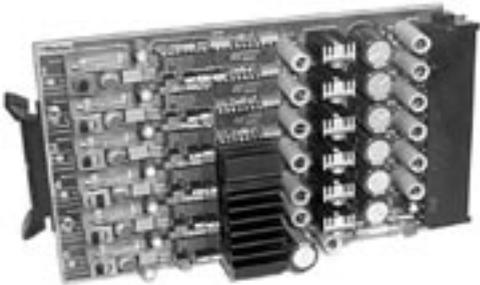




Bulletin HY11-5715-558/UK

Installation Manual Series EC106

Power Amplifier for Pressure-/Flow Valves



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Note

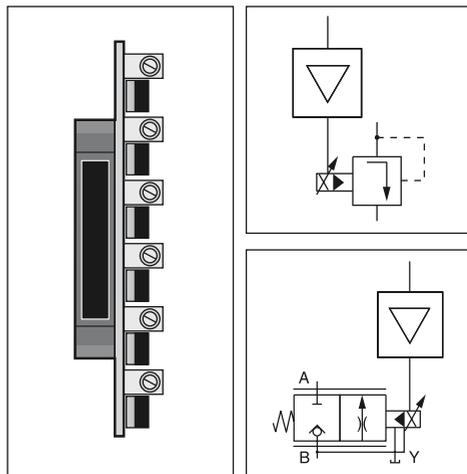
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Installation Manual

Electronic module for the control of proportional pressure or flow valves. The pressure-/ flow values are given by externally supplied command signals and internal ramp potentiometers.

Features

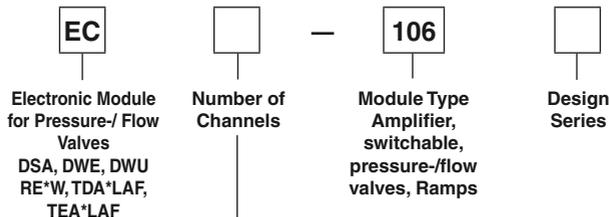
- Processing and amplification of externally supplied positive commands into output signals for the control solenoid.
- Up to 6 independent channels for the control of up to 6 valves.
- Each channel is equipped with a slide switch for selection of pressure or flow valve operation.
- Ramp function
- Pulsed low loss amplifier power stages with supporting constant current control for constant, temperature independent solenoid forces.
- Dither generator with applied frequency to improve static characteristics.



Characteristics

Design	2 channels	4 channels	6 channels
Supply voltage [V]		24 ±10%	
Power consumption max. [VA]	70	125	190
Command voltage [VDC]		0...+10	
Reference output [VDC]		10 ±5% / max. 100mA	
Solenoid output current, max. [A]	2 x 1.3	4 x 1.3	6 x 1.3
Ramps [s]		0.01...10	
Ambient temperature [°C]		0...+70	
Connection	48pole male connector, DIN 41612F		
Cable connection	Supply connections + valve: AWG15; command inputs AWG20		
Fuse DIN 41571	4A medium lag	6.3A medium lag	10A medium lag

