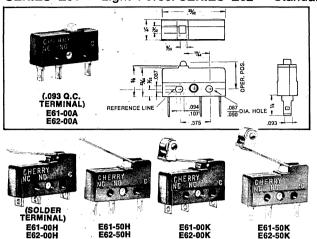
# **Subminiature Snap Action Switches**

## SERIES E61 — Light Force/SERIES E62 — Standard Force



SWITCH BODY: 25/2" x 25/4" x 1/4"

SWITCH BODY: "%2" X "764" X 74"

RATINGS: E61 — 5 Amps. 125/250 VAC

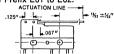
E62 — 10.1 Amps. 125/250 VAC — 1/4 H.P. 125 VAC

Und. Lab. Inc. listed and CSA approved.

Part No.	Circuitry	Description
E61-00A	SPDT	Button, .093 Q.C. Terminals
E61-10A	SPDT	Button, Solder Terminals
E61-30A	SPDT	Button, .110 Q.C. Terminals
E61-00H E61-10H E61-30H	SPDT SPDT SPDT	32" Actr, Std. Lever Ratio, .093 Q.C. Terminals 32" Actr, Std. Lever Ratio, Solder Terminals 32" Actr, Std. Lever Ratio, .110 Q.C. Terminals
E61-50H	SPDT	13/2" Actr, High Lever Ratio, .093 Q.C. Terminals
E61-60H	SPDT	13/2" Actr, High Lever Ratio, Solder Terminals
E61-80H	SPDT	13/2" Actr, High Lever Ratio, .110 Q.C. Terminals
E61-00K	SPDT	134" Roller Actr, Std. Lever Ratio, .093 Q.C. Terminals
E61-10K	SPDT	134" Roller Actr, Std. Lever Ratio, Solder Terminals
E61-30K	SPDT	134" Roller Actr, Std. Lever Ratio, .110 Q.C. Terminals
E61-50K	SPDT	<sup>2</sup> ¼4" Roller Actr, High Lever Ratio, .093 Q.C. Terminals
E61-60K	SPDT	<sup>2</sup> ¼4" Roller Actr, High Lever Ratio, Solder Terminals
E61-80K	SPDT	<sup>2</sup> ¼4" Roller Actr, High Lever Ratio, .110 Q.C. Terminals

Note: To specify 10.1 Amps. merely change the Prefix E61 to E62.

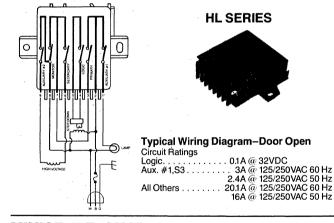
ACTUATORS — Actuator lengths are dimensioned from centerline of switch mounting hole as shown. Other actuators available on request.



TERMINALS — Subminiature series is available with quick connect .093" wide (mates with AMP part no. 60432-1) and .110" wide (mates with AMP part no. 42399-2), Also available in short solder terminal .139" wide x .125" long.

NOTE: .093" Quick Connect terminals are standard. To order solder terminals add 10 to suffix number. To order .110" QC terminals add 30 to suffix number. (Example: basic E61-00A becomes E61-10A for solder terminals and E61-30A for .110" QC terminals.

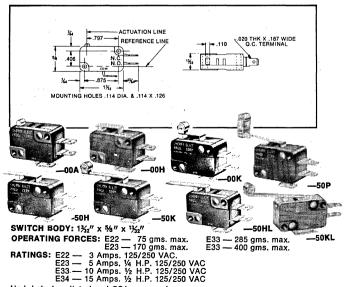
#### MICROWAVE OVEN DOOR INTERLOCK SWITCH-



Cherry's Microwave Oven Door Interlock Switch meets all UL-923 standards and cherry's Microwave Overhood inflook Switch meets all of 1-923 standards and your requirements for a simple, durable and economical door interlock system that is ideal for high-volume production. One, singly housed Cherry Interlock Switch can replace all individual door switches and still achieve a long mechanical life span.

#### **Switch Characteristics** 650 Grams Max. Plunger Force @ Full Travel . . . . . Displacement, Actuator. . . . Secondary 0.085" to make Primary 0.115" to make Logic 0.135" to make Aux. #2, \$1 0.100" to make \*Displacement, Plunger . . . . . . . Monitor 0.20" to break Operating Temp. Range . . Storage Temp. Range . . 40° to +90°C 5% to 95% RH Humidity Range . . . . . Insulation Resistance . Voltage Withstand . . . . . . . 1000V RMS Term. to Term. \*Standard Sequence-Options Available

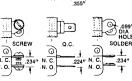
## MINIATURE SNAP ACTION SWITCHES SERIES E22/E23/E33/E34 (Standard Force)



Part No.	Circuitry	Terminal	Description
STANDAR	PORCE		
E23-00A	SPDT	QC	Button
E23-10A	SPDT	Screw	Button
E23-20A	SPDT	Solder	Button
E23-00H	SPDT	QC	"%2" Actr, Std. Ratio
E23-50H	SPDT	QC	11%2" Actr, Std. Ratio
E23-70H	SPDT	Solder	11%2" Actr, Std. Ratio
E23-50HL	SPDT	QC	1%2" Actr, High Ratio
E23-00K	SPDT	QC	1½" Roller Actr, Std. Ratio
E23-10K	SPDT	Screw	1½" Roller Actr, Std. Ratio
E23-20K	SPDT	Solder	1½" Roller Actr, Std. Ratio
E23-50K	SPDT	QC	1½" Roller Actr, Std. Ratio
E23-70K	SPDT	Solder	1½" Roller Actr, Std. Ratio
E23-50KL	SPDT	QC	1½" Roller Actr, High Ratio
E23-00P E23-50P E23-50PL	SPDT SPDT SPDT	QC QC	13/6" One-Way Roller Actr., Std. Ratio 113/2" One-way Roller Actr, Std. Ratio 11/2" One-way Roller Actr. High Ratio

ACTUATORS — Standard type integral hinged lever and roller actuators are available in choice of 2 pivot positions. Actuator lengths are dimensioned from centerline of switch mounting hole as shown here. Other actuators available on request.

Other actuators available on request. TERMINALS — Choice of Screw, Solder, or Quick Connect Terminals. .187" wide Quick Connect terminals are standard x .020" thick Also available are .250" wide x .032" thick QC terminals. To order screw terminals add 10 to suffix number. To order solder terminals add 20 to suffix number. For example: the basic E23-00A becomes E23-10A for screw terminals and E23-20A for solder terminals.



ACTUATOR LENGTH

CHERRY ELECTRICAL PRODUCTS CORP., 3600 Sunset Ave., Waukegan, IL 60087 • 312/578-3500 • TWX 910/235-1572

Und. Lab. Inc. listed and CSA approved

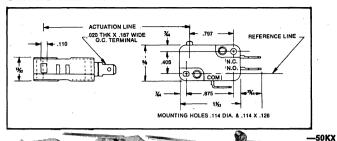
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-.177″ 🛖



## **Light Force Miniature Snap Action Switches**

## SERIES E22 — SERIES E23/SERIES E33 — SERIES E34 LIGHT FORCE OPERATING FORCES: E22 — 15 gms. max. E23 — 45 gms. max.



Terminal Types	S.P.D.T.
QC	E22-00AX
Screw	E22-10AX
Solder	E22-20AX

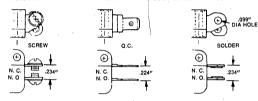
E33 — 75 gms. max. E34 — 100 gms. max. NOTE: .187" Quick Connect terminals are NOTE: .18/" Quick Connect terminals are standard. Normally, to order screw terminals add 10 to suffix number. To order solder ter-minals add 20 to suffix number. For example: The basic E22-00AX becomes E22-10AX for screw terminals and E22-20AX for solder terminals.

