

Delay On Make (Operate)

ORM Series

Time Delay Relay



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- Low Cost Open PCB Construction
- Time Delays From 50 ms ... 300 s in 5 Ranges
- 10 A Double Pole Double Throw Relay Output
- +/-2% Repeat Accuracy
- +/-10% Factory Calibration
- Fixed, Adjustable on Unit, or External Adjust

Approvals:

Accessories

B External adjust potentiometer
P/Ns:
P1004-12 (fig. A)
P1004-12-X (fig. B)

Female quick connect
P/N:
P1015-64 (AWG 14/16)

Quick connect to screw adaptor
P/N: **P1015-18**

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

See accessory pages for specifications.

Description

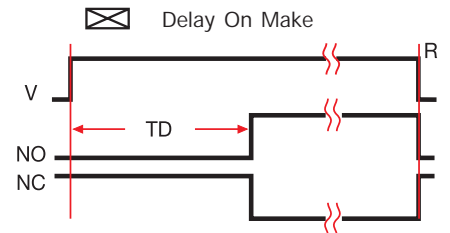
The ORM Series features open PC board construction for reduced cost. It has isolated 10 A DPDT relay contacts and all connections are 0.25 in (6.35 mm) male quick connect terminals. The time delay may be ordered as factory fixed, onboard knob, or external adjustment. Time delays from 0.05 to 300 seconds.

Operation

Upon application of input voltage, the time delay begins. The output is de-energized before and during the time delay. At the end of the time delay, the output energizes and remains energized until voltage is removed.

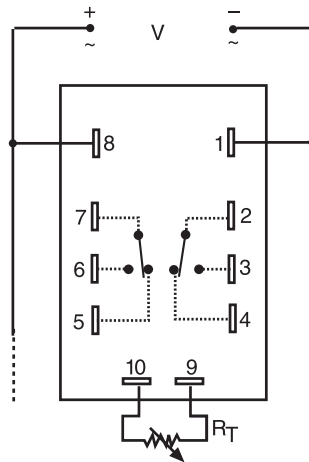
Reset: Removing input voltage resets the time delay and output.

Function



V = Voltage TD = Time Delay R = Reset
NO = Normally Open NC = Normally Closed
—||— = Undefined time

Connection



Relay contacts are isolated. Dashed lines are internal connections.

R_T is used when external adjustment is ordered.

Ordering Table

ORM Series	X Input	X Adjustment	X Time Delay *
-24A	24 V AC	-1 - Fixed	-1 - 0.05 ... 3 s
-24D	24 V DC/ 28 V DC	-2 - Adj. on Unit	-2 - 0.5 ... 30 s
-110D	110 V DC	-3 - Remote Adjust	-3 - 0.6 ... 60 s
-120A	120 V AC		-4 - 1.2 ... 120 s
-230A	230 V AC		-5 - 3.0 ... 300 s

Example P/N: **ORM24A31** Fixed – **ORM120A1200**

*If Fixed Delay is selected, insert delay [0.05...300] in seconds.

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Technical Data

Time Delay	
Type	Analog circuitry
Range	0.05 ... 300 s in 5 adjustable ranges or fixed
Repeat Accuracy	+/-2% or 20 ms, whichever is greater
Tolerance (Factory Calibration)	Adjustable: Guaranteed range Fixed: +/-10%
Recycle Time	≤ 16 ms after timing, during timing -- 0.1% of max. time delay or 75 ms, whichever is greater
Time Delay vs. Temperature & Voltage	≤ +/-10%
Input	
Voltage	24 or 110 V DC; 24, 120, or 230 V AC
Tolerance	24 V DC/AC: -15% ... +20% 110 ... 230 V AC/DC: -20% ... +10%
Line Frequency	50 ... 60 Hz
Power Consumption	2.25 W
Output	
Type	Electromechanical relay
Form	Isolated double pole double throw (DPDT)
Rating	10 A resistive at 120/240 V AC & 28 V DC; 1/3 hp at 120/240 V AC
Life	Mechanical--1x10 ⁷ ; Electrical--1x10 ⁶
Protection	
Polarity	DC units are reverse polarity protected
Isolation Voltage	≥1500 V RMS input to output
Mechanical	
Mounting	Surface mount with four #6 (M3.5 x 0.6) screws
Termination	0.25 in. (6.35 mm) male quick connect terminals
Environmental	
Operating Temperature	-20°C ... +65°C
Storage Temperature	-30°C ... +85°C
Weight	≅ 2.7 oz (77 g)

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R _T Selection Chart					
Desired Time Delay*					R _T
Seconds					
1	2	3	4	5	Megohm
0.05	0.5	0.6	1.2	3.0	0.0
0.5	5.0	10	20	50	0.5
1.0	10	20	40	100	1.0
1.5	15	30	60	150	1.5
2.0	20	40	80	200	2.0
2.5	25	50	100	250	2.5
3.0	30	60	120	300	3.0

* When selecting an external R_T add at least 20% for tolerance of unit and the R_T.

