

## MODEL TSW - THUMBWHEEL SWITCH ASSEMBLY



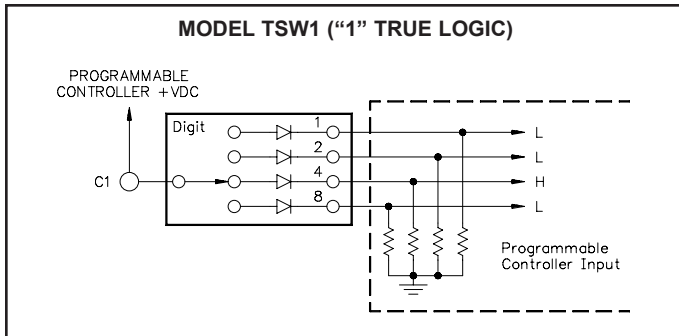
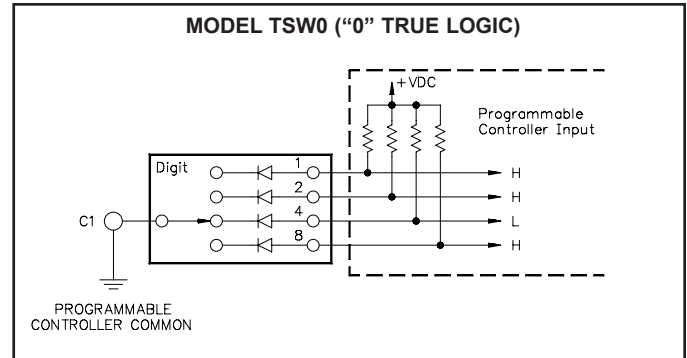
- 4 & 6-DIGIT UNITS AVAILABLE
- "0" OR "1" TRUE LOGIC OUTPUT VERSIONS
- TERMINAL BLOCK FOR EASY CONNECTIONS
- DIODE ISOLATION
- INDIVIDUAL DIGIT COMMONS
- COMPATIBLE WITH PROGRAMMABLE CONTROLLERS

### DESCRIPTION

The Model TSW Thumbwheel Switch Assembly is a modular 4 or 6-digit panel mounted BCD input switch designed to provide BCD data to programmable controllers. BCD data lines are diode isolated and have separate digit commons allowing for multiplexed operation with more than one Thumbwheel Switch Assembly. All units consist of screw-clamp terminal blocks with integral PC board labels for wiring ease of all BCD and common lines. In addition, 16-pin DIP sockets provide for cascading of more than one Thumbwheel Switch Assembly with the optional DIP plug connector cable (Model ACA1). This greatly reduces installation time and eliminates miswiring.

All versions are available in either "1" TRUE or "0" TRUE LOGIC (See Schematics at Right). For "1" True Logic, a voltage "HIGH" is applied to the Digit Common, and the associated BCD outputs are "HIGH", ie 4 = 0100. For "0" True Logic, a voltage "LOW" is applied to Digit Common, and associated BCD outputs are "LOW", ie 4 = 1011.

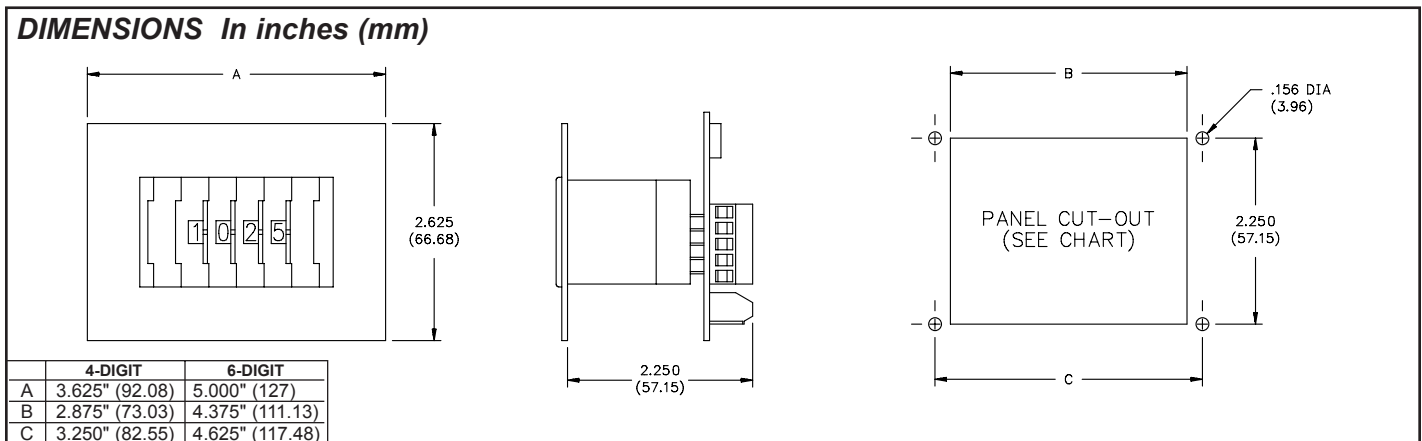
The front bezel of all Thumbwheel Switch Assemblies allows for easy installation into panel thicknesses of up to 1/4" with the included hardware pack.