EXCEPTIONS: When ordering —55HX, —75HX, —75KX or —85HX switches, do not change suffix number. Simply state on order whether QC, screw or solder terminal types are desired. ACTUATOR LENGTH

ACTUATORS—Standard type integral hinged lever and roller actuators are available in choice of 2 pivot positions. Actuator lengths are dimensioned from centerline of switch mounting hole as shown here. Other actuators available on request.

ACTUATOR LENGTH INCHES: 1.400, 1.580, 1.340, 1.516, 2.757, 2.932.

TERMINALS — Choice of Screw, Solder, or Quick Connect Terminals. Unless otherwise specified switches are furnished with QC terminals .187 wide x .020 thick. Also available are .250 wide x .032 QC terminals.



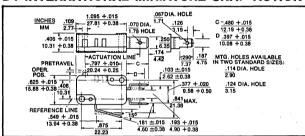
## -OOAX 75HX 55HX 75KX -85HX

SWITCH BODY: 132" x 58" x 132"

RATINGS: E22 Series — 3 Amps., 125/250 VAC E23 Series — 5 Amps., ¼ H.P., 125/250 VAC E33 Series — 10 Amps., ½ H.P., 125/250 VAC E34 Series — 15 Amps., ½ H.P., 125/250 VAC

Und. Lab. Inc. listed, and CSA approved.

#### **D4 INTERNATIONAL MINIATURE SNAP ACTION SWITCH**



SWITCH BODY: 13/2" x 5/8" x 13/2"

RATINGS: D42 — 3 Amps., 125/250 VAC
D43 — 5 Amps., 14 H.P., 125/250 VAC
D44 — 10 Amps., 1/2 H.P., 125/250 VAC
D45 — 15 Amps., 1/2 H.P., 125/250 VAC

Und. Lab. Inc. listed, and CSA approved.

#### CONTACTS AND RATINGS

	Rating	Contact Material
SERIES (E22) D42	3 amps., 125/250 VAC	Fine Silver
SERIES (E23) D43	5 amps., ¼ H.P.,* 125/250 VAC	Silver Cadmium Oxidized
SERIES (E33) D44	10 amps, ½ H.P., 125/250 VAC	Silver Cadmium Oxidized
SERIES (E34) D45	15 amps., ½ H.P.,** 125/250 VAC	Silver Cadmium Oxidized

\* VDE (Germany) rating: 6 amps. \*\* VDE (Germany) rating: 16 amps.

C-R1LD/3-Q3LD\* (Similar to Conventional —50H)

#### 1. FOREIGN APPROVED VERSIONS **Designations:**

Standard Force: Series D413, D423, D433, D443 and D453 Light Force: Series D419, D429, D439, D449 and D459

These D4 switches have foreign as well as UL/CSA approvals. They have .250" (6.35mm) x .032" (0.81 mm) thick "offset" terminals and metric mounting holes. They are also available with English (U.S.) mounting holes. (See drawings.)

## 2. U.S. VERSIONS

Designations:

Standard Force: Series D41C, D42C, D43C, D44C and D45C Light Force: Series D41L, D42L, D43L, D44L and D45L

These are D4 switches with UL and CSA approvals for domestic use only. Terminals are "straight" and measure .187" (4.75 mm) x .020" (0.50 mm) thick. (See drawings.)

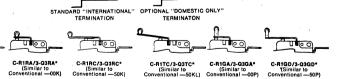
ACTUATORS: Standard type integral hinged lever and roller actuators are available in choice of 2 pivot positions. Actuator lengths are dimensioned from centerline of switch upper mounting hole as shown here. Other actuators available on re-

ACTUATOR LENGTH

**ACTUATOR LENGTH INCHES:** .865, 1.400, 1.580, 2.757, .810, 1.340, 1.516, .810, 1.340.

0

TERMINALS: Choice of two QC terminations: .250" (6.35 mm) x .032" (0.81 mm) thick "offset" terminals with foreign as well as UL/CSA approvals . . . or .187" (4.75 mm) x .020" (0.50 mm) thick with UL and CSA approval for domestic use only.



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#### **SERIES E72 WEATHERPROOF**

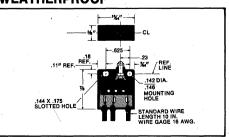
U 60

C-R1LA/3-Q3LA\* (Similar to Conventional —00H)



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C-R1AA/3-Q3AA\* (Similar to Conventional —00A)



**D**UCO

C-R1MD/3-Q3MD\* (Similar to Conventional —50HL):

#### Cherry put a switch inside a switch . . . so it's water-resistant and weatherproof!

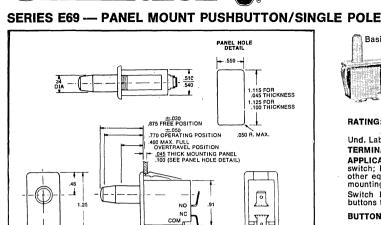
Cherry's basic E72-40A is moisture resistant. It comes with insulated, 10 inch, 16 gauge leads attached. The E72-40A is rated at 10.1 Amps., 1/4 H.P. and 125/250 VAC. Listed by Underwriters' Laboratories, Inc.

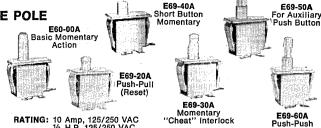
The E72 series is also available with hinged external actuators, Cherry part number  ${\sf E72\text{-}40H}.$ 

C-R1JL/3-Q3JL\* (Similar to Conventional —55H)

(Alt Action)

# No Panel Mount Pushbutton Switches





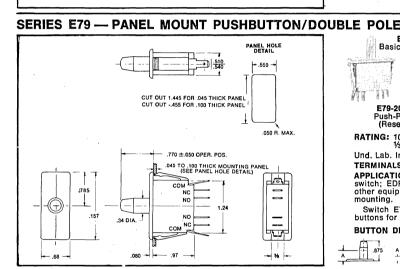
RATING: 10 Amp, 125/250 VAC 1/3 H.P. 125/250 VAC

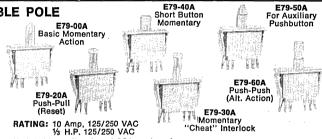
Und. Lab. Inc. listed, and CSA approved.

TERMINALS — This switch series has quick connect terminals .187" x .020". APPLICATIONS — Door and drawer light/interlock switch; test function switch; EDP and business machine starts switch; photocopy machines and other equiment requiring either manual or mechanical actuation and panel mounting.

Switch E69-50A has button with special shaft to accept auxiliary push buttons for manual actuation.



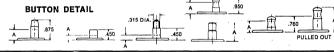




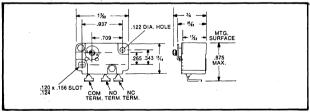
Und. Lab. Inc. listed, and CSA approved.

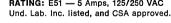
TERMINALS — This switch series has quick connect terminals .187" x .020". APPLICATIONS — Door and drawer light/interlock switch; test function switch; EDP and business machine start switch; photocopy machines and other equipment requiring either manual or mechanical actuation and panel mounting.

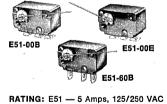
Switch E79-50A has button with special shaft to accept auxiliary push buttons for manual actuation.

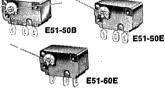


#### **SERIES E51 LOW TORQUE SWITCHES**

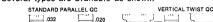




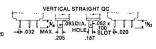




TERMINALS - All terminals are combination quick connect and solder. Several types are available as shown.



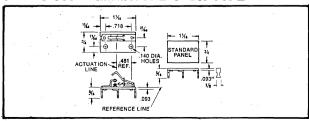




ACTUATORS—Wireform actuators are supplied unassembled for each E51 switch. Wireforms may be readily assembled to switch rotor as illustrated below.



