

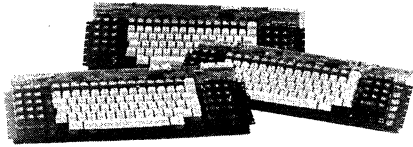
# MICRO SWITCH KEYBOARDS...

## Quality and Reliability, each carries a 1% Acceptable Quality Level and a 2-year Warranty\*

Until now getting a keyboard at the price you needed could have meant giving up the kind of performance you wanted. Not anymore. Now, in addition to our time-proven solid state Hall effect offerings, you can specify full travel capacitance or contact membrane keyboards

in low profile (DIN standards) or touch panel membrane keyboards.

And you get them all — custom or off-the-shelf — backed with the experience and full application support that's been a MICRO SWITCH tradition.



### SD Series Hall Effect Keyboard (104SD30)

#### FEATURES

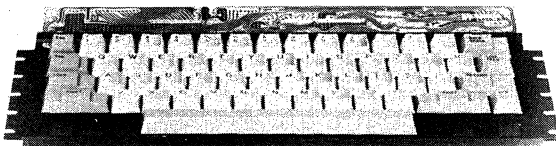
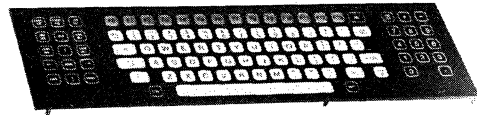
- Solid state Hall effect keys with a single chip microcomputer
- 4-mode 8-bit USASCII code assignment ... Key array in 4-language configurations
- Parallel data 8-bits and strobe ... 50 microseconds nominal strobe pulse
- Serial output ... 1-start, 8-data, even parity, 1-stop (TTL compatible) with choice of 4 baud rates
- Electronic shift lock with LED indicator
- Choice of 4-tones for audio feedback
- Manual/Auto repeat for designated keys ... Repeat key controls repeat for other selected keys
- 1-function key ... positive or negative logic
- 1-shift lock key, 2-shift keys, 1 control key, 1 alternate action caps lock key
- 121 possible coded keys, 6 mode keys, 1 function key
- 14 LED's in top row with current limit resistors
- 8-byte FIFO (first-in first-out) character storage
- N-key rollover
- Operates on a single 5 VDC supply
- MCBF ... 20 billion operations

### TC Series Touch Panel Keyboard (TC 454)

#### FEATURES

- Customized design. Graphics, colors, styles, and formats can be selected to achieve optimum clarity of operating functions
- Advanced construction and manufacturing processes. Reflects the MICRO SWITCH commitment to quality, reliability and performance
- Tactile feedback. Snap-disc provides positive feel of switching action; embossed touch surface enables positive finger positioning
- Micro-travel (.016 in. nominal)
- Environmentally sealed. Protects against contamination of switch contacts
- Provides both serial and parallel data outputs
- Pin-for-pin compatible EPROM capability
- Operates on a single 5 VDC supply
- Ultra-low profile membrane easily adapts to styling and package size requirements
- Channel venting. Prevents temperature/altitude changes from affecting operating characteristics

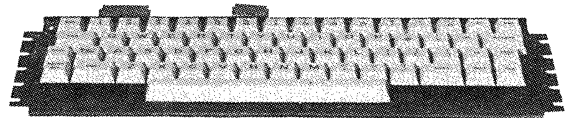
\* One year warranty



### Low Profile Capacitance-membrane Keyboard (58ST13-1)

#### FEATURES

- European ergonomic standards compliance
- Only 19,05 mm (.750") nominal profile
- 3,2 mm (.125") nominal key travel
- N-key rollover
- Parallel/serial data outputs
- Environmentally sealed membrane protects against liquid spills, airborne dust and moisture
- Internal venting protects from the effects of ambient temperature and pressure changes
- Operator preferred silent-tactile feel
- Electronic shielding reduces problems caused by electrical noise, cross coupling and stray capacitances
- Low power consumption



### Contact-membrane Keyboard

#### FEATURES

- European ergonomic standards compliance
- Only 19,05 mm (.750") nominal profile
- 3,2 mm (.125") nominal key travel
- Environmentally sealed membrane protects the contacts from contamination
- Internal venting protects membrane from effects of ambient temperature/pressure changes
- Operator preferred silent-tactile feel
- Adherence to good human factor principles promotes maximum throughput

