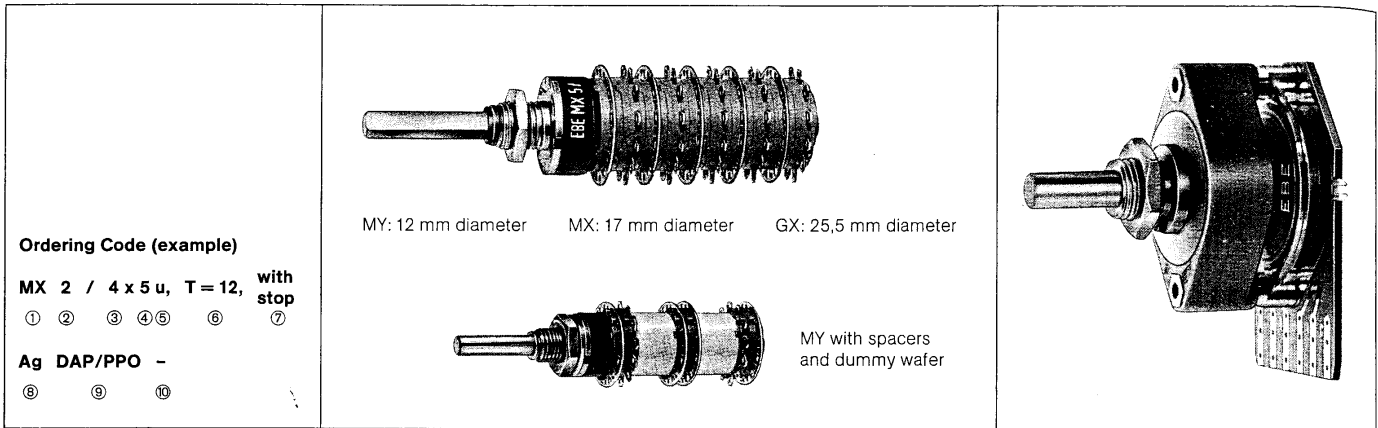


# Rotary Wafer Switches



**Ordering Code (example)**

**MX 2 / 4 x 5 u, T = 12, with stop**

① ② ③ ④ ⑤ ⑥ ⑦

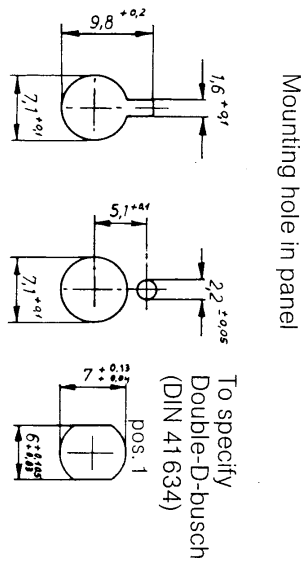
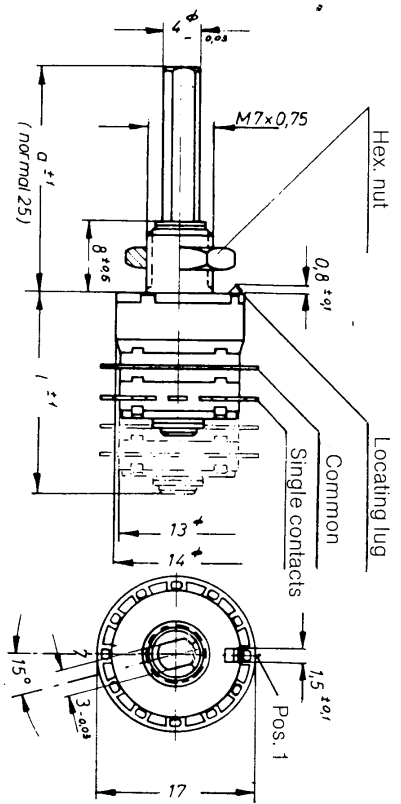
**Ag DAP/PPO -**