#### SERIES S30 -**MINIATURE OPEN TYPE**







S30-20W

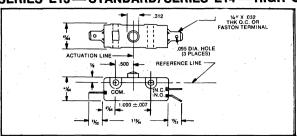
E13-00E

E13-00H



## **General Purpose Switches**

## SERIES E13 — STANDARD/SERIES E14 — HIGH CAPACITY GENERAL PURPOSE



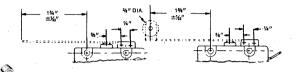
E13-00J

E13-50H

**RATING:** E13 — 15 Amps, 125/250 VAC ¾ H.P., 125 VAC — 1½ H.P., 250 VAC E14 — 25 Amps, 125/250 VAC 1 H.P., 125 VAC — 2 H.P., 250 VAC

Und. Lab. Inc. listed, and CSA approved.

ACTUATORS — Many special forms and lengths of actuators are available. Standard type integral hinged lever and roller actuators are available in choice of 2 pivot positions. Actuator lengths are dimensioned from centerline of switch mounting hole as shown here.

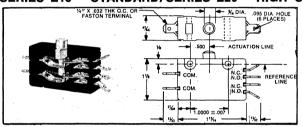


TERMINALS - Standard 1/4 inch QC terminals can be furnished with angle formed up or down on common as well as open or closed terminal. Forms include straight, 30, 45, 85 degrees up or down. Other forms can be provided at nominal extra charge.

#### STANDARD/SERIES E20 HIGH CAPACITY — DOUBLE POLE SERIES E19

E13-50K

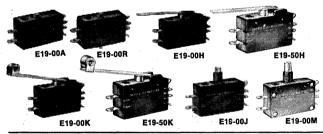
F13-00K

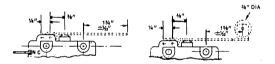


**RATING:** E19 — 15 Amps, 125/250 VAC 34 H.P., 125 VAC — 1½ H.P., 250 VAC E20 - 20 Amps, 125/250 VAC 1 H.P., 125 VAC — 2 H.P., 250 VAC

Und. Lab. Inc. listed, and CSA approved.

ACTUATORS — Many special forms and lengths of actuators are available. Standard type integral hinged lever and roller actuators are available in choice of 2 pivot positions. Actuator lengths are dimensioned from centerline of switch mounting hole as shown here.





TERMINALS — Standard 1/4 inch QC terminals can be furnished with angle formed up or down on common as well as open or closed terminal. Forms include straight, 30, 45, 85 degrees up or down. Other forms can be provided at nominal extra charge.

#### GOLD "CROSSPOINT" CONTACT SWITCHES FOR LOW ENERGY CIRCUITS

Engineers can now take a completely new approach to switching of low energy circuits. The Gold "Crosspoint" Contact switch design provides reed switch reliability, with snap action switch precision and utility. No need for magnets and installation adjustments. The result is much lower installed cost.

# Positive Snap-Action Switching of Low Energy Solid State Circuits

- High reliability in low level switching applications from 4 to 100 milliamperes at 4 to 30 volts
- Long Life . . . measured in millions of operations
- Initial insertion resistance far below 50 milliohms (lower than reed switches)
- Very high force per unit area (contact pressures)
- Reduced susceptibility to contact closure interference from foreign particles

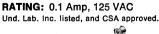
#### VERSATILITY IN APPLICATION

Cherry Gold "Crosspoint" Contact switches are available in a wide variety of switch types, sizes, and mountings for a broad range of electronic applications. In addition, many other configurations are available with gold crosspoint contacts.

#### CONTACT CROSS SECTION

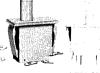


The contacts in these switches are W/E Alloy #. 69% Gold, 25% Silver, 6% Platinum





















E21-00A

E21-50H

E21-50K

E78-00A E68-00A

G13-00E

S31-20P

E53-00B

E63-00A

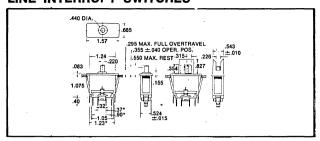
E63-00H E63-00K

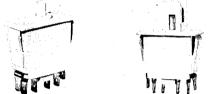




## **Pushbutton Switches**

### SERIES F81, F82, F83 AND F84 LINE INTERRUPT SWITCHES





Designed for worldwide safety specifications these line interrupt switches incorporate direct action, double make/double break shorting bars and 3 mm minimum contact gap. Two parallel return springs, either of which could safely break the circuit alone, give added protection. UL listed and CSA approved. Meets other international requirements.

#### **CONTACT ARRANGEMENT**

Choice of Form X, Form Y or Form Z contact arrangement is basic (A1) case or (B1) case with barrier. Form X (SPST NO DB), Form Y (SPST NC DB), Form Z (SPDT DB).

#### **CONTACT RATINGS**

F81: rated 10 Amps at 125 or 250 VAC (34 HP at 125 VAC, 11/2 HP at 250 VAC).

F82: rated 16 Amps at 125 or 250 VAC (34 HP at 125 VAC, 11/2 HP at 250 VAC).

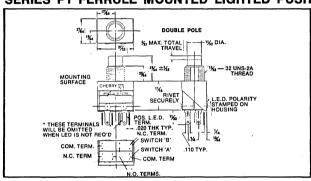
F83: gold crosspoint contacts for low energy switching. Rated 0.1 Amp at 1250 or 250 VAC.

F84: combines two different ratings in a single switch.

#### **TERMINALS**

Either  $\frac{3}{16}$ " (10) or  $\frac{14}{16}$ " (20) male push-on terminals are standard. Others can be tooled. In most cases terminal sizes may be mixed on a switch to help minimize wiring errors.

### SERIES P1 FERRULE MOUNTED LIGHTED PUSHBUTTON SWITCH

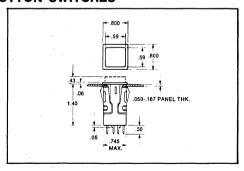


The Series P1: An entirely new kind of pushbutton switch... from Cherry. Pushbutton housing holds one - or two-Cherry series E62 or E63 subminiature snap action switches. E62 switches are rated 10.1 Amps, 125/250 VAC — ¼ H.P., 125 VAC. E63 switches are gold crosspoint contact rated 0.1 Amp, 125 VAC for your low energy circuits. Because the P1 houses one or two switches, you have your choice of 10.1 Amp, 0.1 Amp.—or both! — in the same problems witch. 0.1 Amp — or both! — in the same pushbutton switch.

Cherry Switch Co.	Description
P162-C3RA P162-C3RU P162-D3RA P162-D3RA P163-C3RA P163-C3BU P163-C3BU P163-D3RA P163-D3RU	10.1 Amp/S.P.D.T./Red Button/L.E.D. 10.1 Amp/S.P.D.T./Black Button/No Lite 10.1 Amp/D.P.D.T./Red Button/L.E.D. 10.1 Amp/D.P.D.T./Black Button/No Lite 0.1 Amp/S.P.D.T./Red Button/No Lite 0.1 Amp/S.P.D.T./Red Button/No Lite 0.1 Amp/D.P.D.T./Red Button/L.E.D. 0.1 Amp/D.P.D.T./Black Button/No Lite

#### P4 PUSHBUTTON SWITCHES





#### **SWITCHES**

Cherry's P4 switches are available in the popular square configuration with:

- choice of momentary or alternate action
   choice of QC or PCB terminals
   choice of 3 amp @ 125 VAC/2 Amp @ 250 VAC or 0.1 Amp @ 24 VDC
- choice of several contact arrangements

#### P4 SWITCH PART NUMBERS

1 + 01111011	17111 140	WIDLING		
Part Number	Contacts	Contact Action	Terminal	Contact Configuration
P4 Series — Sq	uare Non Lig	hted		
P41B-021C P43A-021C	Silver Gold	Momentary Alt. Act.	.110 QC .110 QC	1 Form C 1 Form C
P4 Series Squar	e One 6.3V I	ncandescent Lamp	Installed	
P41A-621C P41B-621C	Silver Gold	Momentary Alt. Act.	.110 QC .110 QC	1 Form C 1 Form C
P4 Series Squar	e One 14V Ir	candescent Lamp	Installed	
P41A-722C P41B-721C	Silver Gold	Momentary Alt. Act.	.110 QC .110 QC	1 Form C 1 Form C
P4 Series Squar	e One 28V ir	candescent Lamp	installed	
P41A-821C P41B-821C	Silver Gold	Momentary Alt. Act.	.110 QC .110 QC	1 Form C 1 Form C

Silver Rating: 3A @ 125 VAC/2A @ 250 VAC Gold Rating: 0.1A @ 24 VDC

- Three button styles
- Snaps into industry standard mounting hole from front of panel

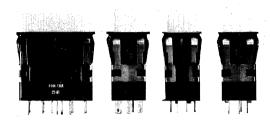
Mixed ratings can be provided. P4 switches may be specified with or without lamp sockets. Sockets mate with widely accepted wedge-base T 1¾ incandescent lamps.

