

Sauer Danfoss PVG/PVE Series Proportional Valve Driver

Danfoss Adapter Driver Board (Part# DFA2-02)



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

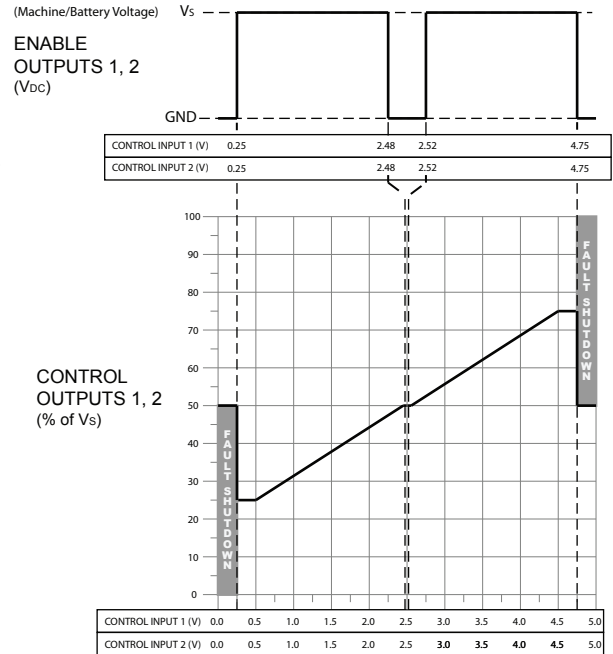
IN1: PROPORTIONAL CONTROL INPUT 1
IN2: PROPORTIONAL CONTROL INPUT 2

Applications

- Configured for Joystick Type Control Inputs (JM, JL Series Joysticks, Single Axis Proportional Slider Modules)
- Electro Hydraulic Valve Driver, Specifically Designed to Control Sauer Danfoss PVG/PVE Series Proportional Valves

Features

- Wide Supply Range +6V to +28V
- Power Supply and Control Input Protection
- High Current Valve Enable Outputs
- 300ms Ramp Rate on Control Signal Outputs
- Fault Detection



DFA2-02 Configuration

DFA2 Connection	Parameter	Function	Operating Range			Unit
			Min	Typ	Max	
Power Supply:						
+12/24VDC	Supply Voltage		6	12, 24	28	V
+5VDC	Input Control Device Supply Voltage		4.75	5	5.25	V
GND	Common Ground	DFA Ground, Input Control Device Ground				
Control Inputs:			$V_{IN(MIN)}$	$V_{IN(NEUTRAL)}$	$V_{IN(MAX)}$	
IN1	Control Input 1	Analog Proportional Input 1	0.5 (+/-0.05)	2.5 (+/-0.02)	4.5 (+/-0.05)	V
IN2	Control Input 2	Analog Proportional Input 2	0.5 (+/-0.05)	2.5 (+/-0.02)	4.5 (+/-0.05)	V
Control Outputs:			$V_{OUT(MIN)}$	$V_{OUT(NEUTRAL)}$	$V_{OUT(MAX)}$	
OUT1	Control Output 1	Analog Proportional Output 1	25 (+/-5)	50 (+/-2)	75 (+/-5)	%Vs
OUT2	Control Output 2	Analog Proportional Output 2	25 (+/-5)	50 (+/-2)	75 (+/-5)	%Vs
Enable Outputs:			Off		On	
EN1	Valve Enable Output 1	Vs if either IN1 or IN2 is activated, 0V otherwise	0		+Vs	V
EN2	Valve Enable Output 2	Vs if either IN1 or IN2 is activated, 0V otherwise	0		+Vs	V

Danfoss Adapter Driver Board DFA2-02

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SURE GRIP™
CONTROLS INC.

DFA2-02 Electrical Specifications

Symbol	Parameter	Min	Typ	Max	Unit	Notes
DFA Power Supply:						
V _S	Supply Voltage	6	12 or 24	28	V	Reverse Polarity and Transient Protected (*)
I _{SQ}	Quiescent Supply Current	25	27 or 30	35	mA	
Input Control Device Power Supply:						
V _{OUT}	Input Control Device Supply Voltage	4.75	5	5.25	V	
I _{OUT}	Input Control Device Supply current	2		30	mA	
Control Signal Inputs:		Min	Neutral	Max		
V _{IN1,IN2}	Control Signal Input Voltage	0.5 (+/-0.05)	2.5 (+/-0.02)	4.5 (+/-0.05)	V	Inputs Transient Protected
V _{IL(OFF)}	Low Safety Shut-down Input Voltage		<= 0.25		V	Input Under Voltage, Cycle Power to Reset
V _{IH(OFF)}	High Safety Shut-down Input Voltage		>= 4.75		V	Input Over Voltage, Cycle Power to Reset
Control Signal Outputs:		Min	Neutral	Max		
V _{OUT1, OUT2}	Proportional Control Signal Output Voltage	25 (+/-5)	50 (+/-2)	75 (+/-5)	%V _S	
I _{OUT1,OUT2}	Control Signal Output Current			10	mA	
Enable Signal Outputs:						
V _{EN1,EN2}	Enable Signal Output Voltage	0	V _S	V _S	V	
I _{EN1,EN2}	Enable Signal Output Current			2.5	A	
Environmental Specifications:						
Operating Temperature Range		-40 to +70			°C	

(*) Input transient protected up to +/- 48.4VDC @ 11.3A for pulse widths ≤ 1ms.