

# Main Values for KS Versions

# 2

# S W I T C H E S & K N O B S

### Overview of the main electrical values of KS versions

Contact material	Type	Silver contacts				Gold contacts				Silver contacts	
		1.3N	3N	5N		1.3N	3N	5N		1.6N	3N
	<b>KSA</b>	X	X	X	<b>KSA</b>	X	X	X	<b>KSB</b>	X	X
	<b>KSF</b>	X (1.6)	X	X	<b>KSF</b>	X	X	X	<b>KSD</b>	X	X
	<b>KSL</b>	X	X	X	<b>KSL</b>	X	X	X			
	<b>KSAV</b>	X	X	X	<b>KSAV</b>	X	X	X			
	<b>KSLV</b>	X	X	X	<b>KSLV</b>	X	X	X			
	<b>KSI</b>		X		<b>KSI</b>		X				
	<b>KSJ</b>	X (1.0)	X		<b>KSJ</b>	X (1.0)	X				
<b>Data</b>		Upon request				Upon request				No	
Ground terminal		50 V				50 V				50 V	
Max. voltage		20 mV				20 mV				5 V	
Min. voltage		50 mA				10 mA				50 mA	
Max. switching current		1 mA				1 mA				10 mA	
Min. switching current		1 VA				0.2 VA				1 VA	
Max. switching power		50 mΩ				50 mΩ				100 mΩ	
Contact resistance		300 Vrms				300 Vrms				300 Vrms	
Dielectric strength		10 <sup>11</sup> Ω				10 <sup>11</sup> Ω				10 <sup>11</sup> Ω	
Insulation resistance (100 V)		≤ 1 ms				≤ 1 ms				≤ 1 ms	
Bounce		5 × 10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>		10 <sup>6</sup>	10 <sup>5</sup>	10 <sup>5</sup>		10 <sup>5</sup>	10 <sup>5</sup>
Operating life with actuation force less than 2 times nominal force		10 <sup>6</sup> upon request	5 × 10 <sup>5</sup> upon request				5 × 10 <sup>5</sup> upon request				

Ordering code		1	2	3	4	5	6	7
		<b>Example:</b> KS	A	1	A	3	3	1
1	<b>Designation:</b> KS							
2	<b>Actuator:</b> A = short, L = long, B = without, F = flat, I = soft, J = long travel (spherical)							
3	<b>Ground terminal:</b> 0 = without (B only 0), 1 = with							
4	<b>Insertion:</b> M = manual, A = automatic, V = vertical (for KSA, KSI and KSL, not for KSB and KSF)							
5	<b>Operation force (N [grams]), operating life (k operations):</b> 1 = 1.6N [160 grams] and 100 k operations 2 = 1.3N [130 grams] and 500 k operations (KSA/KSL) 1.6N [160 grams] and 500 k operations (KSF) 3 = 1.3N [130 grams] and more than 1000 k operations 4 = 3.0N [300 grams] and more than 100 k operations 5 = 5.0N [500 grams] and more than 100 k operations 9 = 3.0N [300 grams] and 500 k operations							
6	<b>Operating temperature:</b> 1 = low temperature - 40°C to + 90°C (silver contacts) 3 = high temperature - 40°C to + 125°C (gold contacts)							
7	<b>Sealing:</b> 0 = sealed against flux, 1 = totally sealed acc. to EIA RS448-2							