## **LSC** 4-Q-DC Servoamplifier



The LSC 30/2 (Linear Servo Controller) is a linear 4-quadrant Servoamplifier used to control permanent magnet activated DC motors up to approx. 50 watts.

## 4-Q operation

Controlled operation for acceleration and braking in both directions.

## Linear power stage

Ideally suited for small outputs power, low electromagnetic emission, no motor choke required.

## **Operating modes**

IxR compensation, voltage control, encoder speed control, DC tacho speed control or current control selectable with a switch from outside.

#### Design

Robust metal housing with variable installation options on assembly plate or 19" rack.

## Set value input

Via external potentiometer, external set value voltage or using internal potentiometer.

## Easy start-up procedure

Pluggable screw type terminal block, simple set-up with potentiometer, robust designed PI controller.

## Excellent price / performance ratio

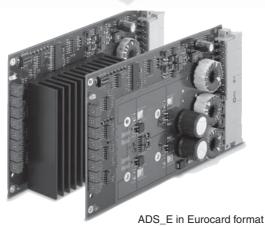
Good value 4-Q-DC servoamplifier matched with small permanent magnet activated DC motors.

Technical data page 282

Dimensions and connections page 284

# **ADS** 4-Q-DC Servoamplifier





The ADS (Analog DC Servoamplifier) is a powerful pulse-width modulated (PWM) servoamplifier for controlling permanent magnet activated DC motors. Standard Version from 10 - 250 watts and Power Version from 80 - 500 watts output power. Available in robust metallic housing and as Eurocard version for installation into a 19" rack.

Technical data page 282 / 283 Dimensions and connections page 284

#### Pulsed power stage

Suitable for controlling low and high output power. 95% efficiency thanks to state-of-the-art MOSFET technology.

## **Operating modes**

lxR compensation, encoder speed control, DC tacho speed control or current control selectable with a switch from outside.

## Design versions

Robust metal housing in module form offers several mounting options. Standardized Eurocard version (with accessories) for the installation in a 19"-Rack or in a plug-in card system.

## **Excellent control characteristics**

Stable speed behaviour when set value and disturbance variable change, fast current controller.

## **Protection circuit**

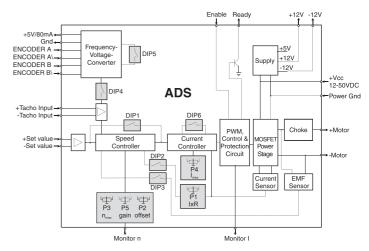
Protected against overcurrent, thermal overload and short-circuit of motor cable.

## Set value input

External potentiometer or external set value voltage.

## Excellent price / performance ratio

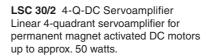
Modern servoamplifier with many technical features, suitable for permanent magnet activated DC motors up to 500 watts.



May 2011 edition / subject to change maxon motor control 281

# 4-Q-DC Servoamplifier Data







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.

