



KEYBOARDS AND SWITCHES
Catalogue 1982



... over 25 years serving the needs of a growing industry.

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CHERRY IS Six manufacturing locations around the world to service you better.

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Santo Amaro, Sao Paulo CEP 04 688



plant 1, Auerbach, Bavaria

Our total programme is made up of seven different product groups. For each of these groups sufficient information is available. (See page 34).

In this catalog we would like to introduce you to our standard programme of keyswitches, keyboards and housings.

We manufacture keyswitches using gold crosspoint contacts also utilizing the latest in capacitive switching technology. We are specialists in designing and manufacturing keyboards to your own specifications.

Our engineering, laboratory and fully automatic keyswitch production insure us of the highest quality product.

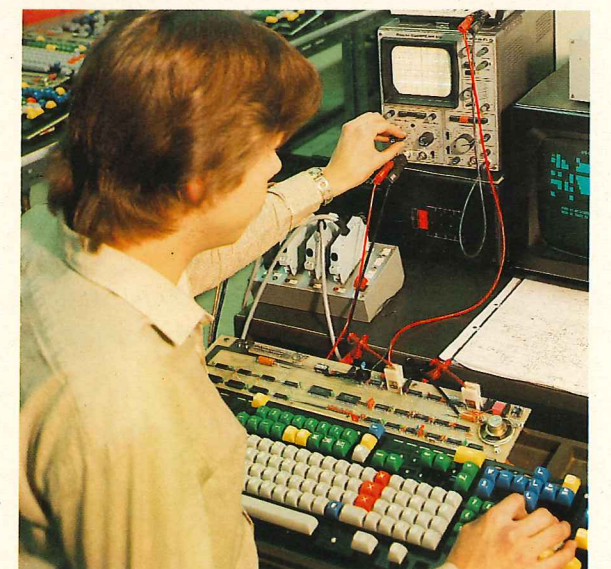
No matter, which type of keyboard you prefer, we are the right partner with the technical know how, always available to help solve your specific problem.



production



development and engineering department



quality assurance



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CHERRY STANDARD KEYBOARDS AND HOUSINGS

G 80-0255 Keyboard for data processing



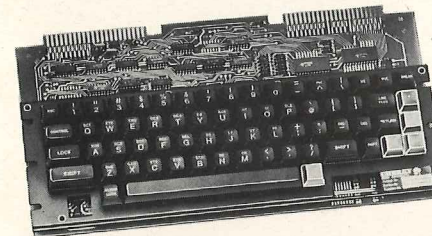
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G 80-0246 / 0247 ASCII-coded low profile keyboard



page 8 and 9

B 70-05AB Universal Keyboard with „Alpha-Lock“



page 10

B 70-4753 Keyboard for Teletypewriters



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B 80-3766 Keyboard for typewriters



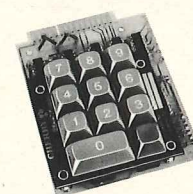
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G 80-0075 Hex-coded Keyboard



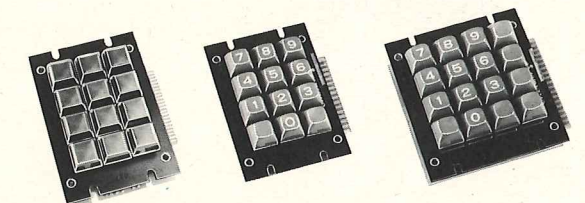
page 13

B 64-03AA BCD-coded Keyboard



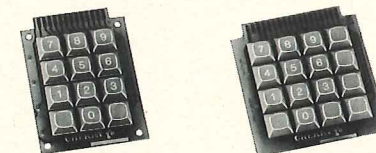
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B 65 Uncoded Keyboards



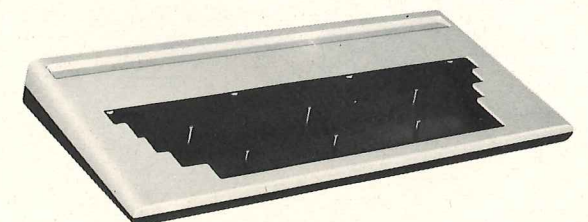
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G 80 Uncoded Keyboards



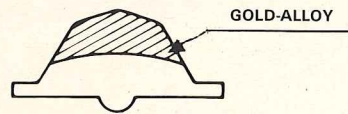
page 16

Keyboard-housings

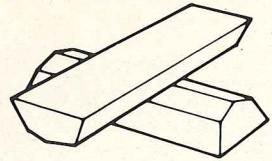


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CROSS SECTION OF CONTACT



CROSSPOINT-CONFIGURATION



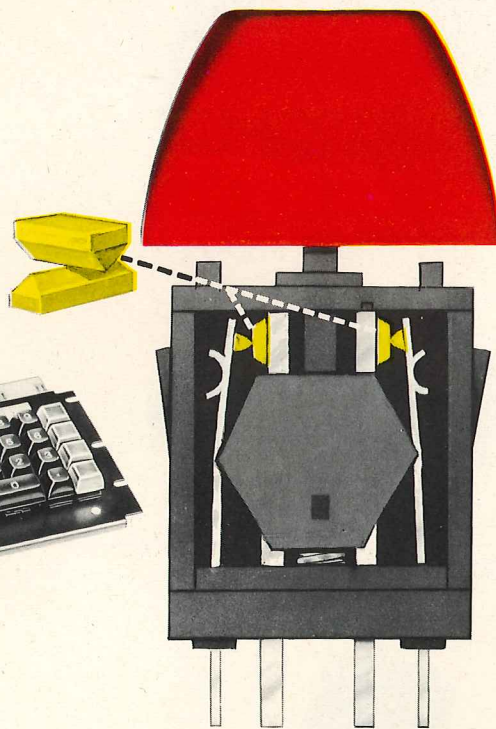
CHERRY KEYBOARDS WITH GOLD CROSSPOINT CONTACTS

A unique simple design, offering:

- Low Cost
- Long Life
- Wire-"OR"-ability
- Low power consumption

Cherry's unique Gold
Crosspoint Contact Switch.

THE KEYBOARD
SWITCH WITH A
"HEART OF GOLD"



Contacts in CROSSPOINT-Configuration with its high contact pressure and extremely low contact resistance show an outstanding switching reliability.

This unique contact guarantees an extraordinary high lifetime of mechanical contacting.

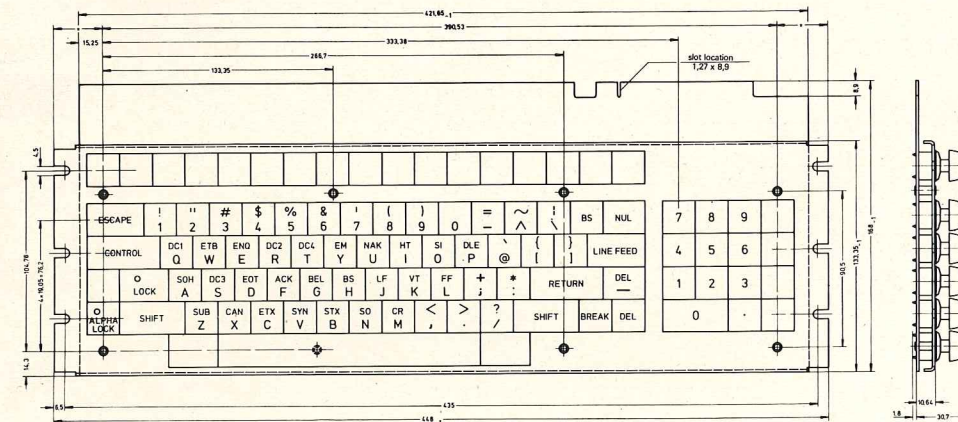
CHERRY G 80-0255 KEYBOARD FOR DATA PROCESSING

- 96 coded keymodules (Serie M9, see page 26)
- ASCII code
- 4 Modes
- Alpha-Lock-Key
- Outputs TTL compatible
- n-key-rollover- / n-key-lockout*
- Serial outputs (START / STOP) possible*
- Repeat function for most of the keymodules*
- Handshake*
- **Standard keycap color: black (Code A6)**
(housing: G99-0062 see page 17)

* Option



LEGEND FORMAT



CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT	PIN	OUTPUT
*1	UART CLK IN	A	
2	bit 7	B	
3	bit 6	C	
4	bit 5	D	
5	bit 4	E	
6	bit 3	F	
7	bit 2	H	
8	bit 1	J	
9	bit 0	K	
10		L	
*11	HANDSHAKE DATA READY	M	
		N	
*12	HANDSHAKE DATA READY	*P	PULSEDATA READ INHIBIT
*13	UART SERIAL DATA OUT	R	
14	ROLLOVER / LOCKOUT	S	ALPHA LOCK LEVEL
*15	HANDSHAKE ENABLEOUT	T	ANY KEY DOWN LEVEL
16		U	PULSE DATA READY
*17	HANDSHAKE CLK IN	V	PULSE DATA READY
18	ALPHA LOCK LEVEL	*W	BREAK
19	ANY KEY DOWN LEVEL	X	DATABUS CONTROL
20		Y	GROUND
21	GROUND	Z	+5 VDC
22	+5 VDC		

* = OPTION * = OPTION

OUTPUT CODE

A6	A5	A4	A3	A2	A1	A0	A7	A6	A5	A4	A3	A2	A1	A0
1B	21	22	23	24	25	26	27	28	29	30	31	32	33	34
CONTROL	31	32	33	34	35	36	37	38	39	40	41	42	43	44
SHIFT LOCK	41	42	43	44	45	46	47	48	49	50	51	52	53	54
ALPHA LOCK	5A	5B	5C	5D	5E	5F	5G	5H	5I	5J	5K	5L	5M	5N

(Technical details upon request.)

CHERRY G 80-0246 / G 80-0247

ASCII-CODED KEYBOARDS
LOW PROFILE

Mounting height: < 30 mm (3. rd row of keymodules)

- 65 coded keymodules (serie M8, see page 24)
- ASCII code
- 3 Modes
- Electronic Shift-Lock-function and Alpha-Lock-function with LED-signal
- Automatic On-Reset-function
- Power request +5V/ 100mA
- Data output negative logic
Data output with open collectors or Tri-state*
- **Standard keycap colors: brown (code N8)**
(housing no. G99-0056, see page 17)

* Option upon request

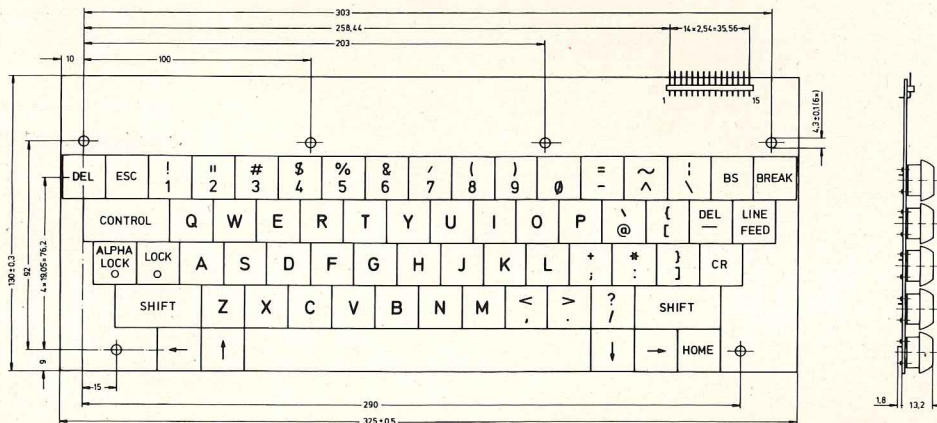


G 80-0246
(with German symbols)



G 80-0247
(with international symbols)

LEGEND FORMAT



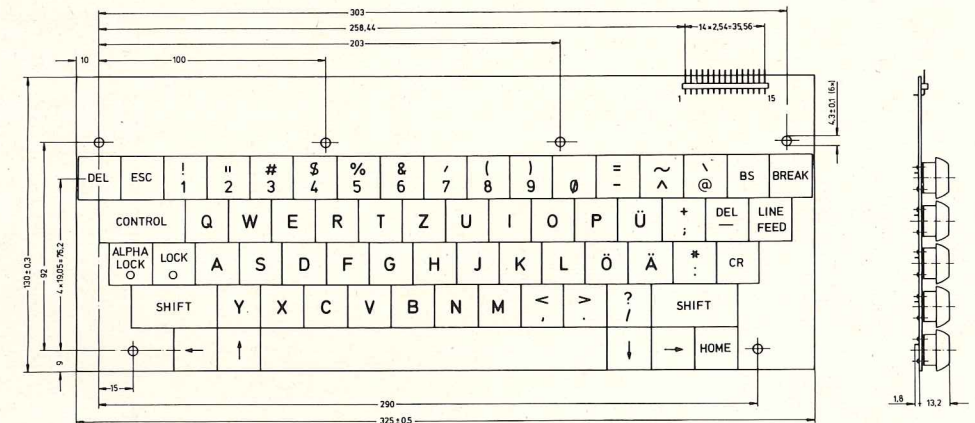
OUTPUT CODE

7F	1B	31	32	33	34	35	36	37	38	39	3A	2D	1E	00	08	BREAK
7F	1B	31	32	33	34	35	36	37	38	39	3A	2D	1E	00	08	BREAK
CONTROL	11	17	05	12	14	1A	15	09	0F	10	1D	3B	1F	0A		
ALPHA LOCK	01	13	06	0E	08	0A	0B	0C	1C	1B	3A	0D				
SHIFT	19	18	03	16	02	0E	0D	2C	2E	2F	SHIFT					
	08	0B	20													
	08	0B	20													
	08	0B	20													

CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT
1	+5V
2	Gnd
3	bit 7
4	bit 6
5	bit 5
6	bit 4
7	bit 3
8	bit 2
9	bit 1
10	Enable I
11	STB
12	AKD
13	Enable II
14	Parity
15	Break

LEGEND FORMAT



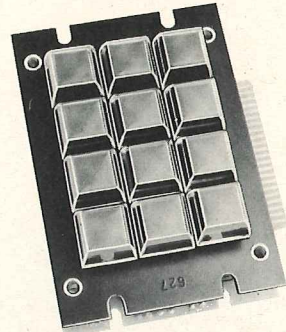
OUTPUT CODE

7F	1B	31	32	33	34	35	36	37	38	39	3A	2D	1E	1C	08	BREAK
7F	1B	31	32	33	34	35	36	37	38	39	3A	2D	1E	1C	08	BREAK
CONTROL	11	17	05	12	14	19	15	09	0F	10	1D	3B	1F	0A		
ALPHA LOCK	01	13	06	0E	08	0A	0B	0C	1C	1B	3A	0D				
SHIFT	19	18	03	16	02	0E	0D	2C	2E	2F	SHIFT					
	08	0B	20													
	08	0B	20													
	08	0B	20													

CHERRY B 70-05AB

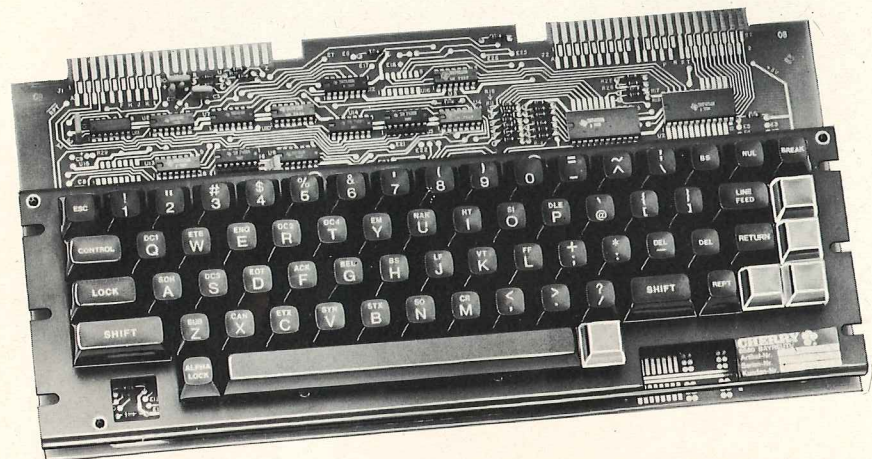
UNIVERSAL-KEYBOARD WITH ALPHA-LOCK

- 62 coded keymodules (serie M7, see page 22) 4 Modes
- ASCII-coded (128 symbols)
- additional 5 uncoded keymodules with relegendable transparent keycaps
- negative, positive and Tri-State Logic possible*
- rewiring for code change by customer possible
- Repeat function after delay
- Extension possibility by additional keyboard with 3x4 keymodules* (Cherry B 65-64 AB, see page 15)
- **Standard keycap color: black (code A6)** (housing no. G99-0063; with B65-64AB: no. G 99-0061; see page 17)

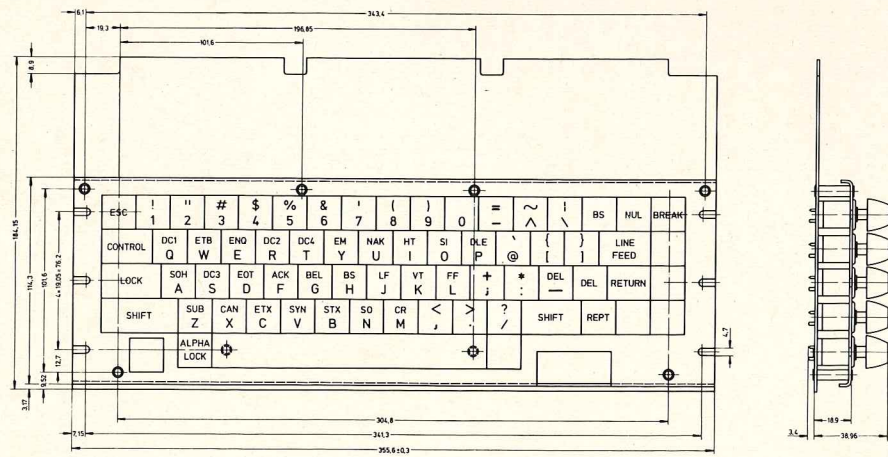


B 65-64AB

* Option



LEGEND FORMAT



OUTPUT CODE

1B	31	32	33	34	35	36	37	38	39	30	2D	1E	1C	08	00	BREAK
1B	21	22	23	24	25	26	27	28	29	30	3D	7E	7C	08	00	
1B	31	32	33	34	35	36	37	38	39	30	3D	7E	7C	08	00	
1B	31	32	33	34	35	36	37	38	39	30	3D	7E	7C	08	00	
CONTROL	11	17	05	12	14	05	19	15	09	0F	10	1B	1D	0A	SPARE	
	51	57	45	52	54	59	55	49	4F	50	60	7B	7D	0A		
	51	57	45	52	54	59	55	49	4F	50	60	7B	7D	0A		
	51	57	45	52	54	59	55	49	4F	50	60	7B	7D	0A		
SHIFT	91	13	94	96	97	98	9A	9B	9C	3B	3A	1F	7F	8D	SPARE	
LOCK	41	53	44	46	47	48	4A	4B	4C	2B	2A	7F	7F	8D		
	51	57	45	52	54	59	55	49	4F	50	60	7B	7D	0A		
	51	57	45	52	54	59	55	49	4F	50	60	7B	7D	0A		
SHIFT	1A	1B	03	16	02	0E	0D	2C	2E	2F	3F	3F	3F	3F	SPARE	
	5A	58	43	56	42	4E	4D	3C	3E	3F	3F	3F	3F	3F		
	5A	58	43	56	42	4E	4D	3C	3E	3F	3F	3F	3F	3F		
	5A	58	43	56	42	4E	4D	3C	3E	3F	3F	3F	3F	3F		
ALPHA LOCK	20	20	CONTROL SHIFT ALPHA LOCK UNSHIFTED.			SPARE										
	20	20	SPACE BAR			SPARE										

(Technical details upon request)

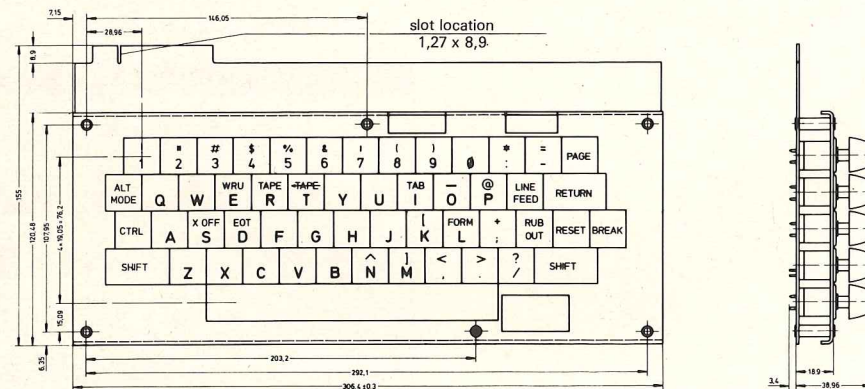
CHERRY B 70-4753

KEYBOARD FOR TELETYPEWRITERS

- 53 keymodules (serie M7, see page 22)
- Key Module Layout according to ASR 33
- 4 Modes (Alpha-Field only letters)
- Code according to ASCII
- **standard keycap color anthrazit (Code D2)** (housing no. G99-0059, see page 17)



LEGEND FORMAT



OUTPUT CODE

21	22	23	24	25	26	27	28	29	30	2A	2D	2D	2D	2D	2D	PAGE
31	32	33	34	35	36	37	38	39	30	30	30	30	30	30	30	
31	32	33	34	35	36	37	38	39	30	30	30	30	30	30	30	
31	32	33	34	35	36	37	38	39	30	30	30	30	30	30	30	
7D	11	DC1	17	ETB	05	ENO	12	DC2	14	DC4	19	EM	15	NAK	09	HT
7D	11	DC1	17	ETB	05	ENO	12	DC2	14	DC4	19	EM	15	NAK	09	HT
7D	11	DC1	17	ETB	05	ENO	12	DC2	14	DC4	19	EM	15	NAK	09	HT
7D	11	DC1	17	ETB	05	ENO	12	DC2	14	DC4	19	EM	15	NAK	09	HT
CTRL	01	SOH	13	DC3	04	EOT	06	ACK	07	BEL	08	BS	0A	LF	1B	VT
	41	A	53	S	44	D	46	F	47	G	48	H	4A	J	4B	K
	41	A	53	S	44	D	46	F	47	G	48	H	4A	J	4B	K
	41	A	53	S	44	D	46	F	47	G	48	H	4A	J	4B	K
	41	A	53	S	44	D	46	F	47	G	48	H	4A	J	4B	K
SHIFT	1A	SUB	18	CAN	03	ETX	16	SYN	02	STX	1E	RS	1D	GS	3C	<
	5A	Z	58	X	43	C	56	V	42	B	5E	A	5D	I	3C	<
	5A	Z	58	X	43	C	56	V	42	B	5E	A	5D	I	3C	<
	5A	Z	58	X	43	C	56	V	42	B	5E	A	5D	I	3C	<
	5A	Z	58	X	43	C	56	V	42	B	5E	A	5D	I	3C	<
	20	20	SHIFT & CONTROL			20										
	20	20	CONTROL			20										
	20	20	SHIFT			20										
	20	20	UNSHIFT			20										
	20	20	SPACE BAR			20										

CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT
1	A
2	B
3	C
4	D
5	E
6	F
7	H
8	J
9	K
10	L
11	M
12	N
13	P
14	R
15	S

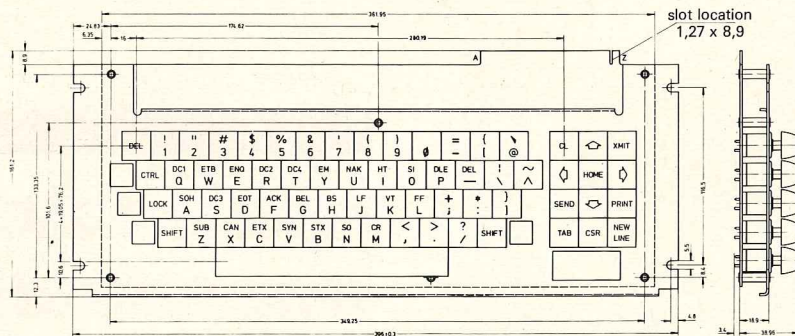
CHERRY B 80-3766

KEYBOARD FOR TYPEWRITERS

- 54 Keymodules (serie M7, see page 22)
- Code according to ASCII
- 3 Modes
- Keyboard with additional 12 uncoded function keymodules
- Further options: Repeat and/or odd or even parity bit
- **standard keycap color black (Code A6)** (housing no. G99-0060, see page 17)



LEGEND FORMAT



CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT	PIN	OUTPUT
1	b6	A	b6
2	b7	B	b7
3	b5	C	b5
4	b8 PARITAT	D	b8 PARITAT
5	ENABLE	E	ENABLE
6	STB	F	STB
7		H	
8	+ 5 V	J	+ 5 V
9	b1	K	b1
10	b4	L	b4
11	b2	M	b2
12	b3	N	b3
13	GND	P	GND
14		R	CL
15		S	←
16		T	SEND
17		U	TAB
18		V	↑
19		W	HOME
20	NEW LINE	X	↓
21	PRINT	Y	CSR
22		Z	X MIT

* Option

OUTPUT CODE

7F) DEL	31 1	32 2	33 3	34 4	35 5	36 6	37 7	38 8	39 9	30 0	2D -	1B ESC	00 NUL
21	1	2	3	4	5	6	7	8	9	0	2D -	1B ESC	00 NUL
7F) DEL	31 1	32 2	33 3	34 4	35 5	36 6	37 7	38 8	39 9	30 0	2D -	1B ESC	00 NUL
7F) DEL	31 1	32 2	33 3	34 4	35 5	36 6	37 7	38 8	39 9	30 0	2D -	1B ESC	00 NUL
CTRL	11 DC1	17 ETB	05 ENO	12 DC2	14 DC4	19 EM	15 NAK	09 HT	0F 51	10 DLE	1F US	1C FS	1E RS
LOCK	01 SOH	13 DC3	04 EOT	06 ACK	07 BEL	08 BS	0A LF	0B VT	0C FF	3B +	3A :	1D GS	RS ~
SHIFT	5A Z	58 X	43 C	56 V	42 B	4E N	4D M	3C <	2E >	3F ?	2F /	SHIFT	
	7A z	78 x	63 c	76 v	62 b	6E n	6D m	2C <	3E >	3F ?	2F /	SHIFT	
	CONTROL SHIFT UNSHIFT												20
	SPACE BAR												20

