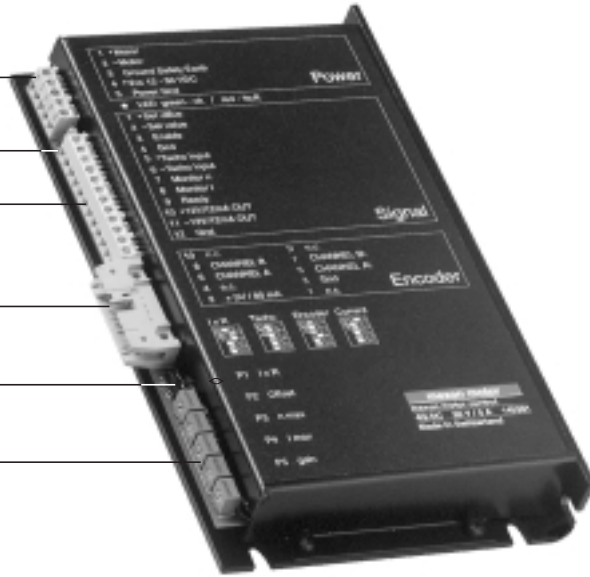
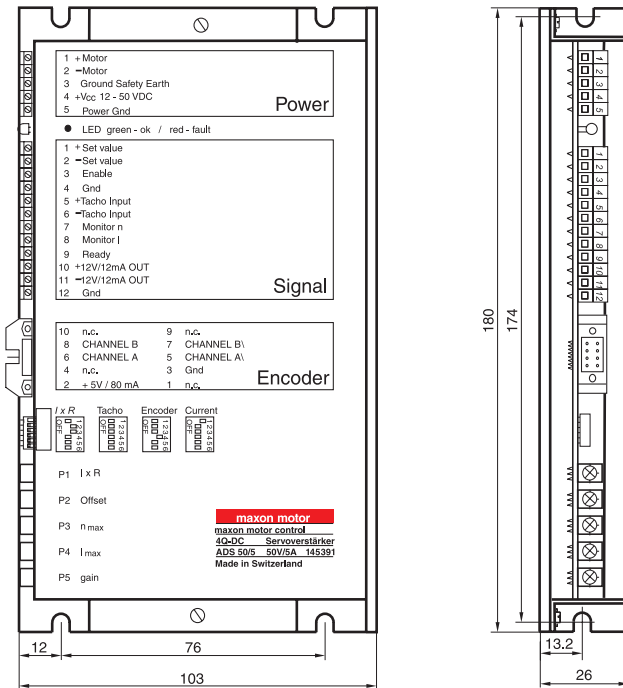


# 4-Q-DC Servoamplifier ADS in module housing

- Power**
  - Power supply
  - Motor terminal
- LED**
  - Status indicator
- Signal**
  - Terminals for input
  - Terminals for output
  - Terminals for DC tachometer
- Encoder**
  - Terminal for Digital-Encoder
- DIP Switches**
  - Operation mode setting
- Potentiometer**
  - Adjustment I<sub>xR</sub> / Offset
  - n<sub>max</sub> / I<sub>max</sub> / gain



Dimensions in [mm]



## Pin allocation

Power	
1	+Motor
2	-Motor
3	Ground Safety Earth
4	+Vcc 12 - 50 VDC
5	Power Gnd

Signal	
1	+Set value
2	-Set value
3	Enable
4	Gnd
5	+Tacho Input
6	-Tacho Input
7	Monitor n
8	Monitor I
9	Ready
10	+12V/12mA OUT
11	-12V/12mA OUT
12	Gnd

Encoder			
10	n.c.	9	n.c.
8	CHANNEL B	7	CHANNEL B\
6	CHANNEL A	5	CHANNEL A\
4	n.c.	3	Gnd
2	+ 5V / 80 mA	1	n.c.

## Order Numbers

- ADS 50/10 **201583** 4-Q-DC Servoamplifier in module housing
- ADS 50/5 **145391** 4-Q-DC Servoamplifier in module housing

## Accessories for ADS 50/10 (Option)

- 137303** Choke module 3 x 0.25 mH, 5 A
- 232359** Choke module 3 x 0.15 mH, 10 A

## Performance Data

### Electrical data

- Supply voltage V<sub>cc</sub> 12 - 50 VDC
- Ripple < 5%
- Max. output current I<sub>max</sub>:
  - ADS 50/10 POWER 20 A
  - ADS 50/5 STANDARD 10 A
- Continuous output current I<sub>cont</sub>:
  - ADS 50/10 POWER 10 A
  - ADS 50/5 STANDARD 5 A
- Switching frequency of power stage 50 kHz
- Efficiency 95 %
- Band width current controller 2.5 kHz
- Built-in motor choke:
  - ADS 50/10 POWER none
  - (Terminal inductance min. 200 μH)
  - ADS 50/5 STANDARD 160 μH / 5 A

### Input

- Set value -10 ... +10 V (R<sub>i</sub> = 20 kΩ)
- Enable +4 ... +50 V (R<sub>i</sub> = 15 kΩ)
- Input voltage DC tachometer min. 2 VDC, max. 50 VDC (R<sub>i</sub> = 14 kΩ)
- Encoder signals Channel A, A\, B, B\, max. 100 kHz, TTL

### Output

- Current monitor "Monitor I", short circuit protected -10 VDC ... +10 VDC (R<sub>o</sub> = 10 kΩ)
- Speed monitor "Monitor n", short circuit protected -10 VDC ... +10 VDC (R<sub>o</sub> = 10 kΩ)
- Status reading "READY" Open collector max. 30 VDC (I<sub>L</sub> < 20 mA)

### Voltage output

- Aux. voltage, short circuit protected +12 VDC, -12 VDC, max. 12 mA
- Encoder supply voltage +5 VDC, max. 80 mA

### Trim potentiometers

- I<sub>xR</sub> compensation
- Offset
- n<sub>max</sub>
- I<sub>max</sub>
- gain

### LED indicator

- 2 colours, LED green = READY, red = ERROR

### Ambient temperature-/humidity range

- Operation -10 ... +45°C
- Storage -40 ... +85°C
- non condensating 20 ... 80 %

### Mechanical data

- Weight: ca. 360 g
- Mounting plate: for M4 screws

### Terminal

- PCB-clamps Power (5 poles), Signal (12 poles) Pitch: 3.81 mm
- suitable for wire cross section: 0.14 - 1.5 mm<sup>2</sup> single wire or 0.14 - 1 mm<sup>2</sup> multiple-stranded wire
- Encoder Plug DIN 41651 for flat band cable, pitch 1.27 mm

### Note:

General specifications on ADS 4-Q-DC servoamplifier see page 218.