Engineering for the future...

• Founded in 1967, Rotex has grown multifold, exceeding revenue over 50M USD.
• Rotex is an Indian MNC with 4 local and 1 International manufacturing (Germany) setup.
• Rotex can develop unique innovative design solutions for a specific application. Till date over 6000 types of valves for various applications like Automotives, Defence, Oil & Gas, Nuclear Power, Railways, Pharma, Steel etc have been designed & delivered.
• Rotex has complete dedicated team and facility catering to automotive sector applications. We are one of the leading engineering company in the world with capability of manufacturing unique solenoid valves for fuel handling applications with ultra low leaks and Class A cleanliness specification.

Today Rotex in Numbers has:
• 56+ International Sales offices, agents & distributors
• 32,000+ Sq meter area Spread across 5 factories
• 12+ Patent Rights
• 40+ sales Engineers
• 500+ employee strength
56+ International Marketing offices, Distribution Locations
Automotive

- Cummins
- Daimler
- Tata
- Ashok Leyland
- Force Motors
- Greaves Cotton Limited

Our Renowned Clients

Non-Automotive

- ABB
- BASF
- GE
- Tyco
- SNC-Lavalin
- Emerson
- Reliance Globalcom
- RANBAXY
- ALSTOM
- Honeywell
- JACOBS
- Kidde
- Oxy
- Krupp
- Siemens
- Syngenta
- DSM
- DNO
- DuPont
- ConocoPhillips

Rotex
Engineering For The Future
Commercial Vehicle Applications

- Air Braking solenoid valve
- ABS solenoid valve
- Urea tank heating
- Urea flushing solenoid valve in air assisted SCR
- Steering Column Adjustment Switch operated timing base valve
- Hydraulic valve for tipper application
- Pneumatic Cabin control valve for tipper & off highway applications
- Solenoid valve for Battery cooling in electrical vehicles

Other Applications

- Atomization Dozing Module for DPF regeneration system
- PTO Control valve
- Lift Axle Control Valve
- Exhaust Braking Solenoid Valve
- Differential lock Solenoid valves for 4-wheel drive
- Automated manual transmission control solenoid valve block
- Coolant Control Valve
- Auto Drain water valve for Fuel Filter
- DPF Regeneration valve with Air purging
- Fuel Shut off Valve
- Cam Operated Shut off valve for manual transmission
Passenger Vehicle Applications

- Solenoid valve for parking brake control
- Vacuum Modulator valve
- CNG / LPG shut of solenoid valve and injector manifold
- 3/2 or 2/2 solenoid valve
- Solenoid valve for water pump control

Other Applications

- Engine Fuel Shut off Valve
- Refrigeration Control solenoid valve
- Air suspension solenoid valve
- Coolant Control Valve
- Electrical EGR Valve
- Speed Control solenoid valve
Other Products

- Purging Valve for SCR & DPF
- Pneumatic Control Valve for Seat Height Adjustment
- LPG-CNG Shut off Valve
- Agriculture Sprayer Valve
- Solenoid Actuator
- 4 Port Hydraulic Valve for Tipper Application
- 3 Port Hydraulic valve for Tipper Application
- Cabin Control Valve
- Steering Adjustment Pneumatic Switch
**Application:**
Typically used in fuel line supplying fuel and air to DPF regenerative injector. It controls the amount of fuel to be injected and air purge the fuel line to avoid carbon soot jamming the injector.

**Technical Data:**

- **Operating Voltage range:** 8-36 V, PWM
- **Operating Pressure range Fuel side:** 0 - 20 bar
- **Operating Pressure range air side:** 0 - 12 bar
- **Thermal range of operation:** -40 °C to 125 °C
- **Duty Cycle:** 100%
- **Pneumatic connection:** Voss, 6 mm OD pipe
- **Fuel Connection:** Sub-base (can be ported)
- **Electrical connector:** Delphi (or Tyco)
- **Protection Class:** IP6K9K
- **Leak rates:** < 0.5 cc/min @ 10 bar air
- **Cleanliness:** < 0.05 mg/cm²
- **additional accessories:** check valve & pressure sensor

**Application:**
For air purging in system like DPF system, SCR system and also can be used as ON/OFF valve for controlling gaseous media.

**Technical Data:**

- **Operating Voltage range:** 8-36 V, PWM
- **Operating Pressure range:** 0 - 12 bar
- **Thermal range of operation:** -40 °C to 125 °C
- **Duty Cycle:** 100%
- **Pneumatic connection:** M12 or ¼” NPT or ¼” BSP
- **Electrical connector:** Delphi (or Tyco)
- **Protection Class:** IP6K9K
- **Leak rates:** < 0.5 cc/min @ 10 bar air
- **Cleanliness:** < 0.05 mg/cm²
- **Flow rate (@1.5 bar):** 18 – 22 LPM
- **WIF sensor Output:** As resistance or Voltage value

**Application:**
Auto Drain Valve with inbuilt water-in-fuel (WIF) sensor for water-fuel separator with redundancy feature in the form of ball mechanism to prevent any fuel leaks.

