

## **TIME DELAY RELAY (PNEUMATIC TIMERS)**



**BCH ELECTRIC LIMITED**



# Time Delay Relay (Pneumatic Timer)

- Wide Ambient Operating Temperature Range -40°C to +65°C
- Timers with/without instantaneous contacts
- High speed operations with 0.02 Sec (AC) reset time
- Wide range coil Voltages - AC/DC
- Modular Construction for easy maintenance
- Enclosed Timing Head and Molded coil for adverse industrial environment
- On site On Delay-Off Delay logic conversion
- Special models for Railway Application
- Compliance with IEC 60947-5-1 & IS 5834 - Part - I
- General Purpose On/Off Delay Timers



## General Specifications

|  | AC Coil  | DC Coil   |
|--|--|---|
| Utilisation Category                     | AC 15  | DC 13   |
| Thermal Current                          | 15A  |   |
| Time Range                               | 0.05 sec - 30 sec<br>0.05 sec - 60 sec<br>0.05 sec - 180 sec |   |
| Repeat Accuracy                          | ±10%   |   |
| Reset time                               | 0.02 sec   | 0.10 sec  |
| Coil Voltages                            | 24/110/220/240/415 V   | 24/110/220/240 V  |
| Coil Voltage Tolerance                   | +10%, -15%   |   |
| Mechanical & Electrical Life             | PN<br>PNI/PCN  | 10 x 10 <sup>6</sup> operations<br>1.2 x 10 <sup>6</sup> operations |
| Max. Operating Frequency - at rated load | PN<br>PNI/PCN  | 12000 operations/hr<br>1500 operations/hr                           |
| Coil Insulation                          | Class E  | Class B   |

## Contact Ratings

### PN, PCN, PNI Timers - AC Voltages

| AC - 15 rating @ 50 Hz | Single C/O | Double C/O |
|------------------------|------------|------------|
| 600 V                  | 0.8 A      | 0.6 A      |
| 440 V                  | 1.0 A      | 0.8 A      |
| 240 V                  | 2.0 A      | 1.5 A      |
| 110 V                  | 4.0 A      | 3.0 A      |

### PN, PCN Timers - DC Voltages

| DC-13 rating | Single C/O | Double C/O |
|--------------|------------|------------|
| 600 V        | 0.1 A      | 0.02 A     |
| 220 V        | 0.5 A      | 0.2 A      |
| 110 V        | 2.0 A      | 0.5 A      |

### PNI Timers - DC Voltages

| DC - 13 rating | Single C/O | Double C/O |
|----------------|------------|------------|
| 600 V          | 0.1 A      | ---        |
| 220 V          | 0.3 A      | 0.1 A      |
| 110 V          | 1.0 A      | 0.2 A      |

## Coil Power Data

| Power Consumption | PN Timer | AC Coil - PNI & PCN Type | DC coil : PNI & PCN Type |
|-------------------|----------|--------------------------|--------------------------|
| Rated Power       | 20 VA    | 26 VA                    | ---                      |
| Inrush Power      | 95 VA    | 130 VA                   | 25 W                     |

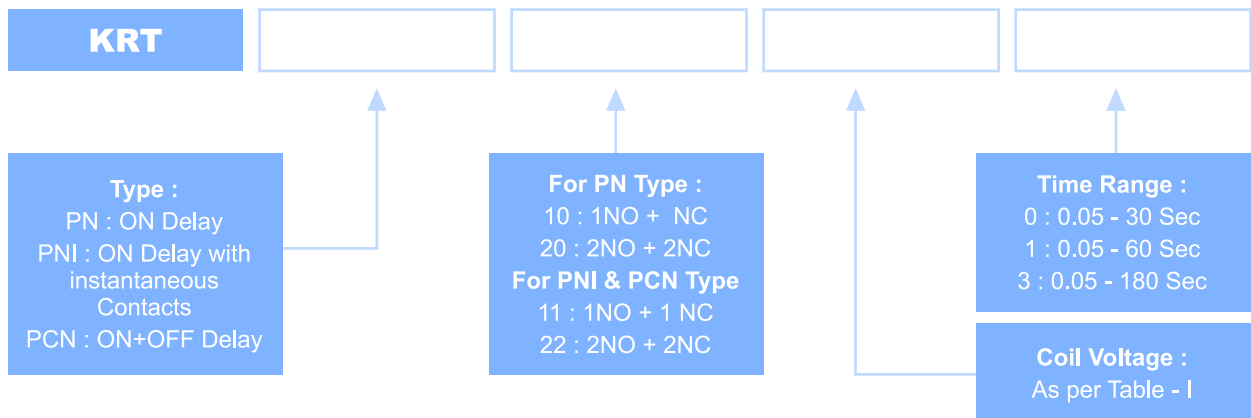


## Spares

| Description                       | Cat. No.   |
|-----------------------------------|------------|
| <b>Contact Block With Cover :</b> |            |
| 1NO + 1NC (Timed)                 | SP20S3     |
| 2NO + 2NC (Timed)                 | SP20S4     |
| 1NO + 1NC (Instantaneous)         | SP20S5     |
| 2NO + 2NC (Instantaneous)         | SP20S6     |
| <b>Magnet Coil :</b>              |            |
| AC -PN Type                       | SP20MC ■   |
| AC - PNI & PCN Types              | SP20MC1 ■  |
| DC - PN, PNI & PCN Types          | SP20MC2 ■  |
| Magnet Frame Assembly w/o Coil    | SP20MA/MA1 |
| <b>For DC Timers</b>              |            |
| Return Spring for PNI & PCN Type  | SP20RS     |
| Coil Clip                         | SP20CC     |