Output  Status reading «Ready» Open Collector, max. 30 VDC (I <sub>L</sub> < 20 mA) Monitor current «Monitor I» -10 +10 VDC (short circuit protected -10 +10 VDC (short circuit protected voltage outputs  Auxiliary voltages +3.9 VDC, -3.9 VDC, max. 2 mA Frim potentiometer IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain Protective functions Protected against thermal overload Protected against thermal overload Operation Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector for interpreteded Open 4.5 VDC, max. 20 mA Open 4.5 VDC,		IxR compensation, voltage control, encoder speed control, DC tacho speed control, current control	IxR compensation, encoder speed contro DC tacho speed control, current control
Max. output voltage         V <sub>CC</sub> -5 V         0.9 x V <sub>CC</sub> Max. output current I <sub>max</sub> 2 A         10 A           Continuous output current I <sub>core</sub> 2 A         5 A           Switching frequency of power stage         50 kHz           Max. efficiency         95 %         150 μH / 5 A           Built-in motor choke         95 %         150 μH / 5 A           Input         Value         Configurable, -10 +10 V, -3.9 +3.9 V         -10 +10 V           Set value         Configurable, -10 +10 V, -3.9 +3.9 V         -10 +10 V           Enable         «Disable min. V <sub>CC</sub> - 1 V, Enable max. GND + 1 V         +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, TT           Output         Open Collector, max. 30 VDC (I <sub>L</sub> < 20 mA)         Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)           Monitor current -Monitor I»         -10 +10 VDC (short circuit protected work of circuit protected supply voltages         +3.9 VDC, max. 80 mA         +/-12 VDC, max. 12 mA (short circuit protected voltage outputs           Auxiliary voltages         +3.9 VDC, max. 80 mA         +7 VDC,	lectrical Data		
Max. output current I <sub>max</sub> 2 A 5 A 5 A 5 A 5 A 5 A 5 A 5 A 5 A 5 A	perating voltage V <sub>CC</sub>	12 - 30 VDC	12 - 50 VDC
Continuous output current l <sub>cont</sub> 2 A 5 A Switching frequency of power stage 50 kHz Max. efficiency 95 % Built-in motor choke 150 µH / 5 A  Input  Set value Configurable, -10 +10 V, -3.9 +3.9 V -10 +10 V  Enable "Disable min. V <sub>CC</sub> - 1 V, Enable max. GND + 1 V +4 50 V min. 2 VDC, max. 50 VDC min. 2 VDC, max. 50 VDC  Encoder signals Channel A and channel B, max. 100 kHz, TTL  Output  Status reading "Ready" Open Collector, max. 30 VDC (I <sub>L</sub> < 20 mA) Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Monitor current "Monitor I»  Monitor current "Monitor I»  Auxiliary voltage 4 +3.9 VDC, -3.9 VDC, max. 2 mA  Froeder supply voltage +5 VDC, max. 80 mA  Trim potentiometer IxR compensation, Offset, n <sub>max</sub> , gain  Protective functions Protected against thermal overload Protected against thermal overload, overcurrent and short-circuit of motor covercurrent and short-circuit of motor overcurrent and short-circuit of motor overcurrent and short-circuit of motor covercurrent and short-circuit of	ax. output voltage	V <sub>CC</sub> -5 V	0.9 x V <sub>CC</sub>
Switching frequency of power stage  Max. efficiency  Built-in motor choke  Input  Set value  Configurable, -10 +10 V, -3.9 +3.9 V  Configurable, -10 +10 V, -3.9 V  Configurable, -10 V, -3.9 V  Configurable, -10 +10 V, -3.9 V  Configurable min. 2 V, -2 m  Approx. 20 max. 30 V  Configurable min. 2 V, -2 m  Approx. 20 max. 30 V  Configurable min. 2 V, -2 m  Approx. 20 max. 30 V  Configurable min. 2 V, -2 m  Approx. 20 min. 2 V  Configurable min. 2 V, -2 m  Approx. 20 min. 2 V  Configuration min.	ax. output current I <sub>max</sub>	2 A	10 A
Max. efficiency   95 %   150 μH / 5 A   150 μH /	ontinuous output current I <sub>cont</sub>	2 A	5 A
Bullt-in motor choke Input  Set value Configurable, -10 +10 V, -3.9 +3.9 V  Enable Disable Disable min. V <sub>CC</sub> - 1 V, Enable max. GND + 1 V  #Enable Disable min. V <sub>CC</sub> - 1 V, Enable max. GND + 1 V  #Enable Channel A and channel B, max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max. 100 kHz, TTL  ### Channel A, N, B, B max	witching frequency of power stage		50 kHz
Set value	ax. efficiency		95 %
Configurable, -10 +10 V, -3.9 +3.9 V	uilt-in motor choke		150 μH / 5 A
Clisable	put		
Enable	et value	Configurable, -10 +10 V, -3.9 +3.9 V	-10 +10 V
Disable min. $V_{CC} - 1$ V, Enable max. GND + 1 V + 4 50 V 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, TT  Output  Status reading «Ready»  Open Collector, max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector ma	nable		«Enable»
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Encoder signals  Channel A and channel B, max. 100 kHz, TTL  Output  Status reading «Ready»  Open Collector, max. 30 VDC (I <sub>L</sub> < 20 mA)  Monitor current «Monitor I»  -10 +10 VDC (short circuit protected voltage outputs  Auxiliary voltages  +3.9 VDC, -3.9 VDC, max. 2 mA  +/-12 VDC, max. 12 mA (short circuit protected spainst thermal overload voltage upputs  Frodective functions  Protected against thermal overload voercurrent and short-circuit of motor or another temperature and humidity range  Operation  Omen Collector, max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)  Int. +10 VDC (short circuit protected on +10 VDC (short circuit protected	C tacho	min. 2 VDC, max. 50 VDC	min. 2 VDC, max. 50 VDC
Status reading «Ready»	ncoder signals	Channel A and channel B, max. 100 kHz, TTL	Channel A, A B, B max. 100 kHz, TTL
Monitor current «Monitor I»  -10 +10 VDC (short circuit protected voltage outputs  Auxiliary voltages +3.9 VDC, -3.9 VDC, max. 2 mA +/-12 VDC, max. 12 mA (short circuit protected supply voltage +5 VDC, max. 80 mA +5 VDC, max. 80 mA  Trim potentiometer IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain Protected against thermal overload Protected against thermal overload, overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control overcurrent and short-circuit protected against thermal overload overcurrent and short-circuit protected against thermal overload protected against thermal overload overcurrent and short-circuit protected against thermal overload protected against thermal overload overcurrent and short-circuit protected against thermal overload protecte	utput		