**Technical Data:**

- **Operating Voltage range:** 8-36 V, PWM
- **Operating Pressure range:** 0 - 15 bar
- **Thermal range of operation:** -40 °C to 125 °C
- **Duty Cycle:** 100%
- **Media connection:** Sub – base mount to fuel Module
- **Electrical connector:** Delphi (or Tyco)
- **Protection Class:** IP6K9K
- **Leak rates:** < 1 mm³/sec of H₂ @ 10 bar
- **Cleanliness:** < 0.1 mg/cm²
- **WIF sensor Output:** As resistance or Voltage value

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**Diesel Particulate filter regeneration valve with Air purging**

**Air purging solenoid valve**

**Auto Drain Valve for Water Fuel Separator**
### Coolant Control Valve

**Application:**
Very economical version for coolant control valve for heating application in single chamber HVAC systems, Urea heating tank or Battery cooling in electrical vehicles or any other application involving coolant management.

**Technical Data:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage range</td>
<td>12V or 24V DC</td>
</tr>
<tr>
<td>PWM operated (as an option)</td>
<td></td>
</tr>
<tr>
<td>Operating Pressure range</td>
<td>0 - 5 bar</td>
</tr>
<tr>
<td>Port Connections</td>
<td>2 Port</td>
</tr>
<tr>
<td>Thermal range of operation</td>
<td>-40 C to 125 C</td>
</tr>
<tr>
<td>Media Connection</td>
<td>Eco Flange Connection or threads</td>
</tr>
<tr>
<td>Electrical connector</td>
<td>flying leads with motherson connector</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP6K7</td>
</tr>
<tr>
<td>Leak rates</td>
<td>&lt; 1 CC/hr @ 5 bar of coolant</td>
</tr>
<tr>
<td>Response Time</td>
<td>&lt; 20 msec</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Speed Control Valve

**Application:**
Used in speed governing systems for cutting down flow of fuel when the speed limit is reached.

**Technical Data:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage range</td>
<td>12V or 24V DC</td>
</tr>
<tr>
<td>PWM operated (as an option)</td>
<td></td>
</tr>
<tr>
<td>Operating Pressure range</td>
<td>0 - 10 bar</td>
</tr>
<tr>
<td>Port Connections</td>
<td>2 Port</td>
</tr>
<tr>
<td>Thermal range of operation</td>
<td>-40 C to 125 C</td>
</tr>
<tr>
<td>Media Connection</td>
<td>M12</td>
</tr>
<tr>
<td>Electrical connector</td>
<td>flying leads</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP6K7</td>
</tr>
<tr>
<td>Parallel Flow Control valve</td>
<td>2% to 100% of fuel flow</td>
</tr>
<tr>
<td>Response Time</td>
<td>&lt; 8 msec</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Fuel Shut off Valve

**Application:**
These valves are available in various sizes and orifices. The application is to cut off the fuel flow to fuel pump and thereby stopping the engine.

**Technical Data:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage range</td>
<td>12V or 24V DC</td>
</tr>
<tr>
<td>PWM operated (as an option)</td>
<td></td>
</tr>
<tr>
<td>Operating Pressure range</td>
<td>0 - 12 bar</td>
</tr>
<tr>
<td>Port Connections</td>
<td>3 Ports / 2 Port</td>
</tr>
<tr>
<td>Thermal range of operation</td>
<td>-40 C to 125 C</td>
</tr>
<tr>
<td>Media connection</td>
<td>¼” BSP (or NPT) or customized</td>
</tr>
<tr>
<td>Electrical connector</td>
<td>flying leads or inbuilt connector</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP6K9K</td>
</tr>
<tr>
<td>Parallel Flow Control valve</td>
<td>2% to 100% of fuel flow</td>
</tr>
<tr>
<td>Response Time</td>
<td>&lt; 0.1 CC/hr @ 12 bar of fuel</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>100%</td>
</tr>
</tbody>
</table>
**Application:**
A solenoid valve used in defense, mining trucks or any other application where there is a 4 wheel drive and locking of the differential happens pneumatically.

