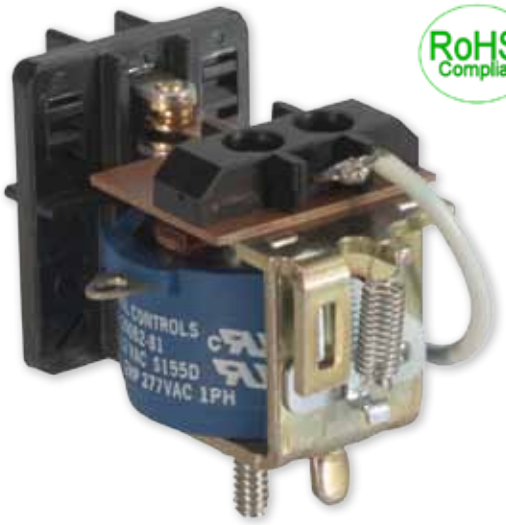
# 100 Series

Deltrol CONTROLS




## 100 Series 5 and 10 Amp General Purpose Relay

General purpose relay that controls electrical loads

### Features

- Class F Coil Insulation System for 155° C Total Temperature
- Coil Molded in Rynite® PET for Environmental Protection
- Unique Armature Stop Maintains Adjustment

### Typical Applications

- Lighting Controls
- Time Delay Controls

### Models

**100**: 5 & 10 Amp with Solder Lug Terminals
**100RF**: With Diallyl Phthalate Panel For Switching RF
**100U**: 5 Amp Unit with UL and CSA Recognition
**101U**: 10 Amp Unit with UL and CSA Recognition
**101UP**: 10 Amp Unit with Printed Circuit Terminals

| | | | |
|---|---|---|---|
| **Contact Data** | | | |
| Configuration | Thru 3PDT | | |
| Materials | 5 Amp: 1/8" Diameter Moveable Fine Silver \| 3/16" Diameter Stationary Fine Silver<br>10 Amp: 3/16" Diameter Moveable Silver Cadmium Oxide \| 3/16" Diameter Stationary Fine Silver<br>Gold Flash is Standard on all Contacts<br>Gold Diffused Available on Special Order - Min. Qty. Req'd | | |
| **Contact Ratings** | | | |
| **Movable Contact Size** | | **Pole Configuration** | **UL Ratings*** |
| 1/8" Diameter | | Thru 3PDT | 1/8 HP or 5 Amp at 120 VAC<br>1/4 HP or 5 Amp at 277 VAC<br>5 Amp at 28 VDC |
| 3/16" Diameter | | Thru 3PDT | 1/3 HP or 10 Amp at 120 VAC**<br>1/2 HP or 10 Amp at 277 VAC<br>10 Amp at 28 VDC |
| Expected Life | Electrical at Rated Load (Min.) 100,000 Operations \| Mechanical Life 10,000,000 Operations | | |
| Dielectric Strength | 800 VRMS, 60 Hz Between Contacts<br>1500 VRMS (Model 100), 2200 VRMS (Model 100U/101U), 60 Hz Between Other Elements | | |
| **Agency Approvals** | UL Recognized File No. E37066 (100U/101U Only) \| CSA Certified File No. LR20690 (100U/101U Only) | | |

*UL/CSA on 100U/101U Series Only
**3 Pole Devices Rated at 6-2/3 Amp When Switching Greater Than 150 VAC, Unless Polarity is the Same on All Poles

All dimensions in Inches

Rynite° is a registered trademark of DuPont

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| Coil Data | | | |
|---|---|---|---|
| | **Nominal Voltage** | **Resistance in OHMS ± 10%** | **Nominal Coil Power** |
| AC Coils Single Pole Units | 6 VAC<br>12 VAC<br>24 VAC<br>48 VAC<br>120 VAC<br>240 VAC | 5<br>20<br>80<br>315<br>2025<br>8000 | 2.0 VA |
| AC Coils 2 & 3 Pole Units | 6 VAC<br>12 VAC<br>24 VAC<br>48 VAC<br>120 VAC<br>240 VAC | 4.5<br>18<br>72<br>285<br>1850<br>7200 | 2.2 VA |
| DC Coils 1-3 Pole Units | 6 VDC<br>12 VDC<br>24 VDC<br>48 VDC<br>110 VDC | 30<br>120<br>480<br>1850<br>10,000 | 1.2 W |
| Coil Voltages | AC: Up to 277 Volts/60 Hz \| DC: Up to 125 Volts | | |
| Coil Treatment | Molded Rynite® PET Std. Class F | | |
| Insulation Resistance | 100 Megohms Minimum | | |
| UL Insulation System File No. | E74443 S155D 155°C Total Temperature Std. (Covers S105 Class A and S130D Class B Requirements) | | |
| **Operate Data** | | | |
| Pick Up (at 25°C) | AC Volts 85% or Less of Nominal \| DC Volts 75% or Less of Nominal | | |
| Operate Time | Approx. 15 Milliseconds | | |
| Release Time | Approx. 15 Milliseconds | | |
| **Environmental Data** | | | |
| Operating Ambient | AC: -45° to 70°C<br>DC: -45° to 85°C | | |
| Coil Temperature Rise | (25°C Ambient - Continuous Duty)<br>AC: 45°C Approx. @ 60Hz - Use at 50 Hz will cause slight increase in Coil Rise<br>DC: 25°C Approx. | | |
| **Mechanical Data** | | | |
| Terminals | 100/100U/101U Pierced Solder Lugs .125" x 0.032"<br>100UP/101UP Printed Circuit Pins | | |
| Weight | All Versions Approx. 2.0 oz. (57 g) | | |