⑧ ⑨ ⑩

① Switch type	MY			MX			GX		CBS					
<b>Dimension [mm]</b> Drawing page	12 $\phi$ 12			17 $\phi$ 12			25,5 $\phi$ 12		30,5 x 49 13					
② Wafer (s) per switch <b>max.</b>	4			6			10		3					
③ Pole (s) per switch <b>max.</b>	6			12			20		3					
④ No of positions (limited by stops) <b>max. per wafer</b>	1 x 10 2 x 5	1 x 12 2 x 6 3 x 4	1 x 6 2 x 3 3 x 2	1 x 10 2 x 5	1 x 12 2 x 6 3 x 4 4 x 3	1 x 6 2 x 3 3 x 2 4 x 2	1 x 12 2 x 6 3 x 4 4 x 3 6 x 2	1 x 6 2 x 3 3 x 2 4 x 2	1 x 10 1 x 12 1 x 16 1 x 20	on request only	1 x 23 only without fixed stops	1 x 24 only with fixed stops	1 x 23 only without stops	1 x 31 only without stops
⑤ Contacts <b>u = nonshorting k = shorting</b> (others see below)	u k	u k	over dummy contacts	u k	u k	over dummy contacts	u k	over dummy contacts	b, bk b, bk g, gk	b, bk g, gk	b, bk g, gk	b, bk g, gk	b, bk g, gk	b, bk g, gk
⑥ Indexing	T = 10 (36°)	T = 12 (30°)	T = 6 (60°)	T = 10 (36°)	T = 12 (30°)	T = 6 (60°)	T = 12 (30°)	T = 6 (60°)	T = 10 (36°)	T = 12 (30°)	T = 16 (22,5°)	T = 20 (18°)	T = 24 (15°)	T = 32 (11,25°)
⑦ Stops (with or without)	Fixed (factory fitted to order)			Fixed (factory fitted to order)			Fixed (factory fitted to order)		Adjustable					
⑧ Contact material	Ag + gold flash Au (5 $\mu$ m) + gold flash only T = 12/6: Au (1 $\mu$ m) + gold flash			Ag + gold flash Au + gold flash			Ag + gold flash Au + gold flash Ag/Pd 70/30 + gold flash		Au					
⑨ Insulating material <b>Stator Rotor</b>	DAP Noryl			DAP PPO			DAP PPO		Epoxy paper					
⑩ Please specify special features	A: Solder and plug connection B: Pins for PCB C: Pins for Mini Wire Wrap D: For ribbon cable (on request)													
<b>Resistive load max. [VA]</b>	Ag: 5    Au: 3		Ag: 10    Au: 6		Ag: 15    Au: 10		3							
<b>Current switching max. carrying [A]</b>	Ag: 0,2    Au: 0,1 1,5		Ag: 0,5    Au: 0,25 2		Ag: 0,5    Au: 0,25 2		0,1 1							
<b>Voltage switching max. [V]</b>	Ag: 115 $\approx$ Ag: 60 $\approx$		Ag: 115 $\approx$ Ag: 60 $\approx$		Ag: 125 $\approx$ Ag: 60 $\approx$		60 $\approx$							
<b>Initial contact resistance [m <math>\Omega</math>]</b>	Ag: $\leq$ 20    Ag: $\leq$ 25		Ag: $\leq$ 20    Ag: $\leq$ 25		Ag: $\leq$ 20    Ag: $\leq$ 25		$\leq$ 110							
<b>Proof voltage contacts frame [V<sub>eff</sub>]</b>	700 800		900 1000		1000 1300		500 700							
<b>Insulation resistance [<math>\Omega</math>]</b>	$\geq$ 1 x 10 <sup>11</sup>			$\geq$ 1 x 10 <sup>11</sup>			$\geq$ 1 x 10 <sup>11</sup>		$\geq$ 5 x 10 <sup>10</sup>					
<b>Life [Cycles]</b>	$\geq$ 25 000			$\geq$ 25 000			$\geq$ 25 000		$\geq$ 25 000					
<b>Temperature range [°C]</b>	-40°...+85°			-40°...+85°			-40°...+85°		-40°...+85°					
<b>Stop strength max. [Nm]</b>	0,5			0,7			1,25		1,5					
<b>Operating torque with 1 wafer [Nm]</b>	0,03			0,035			0,06		0,09					
<b>Special features</b>														
⑤ <b>Alternative contact arrangements</b> b = binary code bk = binary compl. code g = gray code gk = gray code compl. hd = hexadecimal	Mounting bush water sealed Binary and binary complement coded on two wafers, Spacers between wafers (T = 12) Special cut-out of contactrings			Same as MY, plus Dual concentric shaft MXR: First or last position biased to next MXS: Push to turn feature S40MX: Key operated switch			Same as MY plus Dual concentric shaft		Mounting bush water sealed Additional attached std. BS wafers (page 5) With diodes for decoupling Dual concentric shaft Pins for P.C.B. or Mini Wire Wrap					
	Type MZ is a combination of a MX mechanism and MY wafers, only T = 12 (30°)													

