

40 Amp Power PCB Relay

PTRD-OT



OT2 & OT3



OT4 & OT5

UL E86876

Load Type	Voltage	1 Form A	1 Form B	1 Form C	
				NO	NC
General Purpose	120 VAC	40 A	30 A	40 A	30 A
	250 VAC	40 A	30 A	40 A	30 A
	277 VAC	30 A	20 A	30 A	20 A
	30 VDC	40 A	30 A	40 A	30 A
Resistive	120 VAC	30 A	20 A	30 A	20 A
	250 VAC	30 A	20 A	30 A	20 A
Motor	240 VAC	2 HP	---	2 HP	---
	120 VAC	1 HP	---	1 HP	---
LRA/FLA	240 VAC	80 A/30 A	---	80 A/30	---
	120 VAC	96 A/30 A	---	96 A/30	---

CHARACTERISTIC

Operate Time	Less than 15 ms
Release Time	Less than 10 ms
Insulation Resistance	1,000 MΩ min, at 500 VDC, 50% RH
Dielectric Strength	50 Hz 2,500 V 1 Min Between Coil and Contacts
	4,000 V without Pin 6
	50 Hz 1,500 V 1 min. Between Contacts
Power Consumption	0.9 W, 0.6 W

ORDERING INFORMATION

Example: PTRD -1C -12 S

Model: **PTRD (PTRD-OT)**

Contact Form: **1A, 1B, 1C**

Coil Voltage: **3, 5, 6, 9, 12, 15, 24, 48, 110**

Enclosure: **C**: Dust Cover; **S**: (OT2 & OT3 Only) Sealed;
E: (OT4 & OT5 Only) Epoxy Sealed, Not Water Washable

Coil Sensitivity: **Nil**: 0.9 W; **0.6**: 0.6 W;

Contact Material: **Nil**: AgCdO; **T**: AgSnO₂

Insulation Material: **Nil**: Class F

Mounting Type: **OT2**: 1 Form A PCB & QC; **OT3**: 1 Form C PCB & QC;
OT4: 1 Form A Panel all QC; **OT5**: 1 Form C Panel all QC

RoHS Compliant: **-X**

Pinout: **A**: Alternate Quick Connect Pinout (OT2 & OT3 Only)

Box Quantity: 600; Inner Box 300

FEATURES

- Most Popular Power PCB Relay Footprint - T91
- 40 Amp 250 VAC General Purpose UL Rating
- 2 HP 250 VAC Rating
- Two Versions:
 - ♦ OT2 (1A), OT3 (1C) PC Pins & QC Pins
 - ♦ OT4 (1A), OT5 (1C) QC Pins with Mounting Tabs
- UL Class F Insulation Standard
- Meets UL 508 and UL 873 Spacing
- RoHS Compliant

CONTACT DATA

Material		AgCdO, AgSnO ₂
Initial Contact Resistance		50 mΩ Max. @ 1 A, 6 VDC
Maximum Switching Voltage		110 VDC, 300 VAC
Maximum Switching Current		40 A
Maximum Switching Power		1,500 W, 12,000 VA
Service Life	Mechanical	1 X 10 ⁷ Operations
	Electrical	5 X 10 ⁴ Operations

Meets UL 508 and UL 873 Spacing - 3.18 mm Through Air, 6.36 mm Over Surface.

CHARACTERISTIC Continued

Shock Resistance	200 m/s, 11 ms
Vibration Resistance	10 - 55 Hz Double Amplitude
Terminal Strength	10N
Solderability	235 °C for 3 secs
Operating Temperature Range	- 40°C to 125°C
Storage Temperature Range	- 40°C to 155°C
Relative Humidity	85% (at 40°C)
Weight	13.5 gr Approximately
Material Compliant To	EU RoHS V2, EU REACH V3