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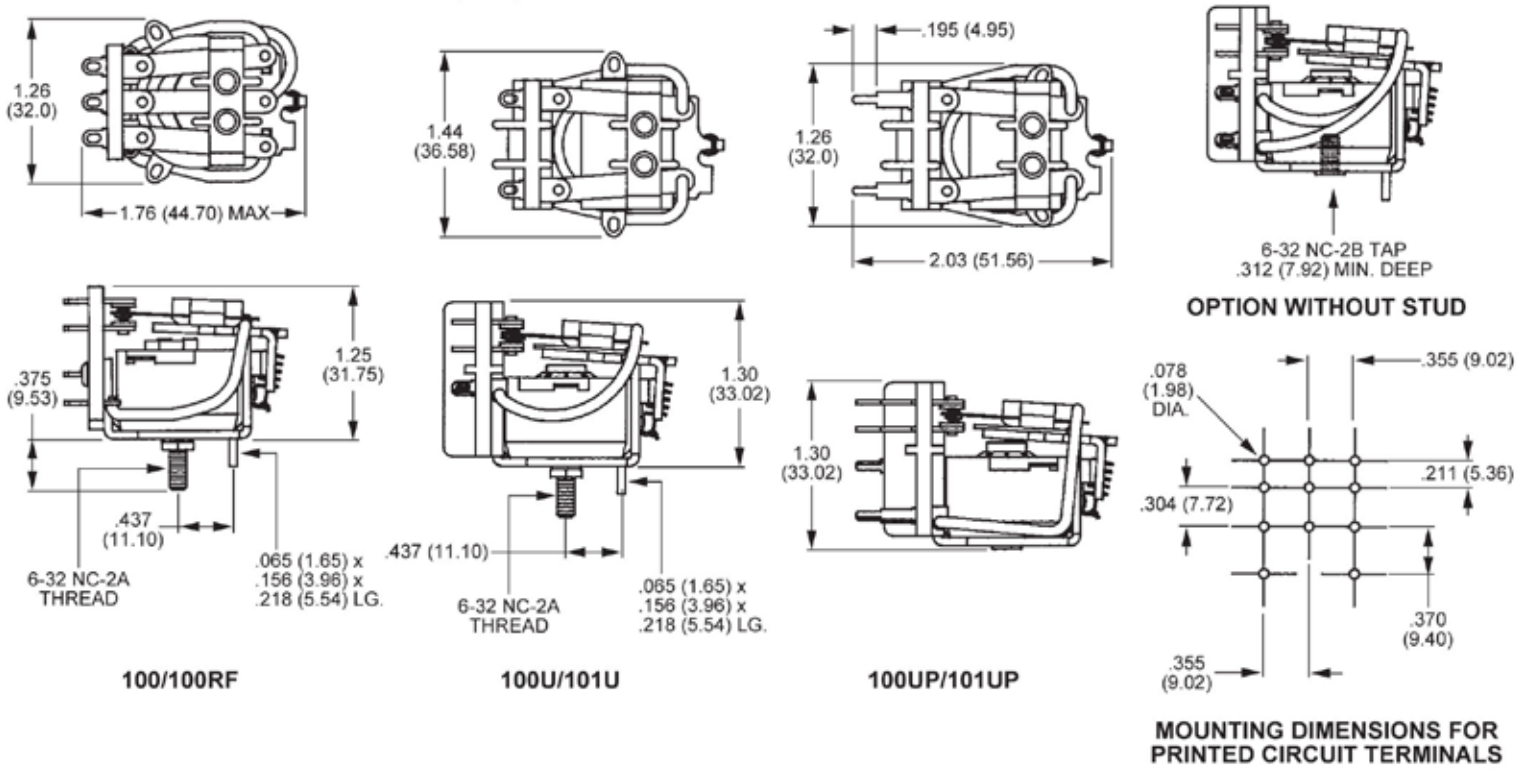
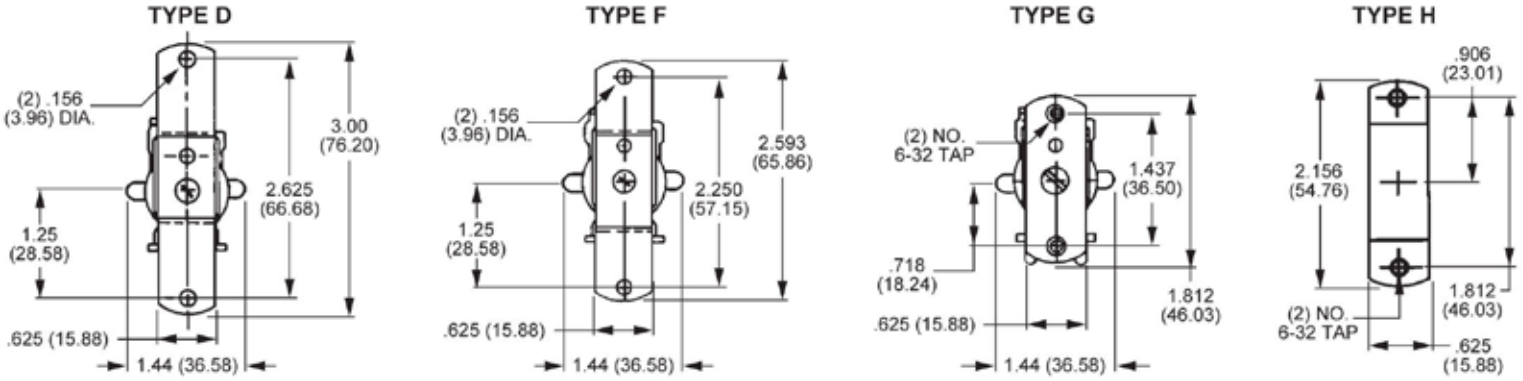
## Dimensional View