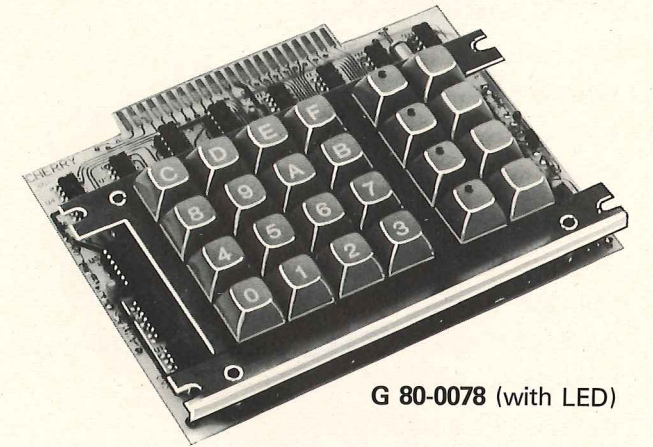
CHERRY G 80-0075

HEX-CODED KEYBOARD

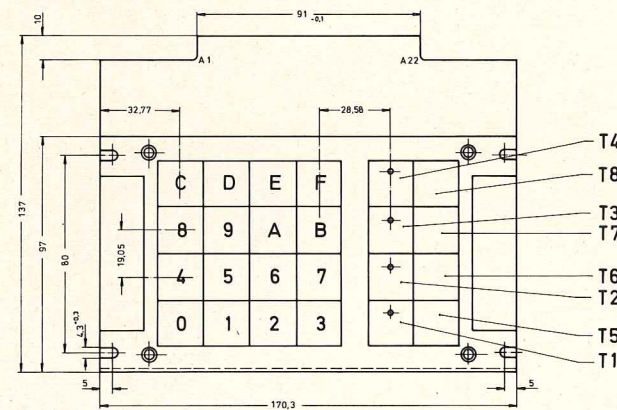
- 16 coded keymodules (0-9, A-F) (Serie M7, see page 22)
- 8 coded function-keymodules (T1-T8)

Due to specially constructed p. c. board many options are possible (see chart)

- pos. / neg. Logic
- Tri-State-Outputs / open collectors
- Complementary Strobe (Puls or Static)
- 4-Bit (Hex) output
- 2x4 Bit (2xHex) = Byte output
- Handshake operation / Interrupt operation
- Connection of 7 segment display possible
- **standard keycap-color : grey (Code E3)**



LEGEND CODE



* avail. with LED

OUTPUT CODE

1100	1101	1110	1111
1000	1001	1010	1011
0100	0101	0110	0111
0000	0001	0010	0011

Assignments Varieties

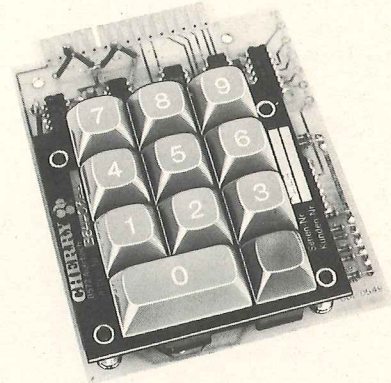
4 bit	8 bit	Resting	Logic	TTL	OC	3 State	Handshake	Int. key	Int. Auto	Strobe Pulse	Strobe stat.	LED	no. G80-
x		low	pos.	x							x		0075
x		low	pos.	x							x	x	0078
x		high	pos.		x							x	0156
x			pos.			x							0157
x		low	pos.	x						1 ms			0158
x		high	pos.		x					1 ms			0159
x			pos.			x				1 ms			0160
	x	low	pos.	x							x		0161
	x	high	pos.		x						x		0162
	x		pos.			x						x	0163
	x	low	pos.	x						1 ms			0164
	x	high	pos.		x					1 ms			0165
	x		pos.			x				1 ms			0166
x			pos.			x	x				x		0167
x			pos.			x	x	x			x		0168
	x		pos.			x	x	x	x		x		0169
	x		pos.			x	x	x	x		x		0170

For further combinations call the factory.

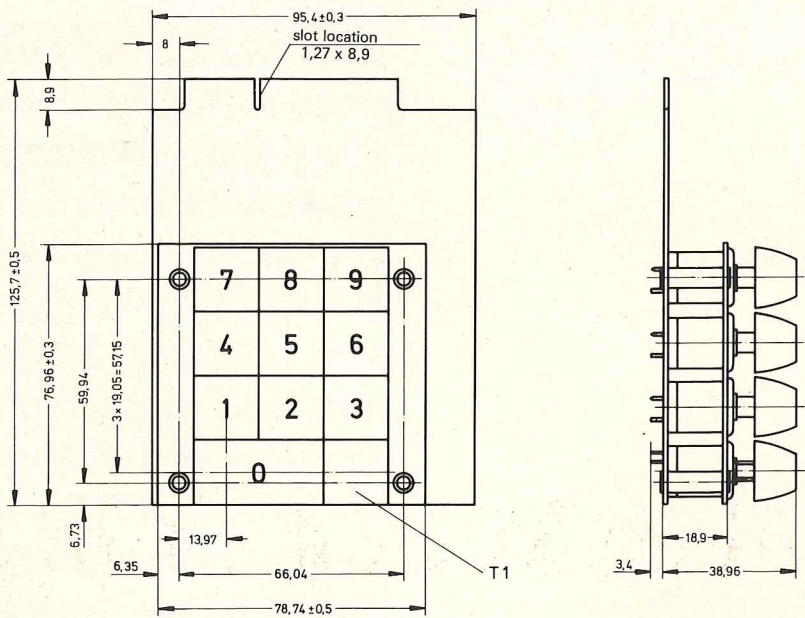
CHERRY B 64-03AA

BCD-CODED KEYBOARD

- 10 BCD coded keymodules
+ 1 functional keymodule (serie M7, see page 22)
with direct output
- Standard keycap-color: grey (Code E3)



LEGEND FORMAT



OUTPUT CODE

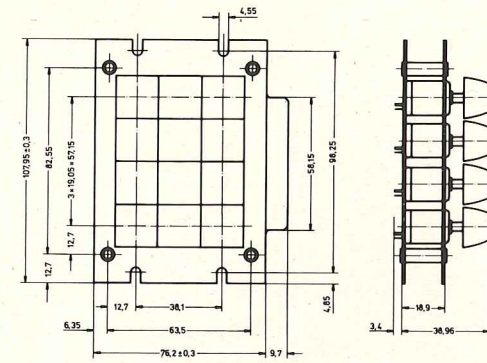
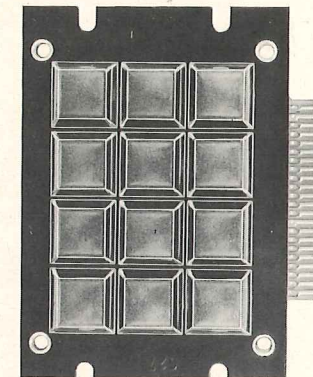
0111	1000	1001
0100	0101	0110
0001	0010	0011
0000		

CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT
1	T1
2	T1
3	
4	+ 5 V
5	
6	
7	
8	GND
9	ENABLE
10	STB
11	STB
12	b3
13	b4
14	b2
15	b1

CHERRY SERIE B 65

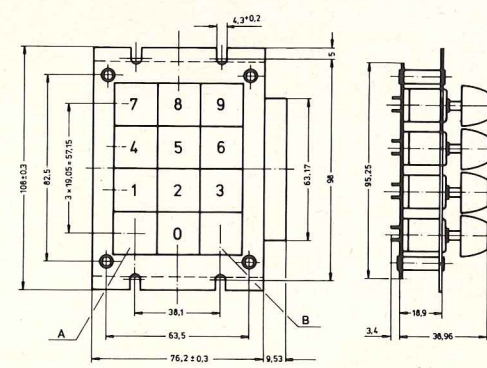
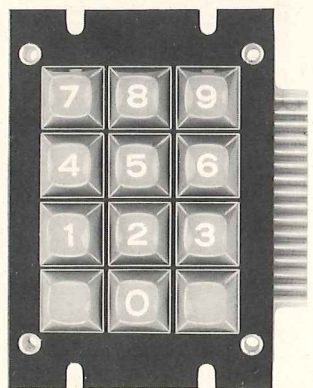
UNCODED KEYBOARDS



B 65-64AB

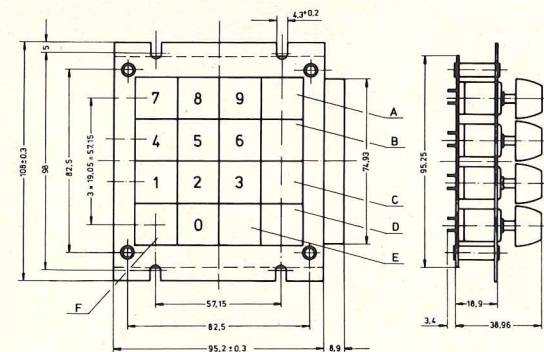
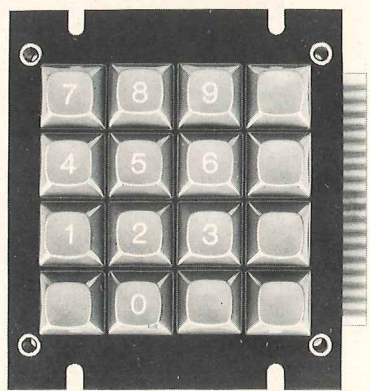
12 Keymodules (serie M7, s. page 22)
with transparent caps for relegendables (black body)

FUNCTION KEYBOARD FOR COMBINATION WITH B 70-05AB



B 65-1712

12 Keymodules
(serie M7, s. page 22)
Standard keycap-color: grey (Code E3)



B 65-1716

16 Keymodules
(serie M7, s. page 22)
Standard keycap-color: grey (Code E3)

CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT	PIN	OUTPUT
A-Z Comp. Side		1-22 Soldering Side	
A		1	
B		2	
C		3	
D		4	A1
E		5	A1
F		6	A2
H		7	A3
J	A3	8	A2
K		9	
L	C1	10	B1
M	C1	11	B1
N	C2	12	B2
P	C2	13	B3
R		14	
S		15	B2
T	D1	16	B3
U	D1	17	C3
V	D2	18	C3
W	D2	19	D3
X		20	D3
Y		21	
Z		22	

CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT
A	Module A
B	Module Ø
C	Module B
D	Module 1
E	Module 2
F	Module 3
H	Module 4
J	Module 5
K	Module 6
L	Module 7
M	Module 8
N	
P	COM. INPUT
R	
S	Module 9

CONNECTOR PIN ASSIGNMENT

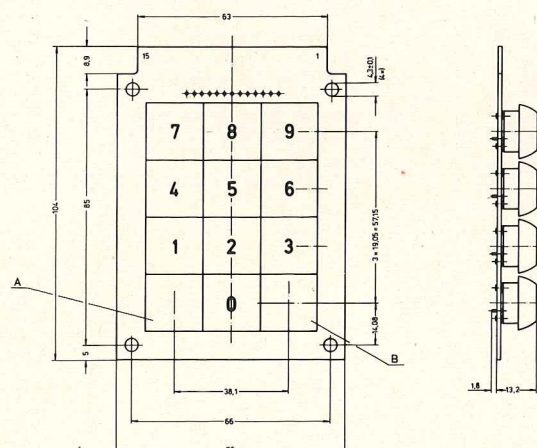
PIN	OUTPUT
A	Module F
B	Module Ø
C	Module E
D	Module D
E	Module 1
F	Module 2
H	Module 3
J	Module C
K	Module 4
L	Module 5
M	Module 6
N	Module B
P	Module 7
R	Module 8
S	Module 9
T	Module A
U	
V	COM. INPUT

CHERRY SERIE G 80

UNCODED KEYBOARDS

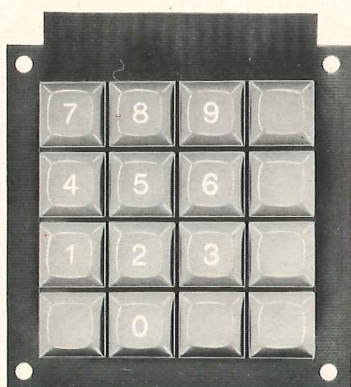


G 80-0077
12 Keymodules
(serie M8, s. page 24)
standard keycap-color: grey (Code N2)

