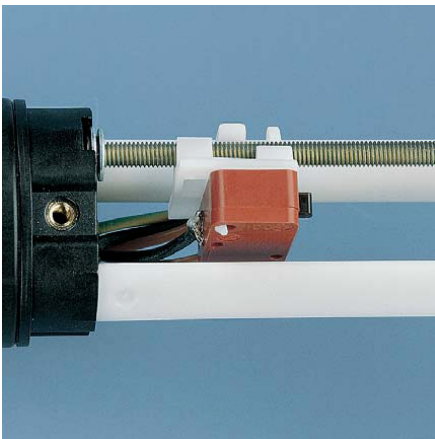
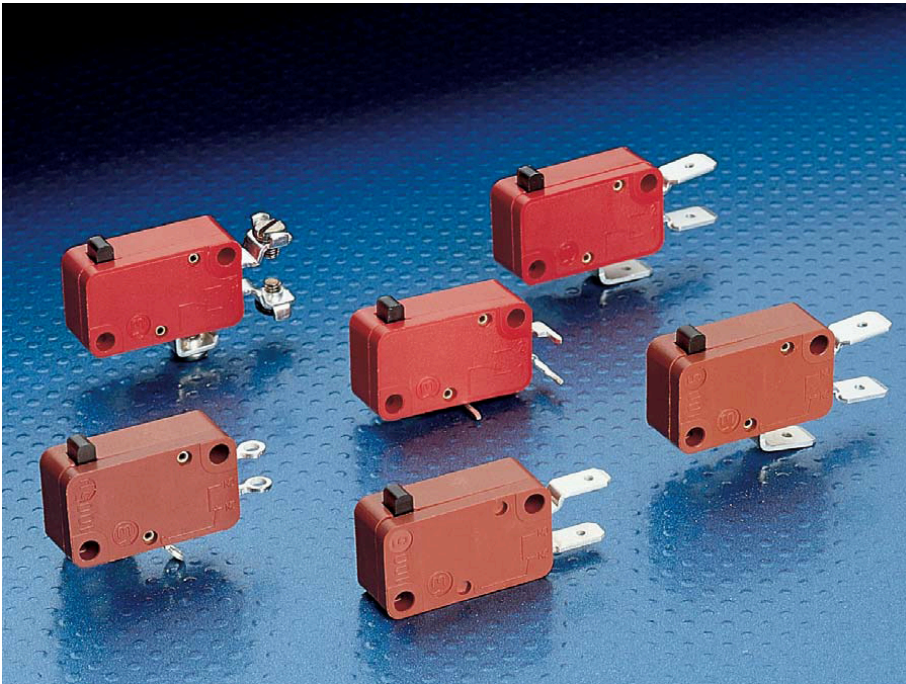


# SERIES 1004/1005/1006 - ENCLOSED SNAP ACTION SWITCHES

UP TO 21 (8) A 250 V~



## PRODUCT ADVANTAGES

- ◆ Universally applicable, proven snap action switch series with high functional reliability in size DIN 41635 design A
- ◆ Long mechanical life endurance
- ◆ Very high inrush currents
- ◆ Compulsory friction contact system, its shearing movement can free welded contacts
- ◆ Wide range of ratings from 6 (2,5) A 400 V~ to 21 (8) A 250 V~
- ◆ Contact gaps < 3 mm and  $\geq 3$  mm
- ◆ Actuating forces of 0,2 N to 4,2 N

## SWITCHING FUNCTIONS

- ◆ Change-over
- ◆ Normally open
- ◆ Normally closed

## TERMINAL VERSIONS


- ◆ Solder terminal and short solder terminal
- ◆ Quick-connect 6.3 x 0.8 mm
- ◆ Quick-connect 4.8 x 0.8 mm
- ◆ PCB terminal frontal
- ◆ Angled PCB terminal

## VERSIONS ON REQUEST

- ◆ Electrical rating change-over 21 (8) A 250 V~ 25E3
- ◆ Electrical rating normally open and normally closed 20 A 250 V~ 50E3
- ◆ Electrical rating normally open > 3 mm 10 (10) A 250 V~ 50E3
- ◆ Electrical rating change-over 8 (8) A 250 V~ 50E3
- ◆ For ambient temperatures T 125
- ◆ Change-over with contact gap  $\geq 3$  mm (series 1005)
- ◆ Normally open with lateral bearing connection (series 1005)
- ◆ Quick-connect 4.8 x 0.5 mm
- ◆ Quick-connect 2.8 x 0.8 mm
- ◆ UL-electrical rating up to 21 A 125 VAC 1 HP  
21 A 250 VAC 2 HP