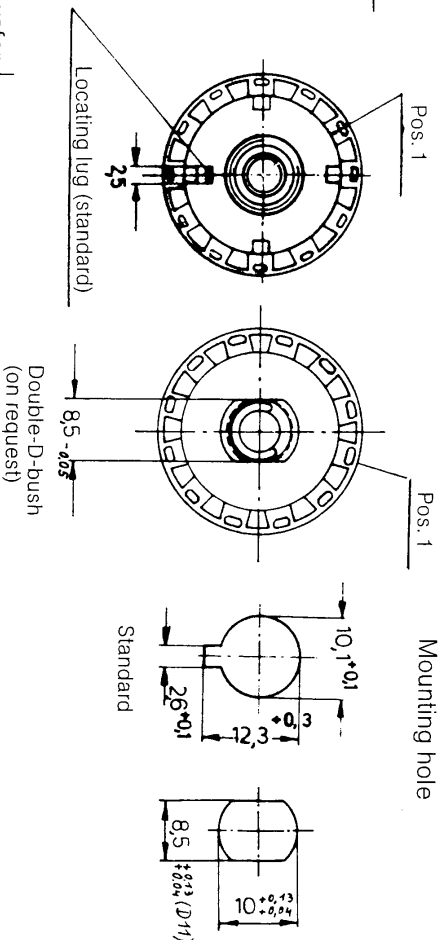
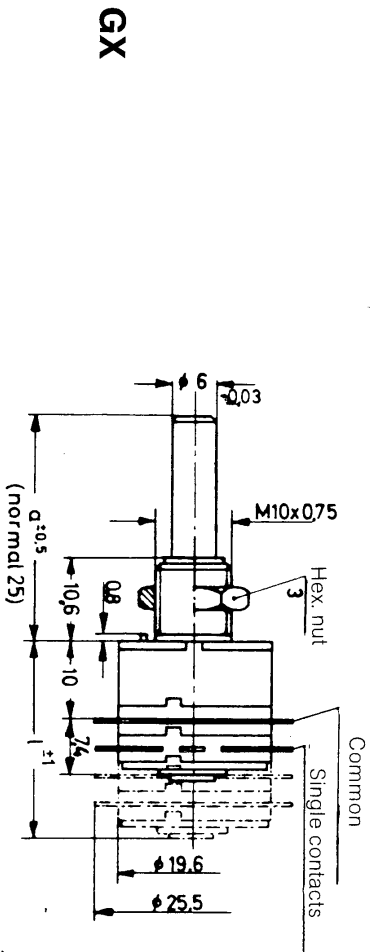
No. of wafers	1	2	3	4
l =	10	14	18	22

Standard shaft length a = 20 ± 0,5 mm  
 Mounting bush water sealed:  
 Bush length 6,5 mm; dimension l = + 0,5 mm.



No. of wafers	1	2	3	4	5	6
l =	16	22,5	29	35,5	42	48,5

Standard shaft length a = 25 ± 0,5 mm  
 On request shaft 4 mm  $\phi$  round.  
 Mounting bush water sealed: Bush length 7 mm;  
 shaft 4 mm  $\phi$  round; mounting hole DIN 41 634.



No. of wafers	1	2	3	each add. wafer
l =	19	26	33,5	7,4

Standard shaft length a = 25 ± 0,5 mm  
 Drawing for sealed bush on request.

## Standard contact arrangements