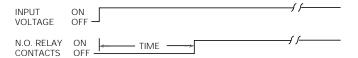
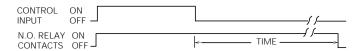


Timing Modes

Delay on operate - Delay period begins when input voltage is applied. At the end of the delay period, the relay will operate and will not release until input voltage is removed. Reset occurs when input voltage is reapplied.



Delay on release - Input voltage must be applied continuously to operate the internal relay. When control Input is applied, the relay energizes. When control input is removed, timing begins. When timing is complete, the relay will de-energize. Time may be reset to zero during timing by reapplying control input.



Timing Specifications

Timing Ranges: From 0.1 to 180 sec.

Timing Adjustment: Fixed, external resistor and knob adjustable.

Tolerance (for AC units add ±1/2 cycle 60 Hz.):

Knob Adj. Types: ±5% of max. specified at high end of timing range; min.

specified, or less, at low end; ±10% full scale.

Fixed Types: +5%

Res. Adj. Types: ±5% at high end of timing range; min. specified, or less,

at low end.

Delta Time (for AC units add ±1 cycle 60 Hz.): ±5%. Repeatability (for AC units add ± 1 cycle 60 Hz.): $\pm 1\%$.

Release Time: 45 ms, typ.; 60 ms, max. Recycle Time: 45 ms, typ.; 60 ms, max

Contact Data @ 25°C

Arrangements: 2 Form C (DPDT). Material: Silver-cadmium oxide alloy

Rating: 10A @ 30VDC or 277VAC, resistive; 1/2 HP @ 250VAC; 1/3 HP @

120VAC

Expected Mechanical Life: 10 million operations.

Expected Electrical Life: 100,000 operations, min., at rated load.

CD series

CMOS IC Time Delay Relay

- 1% Repeatability
- Operates from -40°C to +55°C
- Delay on operate or delay on release timing modes
- Fixed, knob or resistor adjustable types
 - Calibrated dial on knob adjustable types
- 10A output relay with SPDT or DPDT contacts
- Various models time from 0.1 to 180 sec.

FII File E22575

@ File LR15734

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Initial Dielectric Strength

Between Open Contacts: 500V rms, 60 Hz. Between All Other Conductors: 500V rms, 60 Hz.

Input Data @ 25°C

Voltage: 24 & 120VAC and 12 through 110VDC.

Power Requirement: AC Types: Typically less than 3 VA. DC Types: Typically less than 3 W.

Transient Protection: Yes. Reverse Voltage Protection: Yes.

Input Voltages & Limits @ 25°C

input voltages & Elimits © 20 0								
Voltage	Nominal	Minimum	Maximum					
Type	Voltage	Voltage	Voltage					
AC	24	20	28					
	120	105	130					
DC	12	11	13					
	24	20	32					
	48	41	55					
	110	95	125					

Note: DC voltage must be filtered (5% p-p ripple max. at nom. voltage).

AC models will operate on 50 or 60 Hz

Environmental Data

Temperature Range: Storage: -55°C to +85°C.

Operating: -40°C to +55°C.

Mechanical Data

Termination: 8- or 11-pin octal style plug.

Enclosure: Yellow plastic case. Knob adjustable types have dial scale

calibrated in seconds ±5%

Sockets: Models with 8-pin base fit either 27E122 or 27E891 (snap-on)

screw terminal sockets. 11-pin types fit either 27E123 or

27E892 (snap-on) screw terminal sockets.

Weight: 8 oz. (227g) approximately.

Ordering Information - Authorized distributors are more likely to stock boldface items listed below.

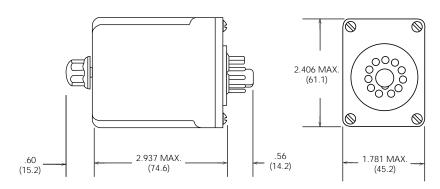
Delay on Operate Models

Voltage	Time	Adjustment	Wiring Dia.	Part Number
120VAC	0.1 to 1 Sec. 0.1 to 5 Sec. 0.1 to 10 Sec. 0.3 to 30 Sec. 0.6 to 60 Sec. 1.8 to 180 Sec.	Knob	1	CDB-38-70001 CDB-38-70002 CDB-38-70003 CDB-38-70006 CDB-38-70004 CDB-38-70005
120VAC	1 Sec.	Fixed		CDA-38-70012
120VAC	0.1 to 1 Sec. 0.1 to 5 Sec. 0.1 to 10 Sec.	Resistor	2	CDF-38-70001 CDF-38-70002 CDF-38-70003
24VDC	0.1 to 10 Sec. 0.6 to 60 Sec. 1.8 to 180 Sec.	Knob	1	CDD-38-30003 CDD-38-30004 CDD-38-30005
48VDC	0.6 to 60 Sec.	Knob	1	CDD-38-40002
110VDC	0.1 to 1 Sec. 0.1 to 10 Sec. 0.6 to 60 Sec. 1.8 to 180 Sec.	Knob	1	CDD-38-60004 CDD-38-60001 CDD-38-60002 CDD-38-60003

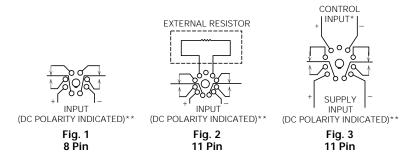
Delay on Release Models

Voltage	Time	Adjustment	Wiring Dia.	Part Number
120VAC	0.1 to 1 Sec. 0.1 to 5 Sec. 0.1 to 10 Sec. 0.3 to 30 Sec. 0.6 to 60 Sec. 1.8 to 180 Sec.	Knob	3	CDB-38-70016 CDB-38-70091 CDB-38-70014 CDB-38-70092 CDB-38-70012 CDB-38-70015
120VAC	1 Sec.	Fixed	3	CDA-38-70025
12VDC	180 Sec.	Fixed	3	CDC-38-20026
24VDC	0.1 to 10 Sec. 0.6 to 60 Sec. 1.8 to 180 Sec.	Knob	3	CDD-38-30014 CDD-38-30012 CDD-38-30008

Outline Dimensions



Wiring Diagrams - Bottom Views (pins numbered clockwise from keyway)



^{*} If control input is applied when supply input is applied, relay will immediately energize. A 50 millisecond minimum control pulse is required.
** Note Input polarity for DC operation. For most reliable operation on AC, connect high side to "+" and low side to "-".

External Resistor Selection Chart

See External Resistor Selection Charts at beginning of Time Delay Relay section of this Databook.