



The TAC4 is a bypass timer that provides a closure across the low-pressure switch during compressor startup. Its time-delay circuit is totally solid state including the normally closed output. The molded housing with encapsulation, the single hole mounting, and 0.25 in. (6.35 mm) termination makes the TAC4 easy to use, rugged, and reliable.

Operation (Bypass Timer):

(As shown in the connection & function diagrams) Upon application of input voltage and closure of controller contact, CC, the load, CR, energizes and the time delay begins. During the time delay, the TAC4's solid-state output bypasses the LPC, low pressure cutout switch. This allows the compressor controlled by CR to start and establish acceptable pressure. At the end of the time delay, TAC4's output de-energizes and remains de-energized until reset. The TAC4 may be used in other applications where a controlling contact must be bypassed for a specified period of time.

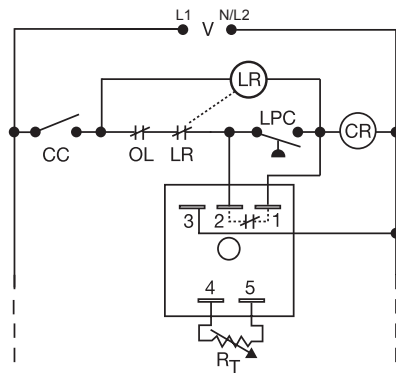
Reset: Removing input voltage or opening CC resets the output and time delay.

For more information see:

Appendix A, pages 156-164 for function descriptions and diagrams.

Appendix B, page 165, Figure 1 for dimensional drawing.

Connection:



V = Voltage
 LR = Lockout Relay
 OL = Overload or High Pressure Switch
 LPC = Low Pressure Cutout
 CR = Compressor Control Relay
 CC = Controller Contact
 R_T is used when external adjustment is ordered.

R _T Selection Chart				
Desired Time Delay*				R _T
Seconds				
1	2	3	4	Megohm
0.05	0.5	2	5	0.0
0.5	10	30	30	0.5
1.0	20	60	60	1.0
1.5	30	90	90	1.5
2.0	40	120	120	2.0
2.5	50	150	150	2.5
3.0	60	180	180	3.0
			210	3.5
			240	4.0
			270	4.5
			300	5.0

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

Features

- UL approved for air conditioning & refrigeration equipment
- Fixed or adjustable delays from 0.05 - 600s
- 24, 120 or 230VAC
- Fail-safe design eliminates contactor chatter problems
- ±2% repeat accuracy

Approvals:

Auxiliary Products:

- **External adjust potentiometer:**
P/N: P1004-12
P/N: P1004-12-X
- **Female quick connect:**
P/N: P1015-64 (AWG 14/16)
- **Mounting bracket:** P/N: P1023-6
- **Quick connect os crewad aptor:**
P/N: P1015-18
- **Versa-knob:** P/N: P0700-7
- **DIN rail:** P/N: C103PM (Al)
- **DIN rail adaptor:** P/N: P1023-20
- **Plug-on adjustment module:**
P/N: VTP(X)(X)

Time Delay	VTP P/N
1 - 0.05-3s	VTP4B
2 - 0.5-60s	VTP4F
3 - 2-180s	VTP4J
4 - 5-300s	VTP5T

Selection Table for VIP Plug-on Adjustment Accessory.

Available Models:

TAC42110
 TAC441120
 TAC4415

If desired part number is not listed, please call us to see if it is technically possible to build.

Order Table:

TAC4	X	X	X
	Input Voltage	Adjustment	Time Delay*
	-2 - 24VAC	-1 - Fixed	-1 - 0.05 - 3s
	-4 - 120VAC	-2 - External adjust	-2 - 0.5 - 60s
	-6 - 230VAC		-3 - 2 - 180s
			-4 - 5 - 300s

*If fixed delay is selected, insert delay (0.05 - 300) in seconds.

Specifications

Time Delay
 Type Analog circuitry
 Range 0.05 - 300s in 4 adjustable ranges or fixed
 Repeat Accuracy ±2%
 Tolerance (Factory Calibration) ±20%
 Time Delay vs Temp. & Voltage ≤±10%
 Reset Time ≤ 150ms
Input
 Voltage 24, 120, or 230VAC
 Tolerance ±20%
 AC Line Frequency 50/60 Hz
Output
 Type Solid state
 Form NC, closed during timing
 Rating 0.5A steady state, 10A inrush at 60°C

Voltage Drop 120 & 230VAC ≅ 4.2V @ 0.5A
 24VAC ≅ 2.5V @ 0.5A
Protection
 Circuitry Encapsulated
 Dielectric Breakdown ≥ 2000V RMS terminals to mounting surface
 Insulation Resistance ≥ 100 MQ
Mechanical
 Mounting Surface mount with one #10 (M5 x 0.8) screw
 Termination 0.25 in. (6.35 mm) male quick connect terminals
 Dimensions 2 x 2 x 1.21 in. (50.8 x 50.8 x 30.7 mm)
Environmental
 Operating / Storage Temperature -40° to 75°C / -40° to 85°C
 Humidity 95% relative, non-condensing
 Weight ≅ 2.4 oz (68 g)