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Printed in Germany.
45392530
E, Juni 2002
3, Mün
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## Contents

### 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 also possible. key cap, different lead spacings are

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

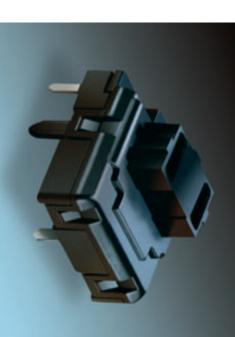
Other Characteristics  Protection class Operating temperature Storage temperature Humidity (without condensation) Soldering capability Soldering temperature/duration	Materials Insulation materials Spring Contacts	Switching voltage Switching current Contact resistance Capacity at 1kHz Dielectric strength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

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# Keymodule ML

### Description

The Cherry ML key module is a mechanical switching element using single-gap make contact element in Gold-Crosspoint contact technology. Its pleasant feel makes the module particularly suitable for low-cost cost-savings pave the way for a wide stroke, pleasant feel and enormous keypads with great diversity and very low height. A multitude of different range of applications. Very short bounce time, reliable cap shapes allows flexible designs. construction of keyboards and



Flat key modules ML

#### Multiple Mechanism /Keycap for ML **Keymodule Dimensions** Viev Direction "A" View "A" 2,7 ±0,2 1,8 -0.03 Guide Pin for Multiwide Keycaps ≥1x2 5,74 5,08±0,05 P.C.B Layout View Direction "A" 17,2 Wire Yoke 2,5 5,08±0,05 5,08±0,05 3,81±0,05 11,8 **⊕** ø 2,6±0,1 ● ø 1,5±0,03 6,9 ø 1,4±0,05 ø 1,5±0,05 P.C.B. Layout Force (cN) **Force Travel Diagram** 120 100 80 Inter Line of Module, drilling drawing see Keymodule Dimensions ⊕ ø 2,00 + 0,1 ⊕ ∞4.20+0.1 ▼ Travel (mm) ⊕ ø 4,20 ÷ 0,1 (Module with pins alignment) Reset Point

9,6 ± 0,05

### **Keycaps and mechanics**

Keymodule	Keycap Format	Ordering-Numbers white-grey beige	umbers beige-grey 6753-0002	Dimension X	- Bar	Assembly number (mechanical parts and bar)
	1x0,84	6743-0001	6743-0002		1	,
詞	1x1,25	6753-0008	6753-0003	ı	ı	,
	1x2 vertikal	6767-0004	6767-0005	25,6 6	614-5007	G99-1303 ZUB
	1,25x2x1 vertikal	6767-0002	6767-0003	ı		
Charge	1,5x2x1,25 vertikal	6767-0007	6767-0008	25,6 6	614-5007	G99-1303 ZUB
	1x1,5 1x1,53 1x1,75 1x2,75	6763-0011 6763-0004 6763-0008 6763-0020 6763-0028	6763-0010 6763-0003 6763-0001 6763-0021	17,45 6 17,45 6 21,65 6 25,6 6	614-5004 614-5004 614-5005 614-5007	G99-1300 ZUB G99-1300 ZUB G99-1301 ZUB G99-1303 ZUB
	1x5 1x7	6763-0002 6763-0029	6763-0009	116,15 6 116,15 6	614-5010 614-5010	G99-1370 ZUB G99-1370 ZUB
Accessories: Empty housing	Stock code 609-5292					

### Ordering code:



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7 Fixing pins

Series
 Contact material
 Contact mounting
 Actuation
 Cap support
 Mounting

Type ML

1 = AuAg10 (max.10mA,12V)

A = 1 contact making element

1 = Linear feel

1 = Standard, straight for 8 mm cap

N = Without jumper

J = With Jumper

W = With Pins

5

# eymodule MX

### Description

ergonomic requirements for computer workplaces. Long durability thanks to Gold-Crosspoint contacts and high reliability for fast typing. With either integrated color LED decoupling diode or wire jumper. The construction of the key and the design of the relevant key caps fulfill

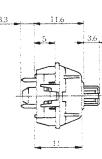
 $MCBF = 1x10^{\circ}$ 

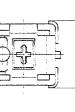


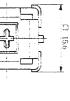
### Tastenmodul MX

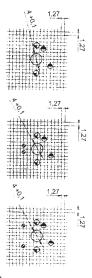
### View of Keymodule

Layout of P.C.B.









 
 ⊕ Ø 1,7 -0,05 \*

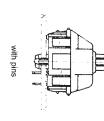
 ⊕ Ø 1,5 ±0,05

 ⊕ Ø 1,7 +0,10
 \* nur für Ausführung mit Fixierpin

**Locking Unit** 

604-0324 Ordering-Number:

**Keyswitch Assembly** 



784°,3

without pins

The special advantage of the MX key is the individual choice of pleasant

MX with alternate action

MX-linear actuation

force (cN) 140 ractil

-- force (cN) 8 8 8 8 8

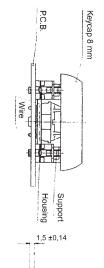
MX with click tactile feel

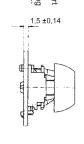
travel (mm)

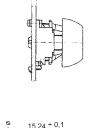
Force/Travel Diagram

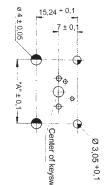
### Spacebar Mechanism

W/o frame

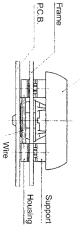


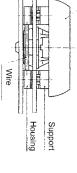


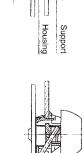


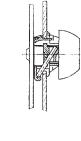


with frame Keycap 8 mm

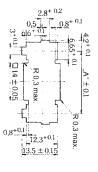




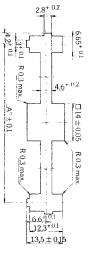








## Cutout of frame for keycap sizes 1x3, 1x7, 1x8, 1x9, 1x10



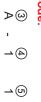
3+0.1	.65+ 0.1
R 0.3 max.	- 0.2
A. ∓ 01	□14±0.05
R 0.3 max	R 0.3 max
$ \begin{array}{c} 6.6 & 0.1 \\ 12.3 & 0.1 \\ 13.5 & \pm 0.15 \end{array} $	
	4.0

Size of keycap			Type of keycap	"A" (in mm)	Part No. with frame	Part No. w/o frame
1x2	1x2,25	1x2,75	8 mm	23,8	G99-0224	G99-0742
	1x3		8 mm	38,1	G99-0225	G99-0743
	1x8		8 mm	133,35	G99-0226	G99-0744

### Ordering code:









ω	(N)	<u>_</u>
) Contact	(Contact	Series
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4 Actuation













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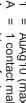












⑤ Cap support⑥ Mounting

Typ MX

1 = AuAg10 (max.10mA,12V)

A = 1 contact making element

1 = Linear feel

G = Soft tactile feel

3 = Click tactile

1 = Standard, straight for 8 mm cap

N = Without LED, without diode

R = Red LED, without diode

G = Green LED, without diode

Y = Yellow LED, without LED

J = With diode, without LED

J = With Jumper

without LED or Diode

N = Without pins (frame required)

W = With Pins (no frame required)

Fixing pins

The manufacturer accepts no liability for errors or non-availability, and reserves the right to change specifications without prior notice.

Technical data relate to product specifications only. Features may differ from those described.

Only drawings combined with product specifications shall be deemed binding.

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