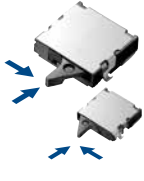

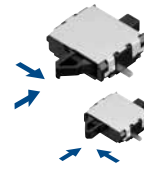


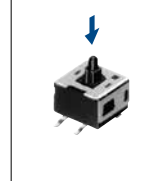








Detector Switches

List of Varieties

Series		General-purpose Type					
		SPVS	SPVN	SPVT	SPVM	SPVR	SPVE
Photo							
Operation type		Two-way					One-way
Dimensions (mm)	W	3.5	3.8	5.6	2.8	3.6	3.4
	D	3.3	3.6	4.7	3.5	4.2	3
	H	1		1.9	1.5	1.2	2.3
Operating temperature range		-40°C to +85°C					-10°C to +60°C
Automotive use		●	●	●	●	●	—
Life cycle (availability)							
Poles / Positions		1/1					
Rating (max.) (Resistive load)		1mA 5V DC		50mA 20V DC	1mA 5V DC		0.1A 30V DC
Rating (min.) (Resistive load)		50μA 3V DC		100μA 3V DC	50μA 3V DC	100μA 3V DC	50μA 3V DC
Durability	Operating life without load	50,000cycles 5Ω max.		100,000cycles 1Ω max.	50,000cycles 5Ω max.		50,000cycles 1Ω max.
	Operating life with load Rating (max.) (Resistive load)	50,000cycles 5Ω max.		100,000cycles 1Ω max.	50,000cycles 5Ω max.		50,000cycles 1Ω max.
Electrical performance	Initial contact resistance	2Ω max.		500mΩ max.	2Ω max.	3Ω max.	500mΩ max.
	Insulation resistance	100MΩ min. 100V DC					
	Voltage proof	100V AC for 1 minute					
Mechanical performance	Terminal strength	0.5N for 1minute			1N for 1minute	0.5N for 1minute	
	Actuator strength	5N		10N	5N	2N	5N
Environmental performance	Cold	-40°C 96h					-20°C 96h
	Dry heat	85°C 96h					
	Damp heat	40°C, 90 to 95%RH 96h					
Operation force		0.35N max.		0.4N max.		0.35N max.	0.3N max.
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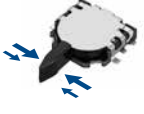
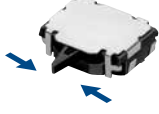
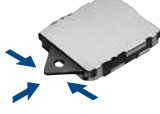





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Note

- Indicates applicability to all products in the series.

Detector Switches



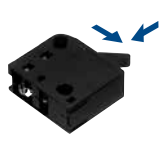





List of Varieties

Series		General-purpose Type			
		SSCQ	SSCM	SPVL	SPPB
Photo					
Operation type		Two-way Two-direction type	Two-way	Three-way	One-way Two-way
Dimensions (mm)	W	3.8	5	5.55	6.3
	D	3.6	4	6.6	3
	H	0.9	1.5	1	4.9
Operating temperature range		-10°C to +60°C		-40°C to +85°C	
Automotive use		—	—	●	●
Life cycle (availability)					
Poles / Positions		1 / Two-direction type: 2-position each side	1/2	1/1	
Rating (max.) (Resistive load)		1mA 5V DC			0.1A 30V DC
Rating (min.) (Resistive load)		50μA 3V DC			
Durability	Operating life without load	50,000cycles 5Ω max.			50,000cycles 2Ω max.
	Operating life with load Rating (max.) (Resistive load)	50,000cycles 5Ω max			50,000cycles 2Ω max.
Electrical performance	Initial contact resistance	2Ω max.			1Ω max.
	Insulation resistance	100MΩ min. 100V DC			
	Voltage proof	100V AC for 1 minute			
Mechanical performance	Terminal strength	0.5N for 1minute		1N for 1minute	3N for 1minute
	Actuator strength	1N	2N	5N	10N
Environmental performance	Cold	-20°C 96h		-40°C 500h	
	Dry heat	85°C 96h		85°C 500h	
	Damp heat	40°C, 90 to 95%RH 96h		60°C, 90 to 95%RH 500h	
Operation force		0.35N max.			
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Note

- Indicates applicability to all products in the series.

