Technical specifications

Electrical characteristics	**Module ML**	**Module MX**
Switching voltage	12 V AC/DC max.	12 V AC/DC max.
Switching current	10 mA AC/DC max.	10 mA AC/DC max.
Dielectric strength	500 V/50 Hz	500 V/50 Hz
Durability at 5V, 1mA linear actuation	–	50×10^6
Durability at 5V, 1mA tactile feel click	20×10^6	50×10^6
Durability at 5V, 1mA alternate action	–	$0{,}5 \times 10^6$
Durability at 5V, 1mA alternate action		50×10^6
Mechanical characteristics		
Contact configuration	Single-pole contact	Single-pole contact
Action	Pressure point click	Linear, pressure point click, alternate action, ergonomic
Actuator travel	3,0–0,5 mm	4,0–0,4 mm Impuls/4,2 0,3 mm Rast/4–0,5 mm click
Pretravel	1,5 ± 0,5 mm	2 ± 0,6 mm Impuls/1,4 0,4 mm Rast/2,2 0,6 mm click
Initial force	30 cN min	25 cN min.
Actuation force	45 ± 20 cN	60 ± 20 cN linear a. Rast; 45 20 cN, ergonom. and 50 15 cN click
Pressure point force	50 ± 20 cN	55 ± 20 cN, pressure point ergonomic/60 15 cN pressure point click
Bounce time during actuation with 0,4 m/s	≤5 ms	≤5 ms
Standard lead spacing	18 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	optional
Materials		
Insulation materials	Thermoplastics (min.UL 94 HB)	Thermoplastics (min.UL 94 HB)
Spring	Stainless steel	Stainless steel
Contacts	High-quality gold alloy	High-quality gold alloy
Other Characteristics		
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	see soldering specifications	see soldering specifications

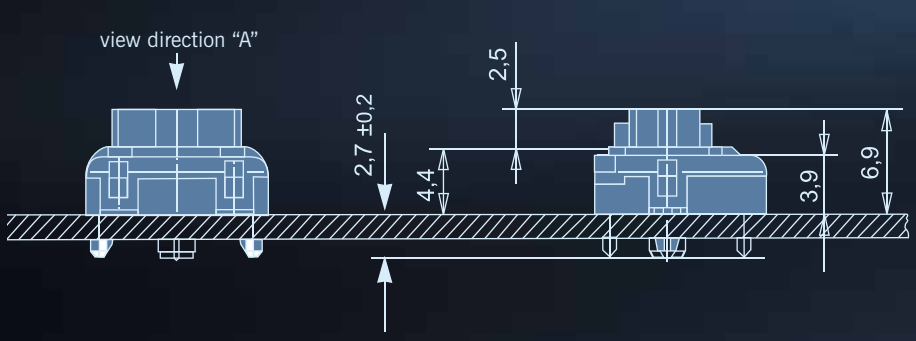
For detailed information and the layout of the details described above, please do not hesitate to ask for our technical specifi cations and drawing.

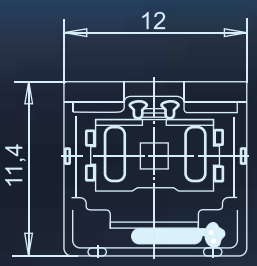
Keymodule ML

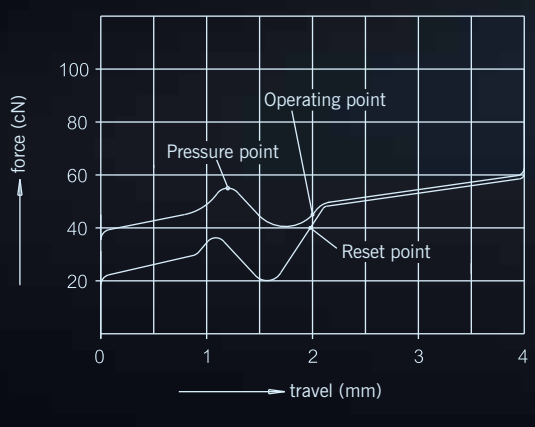
Features

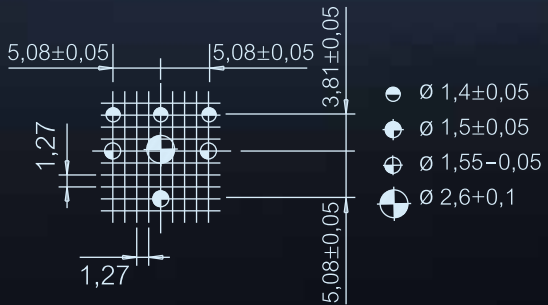
The Cherry ML keymodule is a mechanical switching element using single-gap make contact element in Gold-Crosspoint contact technology. Its comfortable actuation makes the module particulary suitable for low-cost construction of keyboards and keypads with great diversity and very low height.

A multitude of different key cap shapes allows flexible designs. Very short bounce time, reliable stroke, excellent tactile feeling and enormous cost-saving pave the way for a wide range of applications.



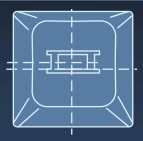
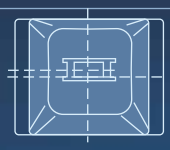
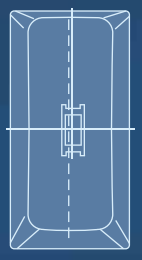
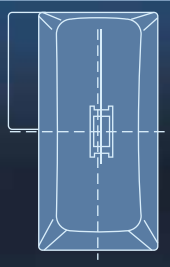
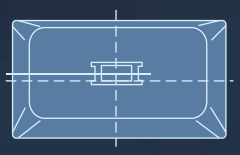
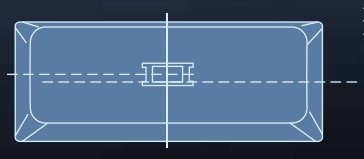






Drilling pattern, view direction „A"

Keycaps and mechanics

Keycaps	Keycap format	Dimension X (mm)	Bar	Assembly number (mechanics + Bar)
	1x1	–	–	–
	1x0,84	–	–	–
	1x1,25	–	–	–
	1x2 vertical	25,6	614-5007	G99-1303 ZUB
	1,25x2x1 vertical	25,6	614-5007	G99-1303 ZUB
	1,5x2x1,25 vertical	25,6	614-5007	G99-1303 ZUB
	1x1,5	17,45	614-5004	G99-1300 ZUB
	1x1,53	17,45	614-5004	G99-1300 ZUB
	1x1,75	21,65	614-5005	G99-1301 ZUB
	1x2	25,6	614-5007	G99-1303 ZUB
	1x2,25	30,65	614-5009	G99-1369 ZUB
	1x5	80,15	614-5006	G99-1302 ZUB
	1x7	116,15	614-5010	G99-1370 ZUB

Mouser Electronics

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