Ordering Code

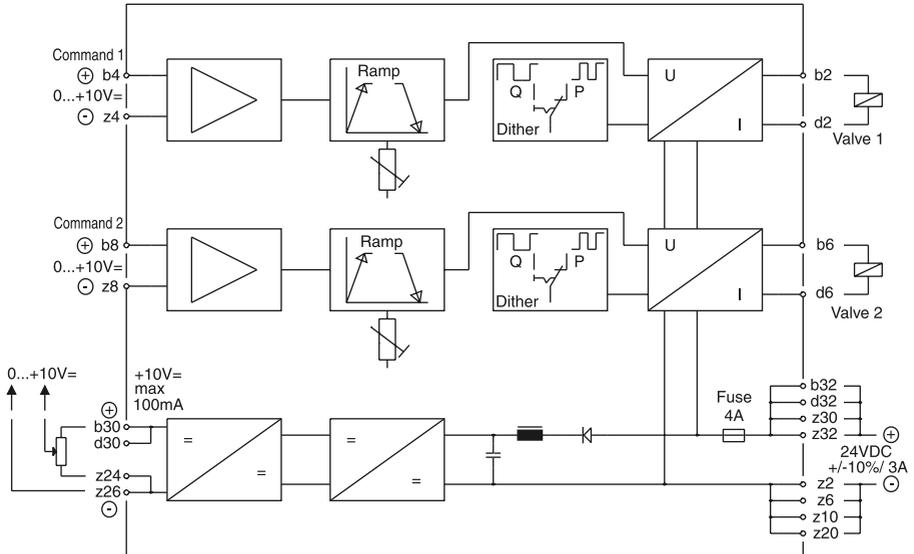


Code	Quantity
02	2
04	4
06	6

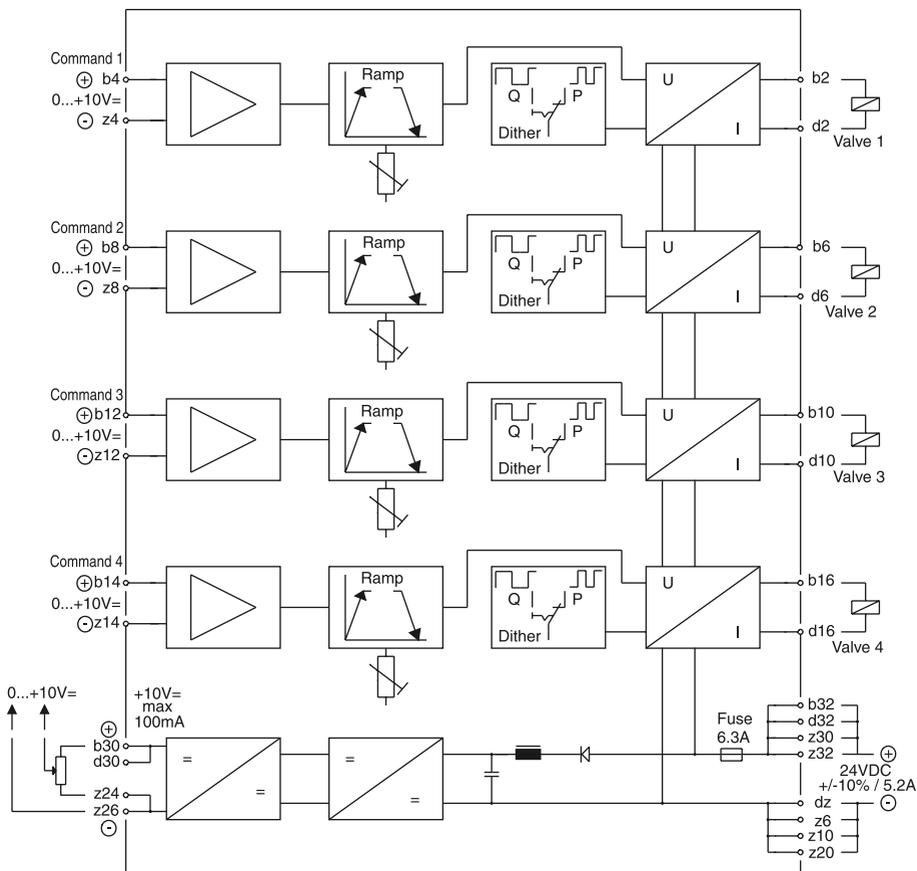
EMC

EN 50081-2	EN 55011					
EN 50082-2	ENV 50140	EN 61000-4-4	ENV 