P4 SERIES		ANATION OF PART NUMBER  A - 0 - 3 - 1C		
Rating 1 = 3A @ 125 VAC 2A @ 250 VAC 3 = 0.1A @ 24 VAC	Contact Action  A = Alternate Action  B = Momentary Action	Temperature  0 = No lamp  1 = 1 lamp socket  6 = 6.3V lamp installed  7 = 14V lamp installed  8 = 28V lamp installed	Terminal 2 = .110 QC terminal 3 = .020 pin terminal	Contact Configuration  1 C = 1 Form C contact  2 C = 2 Form C contact  4 A = 4 Form A contact  8 A = 8 Form A contact



## **Pushbutton and Thumbwheel**

### **CHERRY 3-BIT ENCODER**





- Up to 8 different 3-bit codes, single common
- Choice of termination
- Base keyed for foolproof P.C. board orientation
- All industry-standard available from stock

#### P4 Series Square 3 Bit Encoder

P43C-124A P43C-134A

P4 Series Encoder Button Square -3 Bit Button Only

.43 High Translucent P4AC-B3SO

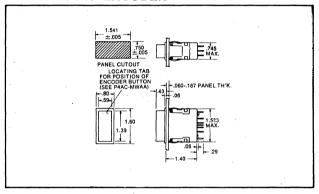
P4 Series Switch Button - Blank White

P4AB-C1WN

.19" high .43" high P4AB-B1WN

.32" high P4AB-A1WN

#### **CHERRY 8-BIT ENCODER**





- Up to 256 different 8-bit codes
- Dual commons for convenience on printed circuit board
- User-programmable: set code yourself for the ultimate in flexibility. Encoding instructions are supplied with 1 x 2 encoder buttons.
- Choice of termination PCB or .110 Q.C.

#### P4 Standard 8-Bit Encoders

P44H-138A

8-Bit encoder body, .020 x .025 PCB terminals, empty lamp socket

P4 Series Rectangular — 8 Bit Encoder

P44H-138A

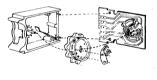
Coded (Gold) 1 lamp socket - 8 Form A .020" pin term.

P4 Series Encoder Buttons Rectangular — Button Only P4AC-XWAA 8 bit

### THUMBWHEEL, LEVERWHEEL, PUSHWHEEL

#### **BASIC OPERATING PRINCIPLE**

A set of comb-like wiping contacts, rotated manually, shorts together predetermined combinations of traces on a stationary printed circuit board. These same traces also serve as electrical input/output lines. Here's a simplified diagram of the mechanism:



Cherry offers three kinds of actuation for these rotary multiposition switches. Thumbwheel, Leverwheel and Pushwheel.



Thumbwheel Rotate the dial directly



everwheel Drive the dial by means of a lever. Con-venient for fast resetting to zero position.

Pushwheel Push one button to index the dial up ... the other to index down.

#### MOUNTING

Cherry provides you with 3 mounting styles and choices. Back mount, front mount, and snap in mount.

Cherry is tooled to supply terminals just right for your application.

#### PC BOARD

Parallel rows of holes approximately .040" diameter.

Specify F-pin termination for direct mating with motherboard.

Specify J-pins for wire-wrap applications. More economical than F-pins.

#### LIGHTED SWITCHES

Cherry's T20 thumbwheel can be supplied with a socketed, replaceable lamp that requires no tools or soldering.

Cherry's T56 pushwheel is available with a permanently installed grain-of-wheat lamp. Also available with LED illumination.

#### COLOR

In high volume applications Cherry can provide switches in any color. Black is standard.

## **FINISH**

Choice of glass or matte.

### **LEGENDS**

Standard legends are spelled out in the product selection charts accompanying each catalog family.

Standard character color is white on black dial. For lighted versions, standard is black on transluscent white dial.



#### **DUSTPROOF THUMBWHEELS**

A clear plastic window covers dial character opening for resistance to dust, dirt and moisture. Available on Cherry's T24 series and T38 series.

#### ASSEMBLIES AND COMBINATIONS

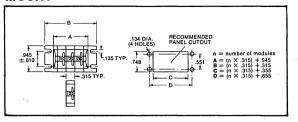
Within a given family size, you may gang into multi-digit assemblies, specifying any combination of standard-window switches, and spacers. Simply specify exactly the combination that fits your application. Your local distributor is available to assemble these switches.

Cherry provides many standard combinations of rotation-limiting stops to help tailor our switches exactly to your application needs.



### SERIES T-50 - BACK MOUNT



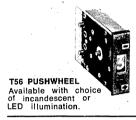


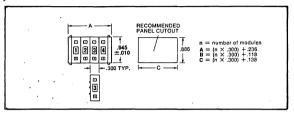
Available in 8, 10 and 16 positions. Can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory or in the field to control dial rotation. Stops not available on 16 position.

#### SWITCH CHARACTERISTICS:

Dielectric Strength ...... 500 VAC Temperature ...... -40°C to +70°C Note: Applies to all thumbwheel switches

#### SERIES T56 - FRONT, SNAP-IN MOUNT

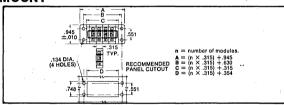




Ideal for cramped control panels. Dustproof design. Offered in a wide variety of positions and output codes. Can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory to control dial rotation.

### SERIES T57 — BACK MOUNT

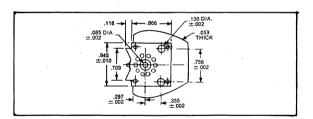




Ideal for cramped control panels. Dustproof design. Offered in a wide variety of positions and output codes. Can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory to control dial rotation.

#### **SERIES T54**

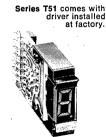




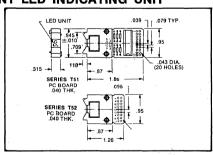
#### CIRCUIT BOARD MOUNT

Special elevated mounting of contact wiper set permits direct mounting of this thumbwheel on PC board without modifying the board to recess into the switch housing. Configuration, dimensions and stops information the same as Series T50.

## SERIES T51 & T52 — BACK MOUNT LED INDICATING UNIT



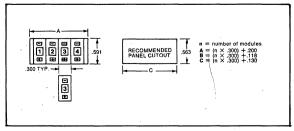




A seven segment LED indicating unit in a thumbwheel type package. Features bright red, .362" high digit that operates at logic level voltages. Can be used with any BDC type coded thumbwheel and is also available with supplementary inputs of the ripple-blanking input and blanking input/ripple blanking output type with an automatic zero blanking feature. Additional lamp test input renders possible functional control of the indicating segments. Recommended panel cutout, end-caps and spacers are the same as Series T50.

