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NG5

Electro-hydraulic CANbus Control Module



# NG5 ELECTRO-HYDRAULIC CANbus CONTROL MODULE

- Accurate spool position control
- · Analog or CANbus control
- · IP67/IPx9K protection grade
- EPD certification according to ISO 14025 and EN 50693













## Low Hysteresis

Thanks to integrated electronics and contactless position sensor, the module NG5 can ensure the precise positioning of the valve Spool, with low hysteresis, high dynamic and reactivity.

#### **Functional Safety**

Functional Safety has been integrated since the beginning in the design and validation process. The electronic board is designed with Hardware Category 2 and is capable to reach safety level PLd / SIL 2.

#### **CANbus or Analog**

The module can be controlled using SAE J1939 or CANopen protocol directly from Joystick or throug a Control Unit. A redundant analog input command option is available.

#### Reliability

The electrohydraulic module has been qualified according to OEMs' most rigorous reliability standards.

The Deutsch connector and the potted electronic board allows the IP67/IPx9K protection grade and a strong resistance to all adverse conditions (vibrations, shocks, EMC).

#### Flexibility

The NG5 module has a high degree of customization thanks to the dedicated WST interface.

It allows you to manage the dynamics of the system, working with custom motion profiles.

#### **EPD** certification

The NG5 ensures improved environmental performance with low energy consumption and product life cycle safety according to ISO 14025 and EN 50693 certification.

## WORKING CONDITIONS

Electrical data		
Voltage supply	from 8 to 32 V	
Max. current absorption (power)	1500 mA	
no load current absorption (logic)	100 mA	
CANbus Output	SAE J1939, CANopen	
CANbus Input	SAE J1939, CANopen	
Analog redundant Input	0.5 V - 4.5 V	
Working temperature	from -40°C to 85°C from -40°F to 185°F	
Storage temperature	from -40°C to 105°C from -40°F to 221°F	
Weather protection	IP 67/IP×9K	
EMC compatibility	according to ISO 14982 / 13766	
Connector	DT04-08P A	
Optional power Output(*)	6A max	

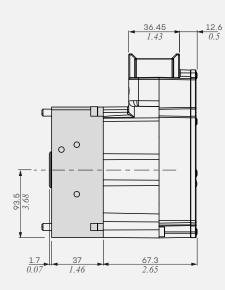
Hydraulic data		
Max inlet pressure	50 bar <i>725 psi</i>	
Max back pressure	5 bar 72.5 psi	
Contamination level	-/18/15-ISO 4406	
Fluid	Mineral oil based	
Max mechanical stroke	+/- 10 mm +/- 0.39 in	
Sensor type	Hall effect	
Redundant	Analog redundant Input Hall effect redundant sensor	
Absolut accuracy	< 3.5% (+/- 10 mm) < 3.5% (+/- 0.39 in)	

Note: Technical specifications measured with mineral oil of 46 mm<sup>2</sup>/s (46 cSt) viscosity at 40°C - (104°F) temperature. (\*): For more information, please contact the Sales Department

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# DIMENSIONAL DATA





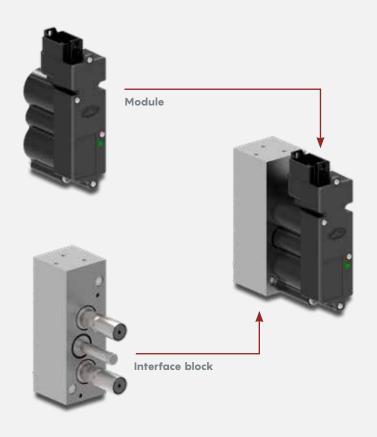
#### Valve Interface Block

The dimensions of the part are referred only to DPX100.
For other sectional directional control valves dimensions are different.
Please, contact our Sales Dpt.

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Pinout function		
1	CAN_L	
2	GND	
3	Analog Input Command	
4	Auxiliary Output	
5	Analog Input command redundant	
6	External enable	
7	VBB	
8	CAN_H	

Directional valves compatibility	
DPK	DPK120
DPX	DPX100
	DPX100HF
	DPX160
series	EX38
	EX54
	EX72
DPC	DPC130
	DPC200

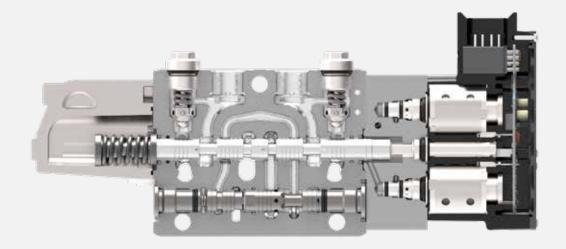


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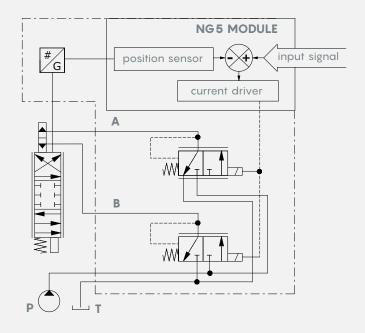


## SECTION

DPX100 working section with NG5 module



## FUNCTIONALITY PRINCIPLE





2<sup>nd</sup> edition October 2024

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