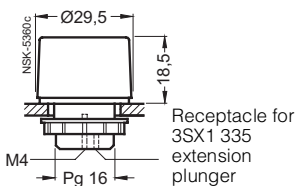
**Lampholder with transformer**  
short version



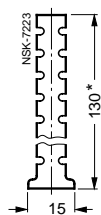
**Voltage reducer**



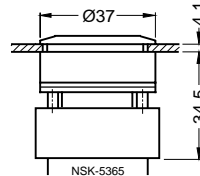
**Pushbutton unit with increased stroke**  
12 mm stroke  
for fixing with ring nut



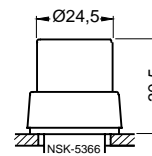
**Extension plunger**



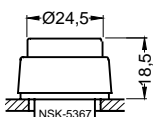
**Pushbutton unit with recessed front ring**



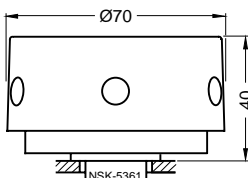
**Pushbutton unit with raised button latching or latchable**



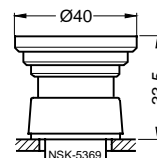
**Pushbutton unit or illuminated pushbutton unit**  
with raised button



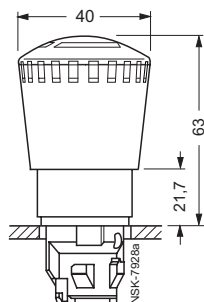
**Pushbutton unit for 5 padlocks**



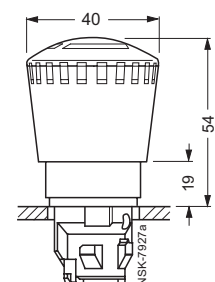
**Push-pull button unit**  
with spring action  
Ø 40 mm



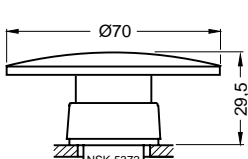
**Mushroom shaped EMERGENCY STOP pushbutton unit, positive latching according to EN 418, with CES, BKS, IKON, O.M.R. safety lock**  
Ø 40 mm



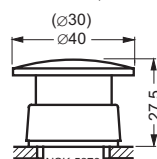
**EMERGENCY STOP mushroom shaped pushbutton, positive latching according to EN 418**  
Ø 40 mm



**Mushroom shaped pushbutton unit, latching**  
Ø 70 mm



**Mushroom shaped pushbutton unit, latching or standard**  
Ø 40 mm (Ø 30 mm)

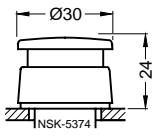


1) 51.5 mm with holder for 5 contact blocks.

# Pushbutton Units and Indicator Lights

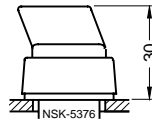
## 3SB1 pushbuttons and indicator lights 22 mm mounting diameter

**Mushroom-shaped pushbutton unit or illuminated mushroom pushbutton unit, with or without latching**  
Ø 30 mm

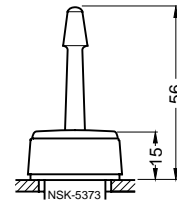


**Knob**

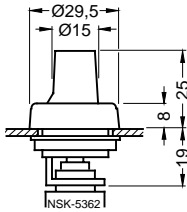
**Knob or illuminated knob**



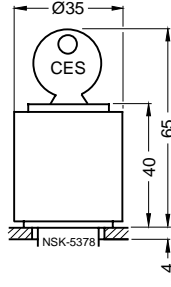
**Pushbutton unit with wobble stick**



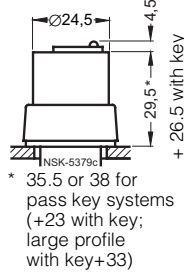
**Potentiometer drive**  
with Ø 6 mm shaft  
30 ... 32 mm long



