

Reaction Wheel Connection

March 23, 2023 3:58 PM

3.4.3 Digital I/Os (J5)



Figure 3-7 Digital I/Os Socket J5

J5 & Head A Pin	Prefab Cable Color	Head B Pin	Signal	Description
1	white		DigIN1	Digital input 1
2	brown		DigIN2	Digital input 2
3	green		DigIN/DigOUT3	Digital input/output 3
4	yellow		DigIN/DigOUT4	Digital input/output 4
5	grey		GND	Signal ground
6	pink		+5 VDC	Auxiliary output voltage (+5 VDC; ≤ 80 mA)

Table 3-14 Digital I/Os Socket J5 – Pin Assignment & Cabling

3.4.4 Analog I/Os (J6)

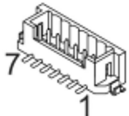


Figure 3-13 Analog I/Os Socket J6

J6 & Head A Pin	Prefab Cable Color	Head B Pin	Signal	Description
1	white		AnIN1+	Analog input 1, positive signal
2	brown		AnIN1–	Analog input 1, negative signal
3	green		AnIN2+	Analog input 2, positive signal
4	yellow		AnIN2–	Analog input 2, negative signal
5	grey		AnOUT1	Analog output 1
6	pink		AnOUT2	Analog output 2
7	blue		GND	Signal ground

Table 3-16 Analog I/Os Socket J6 – Pin Assignment & Cabling

3.4.1 Power (J1)



Figure 3-3 Power Socket J1

J1 & Head A Pin	Prefab Cable Color	Head B Pin	Signal	Description
1	white	–	Power_GND	Ground of supply voltage
2	brown	+	+V _{CC}	Power supply voltage (+10...+36 VDC)

Table 3-8 Power Socket J1 – Pin Assignment & Cabling

3.4.2 Motor / Hall Sensor (J2 / J2A)



Potential Destruction

Use only one of the two connectors – either J2 or J2A!

HEADER J2

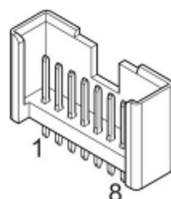


Figure 3-4 Motor / Hall Sensor Header J2



Best Practice

- For EC motors with built-in FPC (Flexprint cable), you might wish to use one of the ready-made adapters. For details → “Cable Selector” on page 3-13.

J2 & Head A Pin	Prefab Cable Color	Head B Pin	Signal	Description
1			Motor winding 1	EC motor: Winding 1
2			Motor winding 2	EC motor: Winding 2
3			Motor winding 3	EC motor: Winding 3
4			+5 VDC	Hall sensor supply voltage (+5 VDC; I _L ≤ 30 mA)
5			GND	Ground
6			Hall sensor 1	Hall sensor 1 input
7			Hall sensor 2	Hall sensor 2 input
8			Hall sensor 3	Hall sensor 3 input

Table 3-10 Motor / Hall Sensor Header J2 – Pin Assignment & Cabling

4.1 maxon EC motor with Hall Sensors

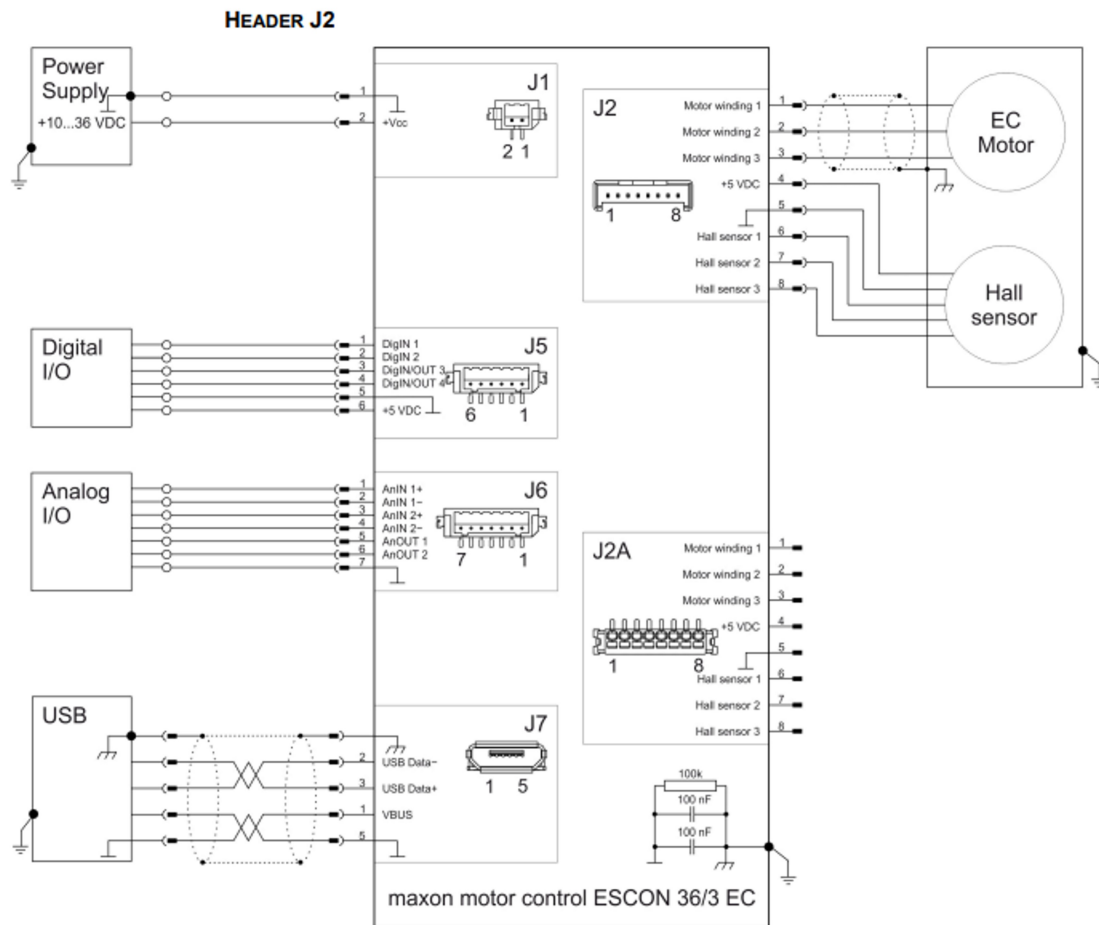


Figure 4-23 maxon EC motor with Hall Sensors (J2)

