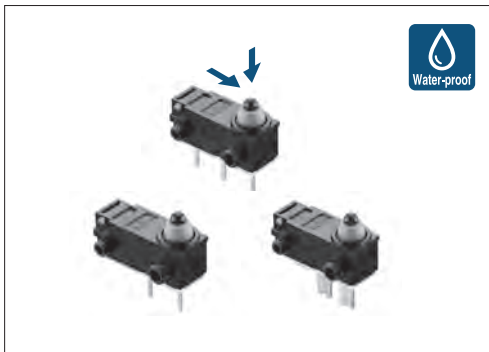


SPVQ7 防水型

主体高度为6.7mm, 低背式。



主要规格

项目		规格
最大额定/最小额定 (电阻负载)		0.1A 12V DC / 50 μ A 5V DC
接触电阻 (初期/寿命后)		500m Ω max. / 1 Ω max.
动作力		1 \pm 0.5N
操作寿命	无负载	300,000 cycles
	负载	300,000 cycles (0.1A 12V DC)

产品一览

电路数	接点数	切换时限	操作部形状	端子形状	主机形状	最小订货单位 (pcs.)		产品编号	图号					
						日本	出口							
1	2	Non shorting	Push	For PC board	左突起	1,350	5,400	SPVQ710103	1					
					右突起			SPVQ710203	2					
					左突起			SPVQ710304	3					
					右突起			SPVQ710404	4					
	1				Non shorting			Push	For lead	左突起	1,350	5,400	SPVQ740303	5
										右突起			SPVQ740403	6
										左突起			SPVQ740103	7
										右突起			SPVQ740203	8

注

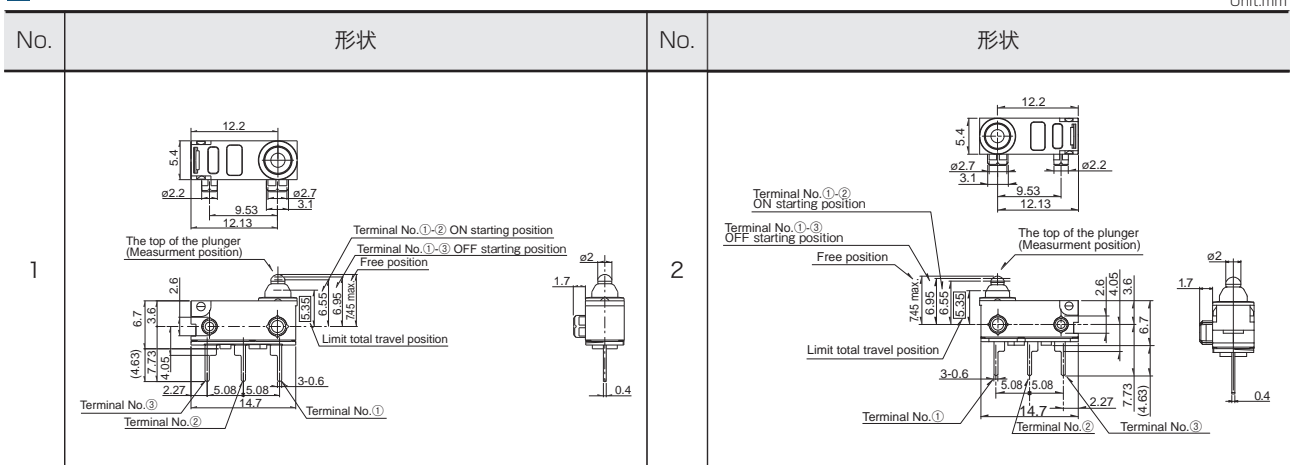
本产品不能在水中使用。(防尘/防水性能符合 符合IP67, 但端子部除外)