**Lock with key monitoring**

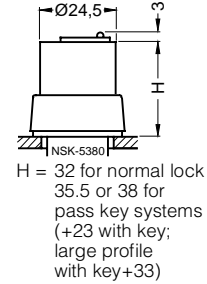


**CES lock**



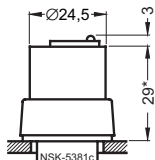
\* 35.5 or 38 for pass key systems (+23 with key; large profile with key+33)

**IKON lock**



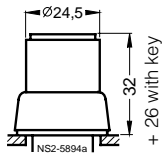
H = 32 for normal lock  
35.5 or 38 for pass key systems (+23 with key; large profile with key+33)

**BKS lock**

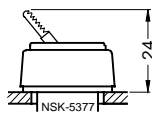


\* 35.5 or 38 for pass key systems (+23 with key; large profile with key+33)

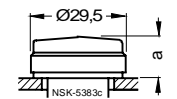
**O.M.R. safety lock**



**Toggle**

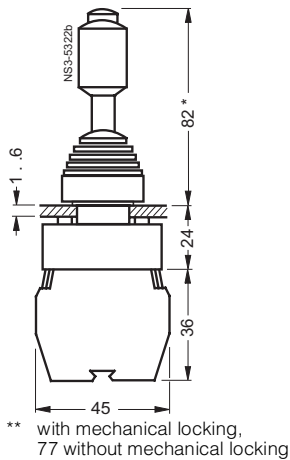


**Indicator light**



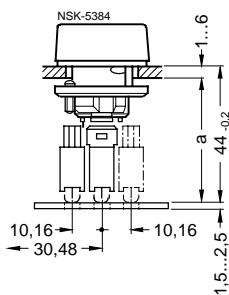
Dimension	a
With concentric rings	13.5
For inscription with insert caps	13.5
Raised version	27.5

**Joystick switch**



\*\* with mechanical locking, 77 without mechanical locking

**Pushbutton or illuminated pushbutton with contact block and lampholder with solder pins**



Length **a** of spacers  
**a** = 44<sup>-0.2</sup> minus front panel thickness  
Length **a** is reduced by 0.8 mm when backing plates are used

To avoid bending of the PCB caused by operating the unit, a sufficient number of spacers should be provided at the following spacings:

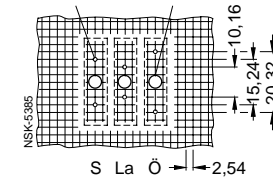
PCB thickness	max. distance between spacers
1.5 mm	80 mm
2.5 mm	150 mm

With EMERGENCY STOP units fitted generally 50 mm

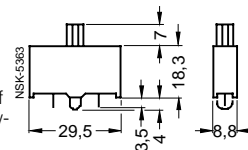
(The values apply to PCBs made from epoxy resin laminate with glass fabric base)

**Spacing of solder pins**

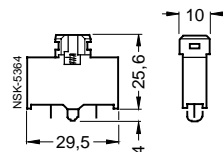
Solder term. Centre hole  
Ø 1.3<sup>+0.1</sup> Ø 5.5<sup>+0.1</sup>



**Contact blocks with solder pins**

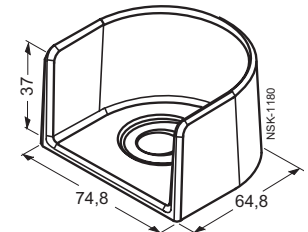


**Lampholder with solder pins**



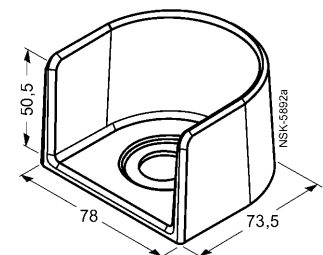
**3SB19 02-2BM protective collar**

for front panel mounting, for EMERGENCY STOP mushroom pushbutton unit without positive latching, for front plate 4 to 4.5 mm thick



