

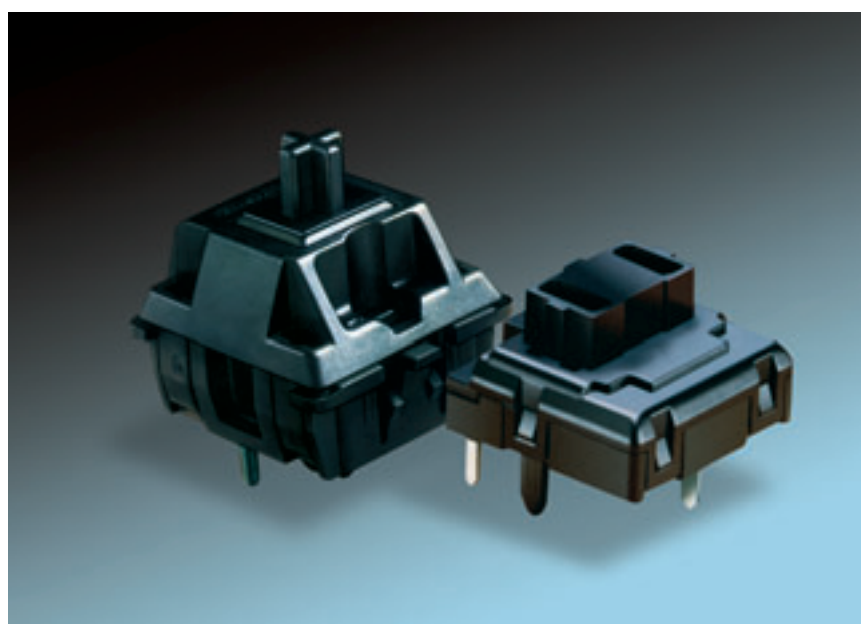
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## Keymodule

Cherry key modules are mechanical input elements with a single-gap make contact element. Low assembly height, pleasant feel and excellent contact reliability thanks to Gold-Crosspoint contact technology allow flexible designing of low-cost keypads and keyboards. Depending on the key cap, different lead spacings are also possible.

Very short bounce times, very pleasant feel and exceptionally high reliability and durability pave the way for a wide range of applications.



# Technical Data

	Model ML	Model MX
<b>Electrical Characteristics</b>		
Switching voltage	12 V AC/DC	12 V AC/DC max, 2 V DC min
Switching current	10 mA AC/DC max, 10 uA DC min.	10 mA AC/DC max, 10uA DC min.
Contact resistance	≤ 200 mW (typically. 25 m)	≤ 200 mW (typically 25 m)
Capacity at 1kHz	≤ pF	≤ pF
Dielectric strength	500 V/50Hz	500 V/50Hz
Isolation resistance (new)	100 MΩ	100 MΩ
Durability at 5V, 1mA linear	–	50x10 <sup>6</sup> linear
Durability at 5V, 1mA pressure point	20x10 <sup>6</sup>	50x10 <sup>6</sup> pressure point
Service life at 5V, 1mA latched pushbutton MCBF	–	0,5x10 <sup>6</sup> latched pushbutton 1x10 <sup>6</sup>
<b>Mechanical Characteristics</b>		
Number of contacts	Single-gap make contact element	Single-gap make contact element
Action	Pressure point	Linear, pressure point, latching
Actuator travel	3.0 -0.5 mm	4.0 -0.4 mm Pulse / 4.2 ±0.3 mm latching
Pre-travel	1.5 ±0.5 mm	2 ±0.6 mm Pulse / 1.4 ±0.4 mm latching
Initial force	30 cN min	40 cN
Actuation force	45 ±20 cN	60 +20 cN linear and latching; 45 ±20 cN pressure point
Pressure point force	50 ±20 cN	55 ±20 cN
Bounce time during actuation with 0.4 m/s	≤5 ms	≤5 ms
Standard lead spacing	19.05 mm (16 mm min)	19.05 mm (16 mm min)
Fastening	Fixing pins in the printed circuit board	Snap fastening in frame or Fixing pins in the printed circuit board
Lighting (optional)	–	LED in red, green or yellow
Decoupling diode	–	optional
Wire jumper	–	optional
<b>Materials</b>		
Insulation materials	Thermoplastics (min UL 94 HB)	Thermoplastics UL listed
Spring	Stainless steel	Stainless steel
Contacts	AuAg 10	High-quality gold alloy
<b>Other Characteristics</b>		
Protection class	IP 40	IP 40
Operating temperature	-10 °C to +70 °C	-10° C to +70° C
Storage temperature	-40 °C to +70 °C	-40° C to +70° C
Humidity (without condensation)	5% to 95%	5% to 95%
Soldering capability	DIN IEC 68	DIN IEC 68
Soldering temperature/duration	260 °C / 5s	260 °C / 5s

