(2) Connection for RS232 communication

Use HIWIN LMACR21D RS232 communication cable.

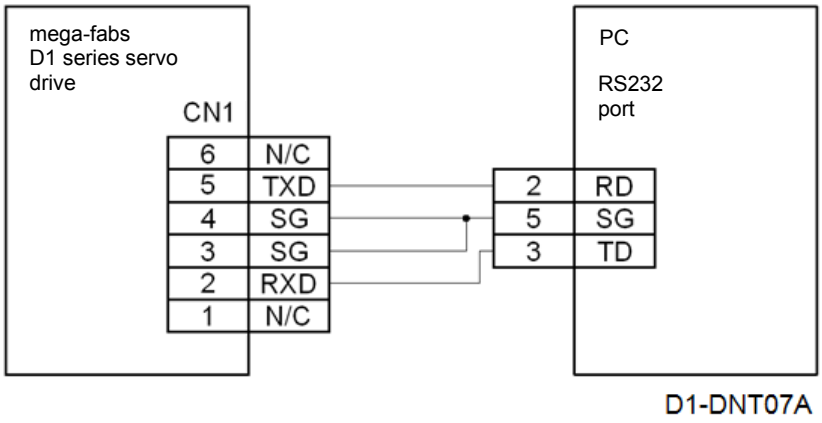

Figure4.6.1

(3) CN1 RJ11 pin assignment

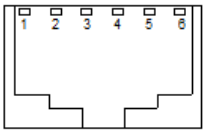

Figure4.6.2

4.7 Wiring for control signals (CN2)

(1) Pin assignment

Table4.7.1

Pin	Signal	Function	
1	FG	Frame ground (For connecting cable shield)	
2	SG	Signal ground	
-			Set inputs as pull up or pull down in Lightening.
3	I1	For enabling or disabling motor The pin can also be set for other function.	Group A
4	I2	General-purpose input signal (Programmable)	Group A
5	I3		Group A
6	I4		Group B
7	I6		Group C
8	I9M	In position mode, these 4 pins are used for receiving pulse command. In other mode, I9 and I10 are general-purpose inputs. I9M and I10M have no function. In velocity mode and force/torque mode, I9 and I10 are for PWM signal input.	-
9	I10M		-
10	I9		Group D
11	I10		Group D

Pin	Signal	Function	
12	I11	I11, general-purpose input signal (Programmable)	Group D
13	O1	General-purpose output signal (Programmable)	
14	O2		
15	O3		
16	A	Feedback pulse output (Buffered encoder or emulated encoder)	
17	/A		
18	B		
19	/B		
20	Z		
21	/Z		
22	+5 V	Encoder +5 Vdc power output The total load current cannot exceed 400 mA.	
23	SG	Signal ground	
24	Ref +	Positive pin for analog command input	
25	Ref -	Negative pin for analog command input	
26	I12	D1 model: I12, general-purpose input signal (Programmable)	Group D

Note:

The high-level input voltage of pulse command and PWM command must be greater than 2 V. The low-level input voltage must be lower than 0.8 V.

(2) Dedicated inputs in operation mode

The dedicated inputs in each operation mode are listed in the table below.

Table4.7.2

Mode	Input	Function		
Position mode	-	Pulse/Direction command input	CW/CCW command input	AqB command input
	I9, I9M	Pulse	CW	A
	I10, I10M	Direction	CCW	B
Force/torque mode and velocity mode	I9, I10	General-purpose input		
	I9M, I10M	No function		