COIL DATA

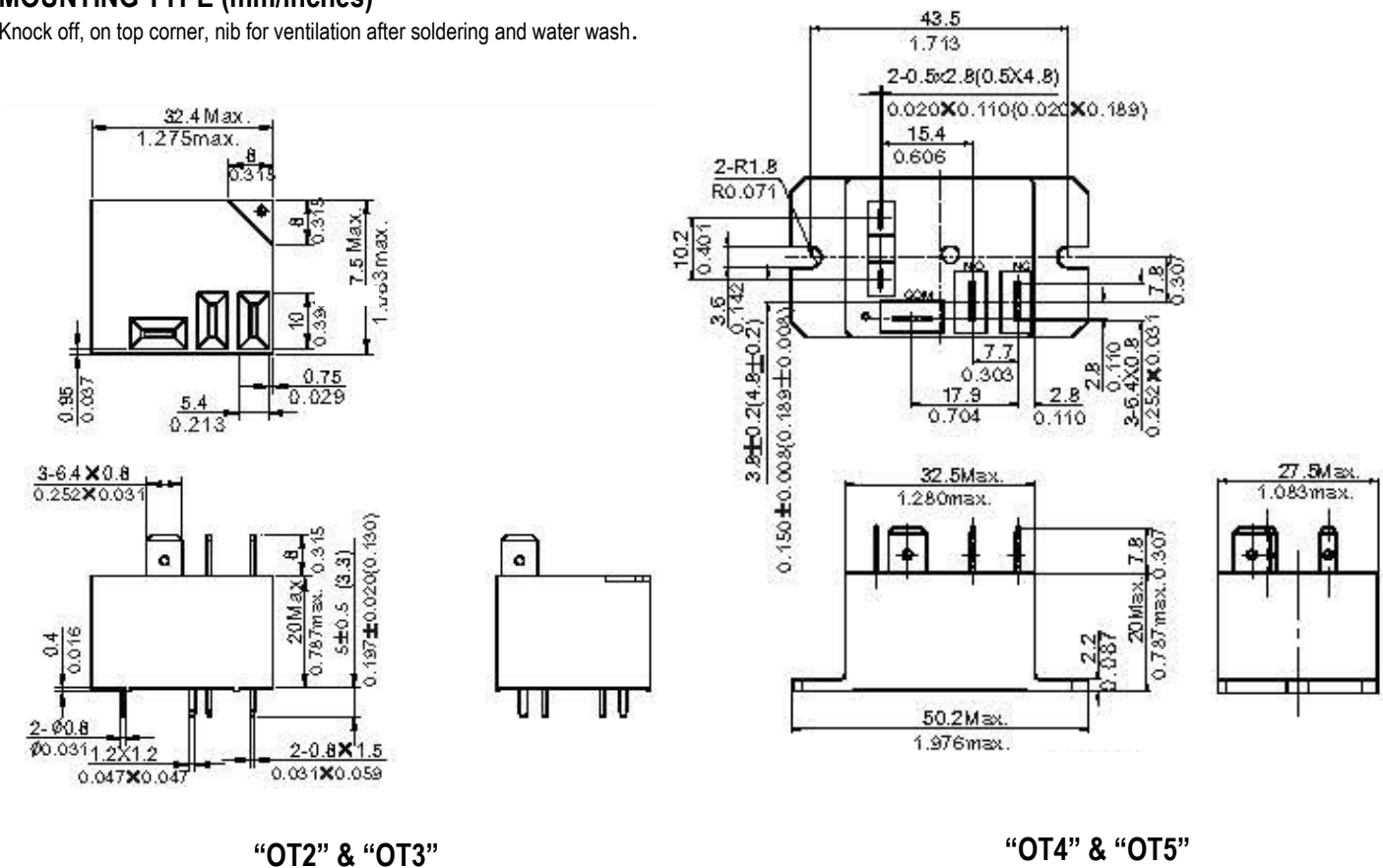
Coil Voltage (VDC)		Coil Power (W)		Must Operate Voltage Max (VDC)	Must Release Voltage Min (VDC)
		Resistance (Ohms $\pm$ 10%)			
Rated	Max	0.6 W	0.9 W		
3	3.9	15	10	2.25	0.3
5	6.5	42	28	3.75	0.5
6	7.8	60	40	4.50	0.6
9	11.7	135	90	6.75	0.9
12	15.6	240	150	9.00	1.2
15	19.5	375	260	10.25	1.5
18	23.4	540	380	13.50	1.8
24	31.2	960	640	18.00	2.4
28	36.4	1307	871	21.0	2.8
48	62.4	3840	2560	36.00	4.8
110	143	20167	13445	82.50	11.0

NOTES:

The use of any coil voltage less than the rated voltage will compromise the operation of the relays. Must Operate Voltage is listed for test purposes only and is not to be used as design criteria. Pickup and release voltages are for test purposes only and are not to be used as design criteria. Dimensions are in mm, Inches are listed for reference only.

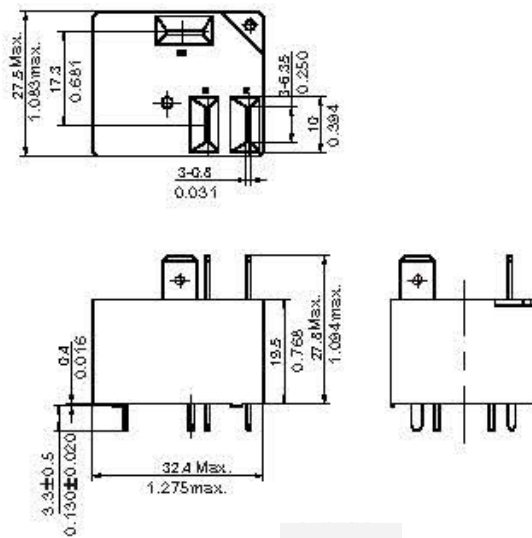
MOUNTING TYPE (mm/inches)

Knock off, on top corner, nib for ventilation after soldering and water wash.

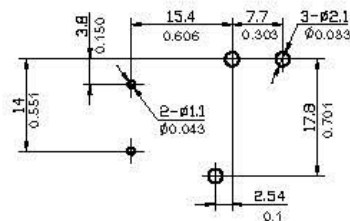


ALTERNATE MOUNTING TYPE (mm/inches)

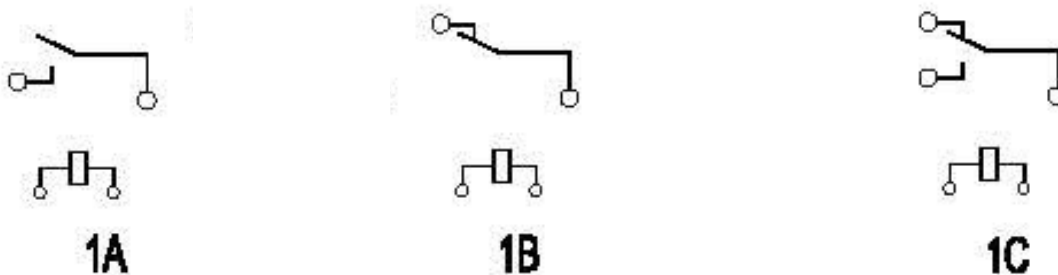
Knock off, on top corner, nib for ventilation after soldering and water wash.



"A"
OT2 & OT3

PRINTED CIRCUIT BOARD LAYOUT

(Bottom View)

CONTACT FORMS

(Bottom View)