

Data Sheet

JS1-H and HIC PWM Controlled Sub-System



Danfoss Power Solutions (DPS) has more than 40 years of experience in market-leading solutions for many applications. Our product portfolio contains a large variety of products that enables the possibility to create unique sub-systems comprising of multiple DPS products. The JS1-H joystick and the Hydraulic Integrated Circuit HIC could be one of these sub-systems.



The JS1 Heavy Duty Joysticks (JS1-H) PWM version include the programmable feature enabling the user to utilize the GUIDE environment to match all type of solution such as PWM controlled HICs.

The custom HICs allow customers to use the broad portfolio of cartridge valves to provide a compact package for hydraulic control with reduced plumbing, easier installation, easier service, and fewer leak points than traditional hydraulic systems for optimal machine control and performance.



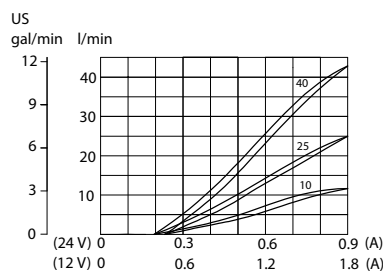
Danfoss can provide HICs designed to be compatible with the modular concept of the PVG portfolio, enabling you to select between a wide range of solutions to flexibly meet any application requirement.

Features

- Multiple joystick designs and functionality (e.g. buttons and rollers)
- Simultaneous operation of two proportional rollers
- Hall effect with two sensors per axis or long-life potentiometer position sensing
- Fully customized HIC design
- More than 400 cartridge valves to choose from
- Compatible with the modular PVG concept

Flow characteristics

Theoretical performance



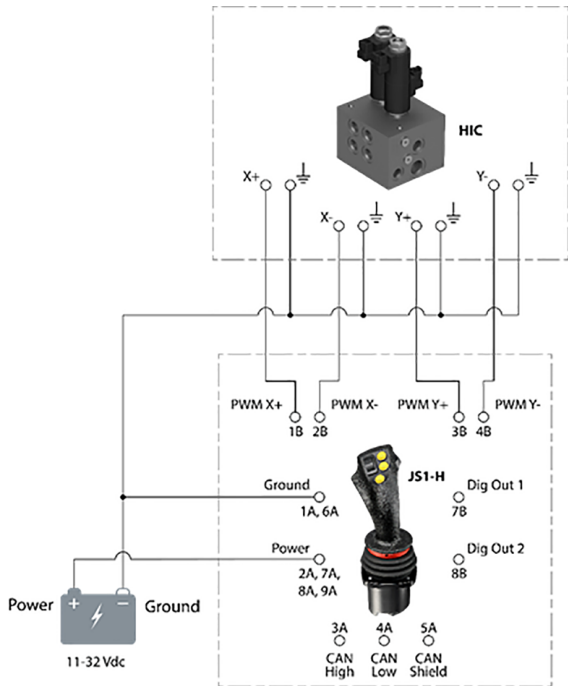
Comprehensive technical literature is online at www.danfoss.com

Relevant literature

- JS1-H Technical Information, BC171886484518
- Hydraulic Cartridge Valves
- Hydraulic Integrated Circuit (HIC)

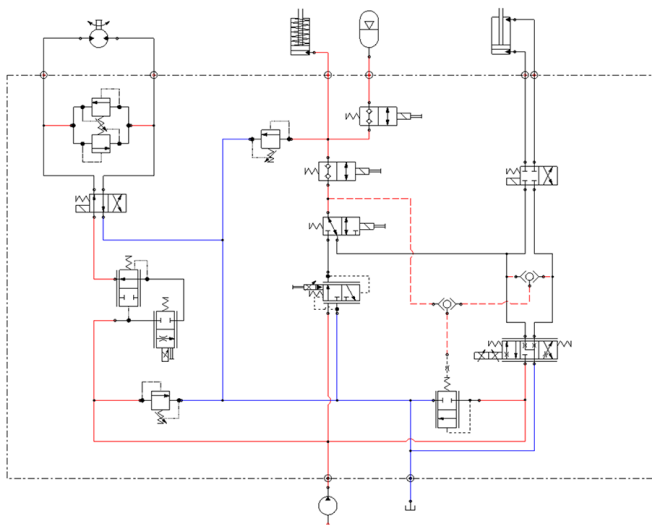
Operating curves made with circuit having a pressure drop of 10 bar. 26 cSt [121 SUS] hydraulic oil temperature at 50 °C [122 °F].

JS1-H PWM and HIC diagram

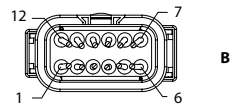
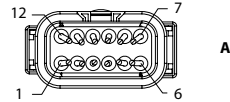
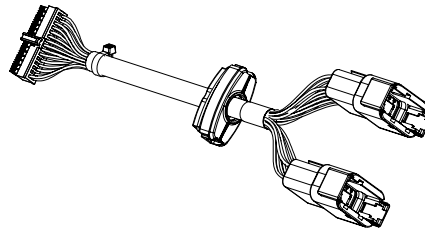


Recommended values: **Dither amplitude 42~56 mA** and **Dither frequency 125~150 Hz**.

Schematic



Connector



DEUTSCH DTM04	Standard, 12 pin A pinout (Gray)	Standard, 12 pin B pinout (Black)
Pin 1	Ground 1	PWM X+
Pin 2	Power 1	PWM X-
Pin 3	CAN high	PWM Y+
Pin 4	CAN low	PWM Y-
Pin 5	CAN shield	Not used
Pin 6	Ground 2	Not used
Pin 7	Power 2	Dig Out 1
Pin 8	Power 3	Dig Out 2
Pin 9	Power 4	Not used
Pin 10	Not used	Not used
Pin 11	Not used	Not used
Pin 12	Not Used	Not used

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