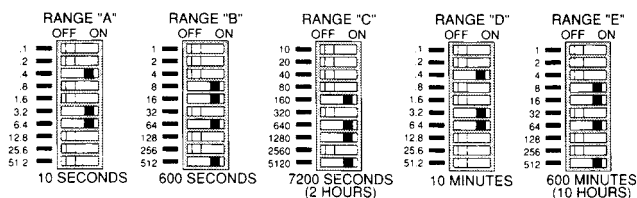


OPERATION

The TBU Series offers the accuracy of DIP SWITCH delay ranges "A" through "E" as well as the user programmable model, DIP SWITCH delay range "P," with 4 different ranges obtainable by either leaving 2 designated terminals unconnected or by connecting them to the appropriate terminals as shown on the next page. The 6 most common modes of operation are easily selected by the use of one or more jumpers applied externally between designated base pins as outlined on the next page. These features, coupled with 6 most popular supply voltages, make this timer one of the most versatile and cost effective Time Delay Relays available today. The CMOS digital circuitry provides high accuracy, repeatability and fast reset times.

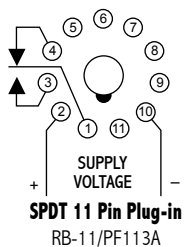


DIP SWITCH OPERATION

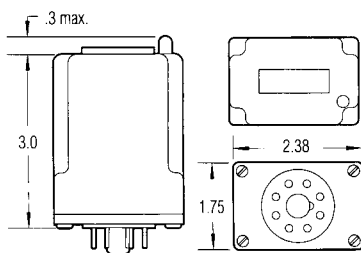


Digital selection of the time delay is accomplished by the use of ten (10) binary switches, each marked with a time increment. The time periods, of which there are five (5) ranges, represented by each switch in the ON position is added together to obtain the desired time delay. No more trial-by-error adjustments.

WIRING



DIMENSIONS



MODEL NUMBER

MODEL NUMBER	TBU				A
CONTROL VOLTAGE					
12 Volts DC	12	D			
24 Volts AC/DC	24	A			
48 Volts DC	48	D			
120 Volts AC/DC	120	A			
240 Volts AC	240	A			
TIME DELAY RANGE					
0.1 to 102.3 SEC in 0.1 SEC Increments				A	
1.0 to 1,023 SEC in 1.0 SEC Increments				B	
10 to 10,230 SEC in 10 SEC Increments				C	
0.1 to 102.3 MIN in 0.1 MIN Increments				D	
1.0 to 1,023 MIN in 1.0 MIN Increments				E	
Four (4) Programmable Ranges (TBU only)				P	
HOUSING					A

SPECIFICATIONS

TIME DELAY RANGE

A	0.1 to 102.3 SEC in 0.1 SEC Increments
B	1.0 to 1,023 SEC in 1.0 SEC Increments
C	10 to 10,230 SEC in 10 SEC Increments
D	0.1 to 102.3 MIN in 0.1 MIN Increments
E	1.0 to 1,023 MIN in 1.0 MIN Increments

OUTPUT RATING

10 A @ 250 VAC or 24 VDC, resistive

ACCURACY

Setting ±2% or ±50 mSEC; whichever is greater
Repeat ±0.1% or ±8.3 mSEC; whichever is greater

RESET TIMES

Before Time Out	100 mSEC
After Time Out	50 mSEC

SUPPLY VOLTAGE

12, 24, 48, 120 or 240 VAC, 50/60 Hz; or DC; ±10%

FALSE TRANSFER

No

REVERSE POLARITY PROTECTED

Yes

POWER REQUIRED

3 VA, approximately

DUTY CYCLE

Continuous

TEMPERATURE RATING

Operate 32° to 131°F (0° to +55°C)
Storage -49° to 185°F (-45° to +85°C)

LIFE EXPECTANCY

Mechanical 10 million operations, minimum
Electrical 100,000 Operations @ rated load

INDICATORS

LED glows when relay is energized.

ISOLATION

1,500 volts, input/output

WEIGHT

0.35 lbs.