**Technical Data:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage range</td>
<td>12V or 24V DC</td>
</tr>
<tr>
<td>PWM operated (as an option)</td>
<td></td>
</tr>
<tr>
<td>Operating Pressure range</td>
<td>0 - 8 bar</td>
</tr>
<tr>
<td>Port Connections</td>
<td>3 Ports (3rd port as exhaust)</td>
</tr>
<tr>
<td>Thermal range of operation</td>
<td>-40 C to 80 C</td>
</tr>
<tr>
<td>Media Connection</td>
<td>¼“ BSP (or NPT)</td>
</tr>
<tr>
<td>Electrical connector</td>
<td>DIN Connector (flying leads)</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP6K7</td>
</tr>
<tr>
<td>Leak rates</td>
<td>&lt; 2 CC/min @ 8 bar air</td>
</tr>
<tr>
<td>Coil Power</td>
<td>8 W</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Application:**
A solenoid valve used in operating a cylinder which in turn engages a gear when the driver moves from lower gear system (1-4) to higher gear system (5-8) and vice versa.

**Technical Data:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation load</td>
<td>60N</td>
</tr>
<tr>
<td>Operating Pressure range</td>
<td>5.5 – 10 bar</td>
</tr>
<tr>
<td>Port Connections</td>
<td>3 Ports (3rd port as exhaust)</td>
</tr>
<tr>
<td>Thermal range of operation</td>
<td>-25 C to 100 C</td>
</tr>
<tr>
<td>Media connection</td>
<td>VOSS NG8</td>
</tr>
<tr>
<td>Operating mechanism</td>
<td>2 Pin design to be operated by cam design</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP6K7</td>
</tr>
<tr>
<td>Leak rates</td>
<td>&lt; 2 CC/min @ 10 bar air</td>
</tr>
<tr>
<td>Flow</td>
<td>55 Lpm @ 4 bar</td>
</tr>
</tbody>
</table>

**Application:**
This valve is used in operating a cylinder which in turn engages a gear when the driver moves from lower gear system (1-4) to higher gear system (5-8) and vice versa.

**Technical Data:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Closing Time lap</td>
<td>17 Sec ± 10 sec</td>
</tr>
<tr>
<td>Operating Pressure range</td>
<td>4 – 12.5 bar</td>
</tr>
<tr>
<td>Port Connections</td>
<td>3 Ports (3rd port as exhaust)</td>
</tr>
<tr>
<td>Thermal range of operation</td>
<td>-32 C to 70 C</td>
</tr>
<tr>
<td>Media Connection</td>
<td>Inbuilt Push In fittings.</td>
</tr>
<tr>
<td>Electrical connector</td>
<td>flying leads</td>
</tr>
<tr>
<td>Switch Type</td>
<td>Toggle Switch</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP6K7</td>
</tr>
<tr>
<td>Leak rates</td>
<td>&lt; 10 CC/min @ 8 bar air</td>
</tr>
<tr>
<td>Flow</td>
<td>55 Lpm @ 4 bar</td>
</tr>
</tbody>
</table>
### Cabin Control Valve

**Application:**
This is a hand lever operated pneumatic valve which in turn operates the hydraulic valve and clutch assembly to connect the hydraulic pump. It is also with ETO ON and OFF switch for safety shut down.

**Technical Data:**
- Valve assembly: 3 valve assembly in one manifold
- Operating Pressure range: 0 - 10 bar
- Port Connections: 3 Ports (3rd port as exhaust)
- Thermal range of operation: -20 C to 70 C
- Media Connection: Inbuilt Push In fittings
- Switch Type: Hold up lever to change position
- Protection Class: IP6K5
- Leak rates: < 3 CC/min @ 10 bar air

### Pneumatically Operated Hydraulic Direction Control valves

**Application:**
These valves are used for operating single acting or double acting hydraulic cylinders for tilting applications in the commercial vehicles or off highway applications.

**Technical Data:**
- Pneumatic pressure needed: 8 – 10.5 bar
- Operating Pressure range: 0 – 250 bar
- Port Connections: 3 Ports – single acting 4 ports – double acting
- Thermal range of operation: -20 C to 120 C
- Media Connection: Threaded ports
- Operation type: Pneumatically operated
- Protection Class: IP6K7
- Leak rates: <1 CC/min @ 10 bar oil
- Additional accessories: Inbuilt Check valve at inlet for 3 ports valve

### Solenoid Operated EGR Valve

**Application:**
Engine Gas Re-circulation valve with proportional control for better emission control performance of the engine.

**Technical Data:**
- Solenoid Voltage: 8 – 24 V PWM – 0% to 100%
- Operating Pressure range: 0 – 0.1 bar
- Port Connections: 2 Ports
- Thermal range of operation: -20 C to 250 C
- Media connection: Flange type
- Operation type: Direct Acting Solenoid operated
- Protection Class: IP6K7
- Orifice Size: 2 mm to 15 mm
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