WEST

Application Note: AN-107

PAM-192-P
PAM-193-P
PAM-199-P

Replacement of the PAM-191-P / PAM-192-P / PAM-193-P with the PAM-199-P

Electronics
Hydraulics meets
meets Hydraulics
Electronics

1 Power amplifier

The power amplifier PAM-193-P (older versions = PPAM-191-P / PAM-192-P) and the PAM-199-P can be used to control proportional valves independend of the valve manufacturer. The PAM-191/192/193-P are adjusted by potentiometers and internal DIL switches. The PAM-199-P is parameterized via the program WPC-300 and a USB interface. The internal technology of the power amplifiers is always digital and the same power stage structure is used.

1.1 Advantages/disadvantages of the adjustment via potentiometer

- no computer required
- no reproducibility of the adjustment
- limited adjustment possibilities
- limited adjustments ranges

1.2 Advantages/disadvantages of the adjustments via WPC-300

- a computer is required
- the adjustment is reproducible (parameter file)
- more and expanded possibilities to adapt the power amplifier / valve
- expanded functionality

1.3 Technical differences

- The PAM-193-P, PAM-192-P and PAM-199-P are compatible (electrical data and wiring).
- The solenoid wiring of the PAM-192-P differs.

1.4 Replacement of PAM-191-P with PAM-199-P

The PAM-199-P can also be used to replace the PAM-191-P.
Please read the chapter of the FUNCTION = 196 and check the wiring.

1.5 Replacement of PAM-192-P with PAM-199-P

1. The PAM-199-P has to be configured with the FUNCTION command set to „195".
2. The correct input signal muss be selected: AINA (+/- 10 V or 4…12… 20 mA). Different input signals (+/- 5 V, 0…5…10 V, 0… 4… 8 V, 0,5… 2,5… 4,5 V) can be adjusted flexibly in AINMODE = MATH with the AIN:A command.
3. **Changing of the output polarity via command POL = „-"**
4. MIN, MAX, RAMP, CURRENT, PWM frequency or a separate DITHER enables the exact and reproducible valve control.

1.6 Replacement of PAM-193-P with PAM-199-P

1. The PAM-199-P has to be configured with the FUNCTION command set to „195".
2. The correct input signal muss be selected: AINA (+/- 10 V or 4…12… 20 mA). Different input signals (+/- 5 V, 0…5…10 V, 0… 4… 8 V, 0,5… 2,5… 4,5 V) can be adjusted flexibly in AINMODE = MATH with the AIN:A command.
3. MIN, MAX, RAMP, CURRENT, PWM frequency or a separate DITHER enables the exact and reproducible valve control.

2 Imprint

W.E.St. Elektronik GmbH

Gewerbering 31

41372 Niederkrüchten

Germany

Tel.:   +49 (0)2163 577355-0

Fax.:   +49 (0)2163 577355 -11

Homepage: www.w-e-st.de

E-Mail: contact@w-e-st.de

Datum: 18.07.2023

The data and characteristics described herein serve only to describe the product. The user is required to evaluate this data and to check suitability for the particular application. General suitability cannot be inferred from this document. We reserve the right to make technical modifications due to further development of the product described in this manual. The technical information and dimensions are non-binding. No claims may be made based on them.

This document is protected by copyright.