



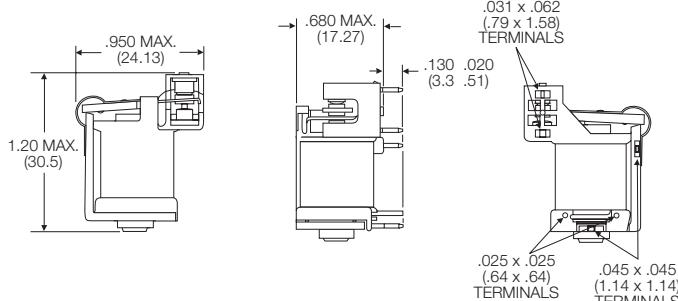
**T90 Series, 30A PCB Relay (Continued)**
**Insulation Data**

Initial dielectric strength between open contacts	1500V <sub>rms</sub>
between contact and coil	1500V <sub>rms</sub>
Initial insulation resistance between insulated elements	1x10 <sup>9</sup> Ω
Clearance/creepage between contact and coil	3.17mm

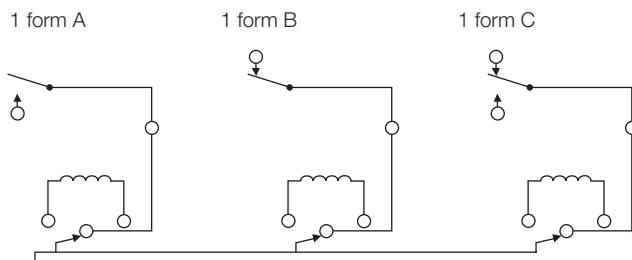
**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

Ambient temperature DC coil	-55°C to 85°C <sup>1)</sup>
Category of environmental protection IEC 61810	RT0 - open, RTIII - wash tight

**Dimensions**
**T90N**

**Terminal assignment**

Bottom view on pins


**Accessory**

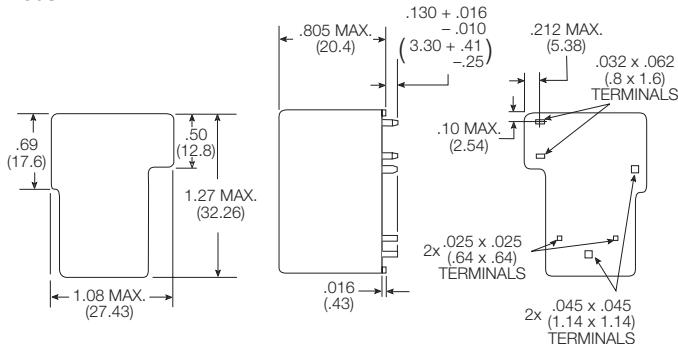
Optional plastic dust cover is a snap-on unit, open on the PC board side of the relay. The cover, when ordered with the relay, is shipped separately. It is designed to be snapped into place by the customer after the relay has been assembled to the PC board.

Product Code	Description	Part Number
35C620A	Black dust cover, for use on T90N relay	4-1393209-2

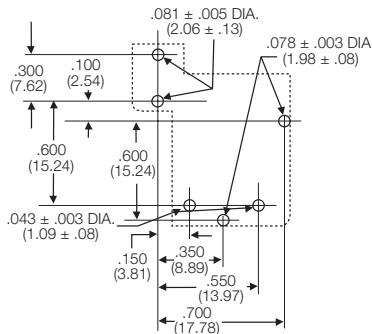
**Other Data (continued)**

Vibration resistance (functional)	1.65mm max excursions, 10-55 Hz
Shock resistance (functional)	10g for 11msec
Shock resistance (destructive)	100g
Terminal type	PCB-tht
Weight	20g open relay 26g wash-tight relay
Resistance to soldering heat THT IEC 60068-2-20	250°C
Packaging/unit	tray/50 pcs., box/500 pcs.

