AN207PC servo-amplifier

The AN207PC servo-amplifier has been specially designed for pressure control circuits in conjunction with a pressure adjustment valve.
Thanks to the use of a PI controller, this module permits high accuracy between the actual pressure value and the target-value (setpoint) input.
The controller is suitable for the majority of applications requiring high linearity, independence from flow, freedom from hysteresis and independence from temperature of the set pressure.
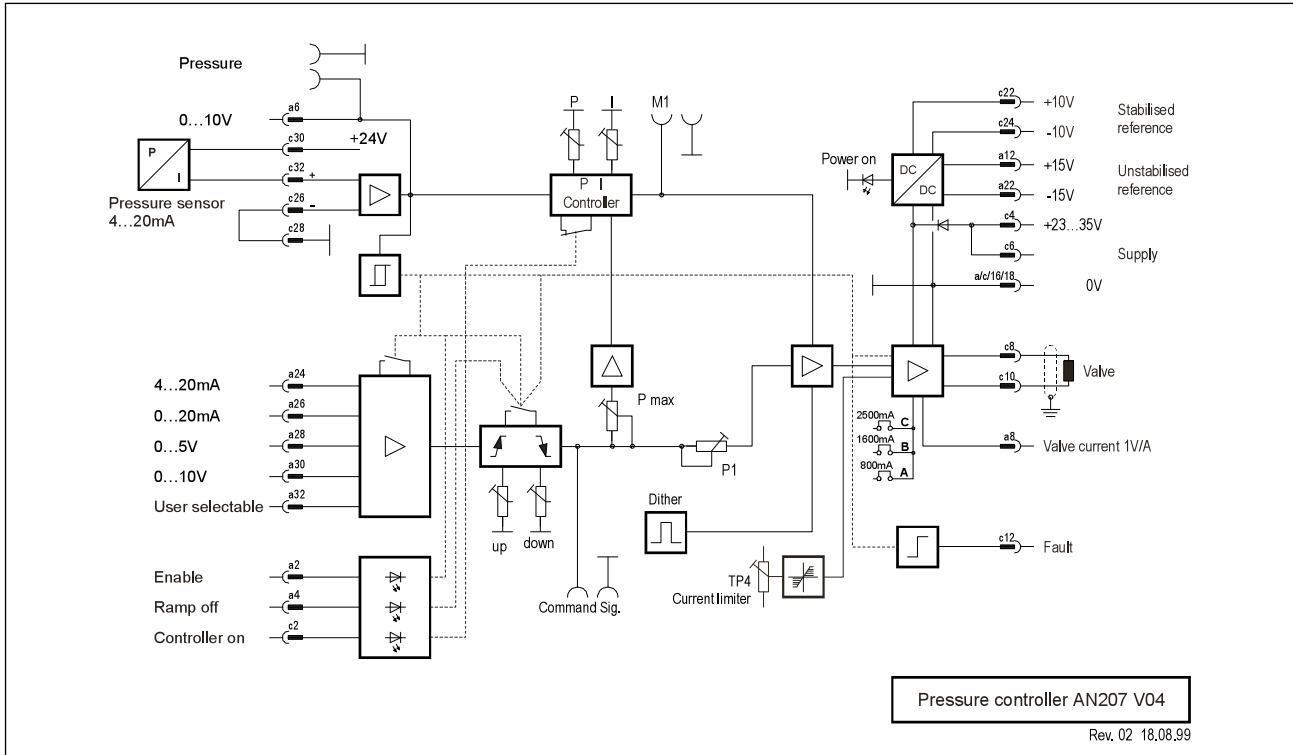
Performance features:
- Reverse-polarity-proof
- Ramp can be externally deactivated, external Stop
- Good dynamics thanks to the use of high-speed end stages
- Five different setpoint inputs, therefore extremely flexible input circuit configuration
- Monitoring of pressure sensor for wire breakage
- Differential input for pressure sensor, therefore permitting operation in a 4-20 mA current loop
- Pulse-width modulation
- Minus potential of the power supply is identical to the zero potential of the inputs and the zero potential of the auxiliary voltage. Multiple servo-amplifiers can therefore be operated from a common power supply.

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Pressure controller AN207 V04

Rev. 02 18.08.99

Technical data

Dimensions	European card format (160 x 100) mm
Overall dimensions	(40.5 x 128.7 x 189.7) mm (WxHxD), front panel 3HU x 8DU
Plug connection	32-pole connector, DIN 41612 D32
Supply voltage	24V DC (20-32V DC)
Auxiliary voltages	± 15V DC (± 5 %), 50 mA
	± 10V DC (± 1 %), 10 mA
	± 24V DC (± 5 %), 30 mA, for supply of pressure sensor
Output currents	I800 mA, 1600 mA, 2500 mA
PWM frequency	approx. 5.5 kHz
Short-circuit protection	for end stage
Signal inputs	1x 0-20 mA, 100 Ω, 1x 4-20 mA, 100 Ω, 1x 0-5 V, 50kΩ
	1x 0-10V, 100kΩ, 1x selectable 10kΩ/V
Pressure sensor	1x 4-20 mA, 100Ω
Ramp times	Ramp up/down separately settable,
	approx. 0.1-10s
Ramp deactivation	Input voltage 24V, 10kΩ, display via "Ramp off" LED
External Enable	in the form of break circuit
	Input voltage 24V, 10kΩ
	Display via "Fail safe" LED
Controller on	Input voltage 24V, 10kΩ
	Display via "Ctrl. on" LED
Measuring sockets	Command: Target-value signal (0-10V)
	Pressure: 0-10V (4mA ⇨ 0V, 20mA ⇨ 10V)
	M1: Controller output ±10V5
Spindle resistors	P: P component (approx. 0-5.6)
	I: I component
	Pmax: Fine correction, setpoint injection (approx. 10%)
	P1: Controller correction
	Ramp up: Pressure-increase ramp
	Ramp down: Pressure-decrease ramp