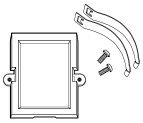
Single Shot, Interval (Pulse Former)
TRS Series
Time Delay Relay

- Knob Adjustable Time Delays
- Fixed or Adjustable Delays From 0.05 ... 600 s in Ranges
- Analog Circuitry +/-2% Repeat Accuracy
- AC and DC Operating Voltages are Available
- 10 A, Isolated SPDT and DPDT Contacts

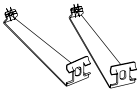
Approvals: **

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

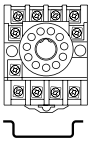
Accessories



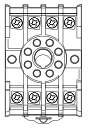
Panel mount kit
P/N: **BZ1**



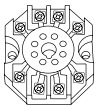
Hold down clips
P/Ns:
PSC8 (NDS-8)
PSC11 (NDS-11)



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.

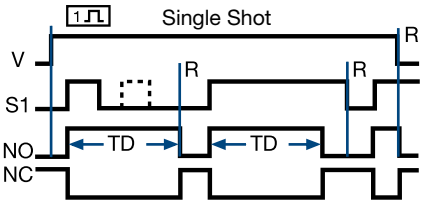
Description

The TRS Series combines a 10 A isolated electromechanical relay output with analog timing circuitry. False trigger of the TRS by a transient is unlikely because of the complete isolation of the circuit from the line prior to initiation. The initiate contact is common to one side of the line and may be utilized to operate other loads. Installation is easy due to the TRS's industry standard 8 or 11 pin plug-in base wiring.

Operation

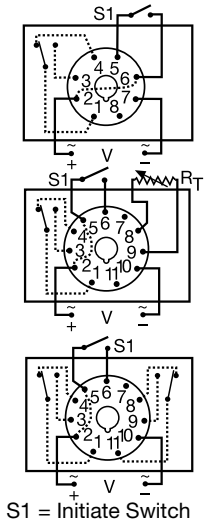
Input voltage must be applied to the input before and during timing. Upon momentary or maintained closure of the initiate switch (leading edge triggered), the output energizes for a measured interval of time. At the end of the delay, the output de-energizes. Opening or reclosing the initiate switch during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



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

Connection



8 Pin Octal SPDT

11 Pin SPDT

11 Pin DPDT

S1 = Initiate Switch

Relay contacts are isolated. Dashed lines are internal connections.

R_T is used when external adjustment is ordered.

Available Models-

TRS120A1X300
TRS120A2Y60
TRS120A2X30
TRS120A2X300

Don't see what you need? Call us for a minimum quantity and price quote!

Ordering Table

TRS Series	X Input	X Adjustment and Output Form	X Time Tolerance	X Time Delay* (Seconds)
	24A - 24 V AC	**1** - Fixed, Octal, SPDT (AC Volts only)	**X** - +/-20%	0.05 ... **1**
	24D - 24 V DC/ 28 V DC	**10** - Fixed, 11 Pin, DPDT	**Y** - +/-10%	0.05 ... **2**
	110D - 110 V DC	**2** - Knob Adjust, Octal, SPDT (AC Volts only)	**Z** - +/- 5%	0.05 ... **3**
	120A - 120 V AC	**3** - Lock Shaft Adjust, Octal, SPDT (AC Volts only)		0.1 ... **5**
	230A - 230 V AC	**4** - Knob Adjust, 11 Pin, DPDT		0.1 ... **10**
		7 - Ext. Adjust, 11 Pin, SPDT without Potentiometer		1 ... **30**
				1 ... **60**
				2 ... **120**
				2 ... **180**
				7 ... **240**
				7 ... **300**
				7 ... **360**
				7 ... **420**
				7 ... **480**
				7 ... **600**

*If Fixed Delay is selected, insert delay [**0.05** ... **600**] in seconds

Example P/N:

TRS120A2Y30 = 120 VAC, knob adjust, Octal, SPDT output, +/-10%, 1 to 30 s
TRS24D10Y600 = 24 VDC, fixed at 600 s, +/-10%, 11 pin base, DPDT output

TRS02B01 09.10

Single Shot, Interval (Pulse Former)
TRS Series
Time Delay Relay

Dedicated timers

Technical Data

Time Delay		
Type		Analog circuitry
Range		50 ms ... 10 m in 15 adjustable ranges or fixed
Repeat Accuracy		+/-2% or 20 ms, whichever is greater
Fixed Time Tolerance & Setting Accuracy		+/-5, 10, or 20%
Initiate Time		≤ 70 ms
Reset Time		≤ 75 ms
Recycle Time		≤ 250 ms
Time Delay vs. Temperature & Voltage		≤+/-10%
Input		
Voltage		24 or 110 V DC; 24, 120, or 230 V AC (DC voltages on DPDT output models only)
Tolerance	24 V DC/AC	-15% ... +20%
	110 ... 230 V AC/DC	-20% ... +10%
Frequency		50 ... 60 Hz
Power Consumption		≤ 3.25 W
Output		
Type		Electromechanical relay
Form		Isolated SPDT or DPDT
Rating		10 A resistive at 120/240 V AC & 28 V DC; 1/3 hp at 120/240 V AC
Life		Mechanical: 1 x 10^7; Electrical: 1 x 10^6
Protection		
Insulation Resistance		≥ 100 MΩ
Isolation Voltage		≥ 1500 V RMS between input & output terminals
Polarity		DC units are reverse polarity protected
Mechanical		
Mounting		Plug-in socket
Termination		8 Pin octal or 11 Pin plug-in
Package		3.62 x 2.39 x 1.78 in. (91.6 x 60.7 x 45.2 mm)
Environmental		
Operating Temperature		-20°C ... +65°C
Storage Temperature		-30°C ... +85°C
Weight		≅ 6 oz (170 g)

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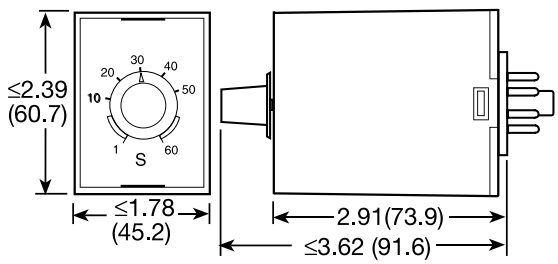
Mechanical View

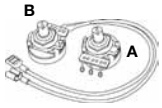


Inches (Millimeters)

R_T Selection Chart	
Time Delay*	
Range	R_T
Seconds	Megohm
0.05...1	1.0
0.05...2	2.0
0.05...3	3.0
0.1...5	5.0
0.1...10	3.0
1...30	1.5
1...60	3.0
2...120	2.0
2...180	3.0
7...240	1.5
7...300	2.0
7...360	2.0
7...420	3.0
7...480	3.0
7...600	5.0

* When selecting an external R_T add at least 15...30% for tolerance of unit and the R_T.

Accessories



External adjust potentiometer
P/Ns:
P1004-XX (fig. A)
P1004-XX-X (fig. B)

Versa-knob
P/N: **P0700-7**

External R_T P/N Selection Table		
Figure	Value	Part Number
A	1 M ohm	P1004-16
A	1.5 M ohm	P1004-15
A	2 M ohm	P1004-14
A	3 M ohm	P1004-12
A	5 M ohm	P1004-13
B	1 M ohm	P1004-16-X
B	1.5 M ohm	P1004-15-X
B	2 M ohm	P1004-14-X
B	3 M ohm	P1004-12-X
B	5 M ohm	P1004-13-X