Electronic Relay Incorporated Solenoid Operated Directional Valves

Drive power source and signal are separate.

The valve is actuated by operating a built-in switch using a very small current signal (about 10 mA) when the solenoid is energised.

A Direct Drive by a programmable controller is now possible.
As the valve can be actuated by a very small current, as we have mentioned, a Direct Drive is possible on the output circuit of the programmable controller or sequence controller.

Simple construction and stable operation.
Since the valve is a direct type, the construction is quite simple.
Also the solenoid is the well proven wet armature type, which can withstand contamination.
Therefore a stable operation can be obtained.

Specifications

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<tbody>
<tr>
<td>Standard Type</td>
<td>T-DSG-01-3C-<strong>D24</strong>-70/7090</td>
<td>100 (26.4)</td>
<td>35 (5080)</td>
<td>21 (3050)</td>
<td>300</td>
<td>1.85 (4.08)</td>
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<tr>
<td>Shockless Type</td>
<td>T-S-DSG-01-3C-<strong>D24</strong>-70/7090</td>
<td>63 (16.6)</td>
<td>25 (3630)</td>
<td>21 (3050)</td>
<td>120</td>
<td>1.85 (4.08)</td>
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<tr>
<td>Standard Type</td>
<td>T-DSG-01-2B-<strong>D24</strong>-50/5090</td>
<td>120 (31.7)</td>
<td>31.5 (4570)</td>
<td>16 (2320)</td>
<td>240</td>
<td>5 (11.03)</td>
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<td>Shockless Type</td>
<td>T-S-DSG-03-2B-<strong>D24</strong>-50/5090</td>
<td>120 (31.7)</td>
<td>25 (3630)</td>
<td>16 (2320)</td>
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<td>5 (11.03)</td>
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* Maximum flow indicates a ceiling flow. As the ceiling flow depends on the type of spool and operating condition the same as those for standard DSG-01/03, refer to the List of Spool Functions on pages 347 - 351 (DSG-01) and 364 - 368 (DSG-03) for details.

Model Number Designation

<table>
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<th>F-</th>
<th>T-</th>
<th>S-</th>
<th>DSG</th>
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<th>A</th>
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<th>M</th>
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<tr>
<td>Special Seals</td>
<td>Control Type</td>
<td>Type</td>
<td>Series Number</td>
<td>Valve Size</td>
<td>Number of Valve Position</td>
<td>Spool-Spring Arrangement</td>
<td>Spool Type</td>
<td>Special Two Position Valve</td>
<td>Coil Type</td>
<td>Supply Type of Signal Power</td>
<td>Design Number</td>
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<td>Electronic Relay Incorporated Type</td>
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* Please refer to the valve type DSG-01 and DSG-03 shown on page 346 and 363 for the area shaded.

For details, please contact us.
Comparison of The Conventional Type and The Electronic Relay Incorporated Type

Conventional Type

- Output Unit
  - Large capacity output units (approximately 2A per unit) are required to operate solenoid operated directional valves.
  - As there is a limitation for common capacity, all contacts of the output units can be used in some cases.
  - Total cost therefore becomes higher, and a larger installation space is required.

- Power Supply Cables
  - Thick wires are required and, therefore, wiring is awkward.

Electronic Relay Incorporated Type

- Output Unit
  - Standard small capacity output unit, which is usually less expensive can be used.
  - Other electric devices can be commonly used with the solenoid directional valves. Therefore, installation as or output units can be reduced.

- Signal Output Cables
  - Thinner cable, compared with power supply cable, can be used and therefore wiring is easier.
  - The solenoid operated directional valve is provided with a protective circuit to ensure a constant current, which protects the programmable controller from serious effects caused by miswriting.

- Only two power supply cables are required for solenoid operated directional valves and, therefore wiring can be reduced.