

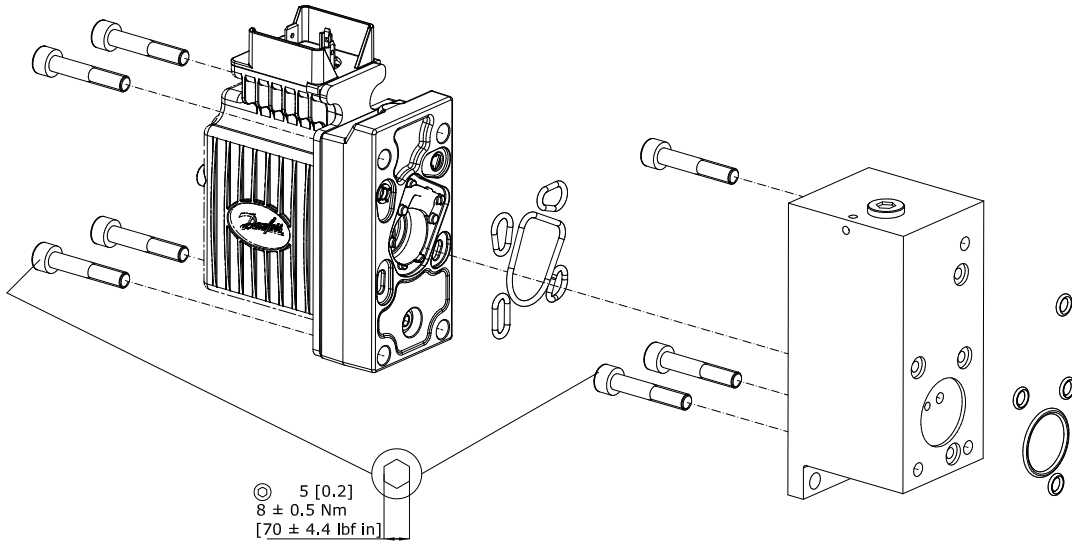
Installation Guide

Electrical Actuating Module

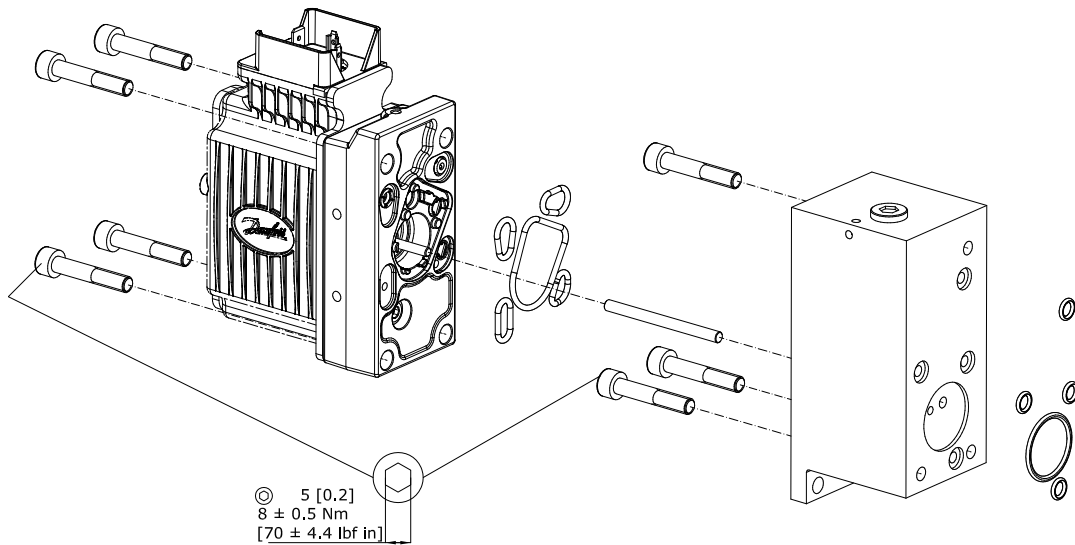
PVE Series 7 for PVG 60

Installation of PVE for PVG 60

PVEO



PVEH



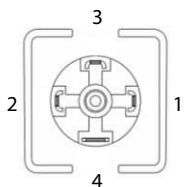
PVE connector variants


Figure 1: 1x4 DIN

Pin	Pin 1	Pin 2	Pin 3	Pin 4
PVEO	U_{DC_A}	U_{DC_B}	-	GND
PVEH	U_{DC}	U_S	Error	GND

PVE control specifications
PVEO Control Specification

Supply Voltage (U_{DC})	Rated	$12 V_{DC}$	$22 \rightarrow 30 V_{DC}$
	Range	$11 \rightarrow 15 V_{DC}$	$22 \rightarrow 30 V_{DC}$
	Maximum ripple	5%	

PVEH Control Specification

Supply Voltage (U_{DC})	Rated / Range	$11 \rightarrow 32 V_{DC}$
	Maximum ripple	5%
Supply Voltage (U_S)	Neutral	$U_S = 0.5 \cdot U_{DC}$
	Q: P \rightarrow A	$U_S = (0.5 \rightarrow 0.25) \cdot U_{DC}$
	Q: P \rightarrow B	$U_S = (0.5 \rightarrow 0.75) \cdot U_{DC}$
Supply Voltage PWM (U_S)	Neutral	$U_S = 50\% DUT$
	Q: P \rightarrow A	$U_S = 50\% \rightarrow 25\% DUT$
	Q: P \rightarrow B	$U_S = 50\% \rightarrow 75\% DUT$
PWM Frequency (U_S)	Recommended	$> 1000 \text{ Hz}$
Input Impedance	Rated	$12 \text{ k}\Omega$
Input Capacitance	Rated	100 nF