Units: Inches [mm]




## Optional Mounting Brackets

Units: Inches [mm]





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## Ordering Information

**5 Amp Part Numbers**

| | | AC Coils | | | | DC Coils | | |
|---|---|---|---|---|---|---|---|---|
| **Model** | **Pole Config.** | **12 VAC** | **24 VAC** | **120 VAC** | **240 VAC** | **12 VDC** | **24 VDC** | **110 VDC** |
| 100 | SPDT | 20001-81 | 20001-82 | 20001-84 | 20001-85 | 20007-81 | 20007-82 | 20007-84 |
| | DPDT | 20003-81 | 20003-82 | 20003-84 | 20003-85 | 20009-81 | 20009-82 | 20009-84 |
| | 3PDT | 20005-81 | 20005-82 | 20005-84 | 20005-85 | 20011-81 | 20011-82 | 20011-84 |
| 100U | SPDT | 20061-81 | 20061-82 | 20061-84 | 20061-85 | 20067-81 | 20067-82 | 20067-84 |
| | DPDT | 20063-81 | 20063-82 | 20063-84* | 20063-85 | 20069-81 | 20069-82 | 20069-84 |
| | 3PDT | 20065-81 | 20065-82 | 20065-84 | 20065-85 | 20071-81 | 20071-82 | 20071-84 |
| 100UP | SPDT | 20792-81 | 20792-82 | 20792-84 | 20792-85 | 20798-81 | 20798-82 | 20798-84 |
| | DPDT | 20794-81 | 20794-82 | 20794-84 | 20794-85 | 20800-81 | 20800-82 | 20800-84 |
| | 3PDT | 20796-81 | 20796-82 | 20796-84 | 20796-85 | 20802-81 | 20802-82 | 20802-84 |
| **10 Amp Part Numbers** | | | | | | | | |
| 100 | SPDT | 20002-81 | 20002-82 | 20002-83 | 20002-85 | 20008-81 | 20008-82 | 20008-84 |
| | DPDT | 20004-81 | 20004-82 | 20004-83 | 20004-85 | 20010-81 | 20010-82 | 20010-84 |
| | 3PDT | 20006-81 | 20006-82 | 20006-83 | 20006-85 | 20012-81 | 20012-82 | 20012-84 |
| 101U | SPDT | 20062-81* | 20062-82 | 20062-84* | 20062-85 | 20068-81* | 20068-82 | 20068-84 |
| | DPDT | 20064-81 | 20064-82* | 20064-84* | 20064-85 | 20070-81* | 20070-82* | 20070-84* |
| | 3PDT | 20066-81 | 20066-82 | 20066-84 | 20066-85 | 20072-81 | 20072-82 | 20072-84 |
| 101UP | SPDT | 20793-81 | 20793-82 | 20793-84 | 20793-85 | 20799-81 | 20799-82 | 20799-84 |
| | DPDT | 20795-81 | 20795-82 | 20795-84 | 20795-85 | 20801-81 | 20801-82 | 20801-84 |
| | 3PDT | 20797-81 | 20797-82 | 20797-84 | 20797-85 | 20803-81 | 20803-82 | 20803-84 |

(*) Normally Stocked
Non stocked items require a minimum order

| Part Number | Description |
|---|---|
| 20256-80 | OPTIONAL B-4 DUST COVER FOR SERIES 100 RELAY |

- Sealed knock-out holes for standard conduit fittings.
- Relay mounts on pre-drilled base.
- Aluminum construction
- Snap action cover release.
- Accommodates relay series 100 and 100RF
- Size: 4″ W x 2 -1/4″ H x 2-1/4″ D

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