Cables and connectors options

Introduction

Depending on the application, it may be necessary to add a cable to the motor with a special length, a flexible material or a different connector. FAULHABER PRECISTEP SA offers 17 cables and connectors possibilities available for any type of stepper motor. This information is summarized in a short PDF file that can be downloaded from the Faulhaber extranet.
The goal of this application note is then to present the cables options and provide users the tools to order such parts.

Which cable and how to order?

In order to provide to the users the best transparency and information and improve lead times and prices, FAUHLABER PRECISTEP created a small catalogue containing every cable and connector that can be offered as standard parts. Information about their visual aspect, dimensions, connectivity and compatibility with stepper motors are specified and a short introduction is also given to clarify how a cable can be ordered (see Figure 1 and Figure 2). The cable list can be obtained on demand.
Different connector, length, colour and soldering orientation are proposed in the catalogue as summarized in Table 1.

Table 1 : Overview of the cable specifications proposed by FAULHABER PRECISTEP.

Connectors	Molex, JST, Hirose
Colours	Black, Blue, Brown, Green, Grey, Orange, Red, White, Yellow
Length (including connector if any)	From 20.5mm to 500mm
Diameter	AWG 30-26
Cable Materials	LiFY, LiFH, Teflon, PVC housing

The customer may also choose how the cable has to be soldered on the motor. This means he has to choose in which direction the cable must be directed (towards the front of the motor, towards the back or at 90°).

If the standard cables proposed cannot meet with the requirements of the application, there is always the possibility to ask for a special assembly. Do not hesitate to contact your point of sales for more information.

How to order a cable?

To order a standard cable in combination with one of our stepper motor please follow here under instructions. The ordering code of a cable is made of a letter "C" + a reference number + an orientation letter. This ordering code follows the motor designation

Example: motor DM06202R013015 with a cable 48.7mm long with Molex connector and oriented axially towards the back of the motor.

DM06202R013015 C003A gearhead or leadscrew designation (if applicable)

'C' for cable | Reference | Orientation

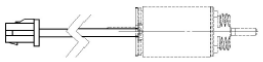
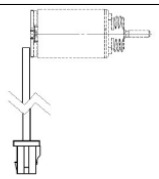
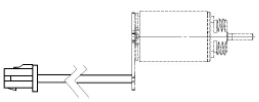
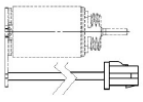
	A	B	C
Round PCB		Not proposed	
Solder Tag PCB			Not proposed

Figure 1 : Explanations on "how to order a cable" from the cable list.

REF.	PICTURE	SPECIFICATIONS	PHASE	UNSUITABLE W/
001 *old 06.072*		**Cable length:** 30mm **Material:** Super flexible / PVC housing **Conductor Cross section:** 0.06mm² **Max Temperature:** 70°C **Connector:** Molex 51021-0400 **Number of poles:** 4 **Length with connector :** 34mm	A+ : Red A- : White B+ : Green B- : Grey	Orientation A - Orientation B Round PCB motors Orientation C Solder tag PCB motors
002 *old 90.042*		**Cable length:** 48.60mm **Material:** Super flexible / PVC housing **Conductor Cross section:** 0.06mm² **Max Temperature:** 70°C **Connector:** Molex 51021-0400 **Number of poles:** 4 **Length with connector :** 52.60mm	A+ : Red A- : White B+ : Green B- : Blue	Orientation A - Orientation B Round PCB motors Orientation C Solder tag PCB motors
003 *old 10.096*		**Cable length:** 48.70mm **Material:** Super flexible / PVC housing **Conductor Cross section:** 0.06mm² **Max Temperature:** 70°C **Connector:** Molex 51021-0400 **Number of poles:** 4 **Length with connector :** 52.7mm	A+ : Red A- : White B+ : Green B- : Grey	Orientation A - Orientation B Round PCB motors Orientation C Solder tag PCB motors

Figure 2 : Example of a page of the cable list.

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