

# TDR782 Miniature Time Delay Relay

## GENERAL SPECIFICATIONS



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| OUTPUT CHARACTERISTICS                 |  | UNITS          | TDR782XBX    | TDR782XDX    |
|--|--|----------------|--------------|--------------|
| Number and type of contacts            |  |                | DPDT         | 4PDT         |
| Contact material                       |  |                | Silver alloy | Silver alloy |
| Current rating                         |  | A              | 5            | 3            |
| Maximum permissible current (< 0.01 S) |  | A              | 10           | 10           |
| Minimum switching requirement          |  | Ma             | 100          | 100          |
| Indication (LED)                       |  | On = energized | Amber        | Amber        |

| INPUT CHARACTERISTICS |        |              | TDR782XBX    | TDR782XDX    |
|-----------------------|--------|--------------|--------------|--------------|
| Standard voltage      |        | VAC          | 24, 120, 230 | 24, 120, 230 |
|                       |        | VDC          | 12, 24       | 12, 24       |
| Operating range       |        | % of Nominal |              |              |
|                       |        | VAC          | 85% to 115%  | 85% to 115%  |
| Maximum consumption   |        | VDC          | 90% to 110%  | 90% to 110%  |
|                       |        |              |              |              |
| Maximum consumption   | 24 AC  | VA           | 1.7          | 1.7          |
|                       | 120 AC | VA           | 2.6          | 2.6          |
|                       | 230 AC | VA           | 3            | 3            |
|                       | 12 DC  | W            | 1.5          | 1.5          |
|                       | 24 DC  | W            | 1.2          | 1.2          |
| Indication (LED)      |        |              | Green        | Green        |

| TIMING CHARACTERISTICS |                                |           | TDR782XBX                    | TDR782XDX                    |
|------------------------|--------------------------------|-----------|------------------------------|------------------------------|
| Functions available    |                                | See chart | On Delay                     | On Delay                     |
| Time scales            |                                |           | 7                            | 7                            |
| Time ranges available  |                                | sec       | 0.1 to 1, 1 to 10            | 0.1 to 1, 1 to 10            |
|                        |                                | min       | 0.1 to 1, 1 to 10            | 0.1 to 1, 1 to 10            |
|                        |                                | hr        | 0.1 to 1, 1 to 10, 10 to 100 | 0.1 to 1, 1 to 10, 10 to 100 |
| Tolerance              | Mechanical setting             | %         | 5                            | 5                            |
| Repeatability          | Constant voltage & temperature | %         | 0.5                          | 0.5                          |
| Temperature drift      | Maximum                        | %/°C      | 0.05                         | 0.05                         |
| Reset time             |                                | ms        | 50                           | 50                           |

| PERFORMANCE CHARACTERISTICS |                            |             | TDR782XBX  | TDR782XDX  |
|-----------------------------|----------------------------|-------------|------------|------------|
| Electrical life             | Operations @ Rated Current | (Resistive) | 100,000    | 100,000    |
| Mechanical life             | Unpowered                  |             | 10,000,000 | 10,000,000 |
| Dielectric strength         | Input to contacts          | V           | 2000 AC    | 2000 AC    |

| ENVIRONMENT                               |                  |       | TDR782XBX         | TDR782XDX         |
|---|------------------|-------|-------------------|-------------------|
| Product certifications                    | Standard version |       | UR, CE, CSA, RoHS | UR, CE, CSA, RoHS |
| Ambient air temperature around the device | Storage          | °C    | -40 to +70        | -40 to +70        |
|   | Operation        | °C    | -20 to +60        | -20 to +60        |
| Degree of protection                      |                  |       | IP 50             | IP 50             |
| Weight                                    |                  | grams | 43                | 43                |

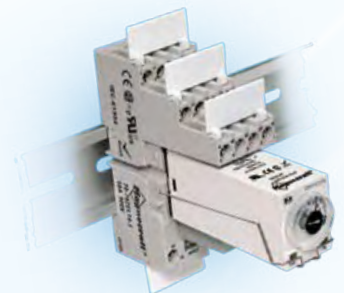
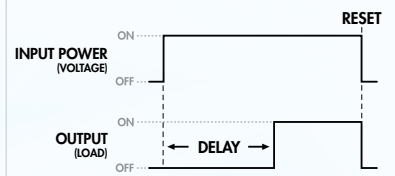
### TIMING FUNCTION

**On Delay** - Contacts transfer after the predetermined time has expired.

### OPERATION

Upon application of the input voltage, the preset time begins. At the end of the preset time, the relay contacts transfer. Input voltage must be removed and reapplied to reset the time delay relay.

### TIMING CHART

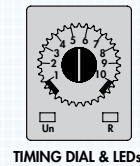
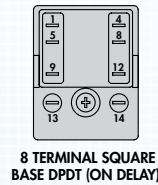
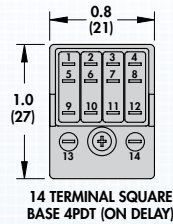
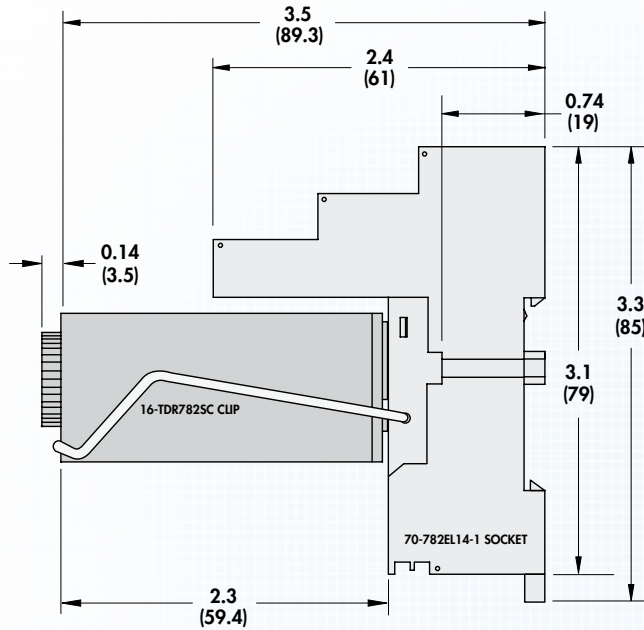


#### A Complete Solution:

TDR782XDX relay with 70-782EL14-1 socket, 16-TDR782SC hold-down clip and 16-782FT-1 ID tags.

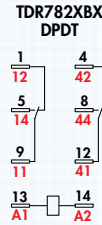
### DIMENSIONS

Dimensions shown in inches and (millimeters)

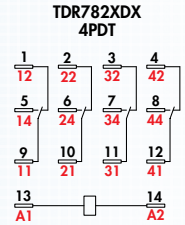


### WIRING DIAGRAMS

Bottom View



NEMA  
IEC



### CROSS REFERENCE



| Magnecraft        | Omron             | NAIS     | IDEC     | Fuji                | Allen Bradley | Finder |
|-------------------|-------------------|----------|----------|---------------------|---------------|--------|
| *TDR782XB (DPDT)  | H3YN-2<br>H3YN-21 | S1DX-A2C | GT5Y-2SN | ST7P-2A<br>ST7P-2DE | 700HS12       | 85.02  |
| *TDR782XDX (4PDT) | H3YN-4<br>H3YN-41 | S1DX-A4C | GT5Y-4SN |                     |               | 85.04  |

\*TDR782XB & TDR782XDX both available with input voltages of 12, 24 VDC & 24, 110, 230 VAC.