

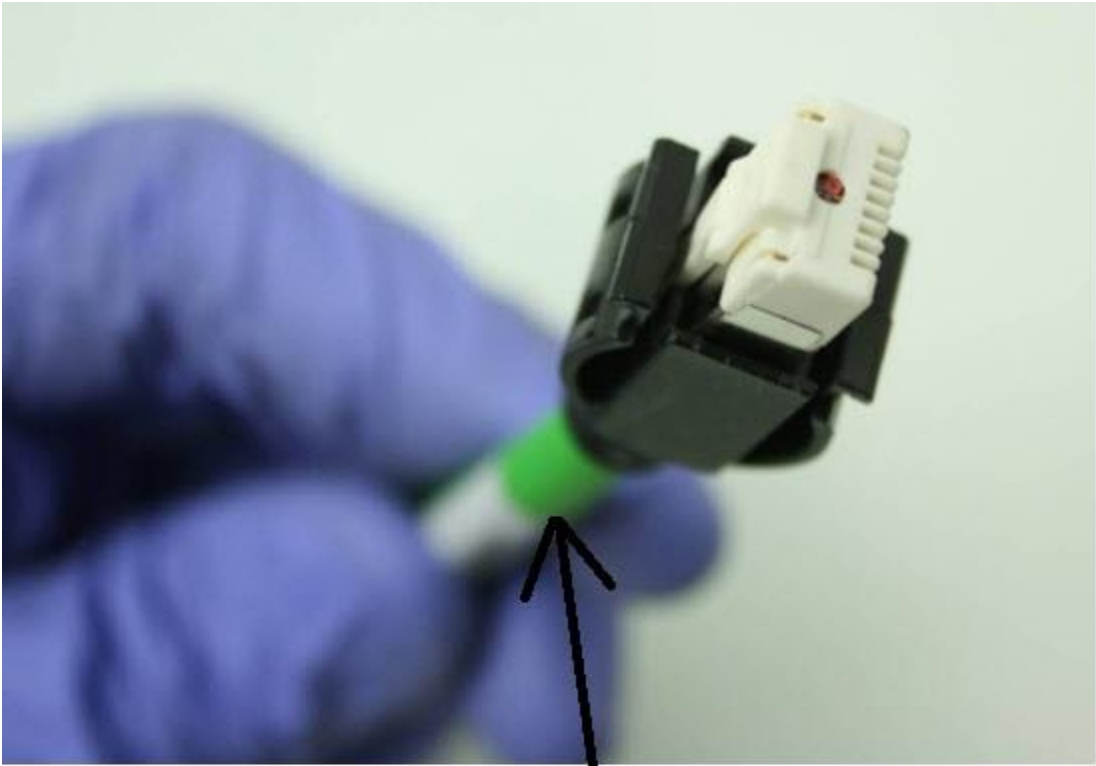
Replacement of Tinline servo motor HIFA cable with LXM32 cable

Required parts:

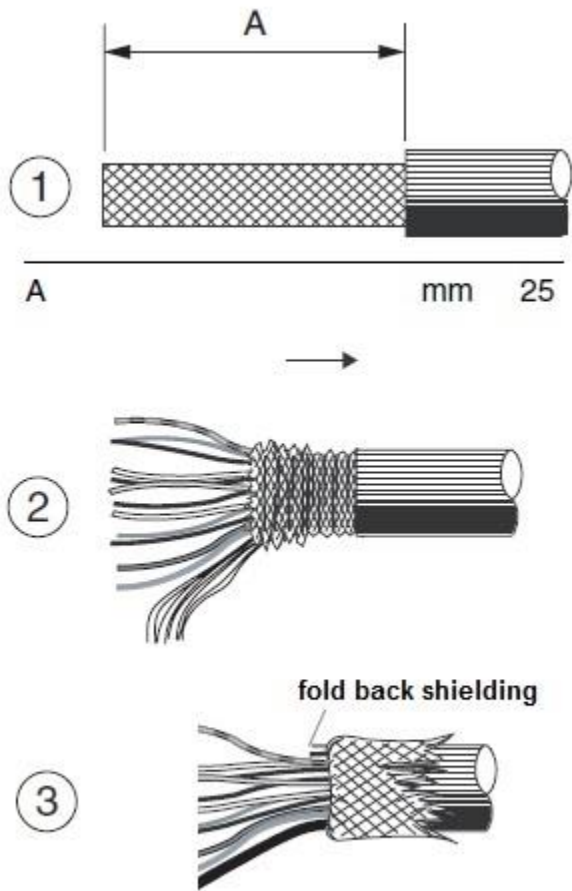
LXM32 encoder cable of a length long enough to replace original cable. (See offered cable on last page of this document.)

