Relays

Deltrol CONTROLS
ISO 9001:2008 Certified

www.deltrol-controls.com
This product brochure provides general information on our standard product line of relays. Complete product information can be obtained by visiting our website at www.deltrol-controls.com. The following is a description of just some of the relay features that make up the Deltrol Difference.

**Molded Coils**
Deltrol Controls pioneered the plastic encapsulated coil. Virtually all our general purpose relays are available with DuPont Rynite® PET encapsulation; a UL recognized Class F insulation system. Encapsulation locks the coil terminals into place, eliminating breakage, puts the copper winding in direct contact with its wrap, allowing for the most efficient heat transfer and protects against moisture and fungus problems that can occur with other wraps. Insist on Deltrol Controls encapsulated coils; look-alike, snap-on plastic covers do not offer the same protection.

**Skeined Wire**
Studies have shown that there is a substantial reduction in the copper wire diameter when soldering takes place. While this is not a problem with heavier wire, finer gauge wires are seriously compromised. Over time the stresses of thermocycling can cause the wire to break, leaving an open circuit. That's why Deltrol Controls skeins all fine gauge wire when constructing its coil. This process triples the thickness of the wire gauge at the ends where it is soldered to the terminal, allowing it to easily handle the stresses of heating and cooling.

**Gusseted Frames**
All Deltrol Controls relay frames incorporate a small but important feature, the frame gusset. This small buttress is created by an extra stamping process during frame fabrication. This gusset supplies rigidity to the frame, which in turn maintains the alignment of the contact panel assembly and the moving armature. This assures long-life and resistance to changes during shipment and handling.

**Armature Stop/Retainer**
Deltrol Controls takes many extra steps in the assembly of our relays. An example is a riveted retainer/stop that eliminates the chance the armature will pop off during handling and shipping, and it provides a stop for armature movement. Relays without this feature are subject to bending and setting of the moveable contact points on impact, which can cause the response characteristics to change.

Rynite® is a registered trademark of DuPont
# General Purpose Relays

<table>
<thead>
<tr>
<th></th>
<th>101U</th>
<th>105</th>
<th>160</th>
<th>260</th>
<th>263/268</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact Rating</strong></td>
<td>5 or 10 Amp</td>
<td>5 or 10 Amp</td>
<td>5 or 13 Amp</td>
<td>5, 10, or 15 Amp</td>
<td>15 Amp</td>
</tr>
<tr>
<td><strong>Size in Inches WxDxH</strong></td>
<td>1.76 x 1.25 x 1.22</td>
<td>1.38 x 1.38 x 2.00</td>
<td>1.50 x 1.38 x 2.20</td>
<td>1.50 x 1.38 x 2.25</td>
<td>1.50 x 1.38 x 2.25</td>
</tr>
<tr>
<td><strong>Contact Configuration</strong></td>
<td>Thru 3PDT</td>
<td>Thru 3PDT</td>
<td>Thru 3PDT</td>
<td>Thru 3PDT</td>
<td>Thru 3PDT</td>
</tr>
<tr>
<td><strong>Coil Insulation Class</strong></td>
<td>Class F Molded Rynite® PET</td>
<td>Class A Tape Wrap</td>
<td>Class F Molded Rynite® PET</td>
<td>Class F Molded Rynite® PET</td>
<td>Class F Molded Rynite® PET</td>
</tr>
<tr>
<td><strong>Mounting Options</strong></td>
<td>Panel Mount, Bracket Mount</td>
<td>Socket Mount</td>
<td>Socket Mount, Panel Mount, PC Terminal</td>
<td>Panel Mount</td>
<td>Panel Mount</td>
</tr>
<tr>
<td><strong>Sockets</strong></td>
<td>N/A</td>
<td>Screw Terminal DIN Rail Mtg.</td>
<td>Screw Terminal DIN Rail Mtg., Back Connecting – PC Terminal – QC Terminal – Solder Tab</td>
<td>N/A</td>
<td>N/A</td>
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</tbody>
</table>

