

TECHNICAL INFORMATION

Caterpillar ECM Compatible Driver Board

Danfoss Adapter Driver Board (Part# DFA2-C2)



OUT1: PWM CONTROL OUTPUT 1
EN1: VALVE ENABLE OUTPUT 1
OUT2: PWM CONTROL OUTPUT 2
EN2: VALVE ENABLE OUTPUT 2

IN1: PROPORTIONAL CONTROL INPUT 1
IN2: PROPORTIONAL CONTROL INPUT 2

Applications

- Configured for Joystick Type Control Inputs (JSM/JSL Series Joysticks, Proportional Slider Modules)
- PWM Outputs Specifically Designed to Interface to Caterpillar ECM's

Features

- Wide Supply Range +6V to +30V
- Power Supply and Control Input Protection
- Variable PWM Control Signal Outputs
- High Current Valve Enable Outputs

DFA2-C2 Specification

| Items | Parameter | Function | Operating Range | | | Unit |
|--------------------------------------|------------------------------|-------------------------------------|---------------------|-------------------------|---------------------|----------------|
| | | | Min | Typ | Max | |
| Electrical: | | | | | | |
| +12/24VDC | Supply Voltage | | 6 | 12, 24 | 30 | V |
| Inputs: | | | | | | |
| | | | $V_{IN(MIN)}$ | $V_{IN(NEUTRAL)}$ | $V_{IN(MAX)}$ | |
| IN1 | Control Input 1 | Analog Proportional Input 1 | 0.5 (+/-0.05) | 2.5 | 4.5 (+/-0.05) | V |
| IN2 | Control Input 2 | Analog Proportional Input 2 | 0.5 (+/-0.05) | 2.5 | 4.5 (+/-0.05) | V |
| Outputs: | | | | | | |
| | | | Duty Cycle OUT(MIN) | Duty Cycle OUT(NEUTRAL) | Duty Cycle OUT(MAX) | |
| OUT1 | Control Signal Output 1 | PWM Output 1 | 20 (+/-2.5) | 50 (+/-2.5) | 80 (+/-2.5) | Duty Cycle (%) |
| OUT2 | Control Signal Output 2 | PWM Output 2 | 20 (+/-2.5) | 50 (+/-2.5) | 80 (+/-2.5) | Duty Cycle (%) |
| f _{OUT1, OUT2} | Fixed PWM Frequency of 500Hz | PWM Output Frequency | | 500 (+/-5%) | | Hz |
| I _{OUT1, OUT2} | | Control Signal Output Current | | | 10 | mA |
| Reference Power Supply: | | | | | | |
| | | | Min | Typ | Max | |
| V _{OUT} | Input Control Voltage | Input Control Device Supply Voltage | 4.75 | 5 | 5.25 | V |
| I _{OUT} | Input Control Current | Input Control Device Supply Current | 2 | | 30 | mA |
| Environmental Specifications: | | | | | | |
| Operating Temperature Range | | | -40 to +85 | | | °C |