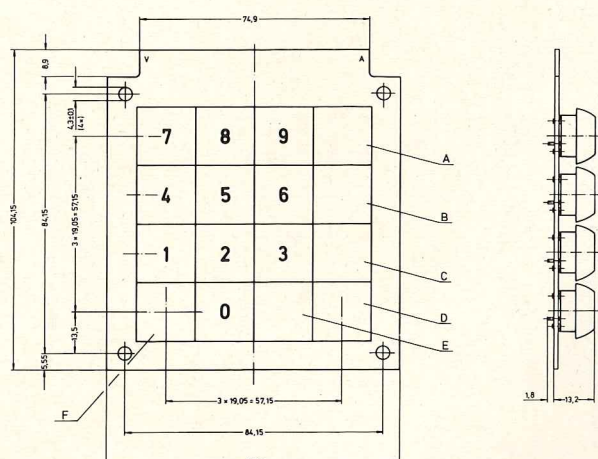


CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT
1	
2	COM. INPUT
3	Keymodule 9
4	Keymodule 6
5	Keymodule 3
6	Keymodule B
7	Keymodule 8
8	Keymodule 5
9	Keymodule 2
10	Keymodule ∅
11	Keymodule A
12	Keymodule 1
13	Keymodule 7
14	Keymodule 4
15	



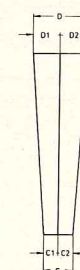
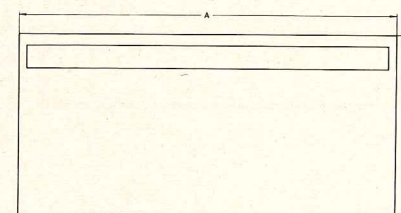
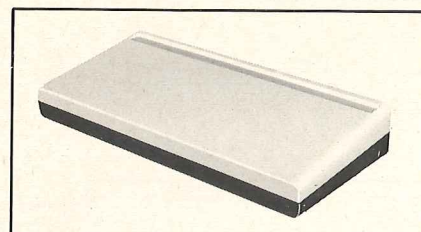
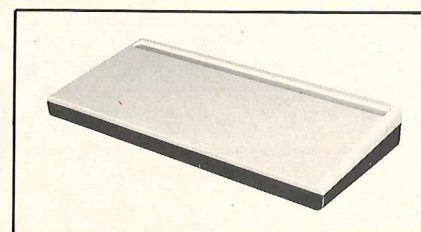
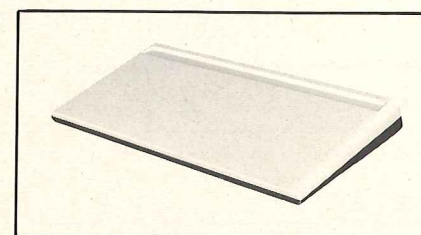
G 80-0084
16 Keymodules
(serie M8, s. page 24)
standard keycap-color: grey (Code N2)



CONNECTOR PIN ASSIGNMENT

PIN	OUTPUT
A	Keymodule D
B	Keymodule C
C	Keymodule B
D	Keymodule A
E	Keymodule E
F	Keymodule 3
H	Keymodule 6
J	Keymodule 9
K	Keymodule ∅
L	Keymodule 2
M	Keymodule 5
N	Keymodule 8
P	Keymodule F
R	Keymodule 1
S	Keymodule 4
T	Keymodule 7
U	
V	COM. INPUT

CHERRY KEYBOARD HOUSINGS



- Modern Design
- Corresponding to latest ergonomic aspects
- ABS Material, slightly grained
- Original Material color brown / beige or black / light grey, unvarnished
- Easy installation by patented Mechanism

Housing without cutout

		Measures (mm)				Color		Part No.
A	B	C		D		base	cover	
		C ₁	C ₂	D ₁	D ₂			
380	180	14		39		brown	beige	G 99 - 0057
		7	7	19,5	19,5			
380	180	27		52		brown	beige	- 0064
		7	20	19,5	32,5			
380	180	40		65		brown	beige	- 0065
		20	20	32,5	32,5			
490	235	16		48		black	light grey	- 0066
		8	8	24	24			
490	235	27		59		black	light grey	- 0067
		8	19	24	35			
490	235	38		70		black	light grey	- 0068
		19	19	35	35			

Delivery includes Assembly screws and rubber stops.

Housing with cutout for CHERRY Standard Keyboards

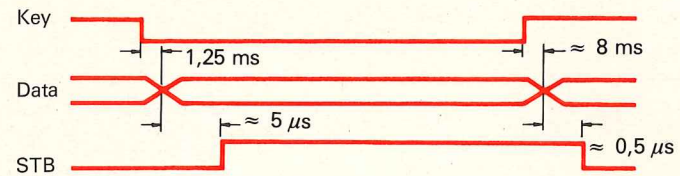
		Measures (mm)				Color		for Keyboard No.	Part No.
A	B	C		D		base	cover		
		C ₁	C ₂	D ₁	D ₂				
380	180	14		39		brown	beige	G 80 - 0246 - 0247	G 99 - 0056
		7	7	19,5	19,5				
380	180	40		65		black	light grey	B 70 - 4753	- 0059
		20	20	32,5	32,5				
490	235	38		70		black	light grey	B 80 - 3766	- 0060
		19	19	35	35				
490	235	38		70		black	light grey	B 70 - 05AB und B 65 - 64AB	- 0061
		19	19	35	35				
490	235	27		59		black	light grey	G 80 - 0255	- 0062
		8	19	24	35				
490	235	38		70		black	light grey	B 70 - 05AB	- 0063
		19	19	35	35				

Delivery includes Assembly screws and rubber stops.

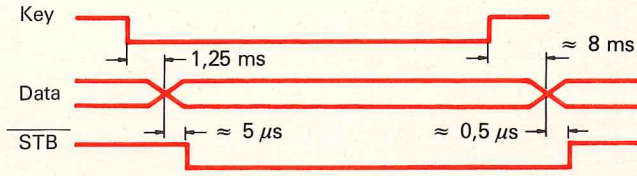
CHERRY STANDARD KEYBOARDS

KEYBOARD TIMING CHARTS

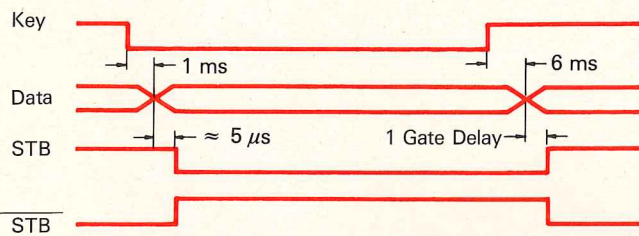
Timing Diagram No. 1



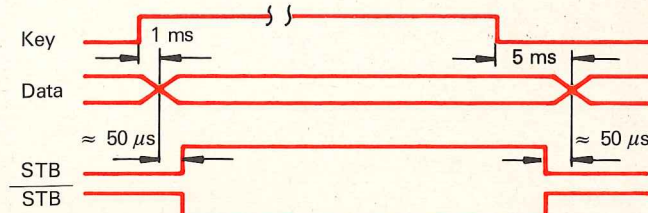
Timing Diagram No. 2



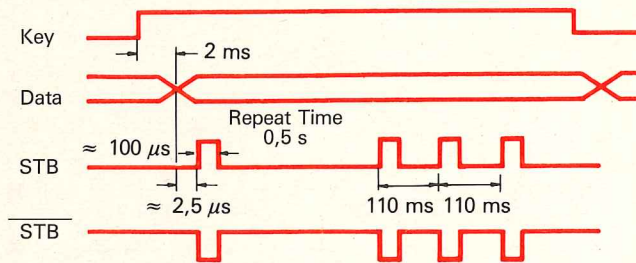
Timing Diagram No. 3



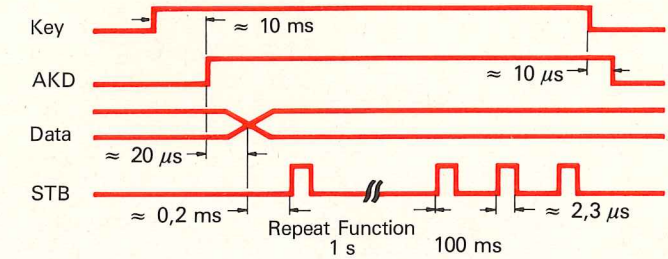
Timing Diagram No. 4



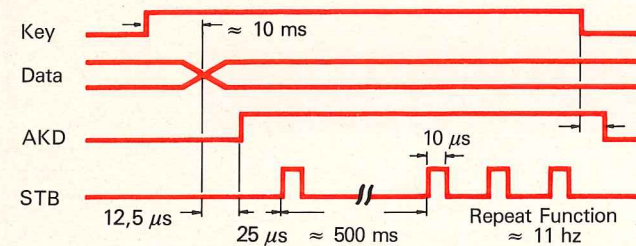
Timing Diagram No. 5



Timing Diagram No. 6



Timing Diagram No. 7



STANDARD KEYBOARD SPECIFICATION CHART

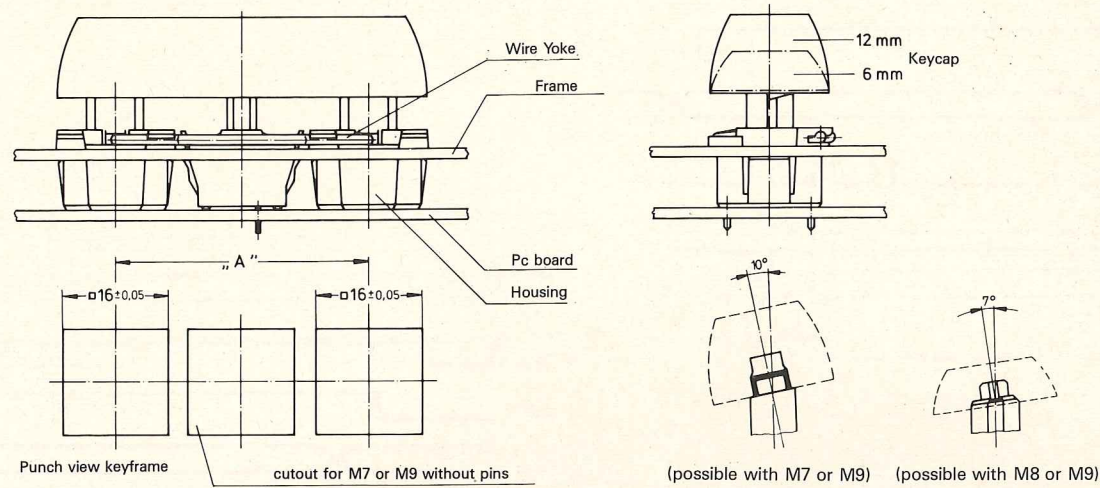
Keyboard	Output Code	No of Keys/ Legend Format	No. of Modes	Data Bits	Parity Bit	Strobe goes	Output	n-key-rollover (RO) 2-key-lockout (LO)	Drive Capability	Power Request	Connector suitable for / or equiv.	Timing Diagram	see Footnote
G 80-0255	ASCII	96	4	8	no	pos. Impuls	pos./low	2 Key LO or n-Key RO	10 LSTTL	5V 200mA	ITT Cannon G01D44A2AABL	6	1)*/**
G 80-0246	ASCII	65	3	7	yes	pos. Impuls	pos./low	2 Key LO	20 LSTTL	5V 100mA	Connector AMP Nr. 1-925366-5 and Crimp-Contacts	7	2)*/**
G 80-0247	ASCII	65	3	7	yes	pos. Impuls	pos./low	2 Key LO	20 LSTTL	5V 100mA		7	3)*/**
B 70-4753	Teletypewriter	53 / ASR33	4	7	no	high	pos./high	2 Key LO	10 TTL	5V 250mA	ITT Cannon G01A15A2AABL	1	—*
B 80-3766	ASCII	66	3	7	on request	low	neg./high	2 Key LO	10 TTL	5V 250mA	ITT Cannon G01D44A2AABL	2	—*
B 70-05AB	ASCII	67	4	7	on request	1 pos. Impuls / 1 neg. Impuls	pos./low	2 Key	10 TTL	5V 350mA	ITT Cannon G01D44A2AABL	5	—*
G 80-0075	HEX	24 / 6x4	1	4 / 8	no	1 x high 1 x low	pos./low	2 Key LO	20 LSTTL	5V 100mA	ITT Cannon G01D44A2AABL	4	4)*
B 64-03AA	BCD	11	1	4	no	1 x high 1 x low	pos./high	2 Key LO	10 TTL	5V 100mA	ITT Cannon G01A15A2AABL	3	—*
B 65-64AB	uncoded	12 / 3x4	—	—	—	—	—	—	—	—	Viking 3VH22-1JN5	—	5)
B 65-1712	uncoded	12 / 3x4	—	—	—	—	—	—	—	—	ITT Cannon G01A15A2AABL	—	—
B 65-1716	uncoded	16 / 4x4	—	—	—	—	—	—	—	—	ITT Cannon G01A18A2AABL	—	—
G 80-0077	uncoded	12 / 3x4	—	—	—	—	—	—	—	—	ITT Cannon G01A15A2AABL	—	—
G 80-0084	uncoded	16 / 4x4	—	—	—	—	—	—	—	—	ITT Cannon G01A18A2AABL	—	—

1) Standard Legend Format for Data Communication; Option: Serial Data Outputs
 2) Alpha-field = German symbols
 3) Alpha-field = International symbols

4) see chart page 13
 5) Additional function keyboard for B 70-05AB
 * Parallel Data Output
 ** Data of last depressed keyswitch in memory