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### Power Relays

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<th>270/275</th>
<th>295</th>
<th>375</th>
<th>900</th>
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<tbody>
<tr>
<td>Contact Rating</td>
<td>15 or 30 Amp</td>
<td>35 Amp</td>
<td>30 Amp</td>
<td>30 Amp</td>
<td>30 or 50 Amp</td>
</tr>
</tbody>
</table>
| Features  | – Heavy duty 1/4" dia. contacts  
– Compact size  
– Up–stop for contact protection on SPST–NO–DM | – High power switching in a compact size  
– Can often replace small contactors | – High Power switching in a compact size  
– Switches tungsten lamp loads up to 2.4 kw. @ 240 VAC  
– Exceeds NEMA STD TS2–2003 | – 3 pole high power switching  
– Switches 30 amp on both NC & NO terminals  
– Compact size saves valuable “Real Estate” | – High power switching for motors, heaters, etc.  
– Rugged easy access construction  
– Screw terminal connections |
| Size in Inches WxDxH | 1.88 x 1.63 x 1.25 | 1.50 x 1.38 x 2.15 | 1.75 x 2.38 x 3.90 | 2.1 x 1.38 x 2.15 | 2.5 x 2.5 x 2.2 Short Base  
2.5 x 3.3 x 2.2 Long Base |
| Contact Configuration | Thru SPDT  
SPST–NO–DM | Thru DPDT | DPDT | 3PDT  
3PST–NC  
3PST–NO | Thru DPDT |
| Coil Insulation Class | Class F Molded Rynite® PET | Class F Molded Rynite® PET | Class F Molded Rynite® PET | Class F Molded Rynite® PET | Class F Molded Rynite® PET |
| Mounting Options | Panel Mount | Panel Mount  
PC Terminal | Standard  
8 Pin Jones Plug | Panel Mount  
PC Terminal | Panel Mount |
| Sockets | N/A | N/A | N/A | N/A | N/A |
| Typical Applications | Motor Control  
Lighting Control  
Surge Protection | Electric Heat  
Motor Control  
HVAC  
Laundry Equipment  
Welding Equipment | Traffic Controller Equipment | Electric Heat  
Motor Control Power Supplies | Motor Controls, Control Panel Switching, Spa Controls |

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## Latching Relays & Buzzers

<table>
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<th>101ML</th>
<th>105ML</th>
<th>166ML</th>
<th>BZ</th>
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<tbody>
<tr>
<td><strong>Contact Rating</strong></td>
<td>5 or 10 Amp</td>
<td>5 or 10 Amp</td>
<td>5 or 10 Amp</td>
<td>N/A</td>
</tr>
</tbody>
</table>
| **Features** | – Permanent magnet locks armature in place | – Permanent magnet locks armature in place | – Low cost design without coil power | – AC buzzer  
– Maintains status without coil power  
– Pulse activated |  
– Maintains status without coil power |  
– Pulse activated |  
– 8, 11 or 20 pin octal type base |  
– Single and dual coil designs |  
– Easy screw mount  
– Compact size  
– Molded coil |
| **Size in Inches WxDxH** | 1.69 x 1.38 x 3.38 | 1.94 x 1.94 x 3.25 | 1.50 x 1.38 x 2.20 | 1.06 x 1.26 x 1.0 |
| **Contact Configuration** | Thru 6PDT | Thru 5PDT | Thru 3PDT | N/A    |
| **Coil Insulation Class** | Class F Molded Rynite® PET | Class F Molded Rynite® PET | Class F Molded Rynite® PET | Class F Molded Rynite® PET |
| **Mounting Options** | Panel Mount | Socket Mount | Panel Mount  
Socket Mount | Screw Mount |
| **Sockets** | N/A | Screw Terminal  
DIN. Rail Mtg. | Screw Terminal  
DIN Rail Mtg.  
Back Connecting  
– PC Terminals  
– QC Terminals  
– Solder Tab | N/A |
| **Typical Applications** | Railroads  
Public Transit  
Pump Controllers | Railroads  
Public Transit | Laundry & Textile Equipment, HVAC | Commercial Appliances, Laundry Equipment |

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**Deltrol Controls Products**

Deltrol Controls designs and manufactures dispensing valves, inlet valves, solenoids, relays, hose sets and fittings, proportional valves and custom assemblies. We offer an extensive line of standard products and have an in–house engineering staff that will work with you to design a custom product specific to your application.

Please visit www.deltrol–controls.com for further information.

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**Deltrol Controls Overview**

Deltrol Controls is located in Milwaukee, Wisconsin USA and is a wholly-owned subsidiary of Deltrol Corp. For over 45 years, we have designed and manufactured valves, solenoids, relays, and custom assemblies for a variety of applications. Our Milwaukee operation employs approximately 110 employees, working out of a 110,000 sq. ft. ISO 9001:2008 Registered manufacturing facility. We also have manufacturing capabilities in other parts of the world that allow us to be a globally competitive supplier.