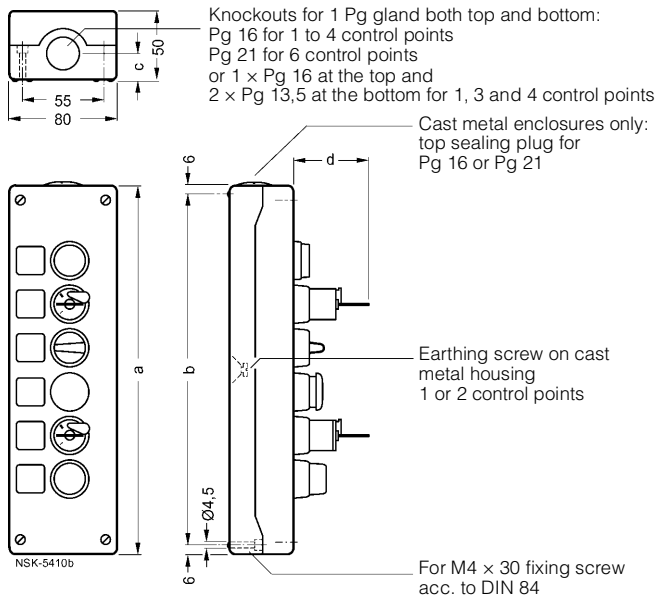
**3SB39 21-0AX protective collar**

for front panel mounting, for EMERGENCY STOP mushroom pushbutton unit with positive latching



# Pushbutton Units and Indicator Lights

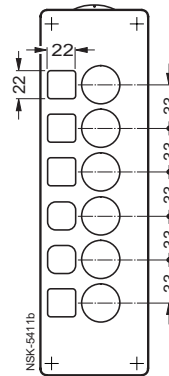
## 3SB1 enclosed pushbutton units and indicator lights



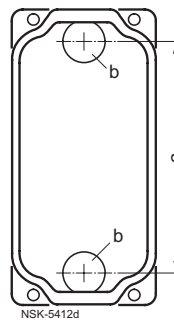
Number of control points	a	b	c	d
1	88	76	18	
2	124	112	18	
3	162	150	18	
4	200	188	18	
6	276	264	21	

Height of actuators; see pages 9/132 and 9/133

### Spacing of control points

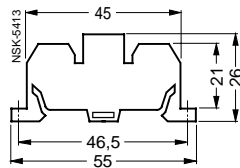


### Rear cable entry

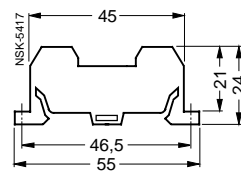


Number of control points	a	b
1	50.7	for Pg 16
2	86.7	for Pg 16
3	124.7	for Pg 16
4	162.8	for Pg 16
6	232.5	for Pg 21

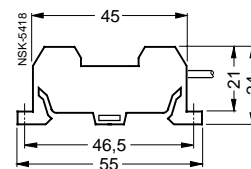
### Contact block 1 NO or 1 NC of lampholder for base mounting



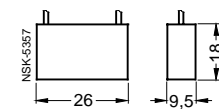
### Support terminal



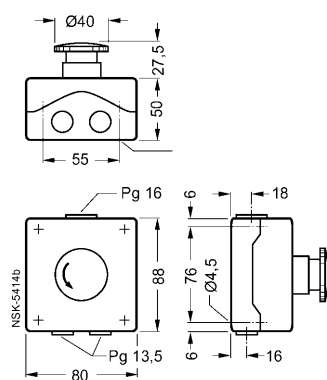
### 3SB14 20-3A voltage reducer



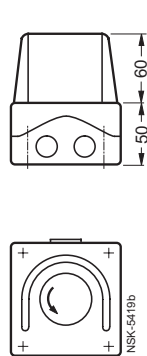
### 3SB14 20-3D voltage reducer



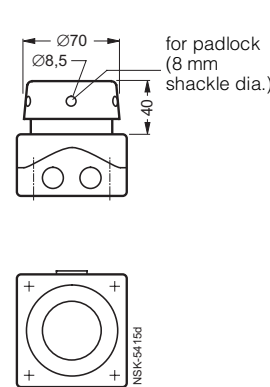
### Enclosed pushbutton unit EMERGENCY STOP



