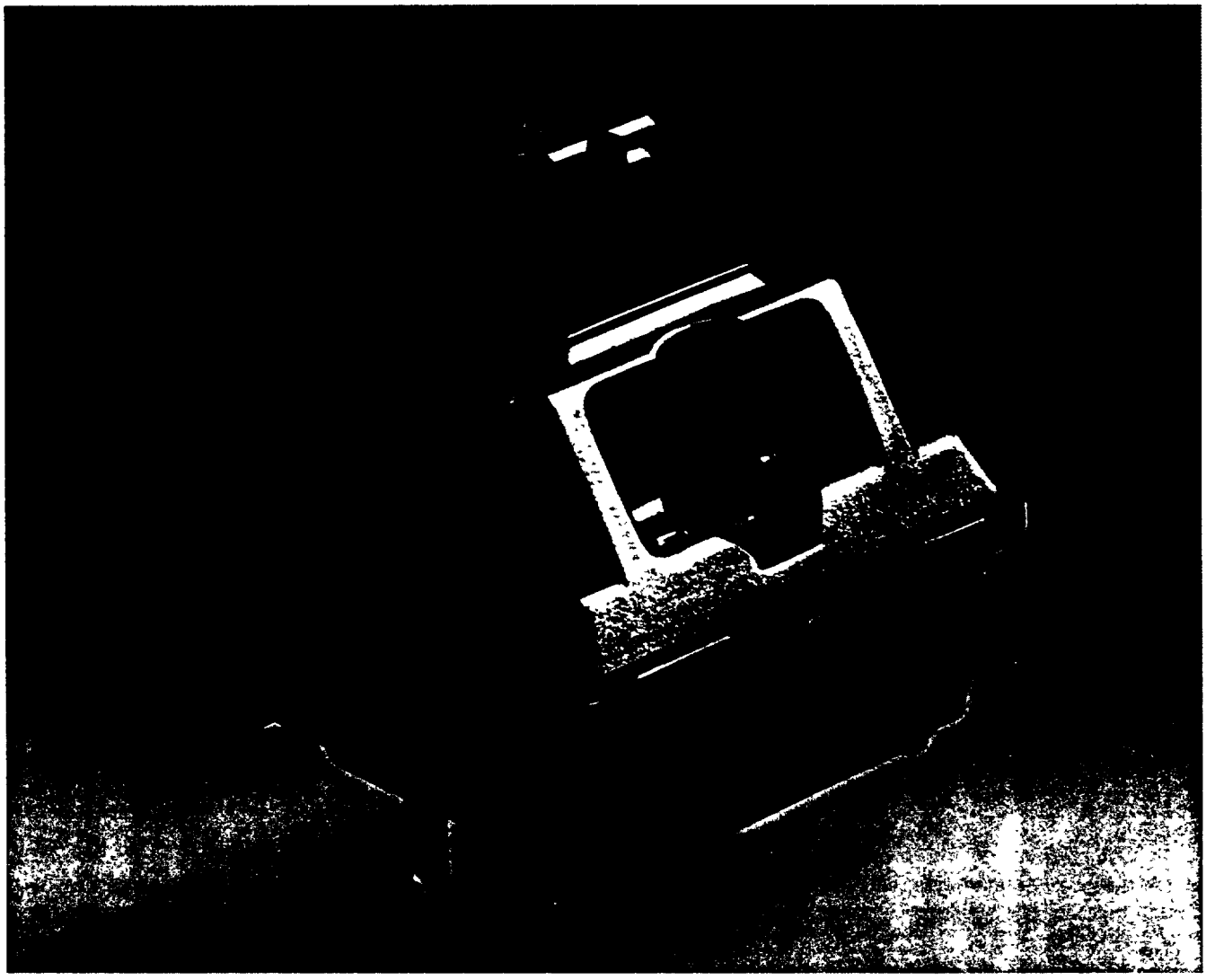
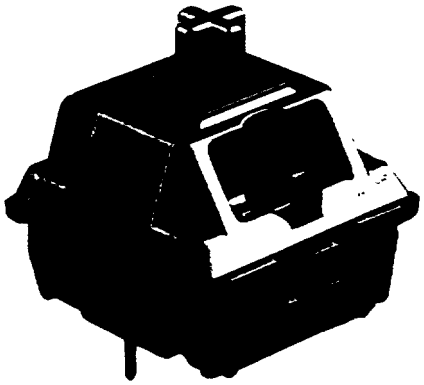
CHERRY

Keymodule MX.