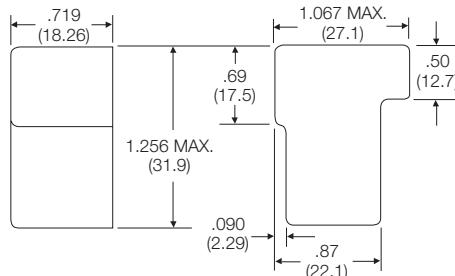
1) Operating ambient temperature must consider "Must Operate Voltage Change Over Temperature," Contact Temperature Rise, Coil Temperature Rise (If coil is not allowed to cool) and Maximum Coil Temperature. Specification ambient considers 20A load with coil cooled to ambient.

**T90S**

**PCB layout**

Bottom view on pins



Only necessary terminals are present on single throw models and terminal code 4 models. Consequently, some holes will be unnecessary for those models.

**35C620A**


## T90 Series, 30A PCB Relay (Continued)

## Product code structure

 Typical product code **T90** **S** **5** **D** **1** **2** **-24**

<b>Type</b>	T90 Power PCB relay T90					
<b>Enclosure</b>	<b>N</b> Open, no enclosure (snap-on dust cover available as an option) <b>S</b> Wash-tight, sealed plastic case with knock off nib for ventilation					
<b>Contact arrangement</b>	<b>1</b> 1 form A (1 NO) <b>2</b> 1 form B (1 NC) <b>5</b> 1 form C (1 CO)					
<b>Coil Input</b>	<b>D</b> DC voltage					
<b>Mounting and termination</b>	<b>1</b> PCB terminals <b>4</b> PCB terminals, no common terminal between coil terminals (see PCB layout/terminal assignment drawing) <small>Note: Terminal code 4 recommended for UL 873 applications. Consult factory for use of terminal code 1 for UL 873 applications.</small>					
<b>Contact material</b>	<b>2</b> AgCdO					
<b>Coil voltage</b>	Coil code: please refer to coil versions table					

Product Code	Enclosure	Contacts	Terminals	Contact Material	Coil	Part Number
T90N1D12-5	open, no cover	1 form A, 1 NO	PCB	AgCdO	5 VDC	7-1393208-4
T90N1D12-9					9 VDC	7-1393208-5
T90N1D12-12					12 VDC	6-1393208-5
T90N1D12-18					18 VDC	6-1393208-8
T90N1D12-24					24 VDC	7-1393208-0
T90N1D12-48					48 VDC	7-1393208-3
T90N1D12-110					110 VDC	6-1393208-4
T90N1D42-12			PCB, no extra COM		12 VDC	7-1393208-7
T90N1D42-24					24 VDC	7-1393208-9
T90N5D12-5		1 form C, 1 CO	PCB		5 VDC	9-1393208-5
T90N5D12-12					12 VDC	8-1393208-6
T90N5D12-18					18 VDC	9-1393208-0
T90N5D12-24					24 VDC	9-1393208-3
T90N5D12-48					48 VDC	9-1393208-4
T90N5D12-110					110 VDC	8-1393208-5
T90N5D42-12			PCB, no extra COM		12VDC	9-1393208-9
T90N5D42-24					24 VDC	1393209-2
T90S1D12-5	wash tight	1 form A, 1 NO	PCB		5 VDC	1-1393209-8
T90S1D12-6					6 VDC	1-1393209-9
T90S1D12-9					9 VDC	2-1393209-0
T90S1D12-12					12 VDC	1-1393209-2
T90S1D12-18					18 VDC	1-1393209-3
T90S1D12-24					24 VDC	1-1393209-6
T90S1D42-12			PCB, no extra COM		12 VDC	2-1393209-2
T90S1D42-24					24 VDC	2-1393209-5
T90S1D42-48					48 VDC	2-1393209-6
T90S5D12-5		1 form C, 1 CO	PCB		5 VDC	3-1393209-4
T90S5D12-12					12 VDC	2-1393209-8
T90S5D12-18					18 VDC	3-1393209-0
T90S5D12-24					24 VDC	3-1393209-1
T90S5D12-48					48 VDC	3-1393209-3
T90S5D42-12			PCB, no extra COM		12 VDC	1423094-1
T90S5D42-18					18 VDC	3-1393209-8
T90S5D42-24					24 VDC	4-1393209-0

# Mouser Electronics

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[2-1393209-1](#)