### SPECIFICATIONS

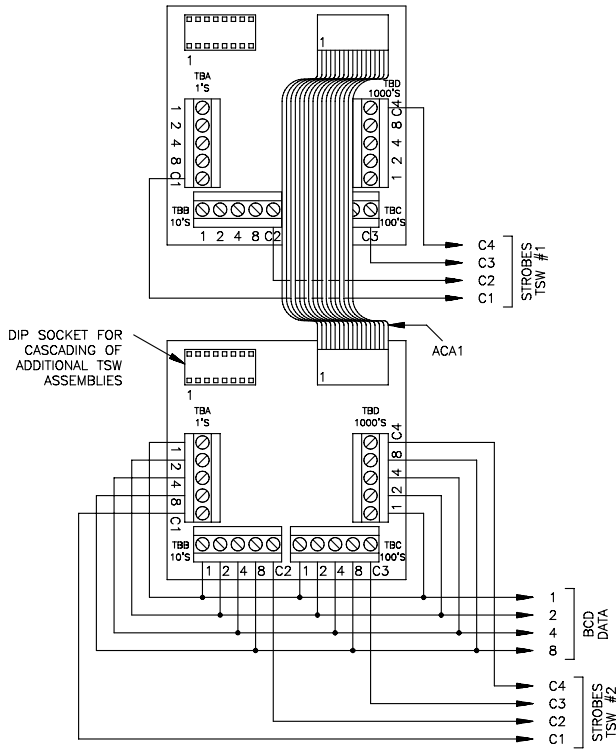
1. **CODE:** BCD 1-2-4-8
2. **SWITCH POSITIONS:** 0 to 9
3. **CURRENT:** 100 mA @ 28 VDC max.; 0.01 mA min.
4. **MECHANICAL LIFE:** Greater than 500,000 detent operations per digit with 10 mA resistive load @ 5 VDC and 25°C.
5. **CHARACTER HEIGHT:** 0.234"

### DIMENSIONS In inches (mm)



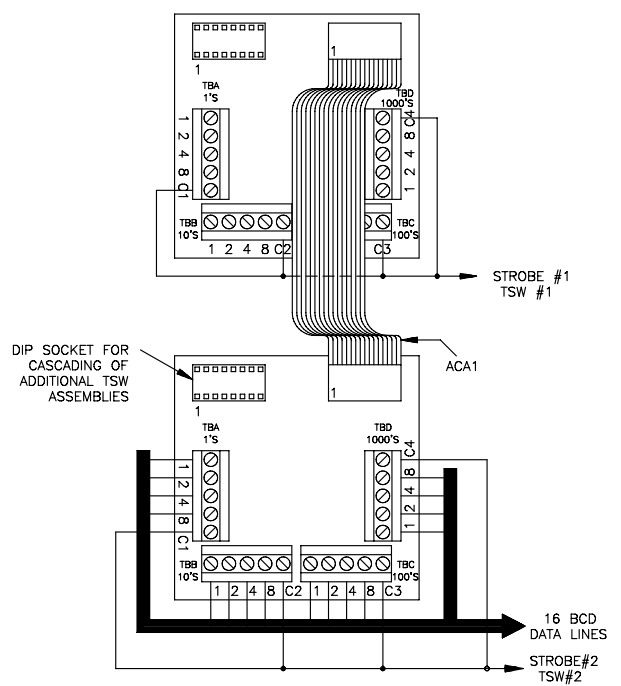
### 4-DIGIT "4-BIT MULTIPLEXED" CASCADED SYSTEM