PVE operating conditions
PVEO/PVEH Operating Conditions

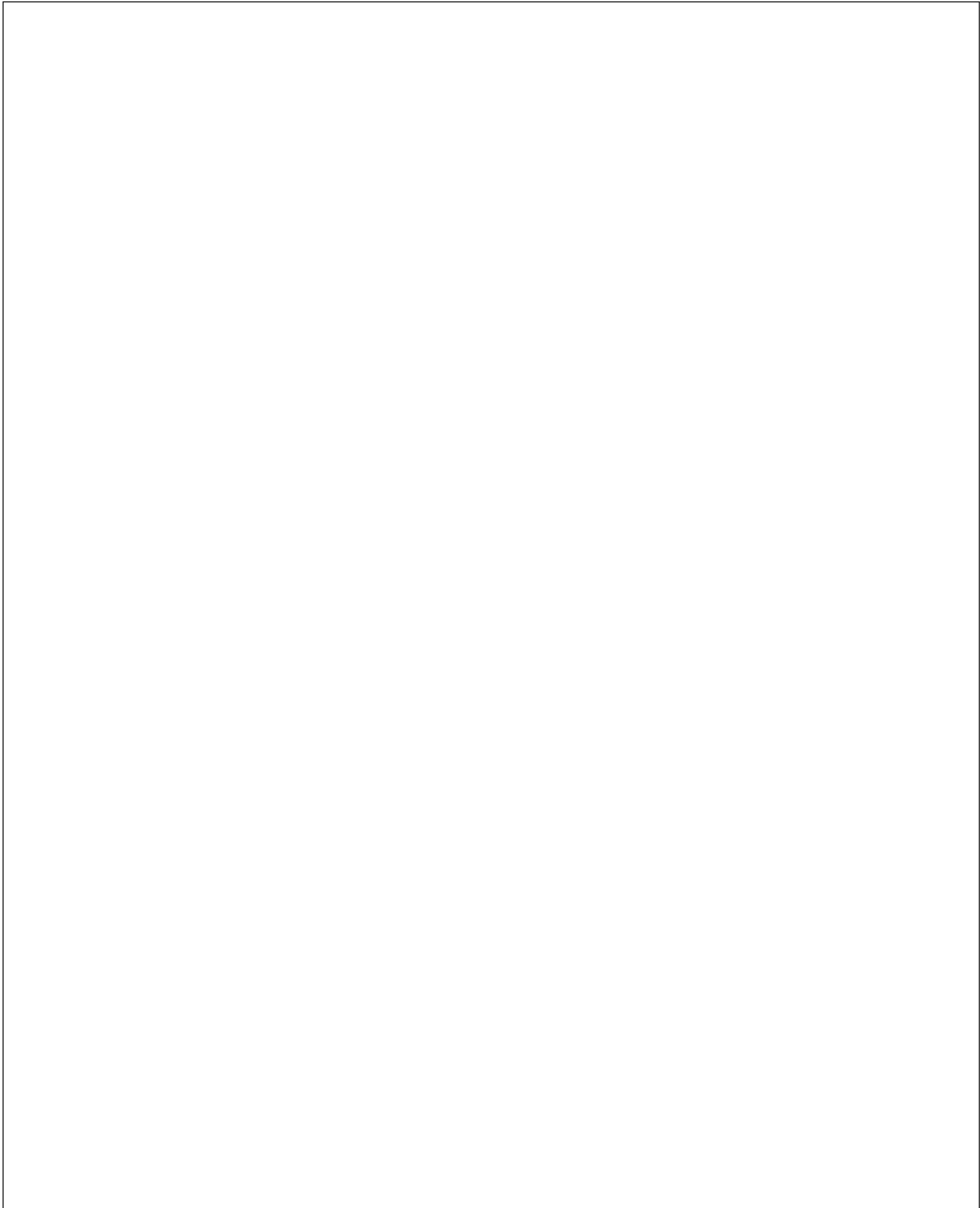
Pilot Pressure	Nominal	$13.5 \text{ bar [196 psi]}$
	Minimum	$10.0 \text{ bar [145 psi]}$
	Maximum	$15.0 \text{ bar [220 psi]}$
Storage temperature	Ambient	$-50^\circ\text{C} \rightarrow 90^\circ\text{C} [-58^\circ\text{F} \rightarrow 194^\circ\text{F}]$
Operating temperature	Ambient	$-40^\circ\text{C} \rightarrow 90^\circ\text{C} [-40^\circ\text{F} \rightarrow 194^\circ\text{F}]$
Oil Viscosity	Operating Range	$12 \rightarrow 75 \text{ cSt [65} \rightarrow 347 \text{ SUS]}$
	Minimum	4 cSt [39 SUS]
	Maximum	$460 \text{ cSt [2128 SUS]}$
Oil Cleanliness	Maximum	$18/16/13 \text{ (acc. to ISO 4406)}$

⚠ Warning

All marks and all types of directional control valves – inclusive proportional valves – can fail and cause serious damage.

It is therefore important to analyse all aspects of the application. Because the proportional valves are used in many different operation conditions and applications, the manufacturer of the application is alone responsible for making the final selection of the products – and assuring that all performance, safety and warning requirements of the application are met.

The process of choosing the control system – and safety level – could e.g. be governed by EN 954-1 (Safety related parts of control system). See also Technical information for PVE series 7.



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