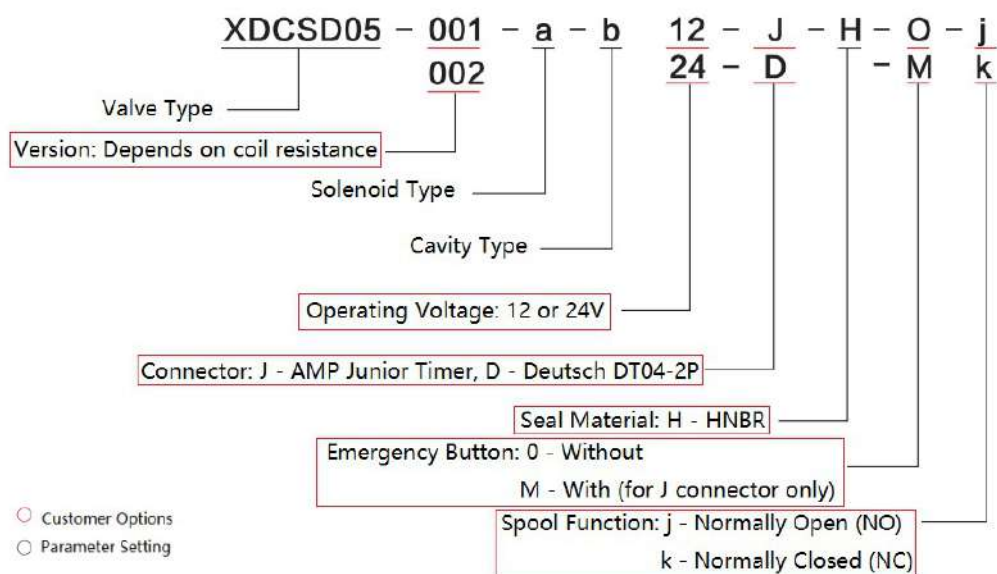




Hydraulic Parameters	
Maximum Supply Pressure	PP = 50 bar (30 bar with emergency push-button function)
Maximum Return Pressure	PT = 30 bar
Maximum Working Pressure	PA = 50 bar
Hysteresis	< 3% of rated control pressure, Recommended control method
Maximum Allowable Fluid Contamination Level	ISO 4406 20/18/15
Working Medium	Mineral oil, compliant with DIN 51524 standard
Operating Fluid Temperature Range	-30 ° C to 100 ° C
Internal Leakage	< 0.05 L/min (de-energized) < 0.05 L/min (energized)
Filter Screen Specification	125 μm (Port P)

* Relevant test conditions: PP = 50 bar, fluid viscosity = 32 cSt

Electrical Parameters		
Operating Voltage	12V	24V
Operating Voltage Range	9-16V	18-32V
Operating Current Range	0-1500mA (max)	0-750mA (max)
Coil Resistance at 20°C (DT04)	8.15Ω ±5%	32.5Ω ±5%
Coil Resistance at 20°C (AMP)	4.72Ω ±5%	20.8Ω ±5%
Control Method	Current control: PWM drive frequency: 600 Hz (recommended) High resistance (8.15 Ω and 32.5 Ω) versions can be controlled using DC voltage.	
Connector	AMP Junior Timer, Deutsch DT04-2P	
Protection Rating	Up to IP6K6 / IPX9K	
Response Time	t on < 60 ms (pA = 0% to 90%) t off < 60 ms (pA = 100% to 10%)	

Product Overview

The XDCSD05 series is a high-performance direct-acting proportional pressure control valve, engineered for precision pilot control in mobile hydraulic systems. It provides stable and accurate pressure regulation via PWM signal, with fast response, low hysteresis and ultra-low internal leakage. Built for harsh working environments, it features high protection ratings, wide operating temperature range and long service life, making it widely used in construction machinery, agricultural equipment, special vehicles and electro-hydraulic actuator systems.

Hydraulic schematic

Functional Limitations (average characteristic)

Figure 10 is a line graph showing Supply Pressure (bar) on the Y-axis (0 to 55) versus Flow (l/min) on the X-axis (0 to 35). Two curves are plotted: 'Normally Close K' (orange line) and 'Normally Open J' (green line). The 'Normally Close K' curve starts at 50 bar for 0 l/min, remains constant until about 5 l/min, then drops to approximately 48 bar at 10 l/min, 40 bar at 15 l/min, and finally drops to 0 bar at 20 l/min. The 'Normally Open J' curve starts at 50 bar for 0 l/min, remains constant until about 33 l/min, and then drops to 0 bar.

Flow (l/min)	Normally Close K (bar)	Normally Open J (bar)
0	50	50
5	50	50
10	48	50
15	40	50
20	0	50
33	0	50
35	0	0

Outline dimensions with Deutsch connector (Unit: mm)

Cavity dimensions (Unit: mm)