包装规格

托盘

包装数 (pcs.)		出口包装箱尺寸 (mm)
1 箱 / 日本	1 箱 / 出口包装	
1,350	5,400	540×360×270

外形图



检测

滑动

按动

旋转

电源

切换式

通用型

防水型

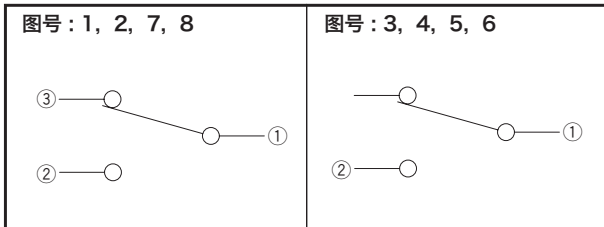
急速切换型

外形图

Unit:mm


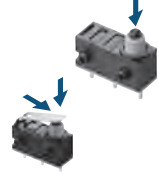








No.	形状	No.	形状
3	<p>Technical drawing of SPVQ7 model 3. Dimensions: 12.2 (width), 5.4 (height), 12.13 (terminal spacing), 9.53 (terminal offset), 3.1 (terminal offset), 2.27 (terminal offset), 5.08, 5.08 (terminal offset), 14.7 (total length), 7.73 (total length), 6.7 (total length), 4.25 max. (total length), 3.6 (total length), 2.6 (total length), 4.95 max. (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 6.55 (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 4.95 max. (total length), 3.6 (total length), 2.6 (total length), 4.25 max. (total length), 6.7 (total length), 7.73 (total length), 4.63 (total length). Terminal positions: Terminal No. ①-② ON starting position, Free position, Limit total travel position, Terminal No. ①, Terminal No. ②.</p>	6	<p>Technical drawing of SPVQ7 model 6. Dimensions: 12.2 (width), 5.4 (height), 12.13 (terminal spacing), 9.53 (terminal offset), 3.1 (terminal offset), 2.25 (terminal offset), 4.13, 4.13 (terminal offset), 14.7 (total length), 7.73 (total length), 6.7 (total length), 4.25 max. (total length), 3.6 (total length), 2.6 (total length), 4.95 max. (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 6.55 (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 4.95 max. (total length), 3.6 (total length), 2.6 (total length), 4.25 max. (total length), 6.7 (total length), 7.73 (total length), 4.63 (total length). Terminal positions: Terminal No. ①-② ON starting position, Free position, Limit total travel position, Terminal No. ①, Terminal No. ②.</p>
4	<p>Technical drawing of SPVQ7 model 4. Dimensions: 12.2 (width), 5.4 (height), 12.13 (terminal spacing), 9.53 (terminal offset), 3.1 (terminal offset), 2.27 (terminal offset), 5.08, 5.08 (terminal offset), 14.7 (total length), 7.73 (total length), 6.7 (total length), 4.25 max. (total length), 3.6 (total length), 2.6 (total length), 4.95 max. (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 6.55 (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 4.95 max. (total length), 3.6 (total length), 2.6 (total length), 4.25 max. (total length), 6.7 (total length), 7.73 (total length), 4.63 (total length). Terminal positions: Terminal No. ①-② ON starting position, Free position, Limit total travel position, Terminal No. ①, Terminal No. ②.</p>	7	<p>Technical drawing of SPVQ7 model 7. Dimensions: 12.2 (width), 5.4 (height), 12.13 (terminal spacing), 9.53 (terminal offset), 3.1 (terminal offset), 2.6 (terminal offset), 4.13, 4.13 (terminal offset), 14.7 (total length), 7.73 (total length), 6.7 (total length), 4.25 max. (total length), 3.6 (total length), 2.6 (total length), 4.95 max. (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 6.55 (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 4.95 max. (total length), 3.6 (total length), 2.6 (total length), 4.25 max. (total length), 6.7 (total length), 7.73 (total length), 4.63 (total length). Terminal positions: Terminal No. ①-② ON starting position, Free position, Limit total travel position, Terminal No. ①, Terminal No. ②, Terminal No. ③.</p>
5	<p>Technical drawing of SPVQ7 model 5. Dimensions: 12.2 (width), 5.4 (height), 12.13 (terminal spacing), 9.53 (terminal offset), 3.1 (terminal offset), 2.25 (terminal offset), 4.13, 4.13 (terminal offset), 14.7 (total length), 7.73 (total length), 6.7 (total length), 4.25 max. (total length), 3.6 (total length), 2.6 (total length), 4.95 max. (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 6.55 (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 4.95 max. (total length), 3.6 (total length), 2.6 (total length), 4.25 max. (total length), 6.7 (total length), 7.73 (total length), 4.63 (total length). Terminal positions: Terminal No. ①-② ON starting position, Free position, Limit total travel position, Terminal No. ①, Terminal No. ②.</p>	8	<p>Technical drawing of SPVQ7 model 8. Dimensions: 12.2 (width), 5.4 (height), 12.13 (terminal spacing), 9.53 (terminal offset), 3.1 (terminal offset), 2.6 (terminal offset), 4.13, 4.13 (terminal offset), 14.7 (total length), 7.73 (total length), 6.7 (total length), 4.25 max. (total length), 3.6 (total length), 2.6 (total length), 4.95 max. (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 6.55 (total length), 6.55 (total length), 6.55 (total length), 7.45 max. (total length), 4.95 max. (total length), 3.6 (total length), 2.6 (total length), 4.25 max. (total length), 6.7 (total length), 7.73 (total length), 4.63 (total length). Terminal positions: Terminal No. ①-② ON starting position, Terminal No. ①-③ OFF starting position, Free position, Limit total travel position, Terminal No. ①, Terminal No. ②, Terminal No. ③.</p>

