

Single Shot, Interval (Pulse Former)

TDSL, TDS, TDSH Digi-Set

Time Delay Relay

5



10 YEAR WARRANTY

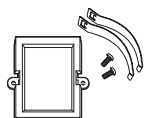
- Switch Settable Time Delay
- Three Time Ranges from 100 ms ... 10,230 s
- +/-0.1% Repeat Accuracy
- +/-2% Setting Accuracy
- SPDT or DPDT, 10 A Output Contacts
- LED Indication

Approvals:

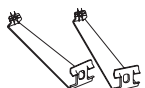


***8 pin models used in combination with P1011-6 socket only.

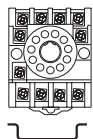
Accessories



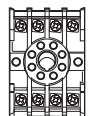
Panel mount kit
P/N: **BZ1**



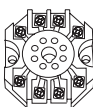
Hold down clips
P/Ns:
PSC8 (NDS-8)
PSC11 (NDS-11)



11 pin socket
P/N: **NDS-11**



Octal
8 pin socket
P/N: **NDS-8**



Octal socket
for UL Listing
P/N: **P1011-6**

See accessory pages for specifications.

Description

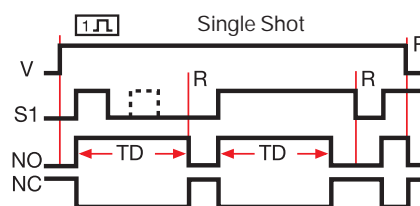
The TDS Series combines accurate digital circuitry with isolated 10 A rated DPDT or SPDT relay contacts in an 8 or 11 pin plug-in package. The TDS Series features DIP switch selectable time delays ranging from 100 milliseconds to 10,230 seconds in three ranges. The TDS Series is the product of choice for custom control panel and OEM designers.

Operation

Input voltage must be applied to the input before and during timing. Upon momentary or maintained closure of the initiate switch (leading edge triggered), the output relay energizes for a measured interval of time. At the end of the delay, the output de-energizes. Opening or reclosing the initiate switch during timing has no effect on the time delay. The output will energize if the initiate switch is closed when input voltage is applied.

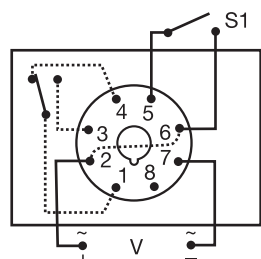
Reset: Reset occurs when the time delay is complete and the initiate switch is opened. Loss of input voltage resets the time delay and output.

Function

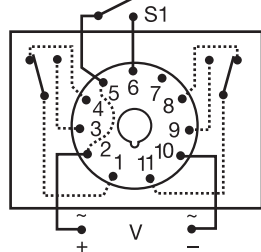


S1 = Initiate Switch V = Voltage TD = Time Delay
R = Reset NO = Normally Open
NC = Normally Closed

Connection



8 Pin Octal
SPDT



11 Pin
DPDT

S1 = Initiate Switch

Relay contacts are isolated. Dashed lines are internal connections.

Ordering Table

X	Series/Time Range
TDSL	- 0.1 ... 102.3 s in 0.1 s increments
TDS	- 1 ... 1023 s in 1 s increments
TDSH	- 10 ... 10,230 s in 10 s increments

X	Input
12D	- 12 V DC
24A	- 24 V AC
24D	- 24 V DC/28 V DC
110D	- 110 V DC
120A	- 120 V AC
230A	- 230 V AC

X	LED*
L	

X	Type of Plug/Output Form
D	- 11 Pin Plug, DPDT
Blank	- Octal (8 Pin) Plug, SPDT

Example P/N: **TDS120AL**

* Note: LED not available in 12 V DC

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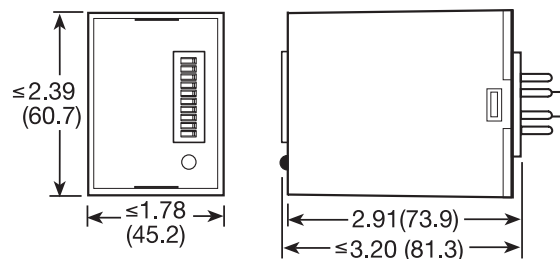
Technical Data

Time Delay Type Range** Repeat Accuracy Setting Accuracy Reset Time Recycle Time Time Delay vs. Temperature & Voltage Indicator Initiate Time	Digital integrated circuitry 0.1 ... 102.3 s in 0.1 s increments 1 ... 1023 s in 1 s increments 10 ... 10,230 s in 10 s increments +/-0.1% or 20 ms, whichever is greater +/-2% or 50 ms, whichever is greater ≤ 50 ms ≤ 150 ms +/-5% LED glows during timing; relay is energized ≤ 60 ms	**For CE approved applications, power must be removed from the unit when a switch position is changed.
Input Voltage Tolerance Frequency Power Consumption	12 V DC & 24 V DC/AC 110 ... 230 V AC/DC 50 ... 60 Hz ≤ 3.25 W	
Output Type Form Rating Life	Electromechanical relay SPDT & DPDT 10 A resistive at 120/240 V AC & 28 V DC; 1/3 hp at 120/240 V AC Mechanical -- 1 x 10 ⁷ ; Electrical -- 1 x 10 ⁶	
Protection Isolation Voltage Polarity	≥ 1500 V RMS input to output DC units are reverse polarity protected	
Mechanical Mounting Package Termination	Plug-in socket 3.2 x 2.4 x 1.8 in. (81.3 x 60.7 x 45.2 mm) Standard octal plug (8 Pin) or 11 Pin plug-in	
Environmental Operating Temperature Storage Temperature Weight	-20°C ... +65°C -30°C ... +85°C ≅ 6 oz (170 g)	

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Mechanical View

Digi-Set Binary Switch Operation		
0.1...102.3	1...1023	10...10,230
OFF ► ON	OFF ► ON	OFF ► ON
0.1 <input type="checkbox"/>	1 <input type="checkbox"/>	10 <input type="checkbox"/>
0.2 <input type="checkbox"/>	2 <input type="checkbox"/>	20 <input type="checkbox"/>
0.4 <input type="checkbox"/>	4 <input type="checkbox"/>	40 <input type="checkbox"/>
0.8 <input type="checkbox"/>	8 <input type="checkbox"/>	80 <input type="checkbox"/>
1.6 <input type="checkbox"/>	16 <input type="checkbox"/>	160 <input type="checkbox"/>
3.2 <input type="checkbox"/>	32 <input type="checkbox"/>	320 <input type="checkbox"/>
6.4 <input type="checkbox"/>	64 <input type="checkbox"/>	640 <input type="checkbox"/>
12.8 <input type="checkbox"/>	128 <input type="checkbox"/>	1280 <input type="checkbox"/>
25.6 <input type="checkbox"/>	256 <input type="checkbox"/>	2560 <input type="checkbox"/>
51.2 <input type="checkbox"/>	512 <input type="checkbox"/>	5120 <input type="checkbox"/>
6.3 S	544 S	3000 S



Inches (Millimeters)