Monitor current «Monitor I»  -10 +10 VDC (short circuit protected voltage outputs  Auxiliary voltages +3.9 VDC, -3.9 VDC, max. 2 mA +/-12 VDC, max. 12 mA (short circuit protected supply voltage +5 VDC, max. 80 mA +5 VDC, max. 80 mA  Trim potentiometer IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain Protected against thermal overload Protected against thermal overload, overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control of the standard overload overcurrent and short-circuit of motor control overcurrent and short-circuit protected against thermal overload overcurrent and short-circuit protected against thermal overload protected against thermal overload overcurrent and short-circuit protected against thermal overload protected against thermal overload overcurrent and short-circuit protected against thermal overload protecte	tatus reading «Ready»	Open Collector, max. 30 VDC (I <sub>L</sub> < 20 mA)	Open Collector max. 30 VDC (I <sub>L</sub> < 20 mA)
Voltage outputs  Auxiliary voltages +3.9 VDC, -3.9 VDC, max. 2 mA +/-12 VDC, max. 12 mA (short circuit processing protective functions   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   IxR compensation, Verticular for motor of the conference of t	onitor current «Monitor I»	· \-	-10 +10 VDC (short circuit protected)
Auxiliary voltages +3.9 VDC, -3.9 VDC, max. 2 mA +/-12 VDC, max. 12 mA (short circuit profess tencoder supply voltage +5 VDC, max. 80 mA +5 VDC, max. 80 mA   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, overcurrent and short-circuit of motor or compensation   2x compensation   2	onitor speed «Monitor n»		-10 +10 VDC (short circuit protected)
Auxiliary voltages +3.9 VDC, -3.9 VDC, max. 2 mA +/-12 VDC, max. 12 mA (short circuit profess tencoder supply voltage +5 VDC, max. 80 mA +5 VDC, max. 80 mA   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain   1xR compensation, overcurrent and short-circuit of motor or compensation   2x compensation   2	•		,
Encoder supply voltage		+3.9 VDC, -3.9 VDC, max. 2 mA	+/-12 VDC, max. 12 mA (short circuit protected
Trim potentiometer  IXR compensation, Offset, n <sub>max</sub> , l <sub>max</sub> , gain  Protective functions  Protected against thermal overload  Protected against thermal overload, overcurrent and short-circuit of motor or content to the content temperature and humidity range  Operation  O +45°C  Storage  -40 +85°C  No condensation  O 80 %  Mechanical Data  Weight  Approx. 330 g  Dimensions (L x W x H)  Approx. 330 g  Approx. 330 g  Dimensions (L x W x H)  Approx. 330 g  Approx. 400 g  Flange for M4-screws  Flange for M4-screws  Connections  See page 284  Order Number	, ,	+5 VDC. max. 80 mA	,
Protective functions Protected against thermal overload Protected against thermal overload, overcurrent and short-circuit of motor of overcurrent and short-circuit of motor of the short temperature and humidity range Operation Omega			,
Ambient temperature and humidity range         0 +45°C         -10 +45°C           Operation         0 +45°C         -40 +85°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 284)         180 x 103 x 26 mm (see page 284)           Mounting threads         Flange for M4-screws         Flange for M4-screws           Connections         See page 284         See page 284           Order Number         Order Number         -10 +45°C         -40 +85°C	•		•
Ambient temperature and humidity range         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 284)         180 x 103 x 26 mm (see page 284)           Mounting threads         Flange for M4-screws         Flange for M4-screws           Connections         See page 284         See page 284           Order Number         See page 284         See page 284	dicator	Green LED = READY. red LED = ERROR	Bi-colour LED, green = READY, red = ERRO
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 284)         180 x 103 x 26 mm (see page 284)           Mounting threads         Flange for M4-screws         Flange for M4-screws           Connections         See page 284         See page 284           Order Number         Order Number	mbient temperature and humidity range		,
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 284)       180 x 103 x 26 mm (see page 284)         Mounting threads       Flange for M4-screws       Flange for M4-screws         Connections       See page 284       See page 284         Order Number       Order Number		0 +45°C	-10 +45°C
No condensation       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 284)       180 x 103 x 26 mm (see page 284)         Mounting threads       Flange for M4-screws       Flange for M4-screws         Connections       See page 284       See page 284         Order Number       See page 284	torage	-40 +85°C	-40 +85°C
WeightApprox. 330 gApprox. 400 gDimensions (L x W x H)103 x 100 x 34 mm (see page 284)180 x 103 x 26 mm (see page 284)Mounting threadsFlange for M4-screwsFlange for M4-screwsConnectionsSee page 284See page 284Order Number	o condensation	20 80 %	
Dimensions (L x W x H)  103 x 100 x 34 mm (see page 284)  Mounting threads  Flange for M4-screws  Flange for M4-screws  See page 284  Order Number	lechanical Data		
Dimensions (L x W x H)  103 x 100 x 34 mm (see page 284)  Mounting threads  Flange for M4-screws  Flange for M4-screws  See page 284  Order Number	/eight	Approx. 330 g	Approx. 400 g
Mounting threads Flange for M4-screws Flange for M4-screws  Connections See page 284 See page 284  Order Number	- C		
Connections     See page 284     See page 284       Order Number     See page 284	, ,	( 1 0 /	, , ,
Order Number	<u> </u>	<u> </u>	
	rder Number		
		250521 LSC 30/2, 4-Q-DC Servoamplifier in module housing	145391 ADS 50/5, 4-Q-DC Servoamplifier Standard Version in module housir

282 maxon motor control May 2011 edition / subject to change