# MICRO SWITCH

## GENERAL SALES ORDER GUIDE

*Catalog Listings Hall Effect	Typical Applications	Power Requirements	Output Termination	Modes/Code Assignment	Keypops
12SD3-1 16SD1-1	High Speed Numeric Entry High Speed Numeric Entry	+ 5 VDC @ 50 mA + 5 VDC @ 132 mA	Solder Pad Card Edge	Wired-only (Level) (1) BCD (Binary Coded Decimal)	Standard Standard
16SD1-2 16SD3-4 16SD3-5 16SD3-6 16SD3-7 16SD3-12 16SD17-1 16SD17-2	High Speed Numeric Entry High Speed Numeric Entry High Speed Numeric Entry High Speed Numeric Entry High Speed Numeric Entry High Speed Numeric Entry High Speed Numeric Entry Adding Machine Format Telephone Format	+ 5 VDC @ 132 mA + 5 VDC @ 80 mA + 5 VDC @ 80 mA + 5 VDC @ 130 mA + 5 VDC @ 80 mA + 5 VDC @ 80 mA + 5 VDC @ 80 mA + 5 VDC @ 80 mA + 5 VDC @ 80 mA	Card Edge Solder Pad Solder Pad Solder Pad Solder Pad Solder Pad 40-Pin Header Solder Pad Solder Pad	(1) BCD Wired-only (Level) Wired-only (Level) Wired-only (Level) Wired-only (Level) Wired-only (Level) Wired-only (Level) Wired-only (Scan) Wired-only (Scan)	Standard Standard Relegendable Standard/LED None Standard Relegendable None
26SD1-2	Point of Sale	+ 5 VDC @ 250 mA	Card Edge	(1) Six Bit Address	Standard/ Relegendable
64SD30-9	Communications (Model 33 Array)	+ 5 VDC @ 156 mA	Rt. Angle Header	(4) USASCII	Stepped
66SD6-6	Interactive Visual Display (IBM 3790)	+ 5 VDC @ 0.5A - 12 VDC @ 5 mA	Card Edge	(2) EBCDIC	Stepped
66SD12-10	Interactive Visual Display (IBM 3790)	+ 5 VDC @ 0.5A - 12 VDC @ 5 mA	Card Edge	(2) EBCDIC	Stepped
66SD6-7	Interactive Visual Display (IBM 3270)	+ 5 VDC @ 0.5A - 12 VDC @ 5 mA	Card Edge	(2) EBCDIC	Stepped
78SD6-5	Interactive Visual Display (IBM 3270)	+ 5 VDC @ 0.5A - 12 VDC @ 5 mA	Card Edge	(2) EBCDIC	Stepped
83SD30-2	Interactive Visual Display (DEC's VT 100)	+ 5 VDC @ 350 mA	Rt. Angle Header	(4) USASCII	Sculptured
87SD30-8	Interactive Visual Display (IBM 3278)	+ 5 VDC @ 300 mA	Rt. Angle Header	(1) USASCII	Front Stamped/ Standard
87SD30-9	Interactive Visual Display (IBM 3278)	+ 5 VDC @ 300 mA	Rt. Angle Header	(1) USASCII	Front Stamped/ Standard
63SD30-4	General Purpose Visual Display	+ 5 VDC @ 156 mA	Rt. Angle Header	(4) USASCII	Stepped
103SD24-2 103SD30-2 104SD30-Series	Intelligent Terminals Intelligent Terminals European Arrays	+ 5 VDC @ 500 mA + 5 VDC @ 125 mA + 5 VDC @ 350 mA	Rt. Angle Header Rt. Angle Header Rt. Angle Header	(4) USASCII (4) USASCII (4) USASCII	Stepped Stepped Stepped
<b>Capacitance-membrane (Low Profile DIN Standards)</b>					
58ST13-1 63ST13-2 83ST13-5	Typewriter Array Interactive Display Terminal Interactive Display Terminal (DEC's VT 100)	+ 5 VDC @ 250 mA + 5 VDC @ 250 mA + 5 VDC @ 350 mA	Rt. Angle Header Rt. Angle Header Rt. Angle Header	(1) USASCII (4) USASCII (4) USASCII	Sculptured Stepped Sculptured
87ST13-1	Interactive Display Terminal (IBM 3278)	+ 8 VDC @ 250 mA	Telephone Type Header	(1) Eight Bit Address	Sculptured / Front Stamped
103ST13-1 83ST13-1	General Purpose Personal Comp. (IBM P.C.)	+ 5 VDC @ 350 mA + 5 VDC @ 350 mA	Rt. Angle Header Telephone Type Header	(4) USASCII Eight Bit Address	Sculptured Sculptured
90ST13-1 105ST13-1	General Purpose General Purpose	+ 5 VDC @ 350 mA + 5 VDC @ 350 mA	Telephone Type Header Telephone Type Header	USASCII USASCII	Sculptured Sculptured
<b>Contact-membrane (Low Profile DIN Standards)</b>					
63ST22-1 16ST22-1 103ST22-1	Communications Adding Machine Format General Purpose	- - -	Pigtail with Connector Pigtail with Connector Pigtail with Connector	Wired-only-X-Y matrix Wired-only X-Y matrix Wired-only-X-Y matrix	Stepped Stepped Sculptured
<b>Touch Panel</b>					
TCA431-2 (12 Stations)	Numeric Entry	0.5 to 30 VAC/DC @ 10 $\mu$ A to 100 mA	Pigtail	(1) Wired-only	Embossment
TCA431-4 (16 Stations)	Numeric Entry	0.5 to 30 VAC/DC @ 10 $\mu$ A to 100 mA	Pigtail	(1) Wired-only	Embossment
TCA454-1 (103 Stations) TCA454-1 (103 Stations)	General Purpose General Purpose	+ 5 VDC @ 500 mA 0.5 to 30 VAC/DC @ 10 $\mu$ A to 100 mA	Rt. Angle Header Pigtail	(4) USASCII Wired-only	Embossment Embossment

### WORLDWIDE SALES AND SERVICE

For technical literature on any of the general sale listings shown, application assistance, pricing and delivery scheduling; contact your nearest MICRO SWITCH Sales Office, write or call MICRO SWITCH, Freeport, IL 61032, Tel. 815/235-6600.

\* First 2 digits indicate number of keys on keyboard.

If your application calls for keyboards "sealed for hostile environments" NEMA 2, 3, 3R, 12 and 13, and military specifications MIL-STD-202 contact MICRO SWITCH, Freeport, IL 61032 for off-the-shelf listings.