# SERIES 1004 / 1005 / 1006 - ENCLOSED SNAP ACTION SWITCHES

UP TO 21 (8) A 250 V~

Electrical rating (depending on version)		21 (8) A 250 V~ 25E3 16 (4) A 400 V~ 50E3 8 (8) A 250 V~ 50E3 21 A 125 VAC 1 HP 21 A 250 VAC 2 HP
Version		DIN 41635 A
Actuating force	series 1004 series 1005 series 1006	0,2 ... 1,8 N 1,0 ... 4,2 N 0,3 ... 4,2 N
Mechanical life endurance	< 3 mm ≥ 3 mm and lever versions	10E6 5E6
Electrical life endurance		electrical rating-dependent
Contact resistance (new state)		< 100 mΩ
Insulation resistance (new state)		>100 MΩ (500 V DC between the open contacts)
High voltage resistance (new state)	< 3 mm ≥ 3 mm	750 V (between the open contacts) 1250 V (reinforced insulation) 3750 V (reinforced insulation)
Bounce time		< 10 ms
Resistance to tracking		PTI 250
Contact gap		< 3 mm (μ) or ≥ 3 mm
Ambient temperature		-40 °C ... +100 °C no condensation
Storage temperature		-40 °C ... +80 °C
Flammability	housing actuator	UL 94 V-0 UL 94 V-0 / V-2
Heat and fire-resistance		850 °C (category D)
Material	housing / actuator optional actuator optional actuator roller	duroplast or PA chrome-nickel steel PA
Contacts		Ag/Ag resp. gold-plated
Terminals		silver-plated
Solderability of terminals	duroplast-housing thermoplast-housing	max. 350 °C, 5 sec. max. 350 °C, 2-3 sec. (no pressure on the terminals when soldering by hand)
Approval marks		
Suitable for appliances of protection class II. Required air and creepage distances within the appliances have to be observed.		

The test conditions comply with EN 61058-1 resp. UL 1054

## SERIES 1005

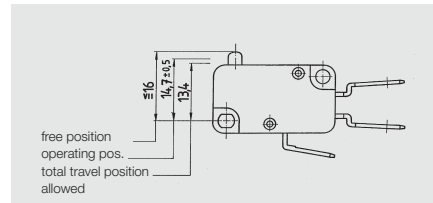
with contact gap < 3 mm

Actuating force 1,5 ... 2,5 N  
 6(2,5) A 400 V~ 50E3  
 10(4) A 400 V~ 10E3  
 10A 125-250 VAC 1/4 HP

Actuating force 2,4 ... 3,8 N  
 20(4) A 400 V~ 10E3  
 16(4) A 400 V~ 50E3  
 10(6) A 250 V~ 50E3  
 16A 125-250 VAC 1/2 HP



**change-over**  
 □ 1005.1001\*  
 □ 1005.0401\*



**normally open** □ 1005.1201\*  
**normally closed** □ 1005.1101  
 □ 1005.4001

mov. differential max. 0.3 mm  
 pre-travel max. 1.8 mm  
 over-travel min. 0.8 mm

## SERIES 1004

with low actuating forces and contact gap < 3 mm

Actuating force 0,2 ... 0,6 N  
 6(2,5) A 250 V~ 50E3  
 4A 125-250 VAC 1/6 HP

Actuating force 0,5 ... 1,1 N  
 10(4) A 250 V~ 50E3  
 8A 125-250 VAC 1/3 HP

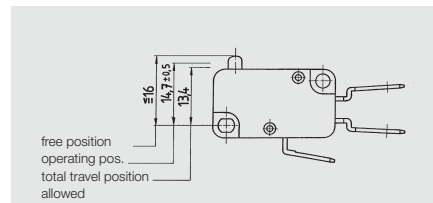
Actuating force 0,8 ... 1,8 N  
 16(4) A 250 V~ 25E3



**change-over**  
 □ 1004.1002\*  
 □ 1004.0402

□ 1004.1001\*

□ 1004.3503



mov. differential max. 0.3 mm  
 pre-travel max. 1.8 mm  
 over-travel min. 0.8 mm

## SERIES 1005

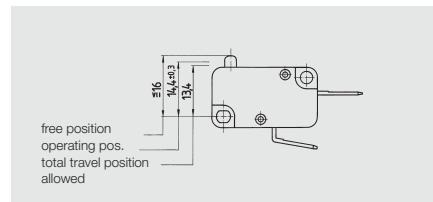
with contact gap ≥ 3 mm

Actuating force 2,4 ... 3,8 N  
 10(6) A 250 V~ 50E3  
 10A 125-250 VAC 1/2 HP

Actuating force 2,6 ... 4,2 N  
 10(6) A 250 V~ 50E3  
 10A 125-250 VAC 1/2 HP



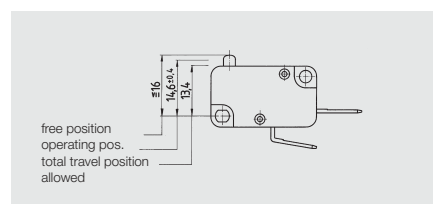
**normally open**  
 □ 1005.1204\*  
 □ 1005.0904



mov. differential max. 1.2 mm  
 pre-travel max. 1.9 mm  
 over-travel min. 0.7 mm