Series		General-purpose Type			
		SSCT	SSCF	SSCW	SSCL
Photo					
Operation type		Two-way			
Dimensions (mm)	W	12.5	11	13.1	11
	D	5	5.8	11.35	16.1
	H	11.5	12.4	5.3	
Operating temperature range		-40°C to +85°C			
Automotive use		●	●	●	●
Life cycle (availability)					
Poles / Positions		1/2		1/1	1/2
Rating (max.) (Resistive load)		0.1A 12V DC			
Rating (min.) (Resistive load)		50µA 3V DC		100µA 3V DC	50µA 5V DC
Durability	Operating life without load	10,000cycles 500mΩ max.	50,000cycles 300mΩ max.	100,000cycles 1Ω max.	50,000cycles 1Ω max.
	Operating life with load Rating (max.) (Resistive load)	10,000cycles 500mΩ max.	50,000cycles 300mΩ max.	100,000cycles 1Ω max.	50,000cycles 1Ω max.
Electrical performance	Initial contact resistance	200mΩ max.	100mΩ max.	500mΩ max.	
	Insulation resistance	100MΩ min. 250V DC	100MΩ min. 100V DC	100MΩ min. 250V DC	100MΩ min. 100V DC
	Voltage proof	250V AC for 1minute	100V AC for 1 minute	250V AC for 1minute	100V AC for 1minute
Mechanical performance	Terminal strength	3N for 1minute	5N for 1minute	—	
	Actuator strength	20N	10N	20N	10N
Environmental performance	Cold	-40°C 500h			
	Dry heat	85°C 500h			
	Damp heat	60°C, 90 to 95%RH 500h			
Operation force		0.7±0.3N	0.7N max.	1N max.	0.7N max.
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 Detector Switches Cautions 67

Note
 ● Indicates applicability to all products in the series.

Series		Water-proof Type			Fast Switching Type	
		SPVQ8	SPVQA	SSCN	SPVQ9	SPVQC
Photo						
Operation type		Two-way				
Dimensions (mm)	W	8.3	15.2	13	15.4	15.4
	D	5.3	6.4	5	8.4	7.4
	H	6.5	7.95	15	7.5	
Operating temperature range		-40°C to +85°C				
Automotive use		●	●	●	●	●
Life cycle (availability)						
Poles / Positions		1/1	1/1 1/2	1/2	2/2	
Rating (max.) (Resistive load)		0.1A 12V DC			50mA 26V DC	50mA 18V DC
Rating (min.) (Resistive load)		50μA 5V DC		100μA 5V DC	50μA 5V DC	
Durability	Operating life without load	300,000cycles 1Ω max. or 1,000,000cycles 3Ω max.	300,000cycles 1Ω max.	100,000cycles 1Ω max.	300,000cycles 200mΩ max.	—
	Operating life with load Rating (max.) (Resistive load)	300,000cycles 1Ω max. or 1,000,000cycles 3Ω max.	300,000cycles 1Ω max.	100,000cycles 1Ω max.	300,000cycles 200mΩ max.	
Electrical performance	Initial contact resistance	500mΩ max.			75mΩ max.	
	Insulation resistance	100MΩ min. 500V DC				100MΩ min. 250V DC
	Voltage proof	500V AC for 1minute				250V AC for 1minute
Mechanical performance	Terminal strength	3N for 1minute (with terminal) Wire strength 30N for 1minute (with wire)	3N for 1minute			
	Actuator strength	20N		10N	20N	
Environmental performance	Cold	-40°C 500h				
	Dry heat	85°C 500h				
	Damp heat	60°C, 90 to 95% RH 500h				
Operation force		1±0.5N		2N max.	1±0.5N	
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Note
 ● Indicates applicability to all products in the series.