### SERIES T55 — FRONT. SNAP-IN MOUNT



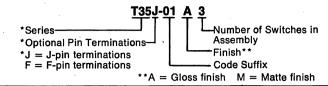


The smallest of them all! Dustproof design. Offered in a wide variety of positions and output codes. Can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory to control dial rotation.



#### HOW TO USE THIS CHART FOR ORDERING

When ordering standard Cherry Thumbwheel/Leverwheel switches or switch assemblies, please call out the applicable information as at right:



					INDUS	STRIAL			S1	TANDA	RD		N	IINIATU	RE
SUF- FIX NO.	POS.	DESCRIPTION	READ OUT SYMBOL	T10	L10	T11	LII	T64	T65	T71	T72	T75	T20	L20	T24
-07	8	Binary Coded Octal (BCO)	0-7	•‡	•‡	<b>•</b> ‡	<b>•</b> ‡	•‡	•‡	•‡	•‡	•‡_	•	•‡	•‡
-77 - - <b>27</b>	- <del>8</del> 8	BCO Complement Only BCO with decimal point on case	0-7	•‡	•‡	•‡	•‡	•‡ •‡	•‡ •‡	•‡ •‡	• t • t	•‡	•‡ •‡	•‡ •‡	●‡ ●‡
-47	8	BCO with separate C to not true bits	0-7	•‡	- 7	•‡							•‡	•‡	
-57	8	BCO with Diode Provisions	0-7	•±		•‡		•‡	•‡	•‡	•t	•‡	•‡	•‡	
-17 -71	8 10	1 of 8 Code Aiken Code Modern 1-2-4-2'	0-7 <b>0-9</b>	•‡	<b>●</b> ‡	●‡	•‡	<b>●</b> ‡	•:	• t	• t	•1	•	• i	•‡
-70	10	Aiken Code 1-2-4-2'	0-9	İ					•	•	•	•			
-02 -04	10	Binary Coded Decimal (BCD)	0-9 0-9	-	•	•	•	•	• -	•	•	•		•	•
-24	10 10	BCD + Complement, 1 Common  BCD + Complement, 1 Common with decimal point on case	0-9	-	•	•	•		•		•	•		•	•
-54	10	BCD + Complement, 1 Common with Diode Provisions	0-9	•		•							•	•	
-05 -10	10	BCD + Complement with separate Commons BCD + Even Parity	0-9	<del> </del>	•		•	•	•	•		-	•	•	
-30	10	BCD + Even Parity with decimal point on case	0-9		•		•	•	•	•	•	•	•	•	
-06	10	BCD + Odd Parity	0-9	1				•	•	•	•	•	•	•	,
-26 -12	10 10	BCD + Odd Parity with decimal point on case BCD Complement Only	0-9 0-9	<del>                                     </del>				•	•	•	•	-		÷	
-45	10	BCD Make Before Break	0-9					•	•	•	•	•	•	·	
-46	10	BCD Make Before Break with Diode Provisions BCD with black case and white wheel	0-9	_	_	•		•	•	•	•	•			
-32 -22	10	BCD with black case and white wheel  BCD with decimal point on case	0-9	•	•		•	•	•	•	•	•	•	•	
-25	10	BCD with separate C to not true bits with decimal point on case	0-9	•		•							•	•	
-52 -15	10	BCD with Diode Provisions BCD with separate C to not true bits	0-9	:	-	•		· •	•	•	•	•	•	•	<b>—</b>
-73	10	Berkley Code	0-9			_								·	
-74	10	Berkley Code with Diode Provisions	0-9										•	•	
-90 -75	10	Complement of 7 segment indicator  Complement of 9's Complement	0-9	<b></b>				-	•	•	•	•			
-72	10	Complement of 9's Complement with Diode Provisions	0-9										•	•	
-01	10	Decimal	0-9	•	•	•	•	•	•	•	•	•	•	•	•
-11 -69	10	Decimal – Double Pole  Decimal Make Before Break	0-9	•	•	•	•	•	•	•	•	-	•	•	
-31	10	Decimal with black case and white wheel	0-9	•	•	•	•	•	•	•	•	•	•	•	•
-21	10	Decimal with decimal point on case	0-9	•	•	•	•	•	•	•	•	•	•	•	•
-78 -79	10	Decimal with Common in Middle  Decimal with Common in Middle with Diode Provisions	0-9	<del>                                     </del>		-				<b> </b>	<del> </del>	·	•	•	<del>                                     </del>
-51	10	Decimal with Diode Provisions	0-9					•	•	•	•	•			
-49 -50	10	Excess 3 Grey Code Negative  Excess 3 Grey Code Positive	0-9 0-9	<b>!</b>			L	•	•	:	•	•			
-84	10	Repeating—Double Pole	_,+							_			•	•	
-85	10	Repeating – Double Pole	0-1					· ·					•	•	
-86 -92	10 10	Repeating – Double Pole Repeating – Double Pole	0-5 0-1	<del> </del>			- '	•	•	•	-	•	•	•	
-93	10	Repeating - Double Pole	0-5					•	•	•	•	•			
-97	10	Repeating – Double Pole	+,	-	•‡	-		•	•	•	•	•			
-80 -94	10	Repeating – Single Pole Repeating – Single Pole	+,- -,+	•‡ •‡	•‡	•‡ •‡	•‡ •‡	•	•	•	•	•	•	•	
-95	10	Repeating—Single Pole	0-1	<b>•</b> ‡	•‡	•‡	•‡	•	•	•	•	•	•	•	•
-96	10	Repeating Single Pole	0-5 +.—	•‡ •‡	•‡	•‡ •‡	•‡	•	•	•	•	• '	•	•	•
-81 -82	10 10	Repeating – Single Pole with extended PCB Repeating – Single Pole with extended PCB	0-1	<b>●</b> ‡		•‡		•	•	•		÷			
-83	10	Repeating—Single Pole with extended PCB	0-5	<b>•</b> ‡		•‡		•	•	•	•	•			
-68 -62	10	2 out of 5 Code  9's Complement of BCD	0-9 0-9	<del>                                     </del>				•	•	•	•	•	•	•	$\vdash \vdash \vdash$
-91	10	9's Complement of BCD with Diode Provisions	0-9										•	•	
-14	10	9's Complement of BCD + Complement	0-9						•		1 -	•			igwdap
-20 -61	12	1 of 12 Code 1 of 12 Code	0-11 0-9 A-B	$t_{-}$				·	·		•	•		•	<del>  </del>
-99	12	1 of 12 Code Make Before Break	0-11							ļ				•	
-60 -76	12	4 Bit Binary 4 Bit Binary + Odd Parity	0-11 0-11	<b>•</b> ‡	<b> </b>	<b>●</b> ‡		•	•		•	•	•‡	•	$\vdash$
-64	16	Grey Code	0-15		Ė			•	•	<u> </u>		•			
-03	16	Hexidecimal (HEX)	0-15	•		•		•	•	-	•	•	•	•	
-13 -08	16 16	Hexidecimal (HEX) HEX + Complement, 1 Common	0-9 A-F 0-15	•	<del>                                     </del>	•		•	•	<b>-</b>	•	•	•	•	$\vdash$
-88	16	HEX + Complement, 1 Common	0-9 A-F	•		•		•	•		•	•	•	•	
-28	16	HEX + Complement, 1 Common with decimal point on case	0-15	•		•		•	•		•	•	•	•	$\Box$
-29 -09	16 16	HEX + Complement, 2 Commons with decimal point on case HEX + Complement with separate Commons	0-15 0-15	<b>:</b>		•				<del> </del>	1.	<b></b>	•	•	<del>                                     </del>
-89	16	HEX + Complement with separate Commons	0-9 A-F	•		•							•	•	
-23 -53	16 16	HEX with decimal point on case HEX with Diode Provisions	0-15 0-15	•	<del> </del>	•		•	•		•	•	-	•	
-63	16	HEX with Diode Provisions HEX with Diode Provisions	0-15 0-9 A-F			•		•	•	<u> </u>	:	•		-	
-16	16	HEX with separate C to not true bits	0-15							ļ			•	•	
-18 -98	16 16	HEX with separate C to not true bits  1 of 16 Code Make Before Break	0-9 A-F 0-15	+	l			<del>                                     </del>		<del> </del>	+		:	•	<b>  </b>
						·		•			<del></del>				

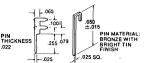
**COMPLETE PRODUCT LISTING** 

The example at left calls out a **T-35 Series** backmount Thumbwheel, with **J-pin terminations**, **10 position decimal** code, **black** gloss finish, in a three switch assembly.