**normally closed**  
 □ 1005.1105\*



mov. differential max. 1.0 mm  
 pre-travel max. 1.8 mm  
 over-travel min. 0.8 mm

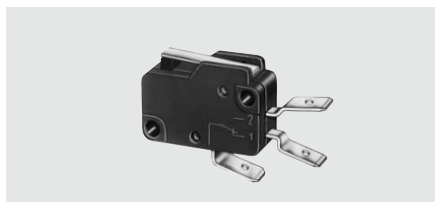
# SERIES 1004 / 1005 / 1006 - ENCLOSED SNAP ACTION SWITCHES

## UP TO 21 (8) A 250 V~

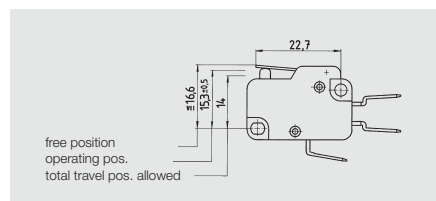
### SERIES 1006

with straight metal lever  
contact gap < 3 mm

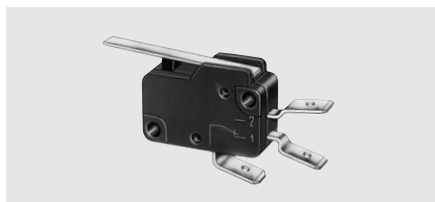
actuating force 1,5 ... 2,5 N  
6 (2,5) A 400 V~ 50E3  
10 (4) A 400 V~ 10E3  
[10 A 125-250 VAC 1/4 HP](#)



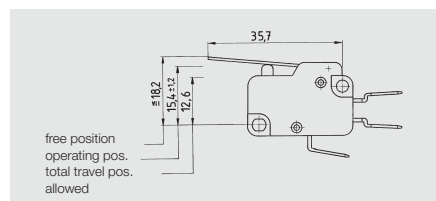
**change-over**  
 1006.1101



mov. differential max. 0.3 mm  
pre-travel max. 1.8 mm  
over-travel min. 0.8 mm




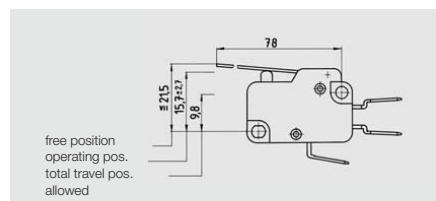
**change-over**  
 1006.1401\*  
 1006.0901



mov. differential max. 0.7 mm  
pre-travel max. 4.0 mm  
over-travel min. 1.6 mm

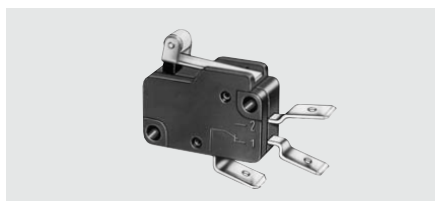


**change-over**  
 1006.1301\*

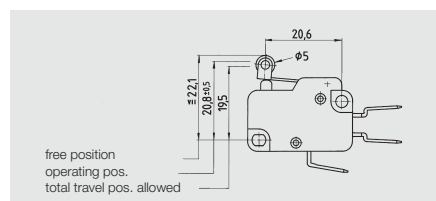


mov. differential max. 1.8 mm  
pre-travel max. 8.5 mm  
over-travel min. 3.2 mm

actuating force 0,30 ... 0,55 N  
6 (2,5) A 400 V~ 50E3  
10 (4) A 400 V~ 10E3  
[10 A 125-250 VAC 1/4 HP](#)



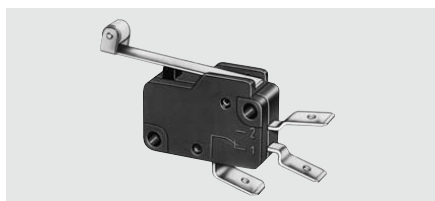
**change-over**  
 1006.1201\*  
 1006.0701\*



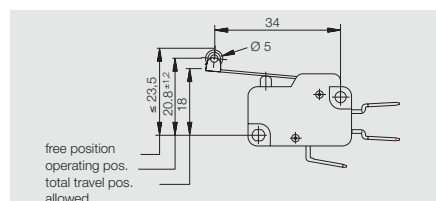
mov. differential max. 0.3 mm  
pre-travel max. 1.8 mm  
over-travel min. 0.8 mm

actuating force 1,5 ... 2,5 N  
6 (2,5) A 400 V~ 50E3  
10 (4) A 400 V~ 10E3  
[10 A 125-250 VAC 1/4 HP](#)

versions with 16 A or contact gap  $\geq$  3 mm  
on request.



