

Characteristics

- Power amplifier for proportional directional valves
- Power amplifier for two proportional pressure or throttle valves
- Power supply 10... 30 V
- Input signals:
0... 10 V, ± 10 V and 4... 20 mA
- Reference voltage
- Flexible parametering via serial interface
- Current ranges: 1,0 A to 2,6 A
- Low cost Snap-On module
- PWM input optionally
- CAN-Bus optionally

**Description**

The power amplifiers PAM-195 to PAM-199 (digital power amplifiers) have a complete digital design. All adjustments are made by the serial interfaces, a reproducibility of 100 percent is guaranteed. That is a real advantage, especially in standard series and on adaptations to different proportional valves. Internally they work with a microcontroller family HCS12 of Motorola (today Freescale), what ended up in clearly greater flexibility and strength and simultaneously in cost reduction.

Since all parameters (current control, PWM frequency, dither frequency and amplitude as well as MIN, MAX and RAMPS) are adjustable, adaptations to every kind of proportional valve are possible without any problems. A characteristic-linearization via freely definable XY-points for the adaptation of flow and/or pressure curves is available.

The power supply (suitable for 12 V and 24 V systems) as well as the input signals for current or voltages supports the universal character of the modules. Internal monitoring announces the typical failure as cable breakdown at the input signal (4... 20 mA) as well as cable breakdown to the solenoid by a LED and the switching output (READY signal).

The two variants PAM-195 and PAM-196 distinguish only in their specialisation once for proportional directional valves and once for two proportional pressure- / throttle valves.

The amplifiers are parameterised with our efficient PC software or with our new hand-held terminal (in particular suitable for the mobile use).

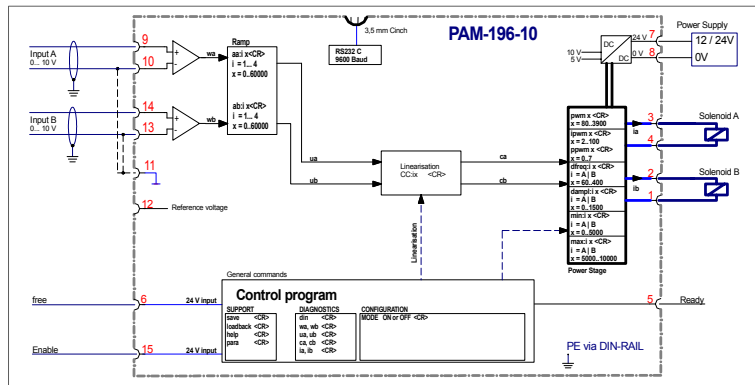
These digital power amplifiers including a modular and efficient software approve custom-built adaptations quickly and economically.

The power amplifiers

PAM-195: Power amplifiers for proportional directional valves. The max. output current as well as the function of the signal inputs are definable by software. 4Q-ramps and linearization function are standard.

PAM-196: Power amplifier for two proportional pressure or throttle valves. All parameters can be adjusted for each solenoid individually. The maximum output current as well as the function of the signal inputs are definable by software. 2Q-ramps and linearization function are standard.

PAM-199: New universal version where all operational sequences are programmable. Therefore the input can be changed by software, the internal signals can be combined mathematically and the output can be controlled by a PID compensator.



Digital power amplifier for two valves/solenoids

Custom-built adaptations:

- Output current for 200, 300 and 500 mA.
- Open loop PWM output for 3 A (no current control function)
- Output current switch via digital input
- Jerk limited ramp functions
- Pre-parametering for standard series

Applications:

- General control of proportional pressure and proportional throttle valves
- General control of proportional directional valves
- Joystick control



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