50204	EN 61000-4-5	EN 61000-4-2	EN 61000-4-6

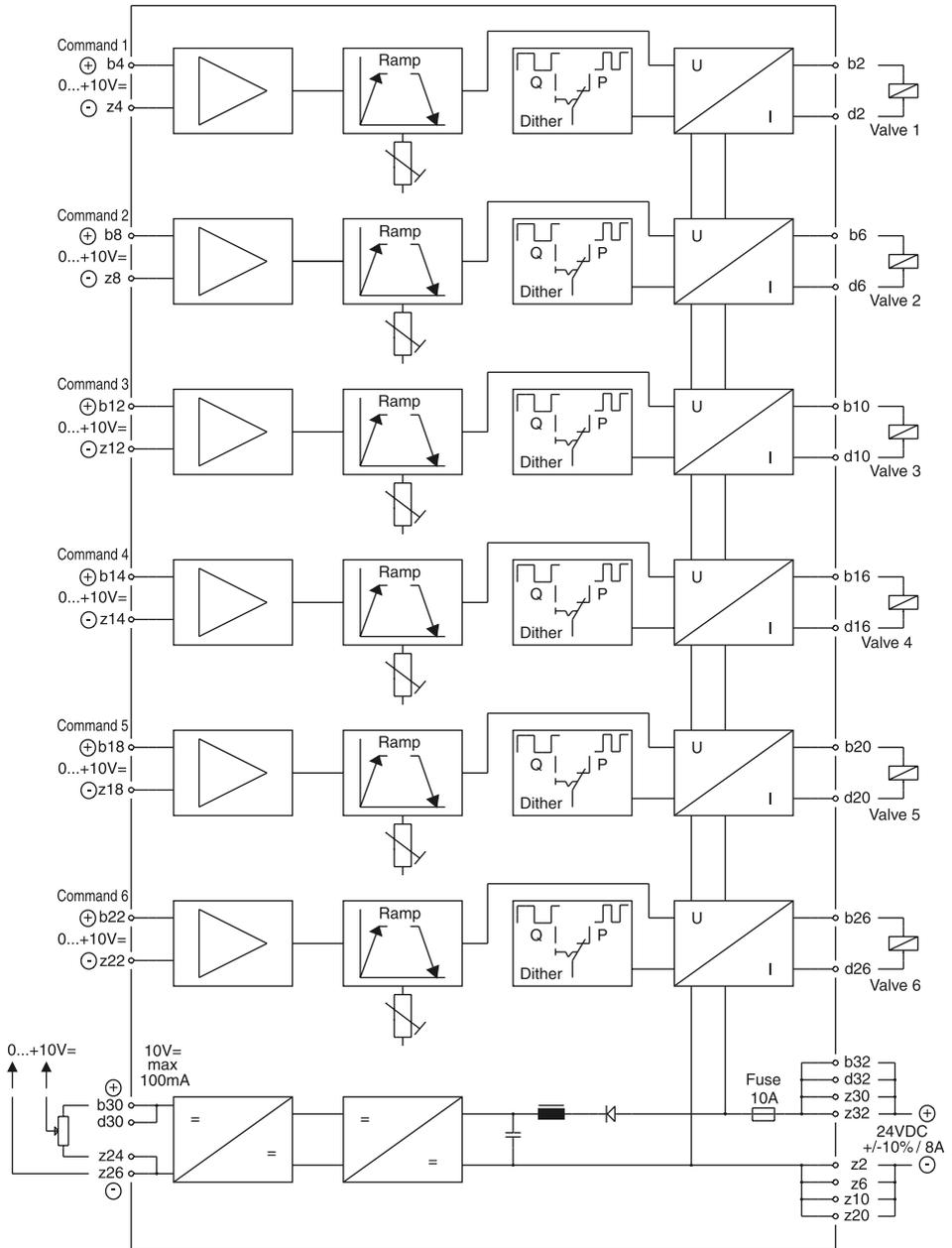
Block Diagram (2 Channel Option)



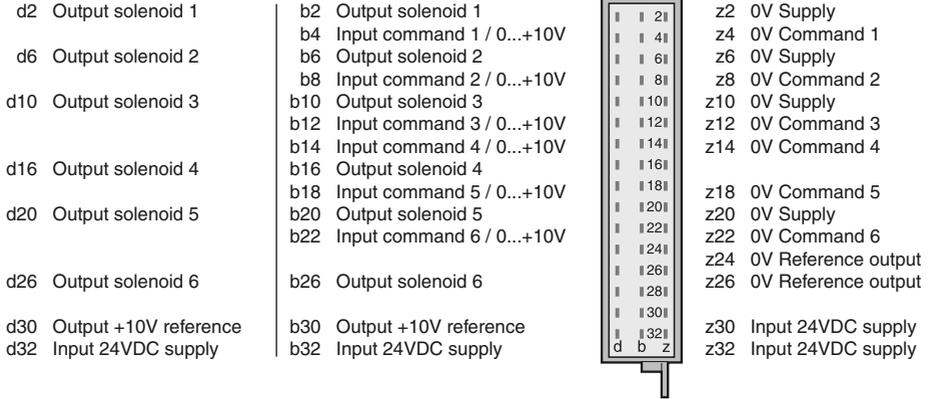
Block Diagram (4 Channel Option)



