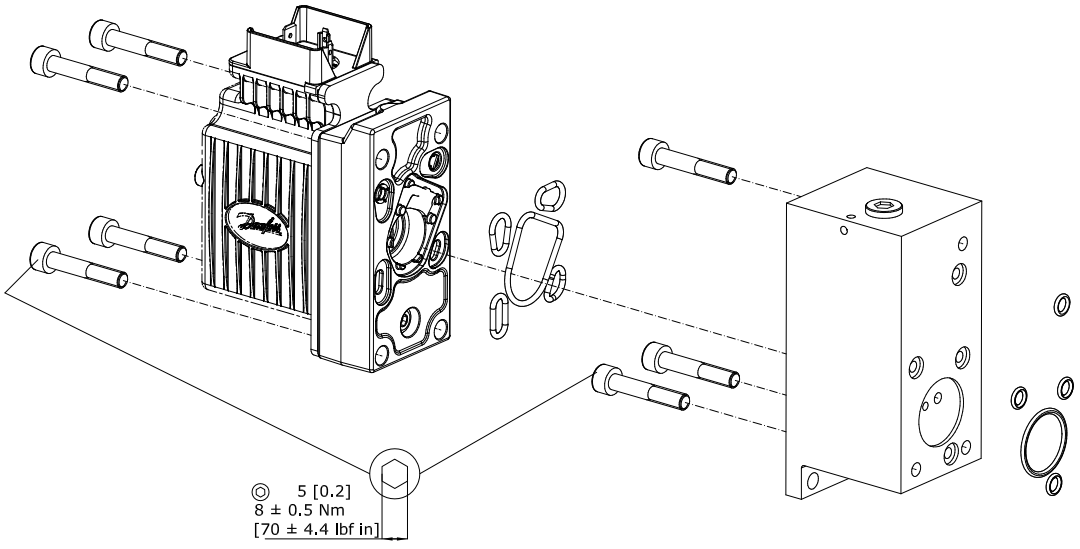
ENGINEERING
TOMORROW

Installation Guide

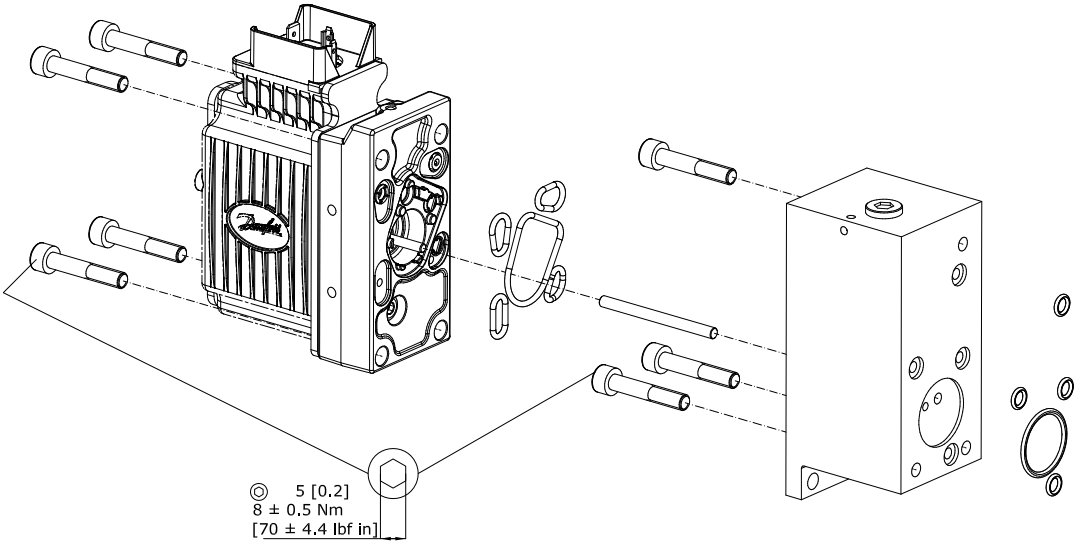
Electrical Actuating Module
PVE Series 7 for PVG 60

Installation of PVE for PVG 60

PVEO



PVEH



PVE connector variants

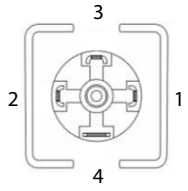


Figure 1: 1x4 DIN

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 → 30 V_{DC}
	Range	11 → 15 V_{DC}	22 → 30 V_{DC}
	Maximum ripple	5%	

PVEH Control Specification

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

PVE operating conditions

PVEO/PVEH Operating Conditions

Pilot Pressure	Nominal	13.5 bar [196 psi]
	Minimum	10.0 bar [145 psi]
	Maximum	15.0 bar [220 psi]
Storage temperature	Ambient	-50°C → 90°C [-58°F → 194°F]
Operating temperature	Ambient	-40°C → 90°C [-40°F → 194°F]
Oil Viscosity	Operating Range	12 → 75 cSt [65 → 347 SUS]
	Minimum	4 cSt [39 SUS]
	Maximum	460 cSt [2128 SUS]
Oil Cleanliness	Maximum	18/16/13 (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.