1 male 15 pin D-sub connector with shielded housing.

Step 1. Remove RJ45 connector from new LXM32 cable.



Step 2. Dress cable as indicated



Step 3. Solder encoder wires to the DB15 connector using pin assignment below.

Module interface The HIFA-C module is equipped with a Sub-D socket, 15-pin with an M3 threaded connection.

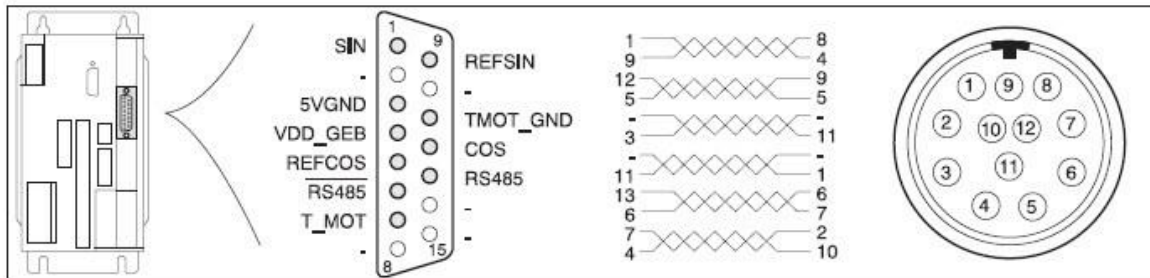


Fig. 4.23 Interface of the Hiperface module, plug for AC servomotor, view from solder side

Pin	Signal	Motor, pin	Color ¹⁾	Pair	Meaning	I/O
1	SIN	8	white	1	Sine signal	I
9	REFSIN	4	brown	1	Reference for sine signal, 2.5 V	O
12	COS	9	green	2	Cosine signal	I
5	REFCOS	5	yellow	2	Reference for cosine signal, 2.5 V	O
2	-	-	-	3	not assigned	-
3	5VGND	11	blue	3	Ground	O
10	-	-	-	4	not assigned	-
11	TMOT_GND	1	black	4	Ground to T_MOT	-
13	RS485	6	gray	5	Receive and send data	I/O
6	RS485	7	pink	5	Receive and send data, inverted	I/O
7	T_MOT	2	grey/pink	6	Temperature sensor NTC to TMOT_GND	I
4	VDD_GEB	10	red/blue	6	10 V supply for encoder, max. 150 mA	O
8	-	-	-	-	not assigned	-
14	-	-	-	-	not assigned	-
15	-	-	-	-	not assigned	-

1) Color details refer to the cable available as an accessory.

WIRING NOTES:

The LXM32 encoder cable uses the same color wires as the original Twinline encoder cable, so when wiring you can follow the color code detail provided in the assignment information given above.

The 10volt encoder supply wire in the LXM32 cables will be solid red, not red/blue.

There is no temperature monitoring used with LXM32 servo drives, so there will be one less twisted pair of wires in the new cable. (black and grey/pink will be missing)

Make a wire jumper from pin 11 to pin 7 on the DB15 connector to bypass temperature monitoring of the motor.

LXM32 encoder cable information provided below just for comparison.