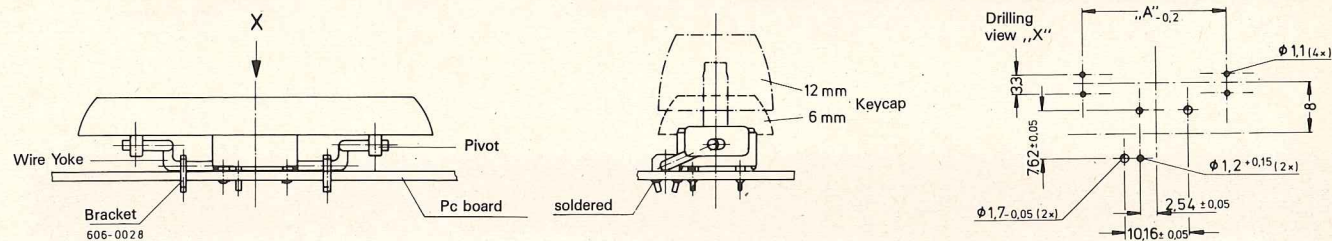
CHERRY KEYBOARD SUPPLEMENTARY ASSEMBLY PARTS

SPACE BAR ASSEMBLY UNIT FOR M7 AND M9



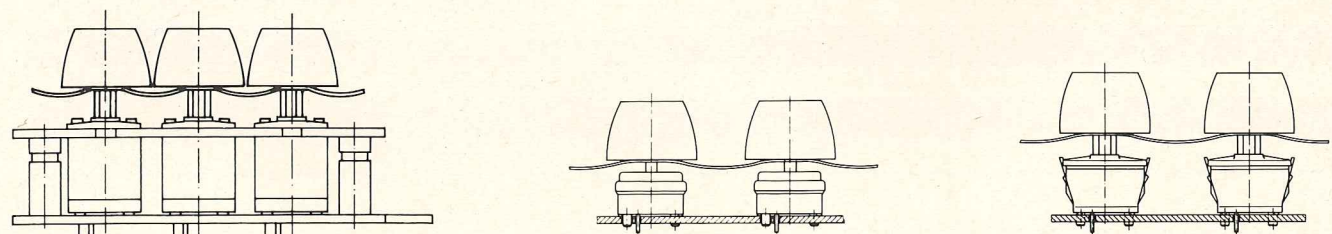
Size of keycaps	1 x 3	1 x 3	1 x 3	1 x 3	1 x 8	1 x 8	1 x 8	1 x 8
Height of keycaps	12 mm	12 mm	6 mm	6 mm	12 mm	12 mm	6 mm	6 mm
Actuator angle	0°	10°	0°	7°	0°	10°	0°	7°
„A“ (in mm)	38,1	38,1	38,1	38,1	133,35	133,35	114,3	114,3
Part No. (M9 without Pins)	G99-0128	G99-0129	G99-0159	G99-0161	G99-0130	G99-0131	G99-0160	G99-0162
Part No. (M9 with Pins)	G99-0164	G99-0165	G99-0166	G99-0167	G99-0168	G99-0169	G99-0170	G99-0171

SPACE BAR ASSEMBLY UNIT FOR M8



Size of keycaps	1 x 2	1 x 2	1 x 3	1 x 3	1 x 3	1 x 3	1 x 8	1 x 8	1 x 8	1 x 8
Height of keycaps	6 mm	6 mm	12 mm	12 mm	6 mm	6 mm	12 mm	12 mm	6 mm	6 mm
for Keymodules	without cover	with cover	without cover	with cover	without cover	with cover	without cover	with cover	without cover	with cover
„A“ (in mm)	25	25	22,8	22,8	22,8	22,8	78,3	99	99	99
Part No.	G99-0118	G99-0136	G99-0115	G99-0140	G99-0119	G99-0137	G99-0116	G99-0141	G99-0120	G99-0138

KEYBOARD SEALING ACC. TO IP54



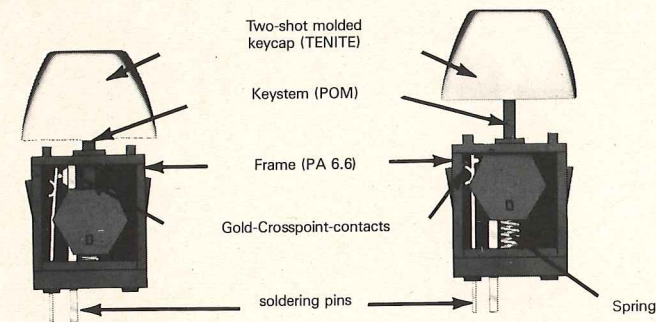
More details upon request

CHERRY-KEYMODULES

KEYMODULE SERIE M7

Standard Mounting Height

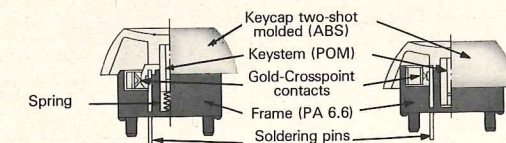
(Spacing 19,05 mm)



KEYMODULE SERIE M8

Super Low Profile

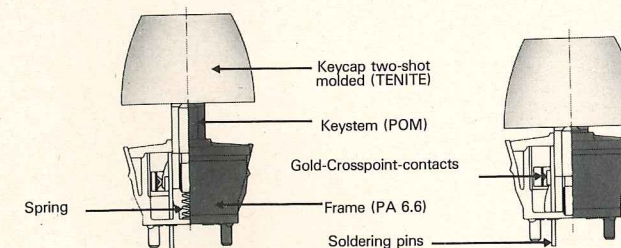
(Spacing 19,05 and 16 mm)



KEYMODUL SERIE M9

Low Profile

(Spacing 19,05 mm)



Technical Data M7: Mechanical Operating Data

Total Travel	4 mm
Operating Point	2,4 ± 0,8
Temperature Operating	-10°C — + 80°C
Temperature Storage	-35° — + 80°C
Bouncing Time	≤ 2 ms
Life operations momentary	> 20 · 10 ⁶
Life operations alt. action	> 5 · 10 ⁶

Electrical Operating Data

Contact Rating:	
DC Resistive	3 W max.
AC Resistive	3 VA max.
Current switching	0,125 A max.
Current carry	0,5 A max.
Voltage	28 V max.
Initial Contact Resistance	200 m Ω max. (typically 25 m Ω)

Technical Data M8: Mechanical Operating Data

Total Travel	2,5 mm
Operating Point	1,6 ± 0,6
Temperature Operating	-10°C — + 70°C
Temperature Storage	-35° — + 80°C
Bouncing Time	≤ 2 ms
Life operations momentary	> 10 · 10 ⁶

Electrical Operating Data

Contact Rating:	
DC Resistive	3 W max.
AC Resistive	3 VA max.
Current switching	0,125 A max.
Current carry	0,5 A max.
Voltage	28 V max.
Initial Contact Resistance	200 m Ω max. (typically 25 m Ω)

Technical Data M9: Mechanical Operating Data

Total Travel	4,2 mm
Operating Point	2 ± 0,6
Temperatur Operating	-10°C — + 70°C
Temperatur Storage	-35° — + 80°C
Bouncing Time	≤ 2 ms
Life operatings momentary	> 16 · 10 ⁶
Life operatings alt. action	> 5 · 10 ⁶

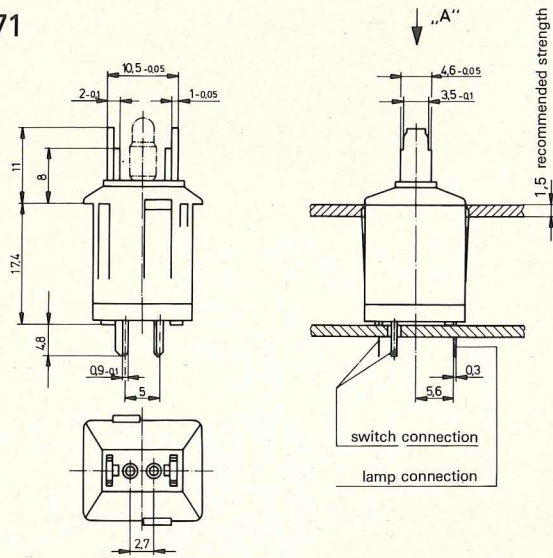
Electrical Operating Data

Contact Rating:	
DC Resistive	3 W max.
AC Resistive	3 VA max.
Current switching	0,125 A max.
Current carry	0,5 A max.
Voltage	28 V max.
Initial Contact Resistance	200 m Ω max. (typically 25 m Ω)

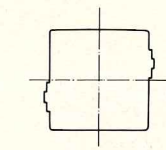
CHERRY KEYMODULES SERIE M7

DIMENSIONAL DRAWINGS (CUTOUTS AND HOLES)

M71

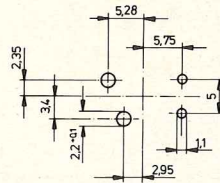


VIEW „A“



MEASURES SEE M73

PC BOARD LAYOUT



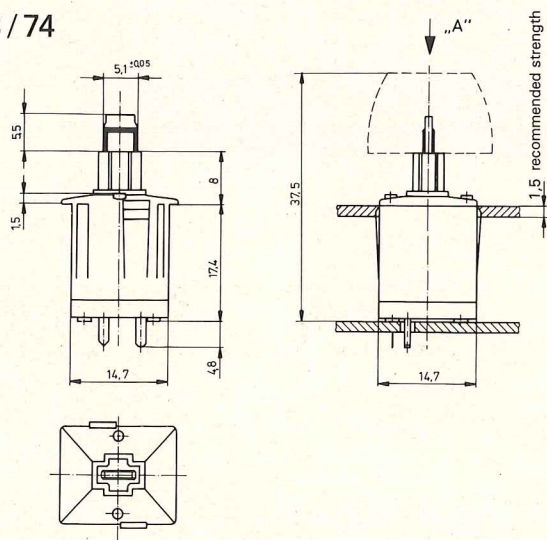
LAMP TYPE T1 BI-PIN

for series M71, 2,54 spacing

Part No	623	-0056	-0057	-0058	-0059
Voltage (V)	5	12	24	28	28
Current (mA)	60	60	20	24	24
Intencity (cd)	0,05	0,15	0,05	0,15	
Life Time (h)	100000	16000	25000	16000	

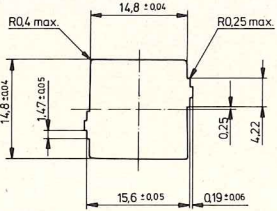


M73 / 74



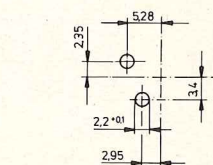
VIEW „A“

STANDARD MOUNTING

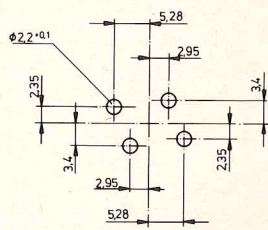


RECOMMENDED MOUNTING MEASURE FOR FRAME

PC BOARD LAYOUT

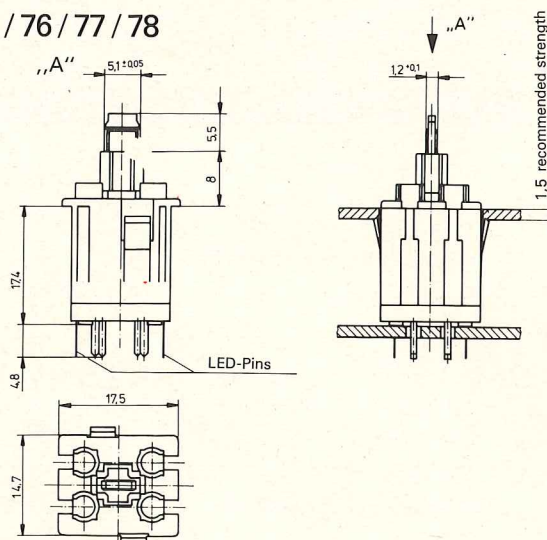


1 POLE

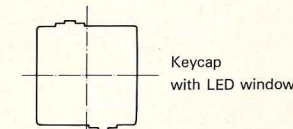


2 POLES

M75 / 76 / 77 / 78

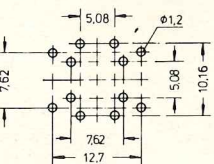


VIEW „A“



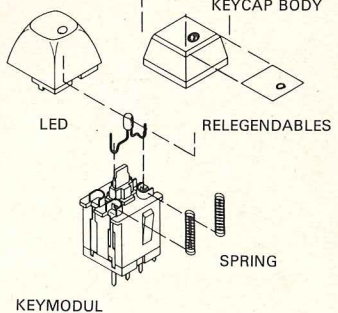
(MEASURES SEE M73)

PC BOARD LAYOUT



Keycap (transparent, matte finish)

KEYCAP BODY

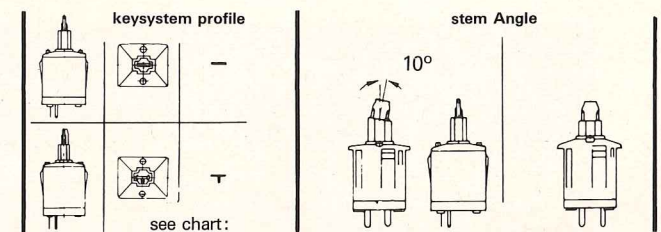


KEYMODUL

Specification chart for CHERRY-Keymodules Serie M7

contact style and No.								Operating style		Illumination		Stemdesign / angle for 12 mm keycap				Serie
A		B		B		A		momentary	alt. action	LED	Lamp	0°		10°		
1	2	3	4	1	2	3	4					m.b.b.	b.b.m.	—	T	—
x										x		x				M 71
x				x					x	x		x	x	x	x	M 73
	x								x			x	x	x		M 74
x				x					x	x	x	x	x	x		M 75
	x				x				x	x	x	x	x	x		M 76
		x										x	x	x	x	M 77
x					x							x	x	x	x	M 78
		x							x			x	x	x	x	M 78