#### **AVAILABLE PC BOARD TERMINATIONS**

All PC boards have a .040" diameter hole to accommodate

a wire for each output. Pin terminations for mother-board insertion or for wire-wrap capabilities can be applied upon request. Two types of pin terminations are available:



J SERIES

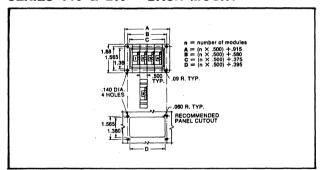
P SERIES

					MINIA	TUDE				LIDAGE		025		SI	JB-
			MINIATURE					<u> </u>		OBMI	NIATUR	<u> </u>		SUBMIN	VIATURE
SUF- FIX NO.	POS.	DESCRIPTION	READ OUT SYMBOL	T35	T38	T62	T63	T50	T51	T52	T54	T56	T57	T55	SUFFII NO.
-07	8	Binary Coded Octal (BCO)	0-7	•‡	•‡	•‡	• <b>‡</b>	•‡			•‡	<b>•</b> ‡		• <b>‡</b>	-07
-77	8	BCO Complement Only	0-7	•1	•‡	•‡	•t	•‡			•‡	•‡		•‡	-77
27 47	<u>8</u>	BCO with decimal point on case BCO with separate C to not true bits	0-7 0-7	<b>•</b> ‡	<b>•</b> ‡	•‡	•‡	_ <b>•</b> ‡_			•‡	•‡	<b></b>	<b>●</b> ‡	-27 -47
57	8	BCO with Diode Provisions	0-7	<b></b>		•‡	•‡	•‡			•‡·	•‡		•‡	-57
17	8	1 of 8 Code	0-7	<b>●</b> 1	•t	•t	•t	•i			•‡	•t		<b>●</b> ‡	-17
71	10	Aiken Code Modern 1-2-4-2'	0-9			•	•								-71
70 -02	10	Aiken Code 1-2-4-2' Binary Coded Decimal (BCD)	0-9	•	•	•	•	•	•	•	•	•	•	•	-70
04	10	BCD + Complement, 1 Common	0-9	•	•	•	•	•			•	•	•	•	-04
24	10	BCD + Complement, 1 Common with decimal point on case	0-9	•	•	•	•	•			•	•	•	•	-24
54 -05	10	BCD + Complement, 1 Common with Diode Provisions BCD + Complement with separate Commons	0-9	<u> </u>							-			ļ	-54 -05
10	10	BCD + Even Parity	0-9	<b>-</b>		•	•	l						<del> </del>	-10
30	10	BCD + Even Parity with decimal point on case	0-9			•	•								-30
06	10	BCD + Odd Parity	0-9			•	•								-06
26	10	BCD + Odd Parity with decimal point on case BCD Complement Only	0-9			•	•							-	-26 -12
12 45	10	BCD Complement Only BCD Make Before Break	0-9	•	•	•	:	-	<del> </del>		•	•		•	-12
46	10	BCD Make Before Break with Diode Provisions	0-9			•	•								-46
32	10	BCD with black case and white wheel	0-9	•	•	•	•	•			•	•	•	•	-32
22 25	10	BCD with decimal point on case BCD with separate C to not true bits with decimal point on case	0-9	•	•	•	•	<u> </u>			•	•	•	•	-22 -25
52	10	BCD with Diode Provisions	0-9			•	•	•			•	•		•	-52
15	10	BCD with separate C to not true bits	0-9												-15
73	10	Berkley Code	0-9											ļ	-73
74	10	Berkley Code with Diode Provisions  Complement of 7 segment indicator	0-9 0-9			•	•	ļ						<del> </del>	-74 -90
75	10	Complement of 9's Complement	0-9											<del> </del>	-75
72	10	Complement of 9's Complement with Diode Provisions	0-9												-72
01	10	Decimal Decimal – Double Pole	0-9	•	•	•	•	•			•	•		•	-01
9	10 10	Decimal — Double Fole  Decimal Make Before Break	0-9			•	•	<b></b>			<del> </del>			<del> </del>	-11 -69
31	10	Decimal with black case and white wheel	0-9	•	•	•	•	•			•	•		•	-31
21	10	Decimal with decimal point on case	0-9	•	•	•	•	•			•	•		•	-21
78 79	10	Decimal with Common in Middle  Decimal with Common in Middle with Diode Provisions	0-9				· ·	<b> </b>						<del> </del>	-78 -79
51	10	Decimal with Diode Provisions	0-9			•	•					•		•	-51
49	10	Excess 3 Grey Code Negative	0-9			•	•								-49
50	10	Excess 3 Grey Code Positive	0-9			•	•								-50
B4 B5	10 10	Repeating – Double Pole Repeating – Double Pole	0-1				-				-			<del> </del>	-84 -85
36	10	Repeating - Double Pole	0-5												-86
92	10	Repeating – Double Pole	0-1			•	•								-92
93 97	10 10	Repeating — Double Pole	0-5			. •	•	ļ							-98 -97
80	10	Repeating—Double Pole Repeating—Single Pole	+,-	•	•	•	•	•			•	•		•	-80
14	10	Repeating - Single Pole	+	•	•	•	•	•			•	•		•	-94
95	10	Repeating—Single Pole	0-1	•	•	•	•	•			•	•		•	-95
36	10 10	Repeating – Single Pole Repeating – Single Pole with extended PCB	0-5 +,—	•	•	•	•	•		<u> </u>	•	•		•	-96 -81
12	10	Repeating – Single Pole with extended PCB	0-1	h		-	•					•			-82
13	10	Repeating—Single Pole with extended PCB	0-5			•	•					•			-83
38	10	2 out of 5 Code	0-9			•	•								-68
32 91	10	9's Complement of BCD 9's Complement of BCD with Diode Provisions	<b>0-9</b>								<del>                                     </del>				-62 -91
14	10	9's Complement of BCD + Complement	0-9											1	-14
20	12	1 of 12 Code	0-11			•	•								-20
31	12	1 of 12 Code	0-9 A-B	ļ		•	•	<b> </b>			-			<del> </del>	-61 -99
9	12	1 of 12 Code Make Before Break 4 Bit Binary	0-11	<b> </b>		•	•					•‡			-60
6	12	4 Bit Binary + Odd Parity	0-11			<u> </u>	1		<u> </u>						-76
4	16	Grey Code	0-15			•	•								-64
3	16	Hexidecimal (HEX) Hexidecimal (HEX)	0-15	-		•	•	•			•	•	ļ	<del></del>	-03 -13
)8	16 16	HEX + Complement, 1 Common -	0-9 A-F 0-15			•	•							<del> </del>	-08
38	16	HEX + Complement, 1 Common	0-9 A-F			•	•								-88
28	16_	HEX + Complement, 1 Common with decimal point on case	0-15			•	•				$\vdash$				-28
29	16 16	HEX + Complement, 2 Commons with decimal point on case HEX + Complement with separate Commons	0-15 0-15	ļi											-29 -09
9 89	16	HEX + Complement with separate Commons  HEX + Complement with separate Commons	0-15 0-9 A-F					l	<b></b>						-89
23	16	HEX with decimal point on case	0-15			•	•	•			•	•			-23
53	16	HEX with Diode Provisions	0-15			•	•					•		<b> </b>	-53
63 16	16 16	HEX with Diode Provisions HEX with separate C to not true bits	0-9 A-F 0-15	<b>-</b>		•	•				-	•		<del> </del>	-63 -16
18	16	HEX with separate C to not true bits	0-15 0-9 A-F					l							-18
8	16	1 of 16 Code Make Before Break	0-15												-98
70	10	1 01 10 Code Wake Belore Break	0-13												_