Block Diagram (6 Channel Option)



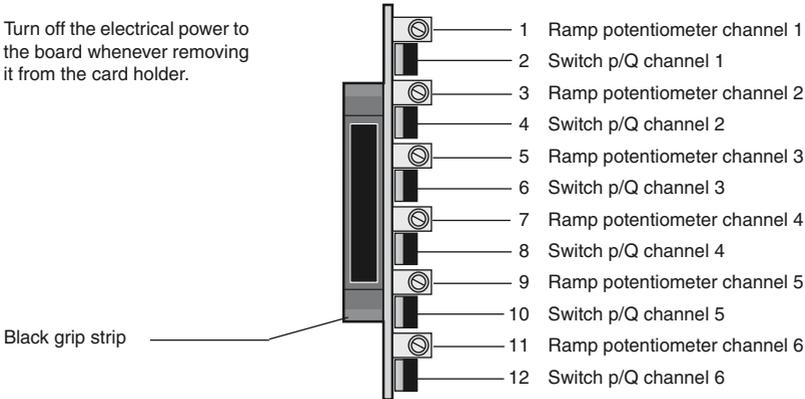
Connector (Elevation B)



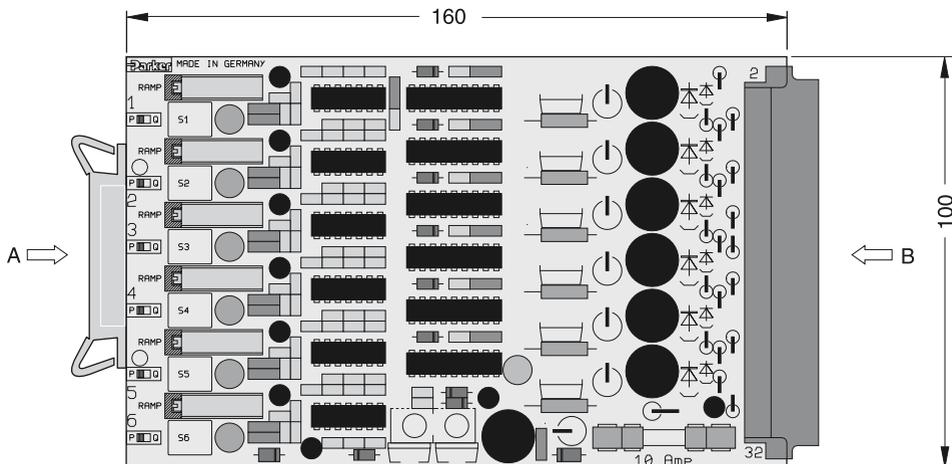
Operating and Diagnostic Elements
(Elevation A)

Notes:

Turn off the electrical power to the board whenever removing it from the card holder.



**Dimensions
(Euro card)**



Installation guide to electronic modules to provide of electromagnetic compatibility

Power Supply

The utilized power supply has to comply with the EMC-standards. Relays and solenoids operating from the same supply circuit as the valve electronics have to be fitted by surge protection elements.

Wiring Cable

The wires between the installation site of the module and the peripheral units, as power supply, valve solenoids, command signal source have to be shielded. The following wire sizes must be reached: power supply and solenoids AWG 15, other connections AWG 20. The capacity should not exceed a value of approx. 130 pF/m (wire/wire). The maximum cable length is 50 m. No power current lines may be placed within the wired shielded cables to the electronic module. The cable shield has to be connected to ground at both ends (see also chapter "Grounding"). Please be aware of ground loops.

Installation

The module has to be mounted within a conductive, shielded enclosure. Usable is i.e. an EMC-approved control cabinet. A perfect grounding of the enclosure is mandatory (see also chapter "Grounding").

Grounding

The mounting plate of the valve has to be connected to the grounded metal machine frame. The cable shields must be tied to ground at the control cabinet. A low-ohmic potential compensation wire has to be provided between the control cabinet and the machine frame (cable wire >AWG 7 cross section) to prevent ground loops.