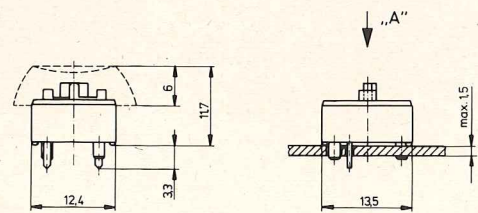
Ordering information for CHERRY-Keymodules Serie M7 (without keycap)



Contact style	Operating style	Key stem		Remarks	Operating [cN] Force	Part No.
		Profile	Angle			
1 A	momentary	—	0°	without lamp	85 ± 25	M 71 — 0100
		—	0°	with lamp (5V)		M 71 — 0105
		—	0°		70 ± 15	M 73 — 0100
		—	10°			M 73 — 0110
		—	0°	for space bar Assembly unit	95 ± 25	M 73 — 0112
		T	0°		70 ± 15	M 73 — 0120
		—	0°	with tactile feel	max. 150	M 73 — 0176
2 A	momentary	—	0°		95 ± 35	M 74 — 0100
		—	0°			M 76 — 0100
3 A	momentary	—	0°		185 ± 45	M 77 — 0100
		—	0°			M 78 — 0100
4 A	momentary	—	0°		108 ± 28	M 73 — 0109
1 B	momentary	—	0°		150 ± 50	M 73 — 0137
1 A / 1 B	alt. action	—	0°		95 ± 35	M 76 — 0890
2 A / 1 B	momentary	—	0°			M 77 — 0137
2 A / 2 B	momentary	—	0°			M 78 — 0900

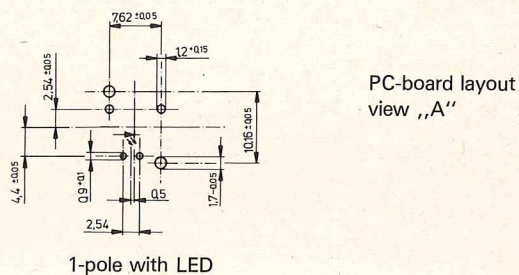
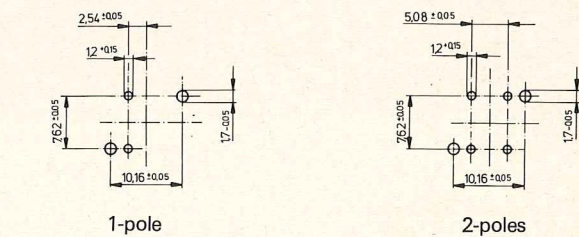
CHERRY KEYMODULES SERIE M8

DIMENSIONAL DRAWINGS

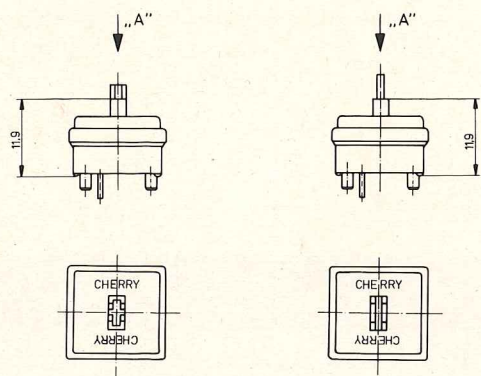


(With 7° stem angle
turn layout 90°

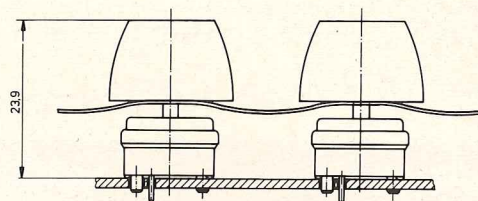
Without cover for 6 mm keycap



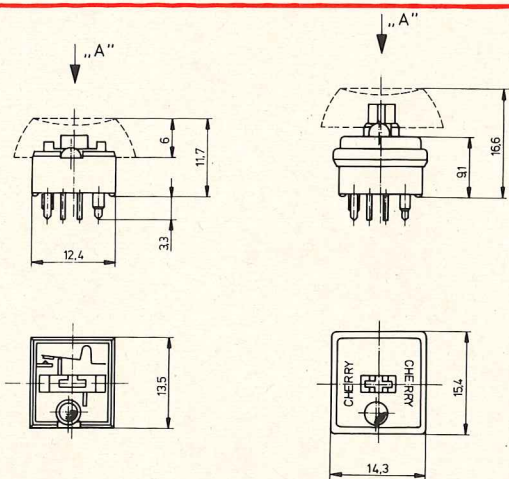
PC-board layout
view „A“



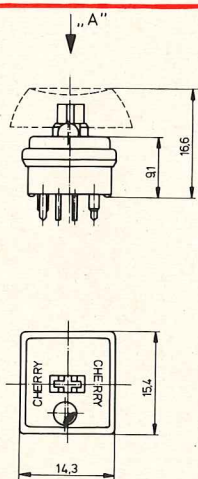
With cover
for 6 mm keycap for 12 mm keycap



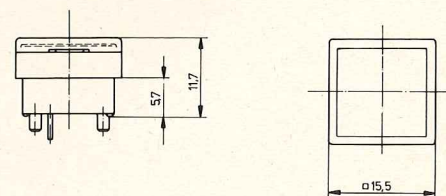
sealing acc. to IP 54
keymodule with cover
for 12 mm keycap only



Without cover
with LED
for 6 mm keycap



With cover
with LED
for 6 mm keycap



Without cover
with or without LED
for keycap □ 15,5 mm
with transparent cap for use of
releagable inserts □ 13 mm
(With LED turn layout by 180°)

Specification chart for CHERRY Keymodules Serie M8

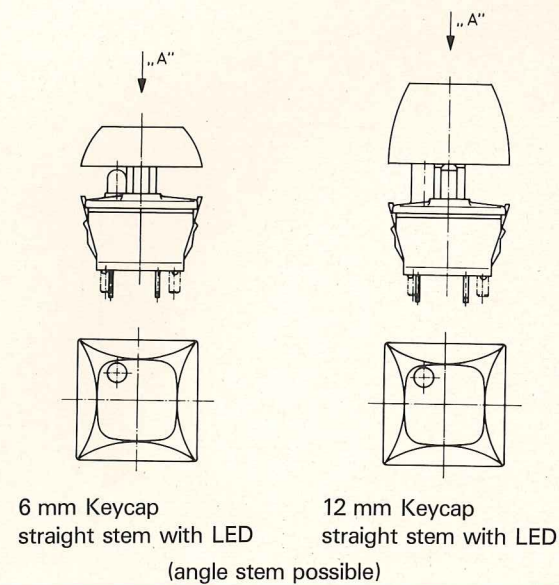
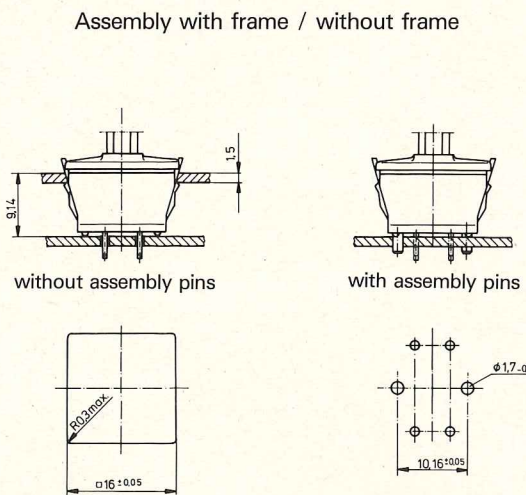
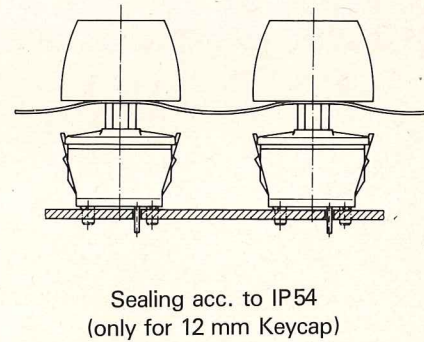
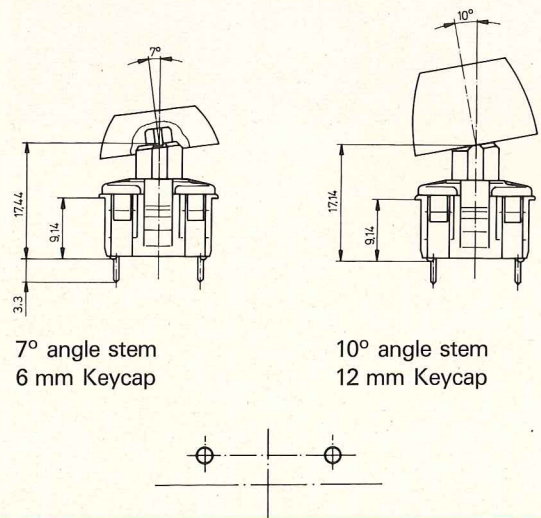
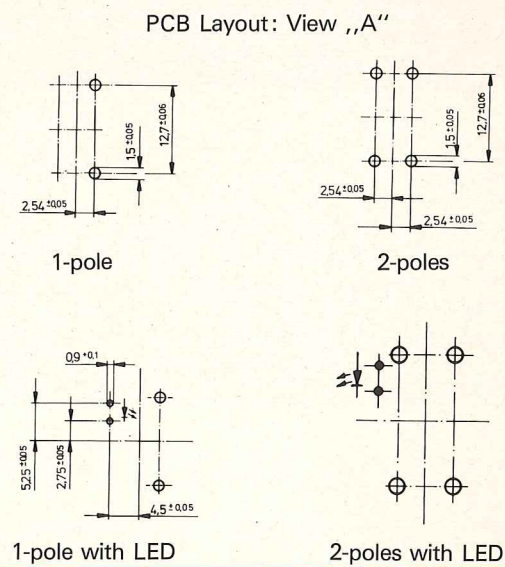
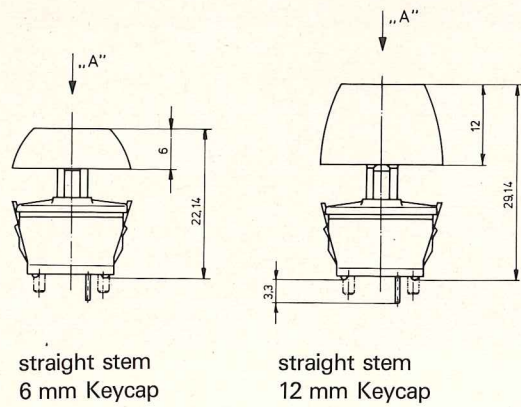
A T	B T	without cover	with cover	momentary		LED red or green or yellow	for Keycap		
				without tactile feel	with tactile feel		6 mm	6 mm 7° angle	12 mm
x		x		x		x	x	x	x
x		x			x	x	x		x
	x	x		x			x	x	x
		x			x	x			x
x		x		x			x		x
x			x	x		x	x		x
	x		x		x		x		x
	x		x		x		x		x

Ordering information for CHERRY Keymodules Serie M8 (without Keycap)

Contact style	Tactile feel	Keymodule	Stem angle	for Keycap	Remarks	Operating force [cN]	Part No.	
1 A	no	without cover	7°	6 mm		70 ± 15	M 81 A - 0100	
				12 mm			A - 0200	
				6 mm	with LED, red		A - 0700	
				6 mm	with LED, green		A - 01R0	
				6 mm	with LED, yellow		A - 01G0	
	12 mm			105 ± 30	A - 1300			
	yes	without cover		12 mm		105 ± 30	A - 1400	
				6 mm	for Spacebar assembly unit	95 ± 35	G - 0100	
				12 mm		95 ± 35	G - 0200	
				6 mm		70 ± 15	E - 0500	
12 mm				70 ± 15	E - 0600			
2 A	no	without cover	7°	6 mm	for Spacebar assembly unit	95 ± 35	H - 0500	
				12 mm			H - 0600	
				6 mm			95 ± 35	C - 0200
				12 mm			95 ± 35	C - 0100
				6 mm			95 ± 35	C - 0700
	yes	without cover		6 mm		95 ± 35	C - 1100	
				12 mm		95 ± 35	C - 1400	
				6 mm		95 ± 35	C - 1700	
				12 mm		95 ± 35	F - 0500	
				6 mm		95 ± 35	F - 0600	
1 B	no	with cover	7°	6 mm		90 ± 35	F - 1500	
				12 mm			90 ± 35	F - 1600
				6 mm			85 ± 20	B - 0400
				12 mm			85 ± 20	B - 0300
				6 mm			85 ± 35	D - 0300
1 A / 1 B	no	without cover		12 mm		85 ± 35	D - 0400	