			INDU	STRIAL			S1	ANDA	RD		M	NIATUF	₹E
MECHANICA	L CHARACTERISTICS	T10	L10	T11	L11	T64	T65	T71	T72	T75	T20	L20	T24
	Thumbwheel	•		•		•	•	•	•	•	•		•
ACTION	Leverwheel		•		•							•	
	Pushwheel												\
	8	•‡	•‡	• <b>‡</b>	<b>●</b> ‡	•	•	•	•	•	•	•‡	•‡
	10	•	•	•	•	•	9	•	•	•	•	•	•
NUMBER OF POSITIONS	12	•‡		<b>•</b> ‡		•	•		•	•	•‡	•	
NOMBER OF TOOMORD	16	•		•		•	•		•	•	•	•	
	Stops Available	•	•	•	•	•	•	•	•	•	•	•	•
	1.88	•	•	•	•								
	1.20					•	•	•	•	•			
APPROXIMATE HEIGHT	1.15										•	•	•
	.945												
	.590												
	Front/Screw			•	•								
	Front/Snap In						•		•	•			
MOUNTING TYPE	Front/Integral Bezel							•					
moorting the	Front/Attached to Cust. PCB					•							
•	Rear/Screw *	•	•								•	•	•
•	Rear/Attached to Cust. PCB												
	(A) Gloss	•	•	•	•	•	•	•	•	•	•	•	•
FINISH	(M) Matte	•	•	•	•	•	•	•	•	•	•	•	•
	F Pin Termination*	•	•	•	•	•	•	•	•	•	•	•	•
TERMINATION	J Pin Termination*	•	•	•	•	•	•	•	•	•	•	•	•
	Dustproof												•
MISCELLANEOUS	Lighted									•	•		
	Wide Window	•						I	•		•		
*Not Available In All Codes, C	onsult Factory ‡With Stops												

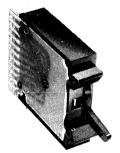
#### SERIES T10 & L10 - BACK MOUNT



T10 Thumbwheel available in 8, 10, 12 and 16 positions. L10 Leverwheel available in 8 and 10 positions. Both offered in a wide variety of output codes. T10 Thumbwheel can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory to control dial rotation.

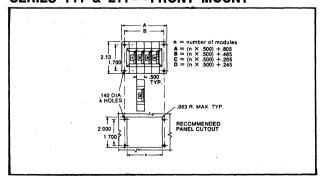


T10 THUMBWHEEL



L10 LEVERWHEEL

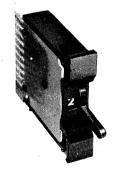
#### SERIES T11 & L11 — FRONT MOUNT



T11 Thumbwheel available in 8, 10, 12 and 16 positions. L11 Leverwheel available in 8 and 10 positions. Both offered in a wide variety of output codes. T11 Thumbwheel can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory to control dial rotation.



T11 THUMBWHEEL

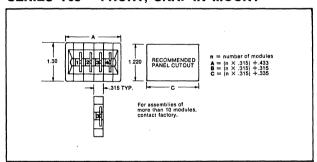


L11 LEVERWHEEL



		MINIA	TURE	1	SUBMINIATURE							SUB- SUBMINIATURE	
MECHANICA	T35	T38	T62	T63	T50	T51	T52	T54	T56	T57	T55	SUFFI) NO.	
	Thumbwheel	•	•	•	•	•	•	•	•				
ACTION	Leverwheel												
	Pushwheel					L				•	•	<u> </u>	<b>Ļ</b>
	8	•‡	•‡	•	•	•‡			•‡	•‡		•‡	
NUMBER OF POSITIONS	10	•	•	•	•	•	•	•	•	•	•	•	<b>-</b>
	12 16			•	•	<u> </u>				•		<u> </u>	
				•	<u>•</u>	-			•	•	<b></b>	-	
	Stops Available		•	•	•	-			•	•	<b></b>	-	+
	1.86				<del> </del>	<del></del>						<del> </del>	<del> </del>
APPROXIMATE HEIGHT	1.15		•	•	•	<b></b>			<del> </del>			<del> </del>	╁
AFFROXIMATE HEIGHT	945				<del></del>	•	•	•	•	•	•	<del> </del>	╁───
	.590		<u> </u>		<del> </del>	— <u> </u>						•	+
	Front/Screw			<del></del>	<del>                                     </del>							<del>                                     </del>	+
	Front/Snap In									•	<b></b>	•	+
MOUNTING TYPE	Front/Integral Bezel			<del>                                     </del>		<del> </del>			<del> </del>			<u> </u>	1
MOUNTING TYPE	Front/Attached to Cust. PCB			<del>                                     </del>	<b>†</b>								<del>                                     </del>
	Rear/Screw	•	•		•	•	•	•			•		1
	Rear/Attached to Cust. PCB			•					•				
	(A) Gloss	•	•	1	1								
FINISH	(M) Matte	•	•	•	•	•	•	•	•	•	•	•	
TERMINISTICAL	F Pin Termination*	•	•	•	•	•	•	•	•	•	•	•	
TERMINATION	J Pin Termination*	•	•	•	•	•	•	•	•	•	•	•	
	Dustproof		•										
MISCELLANEOUS	Lighted								L	•	•	•	
	Wide Window	1	Ţ			1					1		L

### SERIES T65 — FRONT, SNAP-IN MOUNT

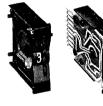


Available in 8, 10, 12 and 16 positions and a wide variety of output codes. Can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory or in the field to control dial rotation.

## **SERIES T64**

#### Also available as Circuit Board Mount

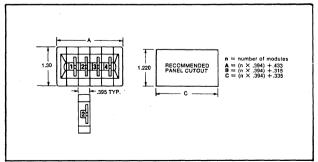
Wheel and detent spring are mounted in case so as to elevate the contact wiper set. This permits direct mounting on PC board without modifying the board to recess into switch housing. Typically, the circuit board plugs into a chassis and the thumbwheel switch is mounted to permit presetting to circuit functions. Available in 8, 10, 12 and 16 positions. Dimensions are the same as Series T65.



### SWITCH CHARACTERISTICS:

Dielectric Strength . . . . . . . 500 VAC ..... -40°C to +70°C Temperature ... Note: Applies to all thumbwheel switches

#### SERIES T75 - FRONT, SNAP-IN MOUNT



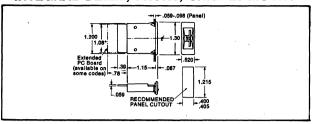
Available in 8, 10, 12 and 16 positions and a wide variety of output codes. Can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory in the field to control dial rotation.



Series T75 - Front Snap-In Mount is also available as Lighted Thumbwheel. Indicated by third digit of suf-fix. For example T75-01 "L".

## SERIES T71 — INTEGRAL BEZEL, FRONT, SNAP-IN MOUNT





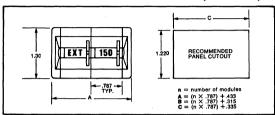
Standard code is 10 positions decimal. Also available on special order in T65 and T75 standard codes except for 12 and 16 position.