电路图



检测开关

产品系列一览

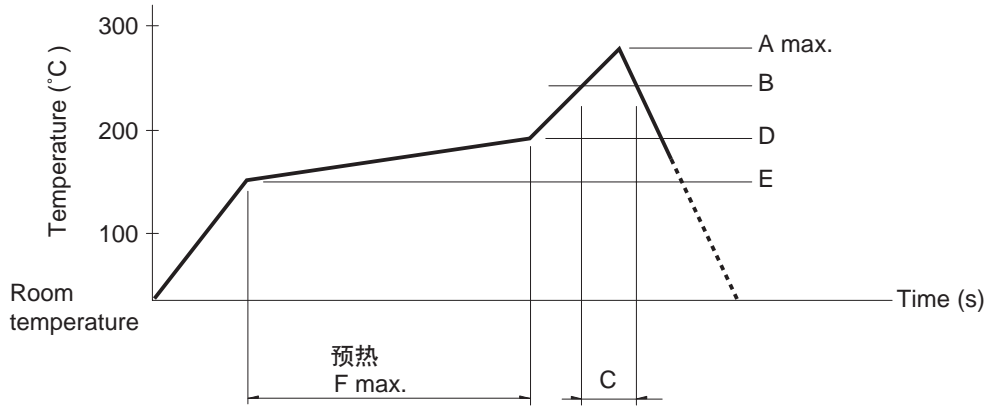
系列		防水型				
		SPVQ3	SPVQ6	SPVQ7	SPVQ8	SPVQ8H
照片						
动作形式		2 方向	1 方向 2 方向	2 方向		
外形尺寸 (mm)	W	13	13.3	14.7	8.3	14.8 17.95
	D	5.8	5.3	5.4	5.3	6.45
	H	8.35	7	6.7	6.5	14.5
使用温度范围		-40°C to +85°C				
车用产品		●	●	●	●	●
生命周期						
电路数 / 接点数		1/1 1/2	1/2	1/1 1/2	1/1	
最大额定 (电阻负载)		0.1A 12V DC				
最小额定 (电阻负载)		50μA 5V DC				
耐久性能	无负载寿命	300,000cycles 1Ω max.			300,000cycles 1Ω max. or 1,000,000cycles 3Ω max.	100,000cycles 1Ω max.
	负载寿命 最大额定 (电阻负载)	300,000cycles 1Ω max.			300,000cycles 1Ω max. or 1,000,000cycles 3Ω max.	100,000cycles 1Ω max.
电性能	初期接触电阻	500mΩ max.				
	绝缘电阻	100MΩ min. 500V DC				
	耐电压	500V AC for 1minute				
机械性能	端子强度	3N for 1minute (with terminal) Wire strength 30N for 1minute (with wire)	3N for 1minute		3N for 1minute (端子型产品) Wire strength 30N for 1minute (with wire)	Wire strength 110N for 1minute
	操作部强度	20N				
耐环境性能	耐寒性能	-40°C 500h				
	耐热性能	85°C 500h				
	耐湿性能	60°C, 90 to 95% RH 500h				
动作力		1±0.5N 3N max.		1±0.5N	1±0.5N 3N max.	4.7N max.
页		43	48	51	53	61

检测开关焊接条件 68
 使用检测开关时的注意事项 69

注
 表中的 ● 符号表示适用于系列内的全部产品。

回流方式的参考举例

1. 加热方式远红外线加热的上下加热方式。
2. 温度测量方式用 $\phi 0.1 \sim \phi 0.2$ 的CA (K) 或CC (T) 进行测量。在焊接的连接部位置 (铜箔面) 测量, 固定方式使用耐热载带。
3. 温度分布



系列 (回流型)	A (°C) 3s max.	B (°C)	C (s)	D (°C)	E (°C)	F (s)
SPPB	250	230	40	180	150	120
SPVE						
SPVL						
SPVM						
SPVN						
SPVR	260	230	40	180	150	120
SPVS	250	230	40	180	150	120
SPVT						
SSCM						
SSCQ						
SPVQC	250	230	40	180	150	120

注

1. 上述条件, 为印刷电路板的零部件表面的温度。根据电路板的材质, 大小, 厚度等, 电路板温度和开关表面温度会有很大的不同, 关于开关表面温度, 也请在上述条件内使用。
2. 根据贴面焊槽的种类, 条件不同结果不同, 请事先充分进行确认之后使用。

手工焊接方式的参考举例

项目	焊接温度	焊接时间
SPVS, SPVN, SSPVT, SPVM, SPVR, SPVE, SSCQ, SSCM, SPVL, SSCT, SPVQC	350±5°C	3s max.
SPVQ3, SPVQ6, SPVQ7, SPVQ8, SPVQ9, SSCN, SPVQA	300±10°C	3+1/0s
SPPB (Reflow)	350±5°C	5s max.
SSCF, SPPB (For Lead, Dip)	350±10°C	3+1/0s

浸焊方式的参考举例

适用于 For PC board 端子型

项目	项目		浸焊	
	预热温度	预热时间	焊接温度	焊接浸渍时间
SSCT, SPVQ3, SPVQ6, SPVQ7, SPVQ8, SPVQ9, SPVQA	100±10°C	60s max.	260±5°C	5±1s
SPPW8, SPPB	100 °C max.	60s max.	255±5°C	5±1s
SSCF	—	—	260±5°C	5±1s