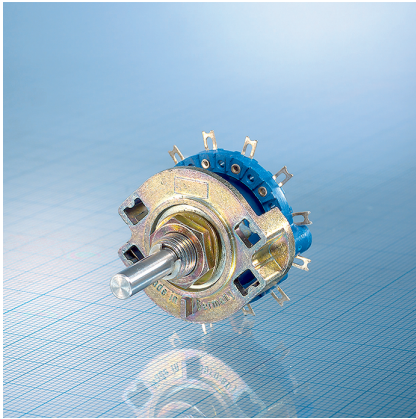


# Rotary Switch SM25



Rotary switch with a minimum installation depth.

- Standard version for conventional wiring.
- Single-wafer version also for direct soldering to printed circuits.
- Wafer material Noryl.
- High resistance to mechanical shocks due to knife blade contacts.
- Special designs
  - MIL application design.
  - BCD coding on single wafer code no.51.
  - Double-sided positioning possible for reduced length and special coding.

## 1.0 Construction

1.1 Number of wafers max.	6 wafers*
1.2 Switching combinations per wafer	1x6 to 1x2; 2x3 to 2x2; 3x2; 4x2
Design B, detent angle 60°	
Design G, detent angle 45°	1x8 to 1x2; 2x4 to 2x2
Design D, detent angle 36°	1x10 to 1x2; 2x4 to 2x2
Design E, detent angle 30°	3x8 to 3x2; 4x6 to 4x2
Design E, detent angle 30°, special design	1x11 to 1x2; 2x5 to 2x2; 3x3 to 3x2; 6x2
1.3 Contacts	Soldering lugs or pins
1.4 Mounting	Central mounting

\* For less than 4 circuits more than 6 wafers are possible.

## 2.0 Electrical Data

2.1 Switching power max.	6 VA/W
2.2 Switching voltage max.	200 V~
2.3 Switching current max.	500 mA
2.4 Rest current max. at $\theta_u$ 20°C	$\leq 3$ A
2.5 Test voltage at 50 Hz	750 V
2.6 Life expectancy	without power $\geq 20\,000$ cycles
	with power max. $\geq 10\,000$ cycles
2.7 Contact resistance	initial value $\leq 20$ m $\Omega$
	Contact resistance without electrical load $\leq 25$ m $\Omega$
	after life expectancy with electrical load $\leq 30$ m $\Omega$
2.8 Insulation resistance	$\geq 10^{11}$ $\Omega$
2.9 Capacity between	2 contacts $\leq 0,5$ pF
	contact and ground $\leq 0,5$ pF

## 3.0 Mechanical Data

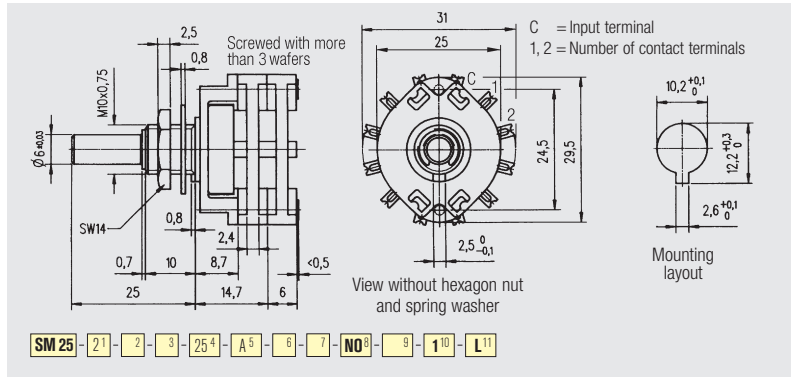
3.1 Mode of switching	Shorting or non-shorting
3.2 Stops	standard design Fixed or without stop
	special design Adjustable with 30° detent angle
3.3 Operating torque according to design	5 to 40 Ncm
3.4 Stop strength	$\geq 150$ Ncm
3.5 Fastening torque max.	$\geq 70$ Ncm at thread M7
	150 Ncm at thread M10
3.6 Vibratory strength	$\geq 10$ g
3.7 Shaft design	Hollow shaft as special design
3.8 Waterproofing	If mounting according to MIL-S-3786

## 4.0 Other Data

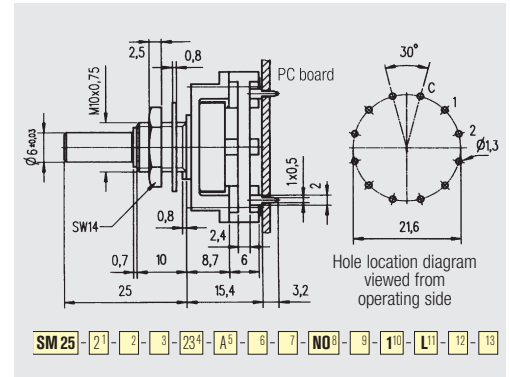
4.1 Contact material	Ag standard design, Au as special design
4.2 Insulating material	Wafer Noryl, PPO; Code NO
	Rotor Polycarbonate, PC
4.4 Soldering time and temperature max.	5 s at 260°C
	3 s at 350°C, manual soldering

The bold-typed data in the yellow order blocks remain unchanged.  
Normal-typed data match the drawings and can be modified according to your wishes.  
Blanks need to be completed according to the ordering details on the inside front cover.

