

4-Q-DC Servoamplifier Data



LSC 30/2 4-Q-DC Servoamplifier
Linear 4-Quadrant servoamplifier for permanent magnet activated DC motors up to approx. 50 watts.

ADS 50/5 4-Q-DC Servoamplifier
Powerful PWM servoamplifier for permanent magnet-activated DC motors from 10 to approx. 250 watts output power. Available as Standard Version in module housing.

Operating modes		
	Voltage regulator, IxR compensation, encoder speed control, DC tacho speed control, current control	IxR compensation, encoder speed control, DC tacho speed control, current control
Electrical Data		
Operating voltage V_{cc} (ripple < 5%)	12 - 30 VDC	12 - 50 VDC
Max. output voltage	$V_{cc} - 5 V$	$0.9 \times V_{cc}$
Max. output current I_{max}	2 A	10 A
Continuous output current I_{cont}	2 A	5 A
Switching frequency of power stage		50 kHz
Max. efficiency		95 %
Built-in motor choke		150 μ H / 5 A
Input		
Set value	Configurable, -10 ... +10 V, -3.9 ... +3.9 V	-10 ... +10 V
Disable	«Disable» Disable min. $V_{cc} - 1 V$, Enable max. GND + 1 V	«Enable» +4 ... +50 V
DC tacho	Min. 2 VDC, max. 50 VDC	Min. 2 VDC, max. 50 VDC
Encoder signals	Channel A and channel B, max. 100 kHz, TTL	Channel A, A\, B, B\, max. 100 kHz, TTL
Output		
Status reading «Ready»	Open collector, max. 30 VDC ($I_L < 20$ mA)	Open collector max. 30 VDC ($I_L < 20$ mA)
Monitor current «Monitor I»		-10 ... +10 VDC (short circuit protected)
Monitor speed «Monitor n»		-10 ... +10 VDC (short circuit protected)
Voltage outputs		
Auxiliary voltages	+3.9 VDC, -3.9 VDC, max. 2 mA	+12 VDC, -12 VDC, max. 12 mA (short circuit prot.)
Encoder supply voltage	+5 VDC, max. 80 mA	+5 VDC, max. 80 mA
Trim potentiometer	I x R compensation, Offset, $n_{max} \cdot I_{max}$ gain	I x R compensation, Offset, $n_{max} \cdot I_{max}$ gain
Protective functions	Heat monitoring of power stage	Protected against over temperature, overcurrent and short-circuit of motor
Indicator	Green LED = READY, red LED = ERROR	Bi-colour LED, green = READY, red = ERROR
Ambient temperature / Humidity range		
Operation	0 ... +45°C	-10 ... +45°C
Storage	-40 ... +85°C	-40 ... +85°C
No condensation	20 ... 80 %	20 ... 80 %
Mechanical data		
Weight	Approx. 330 g	Approx. 400 g
Dimensions (L x W x H)	103 x 100 x 34 mm (see page 278)	180 x 103 x 26 mm (see page 278)
Mounting threads	Flange for M4-screws	Flange for M4-screws
Connections	See page 278	See page 278
Order Number		
	250521 LSC 30/2, 4-Q-DC Servoamplifier in module housing	145391 ADS 50/5, 4-Q-DC Servoamplifier Standard Version in module housing
Accessories		
		235811 DSR 70/30 Shunt regulator