CHERRY KEYMODULS SERIE M9

DIMENSIONAL DRAWINGS (CUTOUTS AND HOLES)



Specification chart for CHERRY-Keymoduls Serie M9

Contact style		Operating style		with ass. pins	without ass. pins	LED red or green or yellow	for Keycap				Remarks
A	T	momentary	alt. action				6 mm	6 mm 7° angle	12 mm	12 mm 10° angle	
x		x		x	x	x	x	x			
x		x		x	x	x			x	x	
	x	x		x	x		x	x			
	x	x		x	x				x	x	
x			x	x	x		x	x	x	x	closing 2nd contact in sequence to 1st contact
x			x	x	x				x	x	

Ordering information for CHERRY-Keymoduls Serie M9 (without Keycap)

Contact style	Operating style	Keyswitch Design	Stem angle	for Keycap	Remarks	Operating Force [cN]	Part No.	
1 A	momentary	without assembly pins	10°	12 mm	LED, red	70 ± 20	M 93A - 11 NN	
		with assembly pins					A - 12 NN	
		without assembly pins	7°	6 mm			A - 12 RW	
		with assembly pins					A - 11 RW	
		without assembly pins					A - 17 NN	
	alt. action	with assembly pins	10°	12 mm	LED, red	120 ± 30	A - 19 NN	
		without assembly pins					A - 19 RW	
		without assembly pins	7°	6 mm			A - 17 RW	
		with assembly pins					A - 47 NN	
		without assembly pins					A - 41 NN	
2 A	momentary	without assembly pins	10°	12 mm	for Spacebar Assembly Unit	90 ± 25	A - 51 NW	
		with assembly pins					A - 52 NN	
		without ass. pins	7°	6 mm			120 ± 30	C - 32 NN
		with assembly pins						C - 31 NN
				0.P.1: 2 ± 0,6 0.P.2: 3,5 ± 0,5	120 ± 30 500 ± 100	E - 21 NW		
								E - 22 NN

CHERRY

MOLDED KEYCAPS

...in a "library" of sizes, shapes, legends and colors



Cherry has two-shot and three-shot molded keycaps in a variety of sizes, shapes, colors and legends to fill any need you can name. If your application calls for a "special", we have in-house design plus fabrication facilities to fill your most demanding needs.

There are scores of standard — plus custom — characters, sizes and shapes in the Cherry "library" of keycaps. Available in a broad selection of colors for both buttons and legends.

ABOUT TWO AND THREE COLOR MOLDING

The best way to make keycaps in two or three colors is to automatically mold them. This technique is called two-shot or three-shot molding, which provides a permanent smooth

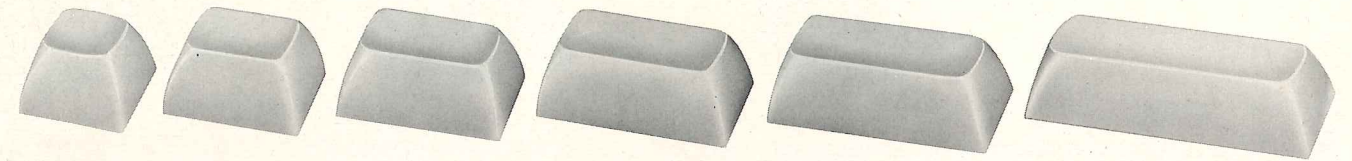
legend. At Cherry, several different keycaps are molded simultaneously in a multi-cavity mold and the machine attendant devotes full time to inspecting and sorting the output. The process is 100% automatic through the ejection step.

A two color keycap consists of two molded parts . . . the inner part — the character itself — and the outer part — which envelopes all but the very top surface of the character.

After molding the "A", the two-shot machine automatically inserts it into a second cavity. The upper surface of the letter is pushed tightly against the top of the cavity to keep the second shot of plastic from covering it. The second shot enters the cavity, enveloping all of the part except the top of the "A".

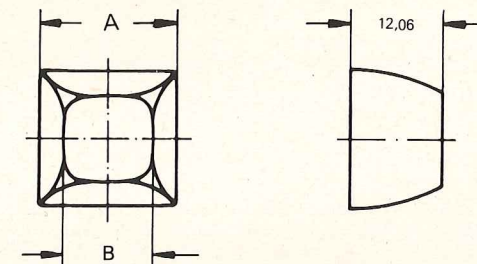
CHERRY KEYCAPS, HEIGHT 12mm

FOR KEYMODULES SERIES M7, M8, M9



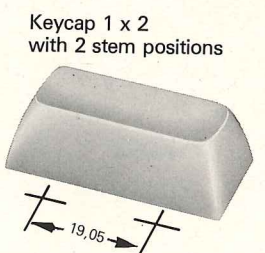
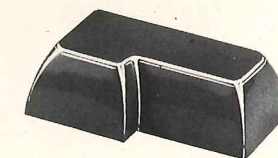
Top surface matte finish, center stem position

Part No.	Color/Code	1 x 1	1 x 1¼	1 x 1½	1 x 1¾	1 x 2	1 x 8
	grey/E3	6228 — 1092	6228 — 5355	6228 — 0708	6228 — 2970	6228 — 0011	0228 — 3558
	anthrazit/D2	6228 — 3130	6228 — 5384	6228 — 0704	6228 — 2972	6228 — 0007	0228 — 3336
	black/A6	6228 — 1755	6228 — 5370	6228 — 0709	6228 — 2977	6228 — 0014	0228 — 3544
	white/K6	6228 — 1167	6228 — 5359	6228 — 0706	6228 — 2975	6228 — 0002	0228 — 3549
	red/J1	6228 — 1756	6228 — 5381	6228 — 0710	6228 — 2994	6228 — 0013	
	blue/B0	6228 — 1168	6228 — 5396	6228 — 0707	6228 — 2976	6228 — 0001	
BROWN/C6	-beige/K9-	0629 — 0403	0629 — 0488	0629 — 0489	0629 — 0490	0629 — 0960	0228 — 3334
BEIGE/R9	-brown/G6-	6228 — 4370	6228 — 5356	6228 — 0822	6228 — 2995	6228 — 0128	0228 — 3560



Format	1 x 1	1 x 1¼	1 x 1½	1 x 1¾	1 x 2	1 x 8
Size A	□ 18,16	22,91	27,69	32,46	37,21	151,5
Size B	□ 12,2	16,95	21,73	26,5	31,24	145,54

Keycap 1 x 1 with molded LED window (for keymodules serie M7 only)



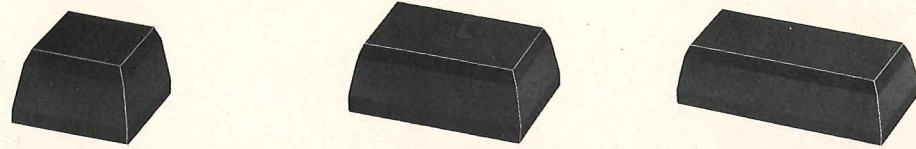
Top surface matte finish

Part No.	Color/Code	1 x 1	1 x 1¼ x 2	1 x 2
	grey/E3	628 — 0686	0228 — 3634	0629 — 0044
	anthrazit/D2	628 — 0687		0629 — 0043
	black/A6	628 — 0689	0228 — 3642	0629 — 0046
	white/K6	628 — 0683	0228 — 3641	0629 — 0040
	red/J1	628 — 0692	0228 — 3639	0629 — 0045
	blue/B0	628 — 0693	0228 — 3646	0629 — 0039
	beige/K9	628 — 0988	0228 — 3662	0629 — 0491
	brown/C6	628 — 0684	0228 — 3643	0629 — 0067

CHERRY KEYCAPS, HEIGHT 12 mm

FOR KEYMODULES SERIES M7, M8, M9

Relegendable
Keycaps

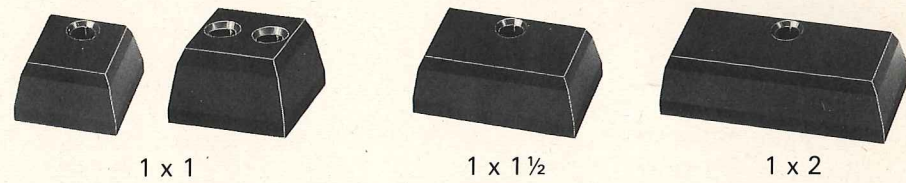


Keycap body

Part No.	Color/Code	1 x 1	1 x 1½	1 x 2
		grey/E3	628 - 0265	
	light grey/F1	628 - 0268	628 - 0395	628 - 0334
	black/A6	628 - 0266	628 - 0335	628 - 0273
	white/K6	628 - 0248	628 - 0261	628 - 0263
	red/J1	628 - 0267		628 - 0275
	blue/B0	628 - 0838	628 - 0250	628 - 0252

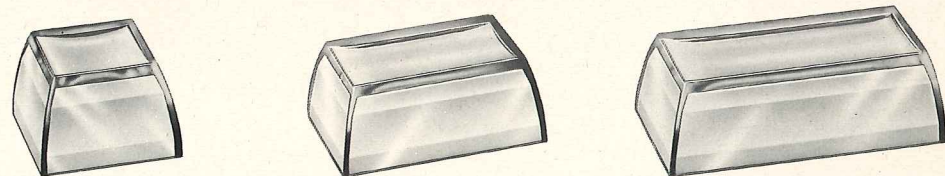
Keycap body with 1 or 2 LED windows

(for Keymodules Serie M7 only)

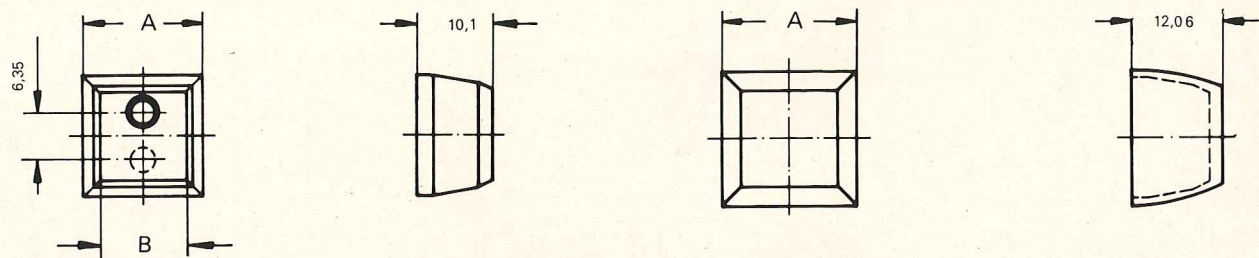


Part No.	Color/Code	1 x 1	1 x 1½	1 x 2
		grey/E3	628 - 0269	
	light grey/F1	628 - 0272	628 - 0397	628 - 0401
	black/A6	628 - 0270	628 - 0874	628 - 0900
	white/K6	628 - 0259	628 - 0246	628 - 0260
	red/J1	628 - 0271		
	blue/B0	628 - 0247	628 - 0249	628 - 0251

Keycap tops (transparent)



Format	1 x 1	1 x 1½	1 x 2
Part No.	628 - 0253	628 - 0254	628 - 0255



Format	1 x 1	1 x 1½	1 x 2
Size A	□ 16,13	25,66	35,13
Size B	□ 12,2	21,75	31,25
Size C	□ 18,16	27,7	37,2

CHERRY KEYCAPS, HEIGHT 12 mm

FOR KEYMODULES SERIE M7

Translucent for illumination with lamp
Gloss surface



Part No.	Color	1 x 1
		red
	green	U 28 - 0002
	yellow	U 28 - 0003
	blue	U 28 - 0004
	white	U 28 - 0005

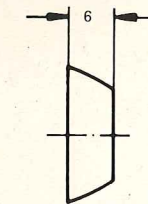
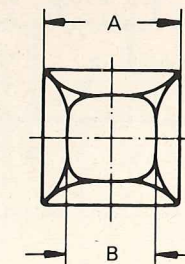
CHERRY KEYCAPS, HEIGHT 6 mm

FOR KEYMODULES SERIES M8, M9

Surface matte finish

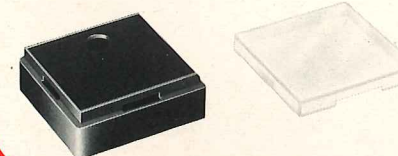


Part No.	Color/Code	1 x 1	1 x 1¼	1 x 1½	1 x 1¾	1 x 2	1 x 8	1 x 1 (M8) with lens	1 x 1 (M9) with lens
	0639 -	green/N7	- 0001		- 0008		- 0015	- 0384	U 639 - 0159
white/L2		- 0002		- 0009		- 0016	- 0383	U 639 - 0160	- 0151
yellow/N6		- 0003		- 0010		- 0017	- 0382	U 639 - 0161	- 0152
blue/N5		- 0004		- 0011		- 0018	- 0381	U 639 - 0162	- 0153
red/N4		- 0005	- 0804	- 0012	- 0807	- 0019	- 0380	U 639 - 0163	- 0154
black/N3		- 0006	- 0806	- 0013	- 0809	- 0020	- 0024	U 639 - 0164	- 0155
grey/N2		- 0007	- 0805	- 0014	- 0808	- 0021	- 0025	U 639 - 0165	- 0156
brown/N8		- 0400		- 0399		- 0398	- 0396	U 639 - 0166	- 0157
light beige/L6		- 0815	- 1192	- 0814	- 1193	- 0926	- 0817	U 639 - 0168	- 0158