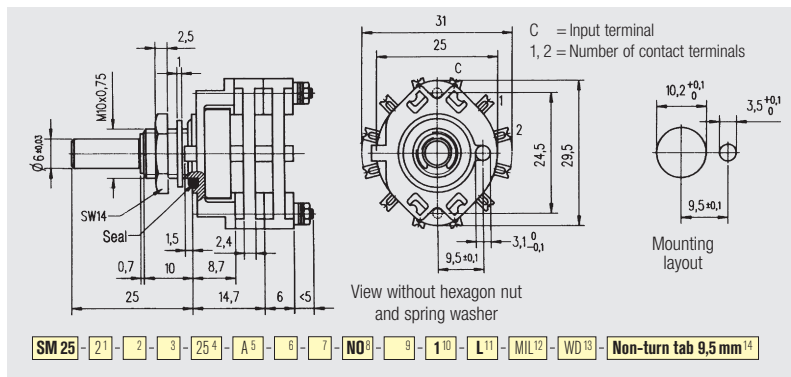
## Dimensional Drawings · Dimensions in mm



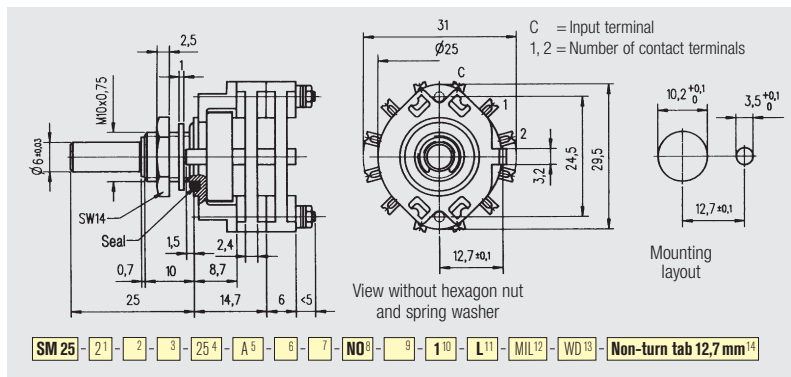
SM25 · Standard version



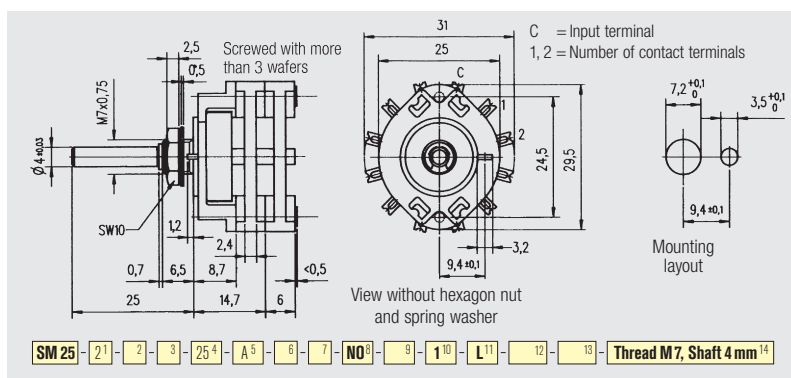
SM25 · Version for printed circuits



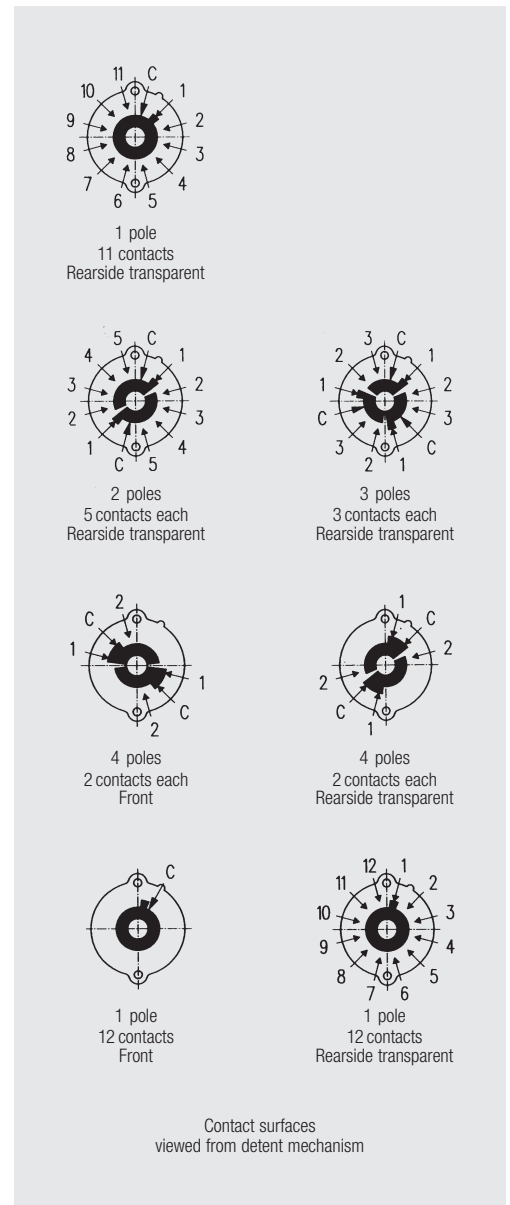
SM25 · Watertight version. Non-turn tab 9,5 mm



SM25 · Watertight version. Non-turn tab 12,7 mm



SM25 · Version with shaft 4 mm (watertight version possible)



SM25 · Contact arrangements