Modern Technology for ergonomic Keyboards.





Main Advantages

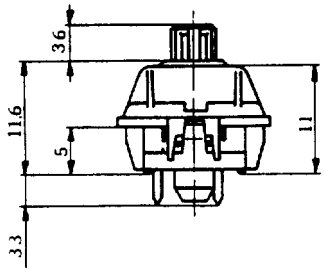
- The MX is a modern full-travel low-profile keyswitch.
- »Gold Crosspoint« Contacts ensure highest reliability.
- The keyswitch module is designed to meet all current ergonomic standards demanded for word and data processing applications.
- High reliability also during quick actuation.
- Switch options include integrated color LED, de-coupling diode and wire jumper.
- MCBF = 1×10^9

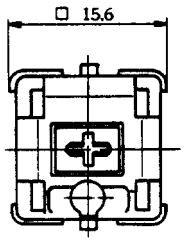
Important Features

- Switch versions include momentary and alternate action as well as linear or tactile feel.
- 4 mm full travel.
- Circuitry S.P.S.T. – N.O.
- Connector pins constructed for machine soldering.
- Switches can be snapped into a frame or mounted directly onto the printed circuit board.
- Low contact resistance.
- Standard spacing 19.05 mm (upon request ≧ 16 mm).
- Low-profile height from base of keyboard to top of keycaps in homerow using cylindrical keycaps < 30 mm.

Technical Data

Material – plastic parts	Thermoplastic UL-recog.-comp.
– contacts	AuAg 10
– spring	Stainless steel.
Protection	DIN 40050 IP 40.
Storage Temperature	–40° C (–40° F) to +70° C (+158° F).
Operating Temperature	–10° C (+14° F) to +70° C (+158° F).
Humidity	5 % – 95 % w/o cond.
Solderability	applicable for machine soldering 5 sec. at 260° C.





Mechanical Data

	Keyswitch with linear actuation	Keyswitch with soft tactile feel	Keyswitch with click tactile feel	Keyswitch with alternate action
Total travel	4 – 0.4 mm	4 – 0.5 mm	4 – 0.5 mm	4.2 ± 0.3 mm
Pretravel	2 ± 0.6 mm	2.0 ± 0.6 mm	2.2 ± 0.6 mm	1.4 ± 0.4 mm
Operating force	60 ± 20 cN	55 ± 20	50 ± 15 cN	60 ± 20 cN
Tactile force	–	65 ± 20	60 ± 15 cN	–

Electrical Data

Voltage _____ 12 V max. AC/DC; 2 V min. DC

Current _____ 10 mA max. AC/DC; 10 mA min. DC

Insulation resistance _____ new/ 100 MΩ

Capacity at 1 MHz _____ ≦ 1 pF

Bounce time at actuation speed 0.4 m/s _____ ≦ 5 ms

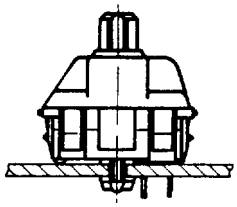
Life cycle w/o electrical load/at 5 V, 1 mA

- MX linear _____ 50×10^6 operations
- MX soft _____ 20×10^6 operations
- MX click _____ 20×10^6 operations
- MX alternate action _____ 500 000 alternate operations

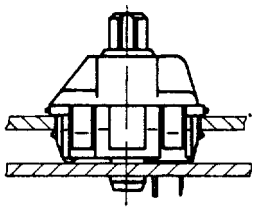
Initial contact resistance _____ 200 mΩ (typ. 25 Ω)

Keyswitch Assembly

Direct PCB-mounting onto metel frame



with pins



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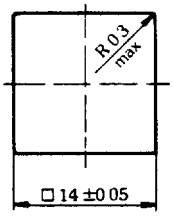

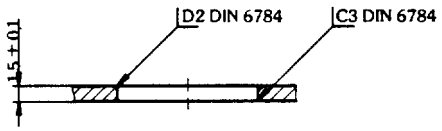

Force/Travel Diagram