

multimec® technical specifications

	Low Temperature Versions		High Temperature Versions	
	Silver	Gold	Silver	Gold
Electrical Specifications				
Contact resistance	<30 mΩ - typically 10mΩ			
Insulation resistance	>10MΩ			
Recommended load	0.5-50mA 24VDC	0-50mA 24VDC	0.5-50mA 24VDC	0-50mA 24VDC
Contact bounce	<2mS - typically 0.5mS			
Mechanical Specifications				
Standard actuation force (switch)	2.5N typ.			
Max. actuation force without cap	100N for 10 sec.			
Key travel (switch)	1 mm			
Life time (switch)	>10.000.000 cycles			
Temperature Range				
Working temperature	Min. -40°C Max. +65°C		Min. -40°C Max. +160°C	
Storage temperature	Min. -40°C Max. +65°C		Min. -40°C Max. +160°C	
Soldering IEC 68-2-20	Wave -max. 260°C for max. 10 Sec., please refer to usage guidelines		Infrared, vapour phase, wave - max. 260°C for max. 30 Sec.	
	Soldering iron - max. 350°C for max. 3 Sec. Flux tight.		Soldering iron - max. 350°C for max. 3 Sec. Flux tight.	
Environmental Endurance IEC-68-2-3				
Temperature	+40°C			
Humidity	93% RH			
Duration	56 Days			
Temperature Cycling IEC 68-2-14				
Temperature limit	Min. -55°C - Max. +65°C			
Number of cycles	200			
Exposure time at each temperature	10 min.			
Recovery time before measurements	16 hrs.			
Sealing IEC 529	IP-67M			
Cleaning	Standard methods such as freon, water and soap			
Material Specifications - Switches				
Housing	Polycarbonate UL94V1		PPS UL94V1	
Actuator	ABS UL94V1		PPS UL94V1	
Sealing + spring	Silicone rubber			
Contact spring	Stainless steel + 3μAG	Stainless steel + 3μAG + 3μAU	Stainless steel + 3μAG	Stainless steel + 3μAG + 3μAU
Terminals	SNCU + 2μNI + 3μAG	SNCU + 2μNI + 3μAU	SNCU + 2μNI + 3μAG	SNCU + 2μNI + 3μAU
Material Specifications - Caps & Bezels				
Temperature Limit	ABS UL94V1			
	Max. +65°C			

Specifications are subject to change without notice

multimec® LEDs

* $I_F = 20\text{mA}$

**Pulse width 1ms Duty cycle 1:5

*** $I_F = 50\text{mA}$

****Luminous Flux mlm

Part Nos.	1CXXX (for 3A Switch)			2BXXX			3FXXX (for 1E-1F + 1Q-1R)			3FXXX (for 1K)			
	G	Y	R	G	Y	R	G	Y	R	G	Y	R	
Colour (G = Green, Y = Yellow, R = Red)													
Absolute Maximum Ratings (Ta=25°C)													
Power	100	60	100	75	60	60	70	60	60	300	300	300	
Current forward	30	20	30	20	20	20	20	20	20	75	90	90	
Forward peak current	120	80	120	60**	60**	60**	60**	60**	60**	2	2.5	2.5	
Voltage reverse	5	5	5	3	3	3	3	3	3	5	5	5	
Operating temperature	-55 ~ +100			-25 ~ +85			-25 ~ +85			-55 ~ +100			
Storage temperature	-55 ~ +100			-30 ~ +100			-30 ~ +100			-55 ~ +100			
Soldering temperature	260 for max. 3 sec.			260 for max. 5 sec.			260 for max. 5 sec.			300 for max. 3 sec.			
Electrical-Optical Characteristics (Ta=25°C)													
Voltage forward	Typ. V	2.1*	2.1*	2.0*	2.1	2.1	2.0	2.1	2.1	2.0	2.4***	2.4***	2.4***
	Max. V	2.8*	2.8*	2.8*	3.0	3.0	3.0	3.0	3.0	3.0	3.8***	3.8***	3.8***
Current reverse (VR = 5V)	μA	100	100	100	10	10	10	10	10	10	10	10	
Wave length	nm	565	585	630	563	585	650	563	585	650	565	586	635
Spread	Δ nm	30	35	40	40	40	40	40	40	40	25	45	45
Spread angle	degree	90	90	90	45	45	45	45	45	45	55	30	55
Luminous Intensity	Min. mcd	0.7	1.7	1.1	9.0	5.6	5.6	9.0	5.6	5.6	100****	100****	100****
	Typ. mcd	2.5	5.6	3.7	25	16	16	25	16	16	160****	160****	160****
Orientation	The longer pin is the anode, the shorter is the cathode												