4 BCD DATA LINES REQUIRED 4-DIGIT STROBE LINE REQ'D PER TSW ASSEMBLY



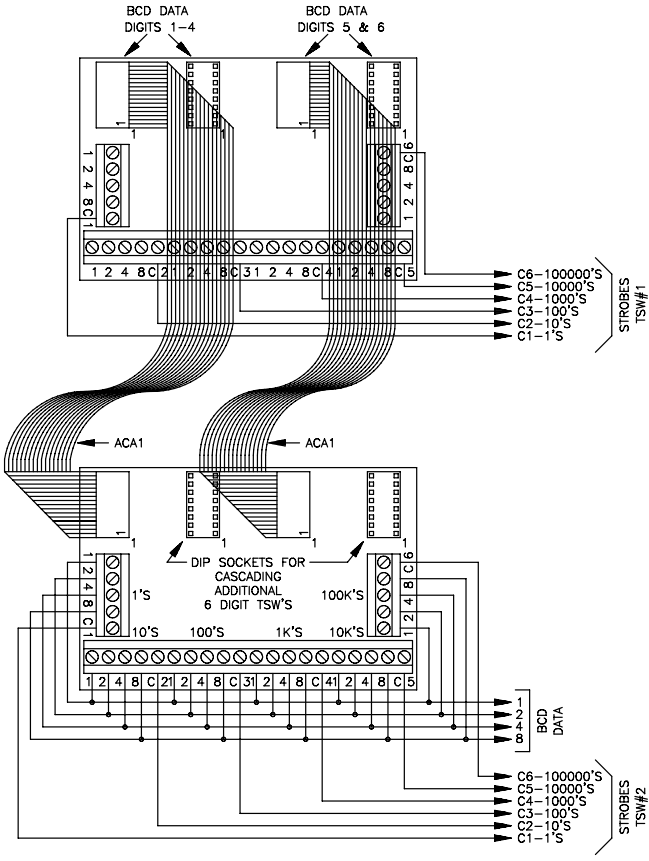
### 4-DIGIT "FULL PARALLEL" CASCADED SYSTEM

16 BCD DATA LINES REQUIRED 1 STROBE LINE REQUIRED PER TSW ASSEMBLY



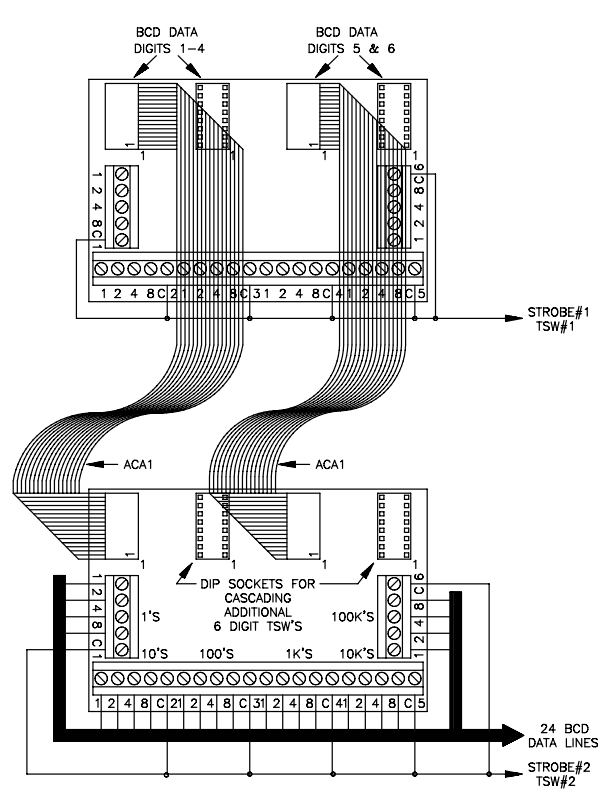
### 6-DIGIT "4-BIT MULTIPLEXED" CASCADED SYSTEM