**change-over**  
 1006.1511\*  
 1006.1011\*



mov. differential max. 0.9 mm  
pre-travel max. 3.9 mm  
over-travel min. 1.6 mm

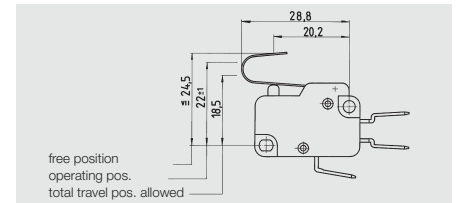
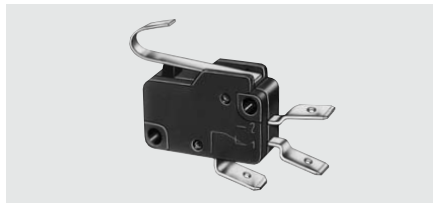
actuating force 0,7 ... 1,25 N  
6 (2,5) A 400 V~ 50E3  
10 (4) A 400 V~ 10E3  
[10 A 125-250 VAC 1/4 HP](#)

## SERIES 1006

with metal spring actuator  
contact gap < 3 mm

The spring actuator allows a recoil of 1.5 mm

actuating force 1,50 ... 2,50 N  
6 (2,5) A 400 V~ 50E3  
10 (4) A 400 V~ 10E3  
**10A 125-250 VAC 1/4 HP**

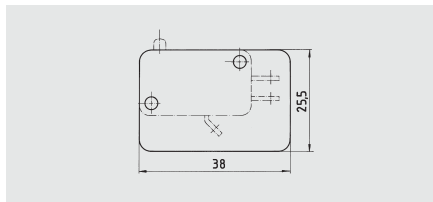


**change-over**  
□ 1006.1801\*

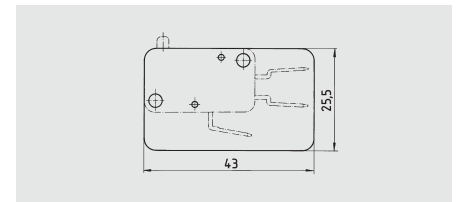
mov. differential max. 0,6 mm  
pre-travel max. 3,5 mm  
over-travel min. 1,0 mm  
+ 1,5 mm with elastic hysteresis

## INSULATING PLATES

made of hard paper HP 2061 for  
mounting on metal or between  
stackable switches

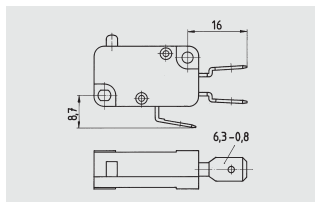
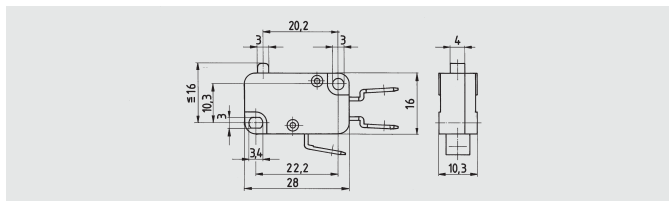


for solder terminal  
thickness 0.5 mm 231 009 011\*  
thickness 0.8 mm 231 009 021\*

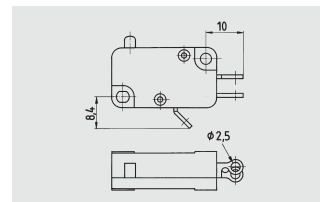


for quick-connect  
thickness 0.5 mm 231 010 011\*  
thickness 0.8 mm 231 010 021\*

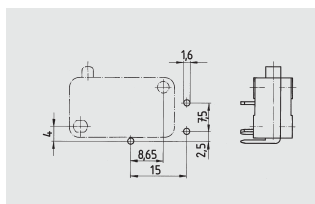
## DIMENSIONED DRAWINGS



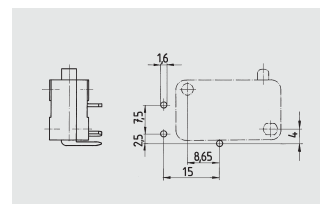
□ quick-connect



□ solder terminal



└ angled PCB-terminal to  
socket side (left)



└ angled PCB-terminal to  
cover side (right)