■ Suffix Coil Voltage From Table - I

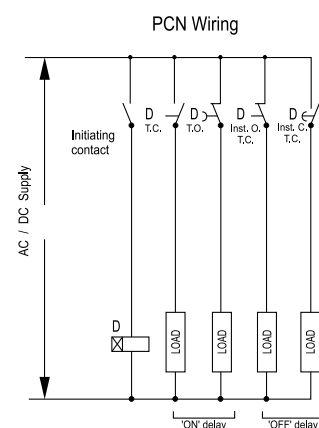
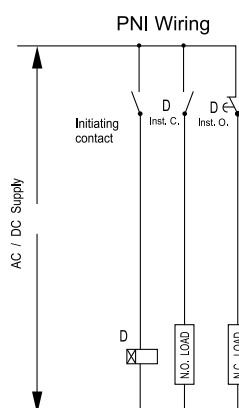
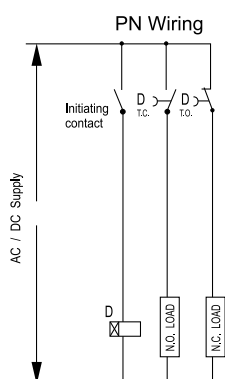
## Ordering Information



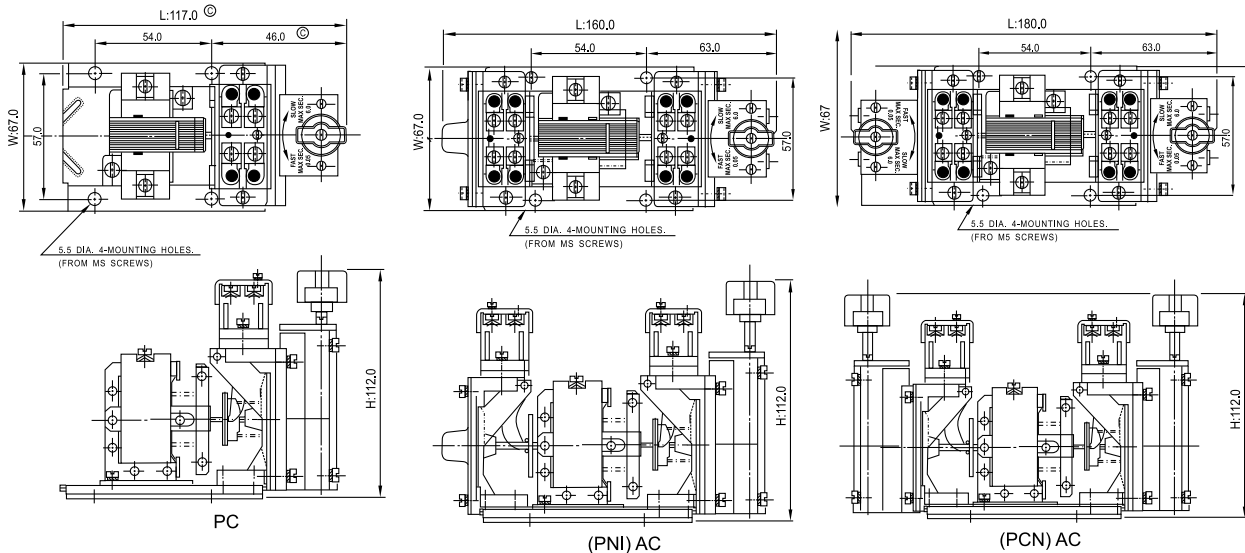
**Table - 1 (Coil Voltage)**

| Coil Voltage (V) | 24 | 110 | 220 | 240 | 415 |
|------------------|----|-----|-----|-----|-----|
| AC               | U  | A   | B   | K   | L   |
| DC               | U1 | A1  | B1  | K1  | --  |

## Wiring Diagrams



# Dimensions (mm)



**Pneumatic Timer - DC Coil (Dimension)**

|     | Overall Dimension |    |     | Mounting Dimensions<br>(5.5 dia 4-Mounting holes) |
|-----|-------------------|----|-----|---|
|     | L                 | W  | H   | (For M5 Screws)                                   |
| PN  | 210               | 88 | 112 | 120.7 x 57.0                                      |
| PNI | 227               | 88 | 112 | 120.7 x 57.0                                      |
| PCN | 247               | 88 | 112 | 120.7 x 57.0                                      |

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