

# MLF18AC

Air-side Bakeable Connector 18-Way

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## USER MANUAL

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# 1. Introduction

This connector kit is intended for use with AML vacuum-compatible stepper motors. It is bakeable to 250 °C. Its electrical ratings at 20 °C are, 200 V RMS, 600 v DC, 5 A per connection, 15 A total. Cables of 6 to 12 mm overall diameter can be accommodated. Screened cable may be required in order to comply with electromagnetic compatibility regulations.

## 1.1. Parts Supplied

The parts comprising this connector kit are packed in sealed polythene bags which allow the contents to be viewed. Check the contents against the list below, using the assembly diagrams as a guide to identification. Do not open the bags until you need the parts.

Part	Quantity	AML Part Number	Description
A	1	MMLF18CONSLV	MLF18 CONNECTOR SLEEVE
B	1	MAIGLPLRSR	POLARISING SCREW
C, M	1	EPTCB11	BACKSHELL AND CABLE CLAMP
D	20	EPRTSKT24	SOCKET TERMINAL, CRIMP, 24 AWG
E	40 mm	CWOSL191PTFE	SLEEVING, PTFE, 1.91 mm BORE
F	50 mm	FHOHS9.5TFE	SLEEVE, HEATSHRINK, PTFE, 9.5 mm
G	100 mm	CWEB19YL02TFE	WIRE, PTFE TYPE B, 19 X 0.2 mm <sup>2</sup> , YELLOW
H	1	FHTC1.5-3.5NP	TERMINAL, CRIMP 1.6 mm <sup>2</sup> , 3.5 mm HOLE, NICKEL PLATE
K	2	FFSQ-M3-08MM	SCREW, M3 x 8 mm, PAN HEAD, POZI, SS
L	1	FFSQ-M3-06MM	SCREW, M3 x 6 mm, PAN HEAD, POZI, SS

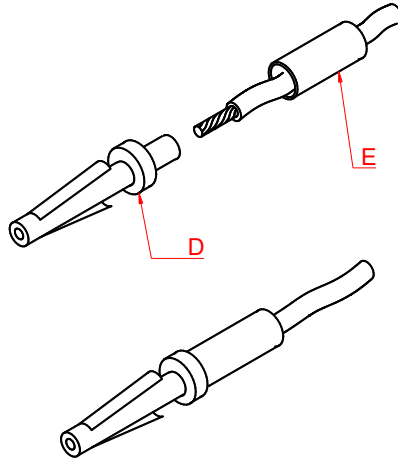
## 1.2. Tools and Materials Required

- Side cutters
- Long-nosed pliers
- Wire strippers
- Knife
- Screwdriver, Pozidriv No 0
- Crimp tool Farnell model 892 294 or equivalent
- Pin extractor Farnell model 105 498 or equivalent
- High-temperature solder and soldering iron
- Heat gun

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## 2. Assembly Procedure

- 1.1. Thread connector backshell, C, onto cable.
- 1.2. Strip cable outer insulation back 55 mm. Strip and twist wires 4 mm.
- 1.3. Crimp connector sockets D to the wires. Wires less than 0.7 mm diameter should be strain-relieved with PTFE sleeve, E, as shown below.



- 1.4. If the cable does not have an overall screen, omit steps 1.5 to 1.7.
- 1.5. Strip yellow ground wire, G, 4 mm.
- 1.6. Solder G to screen, use high temp solder if required.
- 1.7. Shrink sleeve F over the soldered joint.

### STAGE 2

- 2.0. Identify wires 1 to 18 and insert into appropriate bore on connector sleeve A. If they are inserted in the incorrect positions, you must use an extractor tool to remove them.
- 2.1. Screw backshell C onto connector sleeve A. Ensure wire and terminal G & H pass back through the hole. Take care not to twist wires while screwing together.
- 2.2. The cable clamp, M, is reversible to suit cables of different diameters.
- 2.3. Fix the cable clamp into position using screws, K.
- 2.4. Secure backshell ground terminal, H, with screw, L.