4 BCD DATA LINES REQUIRED 6-DIGIT STROBE LINE REQ'D PER TSW ASSEMBLY

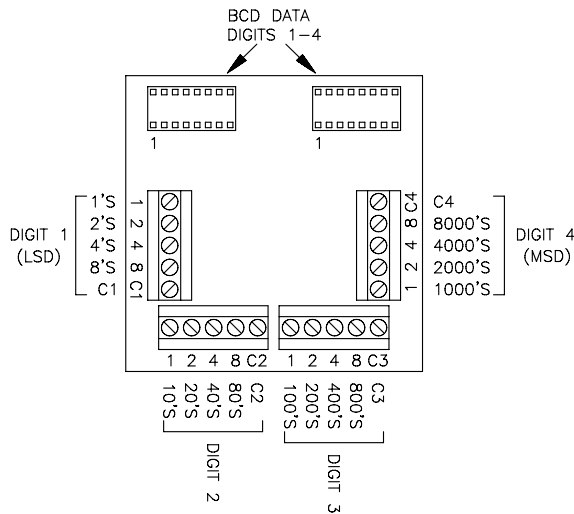


### 6-DIGIT "FULL PARALLEL" CASCADED SYSTEM

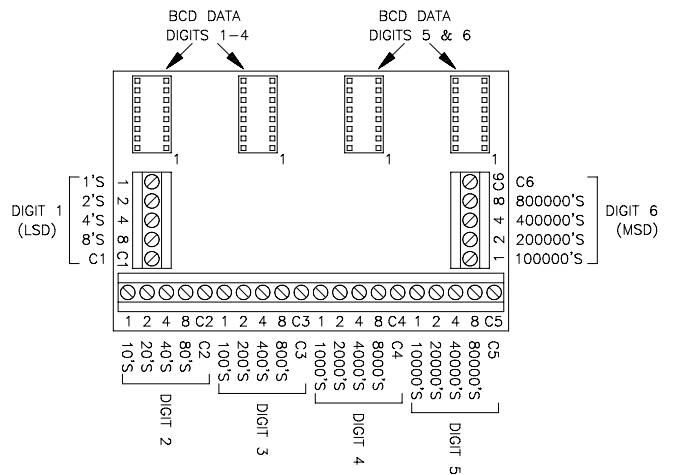
24 BCD DATA LINES REQUIRED 1 STROBE LINE REQUIRED PER TSW ASSEMBLY



### 4-DIGIT TERMINAL BLOCK CONFIGURATION



### 6-DIGIT TERMINAL BLOCK CONFIGURATION



### ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBER
TSW1A4	4-Digit Thumbwheel Switch, 1 True, Terminal Block	TSW1A400
TSW0A4	4-Digit Thumbwheel Switch, 0 True, Terminal Block	TSW0A400
TSW1A6	6-Digit Thumbwheel Switch, 1 True, Terminal Block	TSW1A600
TSW0A6	6-Digit Thumbwheel Switch, 0 True, Terminal Block	TSW0A600
ACA1	18" DIP Plug Cable Assembly	ACA10000

### **LIMITED WARRANTY**

The Company warrants the products it manufactures against defects in materials and workmanship for a period limited to two years from the date of shipment, provided the products have been stored, handled, installed, and used under proper conditions. The Company's liability under this limited warranty shall extend only to the repair or replacement of a defective product, at The Company's option. The Company disclaims all liability for any affirmation, promise or representation with respect to the products.

The customer agrees to hold Red Lion Controls harmless from, defend, and indemnify RLC against damages, claims, and expenses arising out of subsequent sales of RLC products or products containing components manufactured by RLC and based upon personal injuries, deaths, property damage, lost profits, and other matters which Buyer, its employees, or sub-contractors are or may be to any extent liable, including without limitation penalties imposed by the Consumer Product Safety Act (P.L. 92-573) and liability imposed upon any person pursuant to the Magnuson-Moss Warranty Act (P.L. 93-637), as now in effect or as amended hereafter.

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