



PVA204, PVA208 Proportional Valve Amplifiers

The modules PVA204 and PVA208 enable the direct control of proportional valves without an amplifier using a single solenoid, bipolar or dual solenoids. Up to 4 solenoids can be connected to the compact PVA204 module, and 8 solenoids on the PV208, thus up to 8 unipolar valves with a width of 55 mm.

The current-regulated control means that the self heating or temperature increases of the valve solenoids do not affect the position of the valve.

Up to 20 support points are provided for correcting the characteristic curve of each solenoid, thus ensuring very precise linearization.

Besides the fully configurable dither function, ramps of 0.1 to 15 s can be set. The ramp setting range allowed during commissioning can be configured in the SolutionCenter, thus preventing possible damage to the plant resulting from incorrect entries.

Most parameters (characteristic curve, dither parameter etc.) can be configured directly via an application program or via the SolutionCenter or online via a web configurator. Configuration can thus be completed quickly and simply for all tasks, such as for commissioning, teleservice, adaptive adjustments or valve exchanges during servicing. The valve configurations can be stored as templates so that different valves that were preconfigured can be used in a plant.

Item	Item-No.
PVA204	00028007-00
PVA208	00026349-00
PVA208 CC	00028446-00

The following features are provided depending on type:

- Proportional valves with unidirectional, bidirectional or dual solenoids
- PVA204: 4 solenoids, PVA208: 8 solenoids
- Current-regulated control
- Characteristic curve correction, overlap and underlap correction
- Adjustable dither and ramp
- Configuration via application program SolutionCenter and web configurator

	PVA204	PVA208
Parameter		
Valve types	Unipolar solenoid, bipolar solenoids or with valves with 2 solenoids	
Solenoids (unip./bip./2xunip.)	4/2/2	8/4/4
Voltage	24 VDC (18 to 34 V)	
Solenoid current max. (unip./bip./2xunip.)	2,5 A (total max. 8 A)	2 A (total max. 8 A)
Impedance	L ≥ 1mH, R > 2 Ohm	
Current	Regulated, ±5 mA accuracy, short circuit proof	
Dither	Adjustable from 0 to 30 % in 0.1 % of I _{rated}	
Dither frequency	40 to 500 Hz	
Characteristics		
Ramp rising/falling time	1 ms to 15 s	
Ramp range	Adjustable ramp time, min/max limit configurable	
Ramp resolution	1 ms	
Characteristic curve correction	2 to 20 support points per quadrant	
Underlap/overlap	Compensation via characteristics table	
Characteristics linearization	Linear (default), spline	
Power supply		
Solenoid supply voltage	24 VDC (18 to 34 V)	
Solenoid supply current	Max. 8 A	
Connection		
Solenoid supply	1x 2-pole RM 5.08	
Solenoid terminal	1x 8-pole RM 3.5 Terminal for 4 solenoids	2x 8-pole RM 3.5 2 terminals for every 4 solenoids
Approvals / certificates		
General	CE, cULus, CCC	
Marine	DNV GL, LR, ABS, BV	
Ambient conditions		
	Standard	ColdClimate (❄)
Operating temperature	-30 to +60 °C	
Rel. air humidity, operation	5 to 95 % no condensation	5 to 95 % with condensation
Storage temperature	-40 to +85 °C	
Rel. air humidity, storage	5 to 95 % with condensation	5 to 95 % with condensation
Pollution degree	2 (without condensation; according to IEC 60664-1)	2 (according to IEC 60664-1)

Order Codes		
Item	Item No.	Description
PVA204	00028007-00	Proportional valve amplifier module: 4 solenoids; bidir/unidir/2xsolenoids valves; curve correction; UN=18-34VDC; I _{max.} =2.5A; f _{Dither} =40-500Hz; DitherAmp=0 to 30% I _{nom}
PVA208	00026349-00	Proportional valve amplifier module: 8 solenoids; bidir/unidir/2xsolenoids valves; curve correction; UN=18-34VDC; I _{max.} =2.0A; f _{Dither} =40-500Hz; DitherAmp=0 to 30% I _{nom}
PVA208 CC	00028446-00	Like PVA208; ColdClimate (❄)
Accessories		
KZ-PVA204 B	00028033-00	Terminal set Phoenix cage clamp (1x KZ 51/02; 1x KZ 35/08) with labeling strips
KZ-PVA208 B+C	00028032-00	Terminal set Phoenix cage clamp (1x KZ 51/02; 2x KZ 35/08) with labeling strips and coding elements