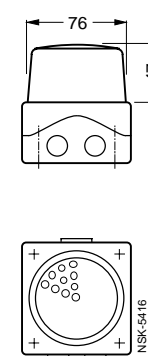
### Enclosed pushbutton unit with protective collar



### Enclosed pushbutton unit for 5 padlocks



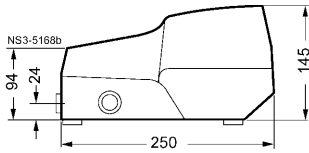
### Enclosed foot-operated pushbutton unit



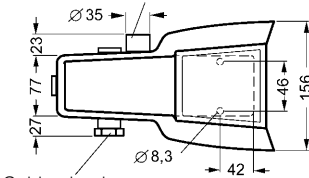
# Pushbutton Units and Indicator Lights

## 3SB1 enclosed pushbutton units and indicator lights

**Foot operated actuator with 1 pedal, foot operated switch, foot operated safety switch with cover**

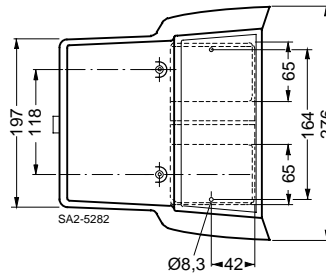
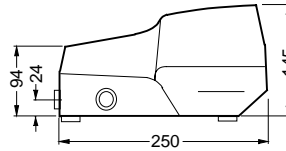


**Release pushbutton (only for foot operated safety switch)**

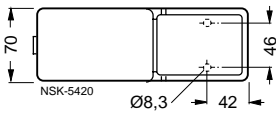
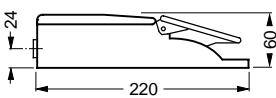


Cable gland

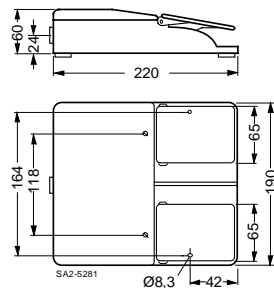
**Foot operated actuator with 2 pedals with cover**



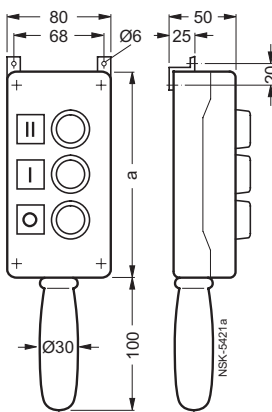
**Foot operated actuator with 1 pedal, foot operated switch, without cover**



**Foot operated actuator with 2 pedals, without cover**



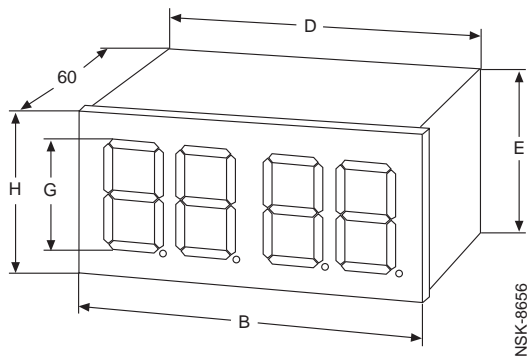
**Pendant pushbutton unit with suspension plate standard handle**



Number of control points	a
3	162
6	276

## SIGNUM 3SB4 complete operator communication systems

**Numerical LED display for panel mounting**



Character height G	B	H	D	E	Panel cutout
10	48	24	43,5	20	45 <sup>+0,6</sup> × 22,2 <sup>+0,3</sup>
13	96	24	92	20	92 <sup>+0,8</sup> × 22,2 <sup>+0,3</sup>
20	96	48	92	43	92 <sup>+0,8</sup> × 45 <sup>+0,3</sup>
30	144	48	138	43	138 <sup>+0,6</sup> × 45 <sup>+0,6</sup>