#### **SWITCH CHARACTERISTICS:**

Dielectric Strength ..... 500 VAC Temperature ..... -40°C to +70°C Note: Applies to all thumbwheel switches

#### SERIES T72 — WIDE WINDOW FUNCTION SWITCH, FRONT, SNAP-IN MOUNT





A unique variation of the Series T75, modified to provide a legend area more than three times wider than normal. Offered in a wide variety of standard legends at no extra charge. Non standard legends also available. May be used as a single unit or ganged together with any number of Series T65, T72 or T75 modules.

#### SERIES T63 - BACK MOUNT



Available in 8, 10, 12 and 16 positions with a wide variety of output codes. Stops may be inserted at factory or in the field to control dial rotation.

#### SERIES T62 — CIRCUIT BOARD MOUNT

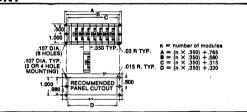


Wheel and detent spring are mounted in case so as to elevate the contact wiper set. This permits direct mounting on PC board without modifying the board to recess into switch housing. Typically, the circut board plugs into a chassis and the thumbwheel switch is mounted to permit presetting to circuit functions. Available in 8, 10, 12 and 16 positions. Dimensions are the same as Series T63.

#### SERIES T35 & T38 — BACK MOUNT





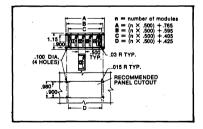


Available in 8 and 10 positions in many output codes. Stops may be inserted at factory or in the field to control dial rotation.

#### SERIES T20 & L20 — BACK MOUNT



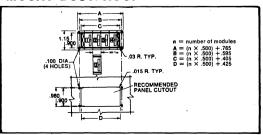




T20 Thumbwheel and L20 Leverwheel available in 8, 10, 12 and 16 positions with widest range of output codes. Can be furnished with extended PC board to provide mounting of other components. Stops may be inserted at factory or in the field to control dial rotation.

## SERIES T24 — BACK MOUNT DUSTPROOF





A dustproof version of the Series T20 Thumbwheel shown on the preceding page. Clear plastic window covers dial character opening for resistance to dust and moisture. Available in 8 and 10 positions. Stops may be inserted at factory or in the field to control dial rotation.

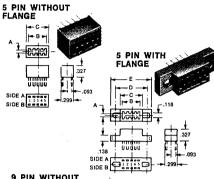
## THUMBWHEEL CONNECTORS

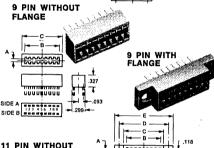
#### SPECIFICATIONS

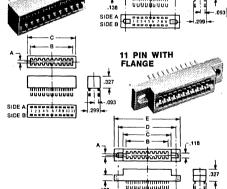
Pin spacing on connectors is either .079" .100", in a choice of 9 or 11 pin configuration. Available with or without mounting flanges. Flanges have elongated mounting holes (.122" x .178") to accept No. 4-40 or No. 4-48 machine screws.

Body material: Molded Noryl

Pins: Gold flashed beryllium copper







	With a		Flange nly	With and Without Flange				
COLOR	SWITCH SERIES	NO. OF PINS	А	В	С	D	Е	PC BOARD THICKNESS
RED	T56 T56	9 11	.051 .051	.886 .886	.945 .945	1.181 1.181	1.417 1.417	.039 .039
BEIGE	T50 T50	9 11	.051 .051	.965 .965	1.024 1.024	1.260 1.260	1.496 1.496	.039 .039
GREEN	T20, 65, 75 L20	11	.071	1.146	1.205	1.441	1.677	.059
BLACK	T55	5	.051	.563	.630	.866	1.102	.039

Thumbwheel, Leverwheel, Pushwheel

SERIES T50 (Beige) 9 pins on .100" centers, 11 pins on .079" centers

	TERMINATION					
	Solder Pins		Solder Lugs		Number	For Use With
ĺ	Without Flange	With Flange	Without Flange	With Flange	of Pins	Switch Numbers:
	C2BO—P101	C2BFP103	C2BON101	C2BFN103	Side A, 9 Pins	T50-02, 03, 04, 94, 95, 96
	C2BO—P802	C2BFP804	C2BO-N802	C2BF-N804	Side A, 11 Pins	T50-01
		C2BFP105			Side A, 9 Pins; Side B, 9 Pins.	
		C2BF-P806			Side A, 11 Pins; Side B, 11 Pins.	

NOTE: No connector is available to fit the T51-02.

SERIES T55 (Black) All pins on .100" centers, 5 pins per row

TERMINATION					
Solder Pins		Solder Lugs		Number	For Use With
Without Flange	With Flange	Without Flange	With Flange	of Pins	Switch Numbers:
C2KO-P107	C2KF—P109	C2KON107	C2KF-1N09	Side A, 5 Pins	See Note
C2KFP108	C2KF-P110			Side A, 5 Pins; Side B, 5 Pins.	See Note

NOTE: T55 connectors fit all codes except decimal.

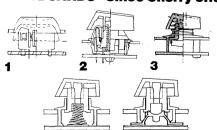
SERIES T56 (Red) 9 pins on .100" centers, 11 pins on .079" centers

	TERMIN	Number	For Use With		
Solder Pins				Solder Lugs	
Without Flange	With Flange	Without Flange	With Flange	of Pins	Switch Numbers:
C2RO—P111	C2RFP116		C2RFN116	Side A, Pins 1, 3, 5, 7, 9.	T56-02, 03
C2RO—P112	C2RFP117	<del></del> .	_	Side A, Pins 1, 3, 4, 5, 6, 7, 9.	T56 02L, 03L, 12
C2RO—P113	C2RFP118	C2RON113	C2RF—N118	Side A, 9 Pins	T56-02, 02L, 03, 03L, 04, 12
C2RO-P814	C2RFP819	C2RON814	C2RFN819	Side A, 11 Pins	T56-01
C2RO—P815	C2RFP820			Side A, 11 Pins; Side B, Pins 5, 7.	T56-01L
	C2RFP121			Side A, 9 Pins; Side B, 9 Pins.	T56-02
	C2RF—P822			Side A, 11 Pins; Side B, 11 Pins.	T56-01

SERIES T20, L20, T65, T75 (Green) All pins on .100" centers, 11 pins per row maximum

	TERMI				
Solder	Pins	Solder Lugs		Number	For Use With
Without Flange	With Flange	Without Flange	With Flange	of Pins	Switch Numbers:
C2GO—P123	C2GFP126			Side A, Pins 4, 5, 6, 7, 8.	T20C-02 L20C-02 T65C-02 T75C-02
C2GO—P124	C2GFP127	C2GON124	C2GF—N127	Side A, 11 Pins	T65C-01 T75C-01
C2GO—P125 ·	C2GFP128	· <u></u>		Side A, 11 Pins; Side B, 11 Pins.	

## KEYBOARDS—Since Cherry offers the five <u>best</u> technologies...<u>one</u> is right for y<u>our</u> product.



SIDE

- Mini-Travel Hard Contact
- Series M8. Mini, 100" travel versions of our gold crossbar contact configuration. Same low profile. Even lower cost. Super low rest height: .426".

Full Travel Hard Contact

Series MX. Gold crossbar contact configuration relied on in millions of applications. Worldwide. Travel: .160". Rest height: .703". Full Travel Capacitive
Series MF. Pad capacitive in a uniquely simple design requiring only five parts and a snap-in pad.

Travel: .150". Rest height: .703".
Full Travel Linear Feel Sealed Contact

Conical steel spring action plus the quality and reliability of sealed silver contacts for long life, low cost. Top mount ergonomic sculptured keyshape. Travel: 150". Rest height: .665".

Full Travel Tactile Feel Sealed Contact

Elastomeric action combined with sealed silver contacts for long life, low cost. Top mount ergonomic sculptured keyshape. Travel: 150". Rest height: .703".