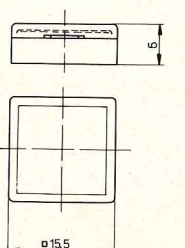


see page 29
for various Keycap formats

Relegendable Keycaps (for Keymodules Serie M8 only)



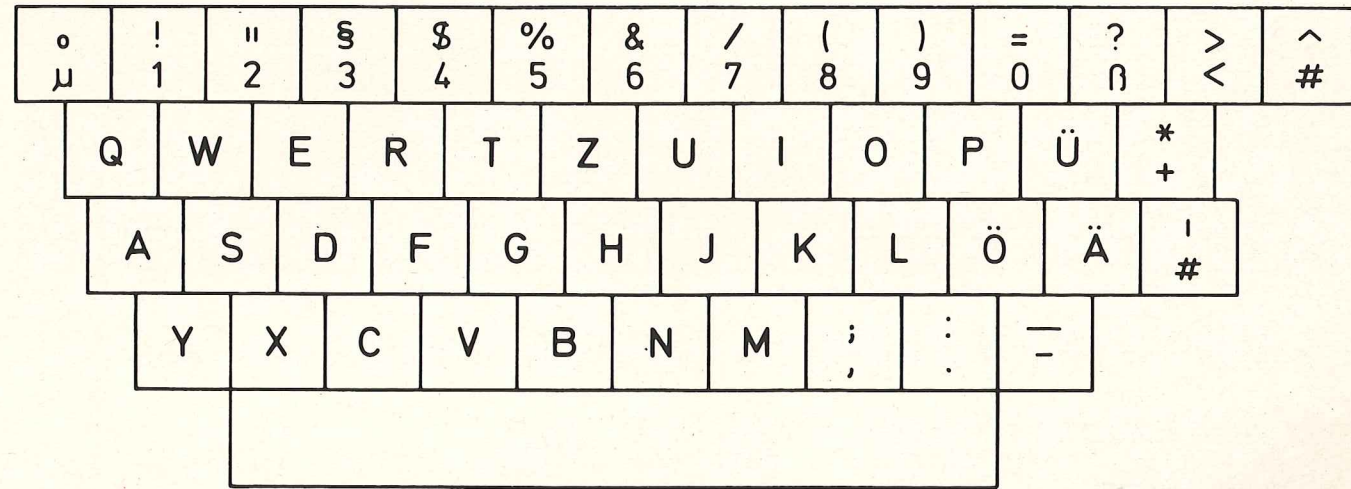
Part No.	1 x 1	1 x 1
		black
	628 - 0972	628 - 0973



CHERRY COMPLETE KEYCAP-KITS

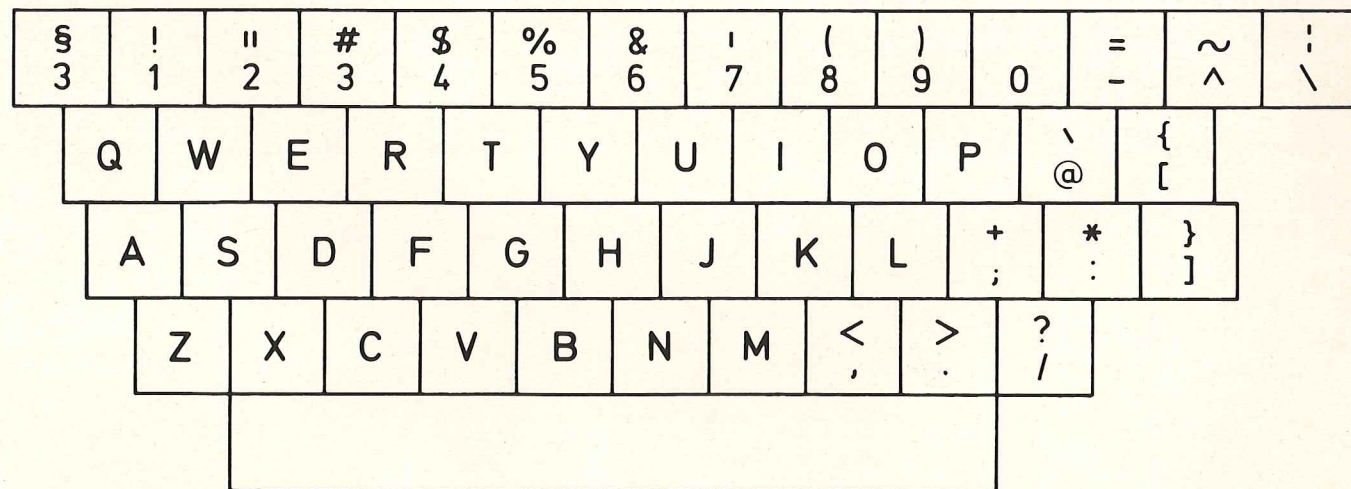
HEIGHT 12 and 6 mm
FOR KEYMODULES SERIE M7, M8, M9

German Symbols



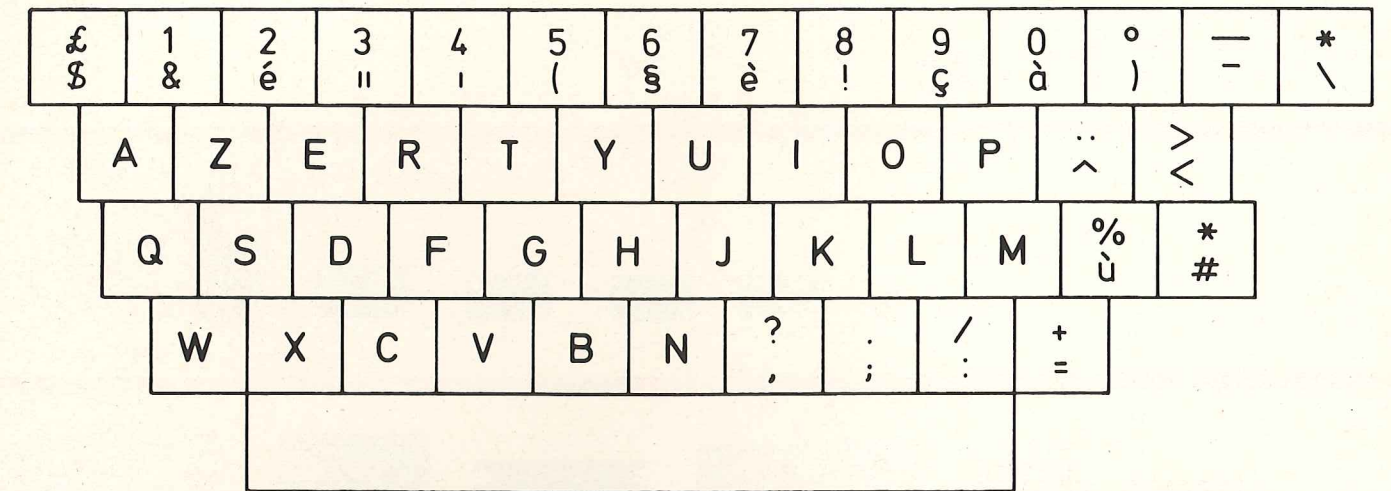
Part No.	Color/Code	Height 12 mm	Height 6 mm
	grey/E3	G 99 - 351 AC	
	black/A6	G 99 - 352 AC	
	brown/N8		G 99 - 353 AC
	beige/L6		G 99 - 354 AC

International Symbols



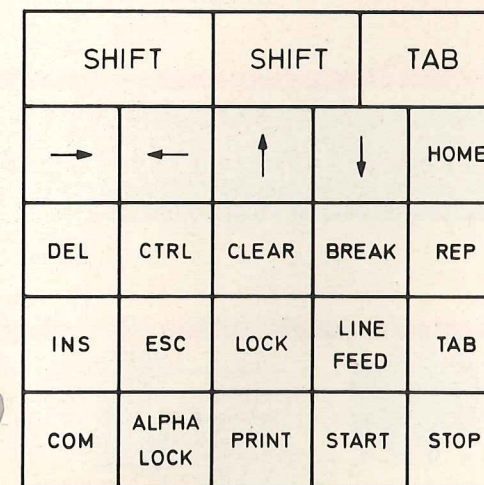
Part No.	Color/Code	Height 12 mm	Height 6 mm
	grey/E3	G 99 - 355 AC	
	black/A6	G 99 - 356 AC	
	brown/N8		G 99 - 357 AC
	beige/L6		G 99 - 358 AC

French Symbols



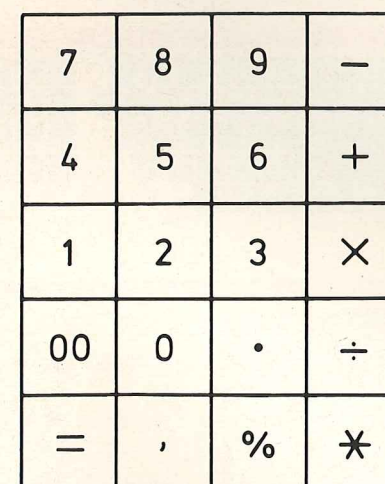
Part No.	Color/Code	Height 12 mm	Height 6 mm
	grey/E3	G 99 - 359 AC	
	black/A6	G 99 - 360 AC	
	brown/N8		G 99 - 400 AC
	beige/L6		G 99 - 401 AC

Function Pad



Part No.	Color/Code	Height 12 mm	Height 6 mm
	grey/E3	G 99 - 406 AC	
	black/A6	G 99 - 407 AC	
	brown/N8		G 99 - 408 AC
	beige/L6		G 99 - 409 AC

Numeric Pad



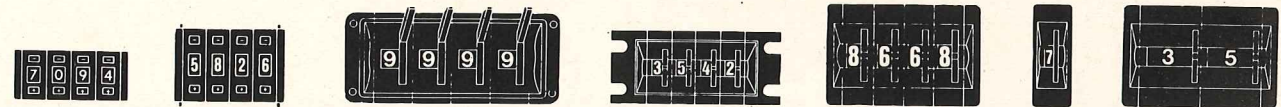
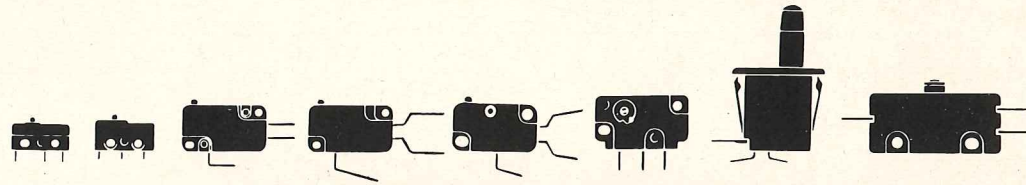
Part No.	Color/Code	Height 12 mm	Height 6 mm
	grey/E3	G 99 - 402 AC	
	black/A6	G 99 - 403 AC	
	brown/N8		G 99 - 404 AC
	beige/L6		G 99 - 405 AC



Write or call Cherry for catalogues and application data on any — or all — of these Cherry products.

Product Index

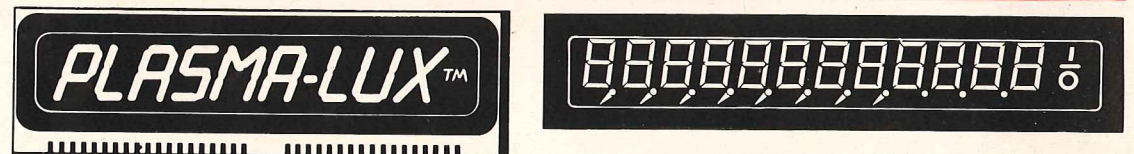
Precision Snap Action Switches



Leverwheel and Thumbwheel Switches



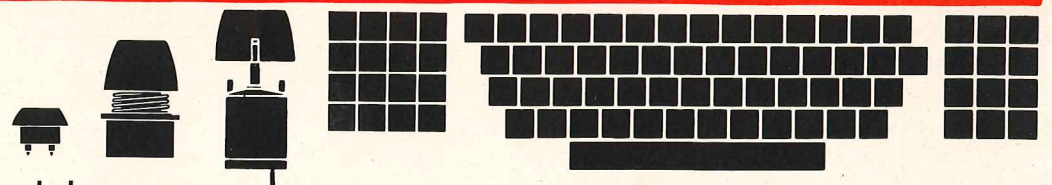
Numeric Displays / Decade Counters



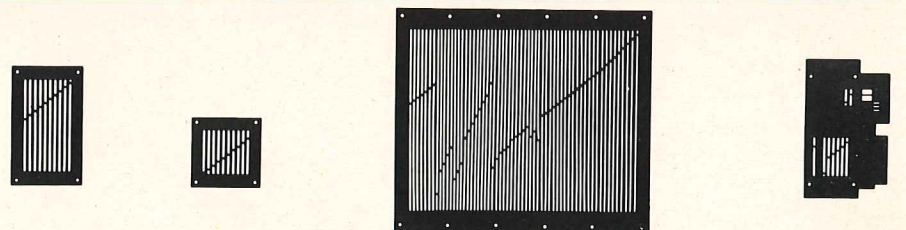
Plasmalux Gas Discharge Displays



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