Wiring diagram

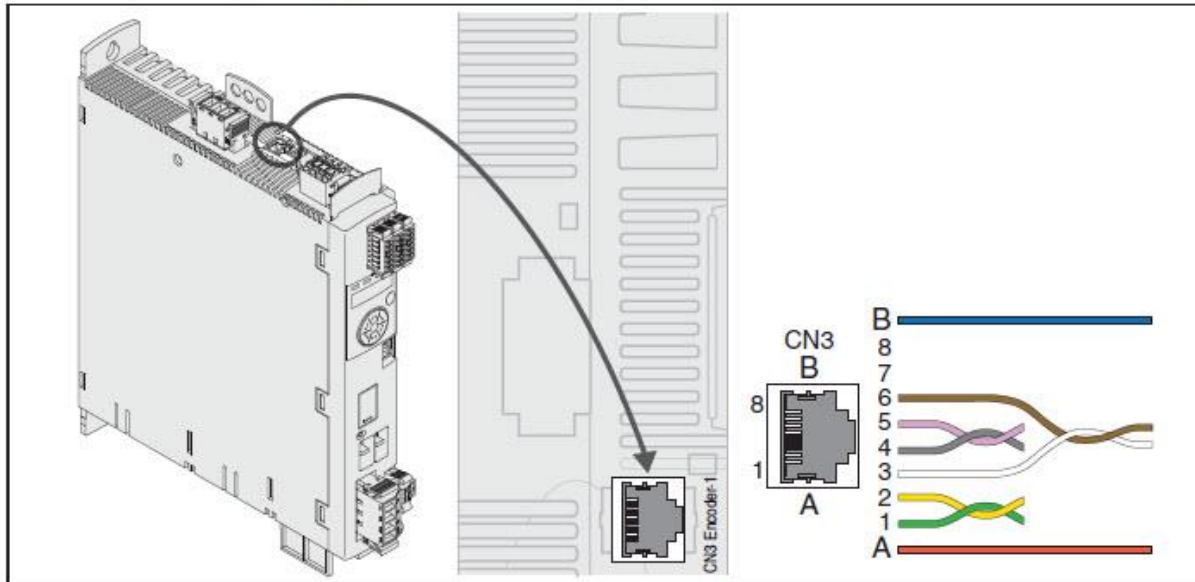


Figure 6.11 Wiring diagram motor encoder

Pin	Signal	Motor, pin	Pair	Meaning	I/O
1	COS+	9	2	Cosine signal	I
2	REFCOS	5	2	Reference for cosine signal	I
3	SIN+	8	3	Sine signal	I
6	REFSIN	4	3	Reference for sine signal	I
4	Data	6	1	Receive data, transmit data	I/O
5	$\overline{\text{Data}}$	7	1	Receive data and transmit data, inverted	I/O
7	reserved		4	Not assigned	
8	reserved		4	Not assigned	
A	ENC+10V_OUT	10	5	Encoder supply	O
B	ENC_0V	11	5	Reference potential for encoder supply	
	SHLD			Shield	

Step 4. After verifying your wiring, install cover on DB15 connector.



List of available encoder cables for LXM32 based on length.

Description	Order no.
Encoder cable 1.5 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R15
Encoder cable 3 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R30
Encoder cable 5 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R50
Encoder cable 10 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R100
Encoder cable 15 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R150
Encoder cable 20 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R200
Encoder cable 25 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R250
Encoder cable 50 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R500
Encoder cable 75 m, [3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)] shielded; motor end 12-pin circular connector M23, device end 10-pin connector RJ45	VW3M8102R750
Encoder cable 25 m, [3 x (2 x 0.14 mm²) + (2 x 0.34 mm²)] shielded, both cable ends open	VW3M8222R250
Encoder cable 50 m, [3 x (2 x 0.14 mm²) + (2 x 0.34 mm²)] shielded, both cable ends open	VW3M8222R500
Encoder cable 100 m, [3 x (2 x 0.14 mm²) + (2 x 0.34 mm²)] shielded, both cable ends open	VW3M8222R1000