# AN430 servo amplifier/ PID controller



**The AN430 controller module has been developed, with the controller and servo amplifier accommodated in a single housing, for actuation of servo valves. The servo valve section can be supplied for four different current ranges (±20mA, ±100mA, ±200mA, ± 300mA). Special types for other valve currents are also possible.**

Servo valves are generally installed in control circuits and function as high-dynamic adjusting elements. It is therefore an obvious step to accommodate the valve end stage together with the controller section in one housing. In the case of the AN430 unit, the controller section has been equipped with a P I D controller. Interchangeable input modules are available for target value and actual value signals, making possible trouble free matching of the signals by the customer. The target value is routed via an adjustable ramp with a quadrant detector. This ramp can be deactivated. The I component of the controller can also be deactivated, permitting operation as a P or a PD controller. The target value can be adjusted via a spindle resistor relative to the actual value.
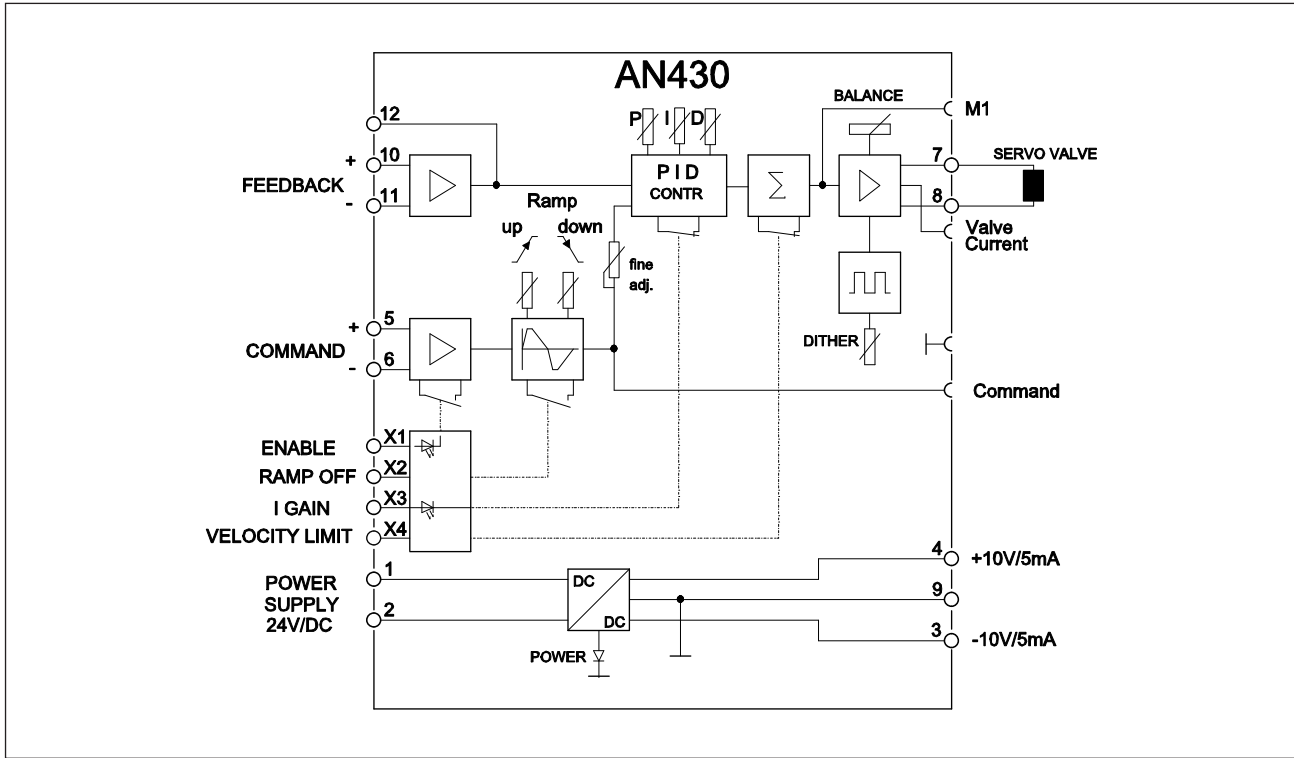
Since the valve coil is operated on one side toward 0V, the control module's end stage can also be used as a current driver or U/I converter.

The AN430 module's snap on housing permits its installation on the standard mounting rails normally found in control cabinets. Electrical connection is accomplished via the built in terminal strip.

# PEES
## COMPONENTS

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## Technical Data:

| Valve section | |
|---|---|
| Supply voltage | 24V DC (20...28V DC) |
| Temperature range | 0...50°C |
| Auxiliary voltages | for supply of an external target value potentiometer: Terminal 4 = +10V (max. 5mA) Terminal 9 = GND Terminal 3 = -10V (max. 5mA) |
| Output current | depending on type    ± 20mA ±100mA ±200mA ±300mA |
| Dither | approx. 200 Hz works setting Amplitude selectable in a range from approx. 0 to 10% of the selected nominal current on the "Dither" potentiometer |
| Instrument sockets | Current    Valve current (±10V) Command    Target value ("setpoint") signal (±10V) M1    Controller output |
| Balance | Zero-point calibration for valve/complete system |
| | |
| Controller section | |
| Sensor modules | Type EN272 V02 |
| (Target/Actual value) | +/- 10V , 12mA +/- 8mA , 4-20mA , +/-20mA |
| Switching inputs | Ramp off, I Gain , CTRL on , Enable , Nominal 24V    ( 20-28 V) |

| The four internal FET switches are set as follows in standby-position | | | |
|---|---|---|---|
| Enable | FET switch = open | Target value | ON |
| Ramp | FET switch = open | Ramp | ON |
| I gain | FET switch = closed | I controller | OFF |
| Velocity limit | FET switch = closed | Limiting | ON |