

Transmission Valve Body with Solenoid

This transmission valve body is equipped with a solenoid valve, providing integrated electro-hydraulic control. The control valve is designed for excellent efficiency and reliable gear shifting.



Product Overview

Integrated Electro-Hydraulic Control

This transmission valve body is a compact, highly integrated component engineered for precise control of hydraulic fluid flow within heavy-duty transmissions. Designed for loaders, graders, and other engineering machinery, it provides smooth and stable gear shifting through 4x4 gear shift and boost pressure control. The robust construction and efficient design ensure high operational comfort and reliable performance in demanding environments.

Key Performance Metrics

Performance Highlights

120 L/min

Nominal Flow

51.5 kg

Weight

8.5 W

Consumed Power

Technical Parameters

Applications

- Loader
- Grader
- Other engineering machinery

Parameters

| | |
|--|---|
| Nominal Flow (L/min) | 120 |
| Gear pressure (MPa) | 2.2-2.5 |
| Differential pressure of each gear (MPa) | ±0.1 |
| Pressure swing (MPa) | ±0.1 |
| Gear pressure boost time (s) | 0.8-1.8 |
| Solenoid valve rated voltage (V) | DC24V |
| Rated current (A) | 0.35 (measured at rated voltage, 25 °C temperature) |
| Consumed power (W) | 8.5 |
| Insulation grade | H |
| Hydraulic fluid | Mineral oil (HL, HLP) in accordance with DIN 51 524 |
| Viscosity range (mm ² /s) | 10-300 |
| Fluid temperature range (°C) | -30-120 |
| Fluid cleanliness | Not lower than GB/T 14039-93 level 10/16 or NAS 1638 level 10 |
| Weight (kg) | 51.5 |

Detailed view of the transmission valve body showcasing core mechanical architecture and technical integration points.

Operating Specifications

| Parameter | Value |
|--------------------------|-------------|
| Gear Pressure | 2.2-2.5 MPa |
| Pressure Swing | ±0.1 MPa |
| Gear Pressure Boost Time | 0.8-1.8 s |
| Solenoid Voltage | DC24V |
| Rated Current | 0.35 A |
| Insulation Grade | H |

Application & Compatibility

Machinery Compatibility

Loader, Grader, Engineering Machinery

Fluid Requirements

Hydraulic Fluid Standards

- Fluid Type: Mineral oil (HL, HLP) per DIN 51 524
- Viscosity Range: 10-380 mm²/s
- Temperature Range: -20 to 120 °C
- Cleanliness Level: GB/T 14039-93 19/16 or NAS 1638 level 10