Cable Assembly

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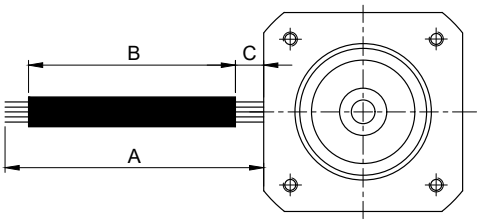
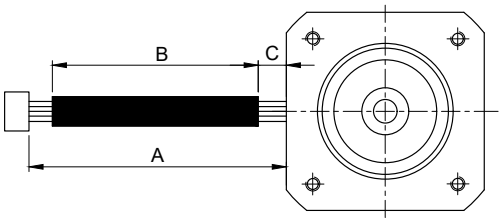
Customer name	
Article number	

Shorten or extend wires



Assembly without connector



Assembly with connector (Stepper Motors only)

Wires can be extended by soldering on wires of the same color. If necessary, a protection sleeve can also be used. The standard gap **(C)** between protection sleeve and motor is 5 mm (tolerance ±5 mm).

For motors with a connector at the cable end, replacing the connector changes the cable length tolerance from +10 mm to ±10 mm.

(A) Length of the wire in mm (tolerance +10 mm)	
(B) Length of the protection sleeve* in mm (tolerance +10 mm)	
(C) Gap between protection sleeve and motor (tolerance ±5 mm)	
Connector	
Protection sleeve	

Datasheets Connectors: PA-F Series, PH Series, VH Series, XH Series, ZH Series, Micro-Fit Series

Connect windings

Cable connection for 6- or 8-wire motors**	

Pin	1	2	3	4	5	6	7	8
Function	none	none	none	none	none	none	none	none

For series connection (one half of the winding), the unused wires are shortened to approx. 2-3 cm, twisted if necessary and soldered as well as insulated with black heat-shrink tubing. For parallel connection, the wires are shortened to approx. 3-5 cm, twisted, extended with a wire of the same color, soldered and insulated with black heat-shrink tubing. Without a connector, the wire ends are stripped 5±1 mm.

* Black heat-shrink tubing, polyolefin, UL certification; spiral tubing, natural, PE

** Further details in the motor datasheet (see website)

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Please note:

- Wires will be extended with the same type and diameter of wire. Exceptions:

Motor/Wire	Original wire	Original wire isolation	Substitute wire	Substitute wire isolation
DB87 Motor wire	UL3135 (AWG 16)	Silicone	UL1332 (AWG 16)	Teflon
DB87 Hall sensor wire	UL1332 (AWG 22)	Teflon	UL1430 (AWG 26)	XLPVC
DB80S/M-Motor	UL3135 (AWG 14)	Silicone	UL1332 (AWG 16)	Teflon
DB80-Hall	UL2464 (AWG 26)	PVC	UL1430 (AWG 26)	XLPVC
DB56 Motor wire	UL1430 (AWG 18)	XLPVC	UL1332 (AWG 18)	Teflon
DB56 Hall sensor wire	UL3265 (AWG 28)	n.a.	UL1430 (AWG 26)	XLPVC
DFA68 Motor wire	UL1430 (AWG 18)	XLPVC	UL1332 (AWG 18)	Teflon
DB43 Motor wire	UL1430 (AWG 20)	XLPVC	UL3266 (AWG 20)	XLPE
DB42 Motor wire	UL1430 (AWG 20)	XLPVC	UL3266 (AWG 20)	XLPE
DBL42 Motor wire	UL1332 (AWG 22)	Teflon	UL1430 (AWG 22)	XLPVC
DB33 Motor wire	UL1007 (AWG 16)	PVC	UL1430 (AWG 26)	XLPVC
DB33 Hall sensor wire	UL1007 (AWG 16)	PVC	UL1430 (AWG 26)	XLPVC
DB28 Motor wire	UL1007 (AWG 16)	PVC	UL1430 (AWG 26)	XLPVC
DB28 Hall sensor wire	UL1007 (AWG 16)	PVC	UL1430 (AWG 26)	XLPVC
DB22 Motor wire	UL1007 (AWG 16)	PVC	UL1430 (AWG 26)	XLPVC
DB22 Hall sensor wire	UL1007 (AWG 18)	PVC	UL1430 (AWG 26)	XLPVC
DS28 Motor wire	UL1332 (AWG 22)	Teflon	UL1430 (AWG 22)	XLPVC
DS16 Motor wire	UL1332 (AWG 24)	Teflon	UL1430 (AWG 22)	XLPVC
ST2018/SCA20	UL1061 (AWG 26)	SR-PVC	UL1430 (AWG 26)	XLPVC
STA14	UL3265 (AWG 28)	PE	UL1430 (AWG 26)	XLPVC

DB22	Red motor wire will be extended with orange wire, brown motor wire will be extended with white wire.
DBL36	Motor wires AWG 24 will be extended with wires AWG 22.
ST5918D	Yellow and yellow/white motor wires will be extended with blue and blue/white wires.
SC41-SC60	No wires included.
DF45	No extension possible, choose connector type.
DB80	With DB80L and DB80C only extension of Hall wires possible.

- If the motor is in stock, our delivery time is approximately one week for 1-24 pieces and approx. two weeks for 25 or more pieces. Please go to our website to check the stock availability of a motor.
- If you combine your motor with a brake and/or encoder, we cannot extend the wires of the brake and/or encoder.
- For larger quantities, other cable and connector configurations are also possible. For further information, please contact our sales department: technical.sales@nanotec.de

Please send the completed form via e-mail to info@nanotec.de or by fax to +49 89 900686-50.

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