

User Guide
Version:
V2.0



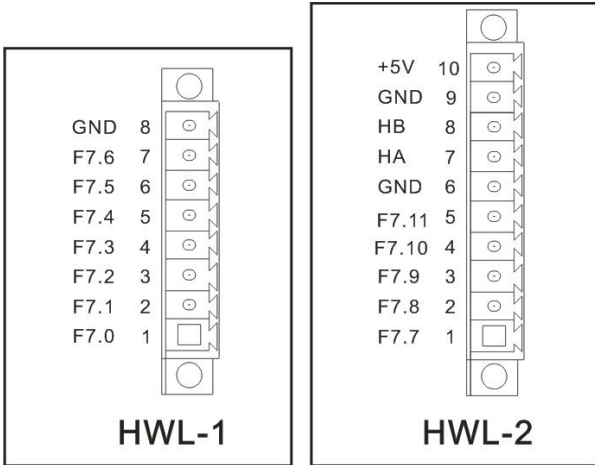
Definition of CNC controller Bus Interface

Applicable Product
M6200i Five-axis CNC controller

■ Please read this Manual carefully before use

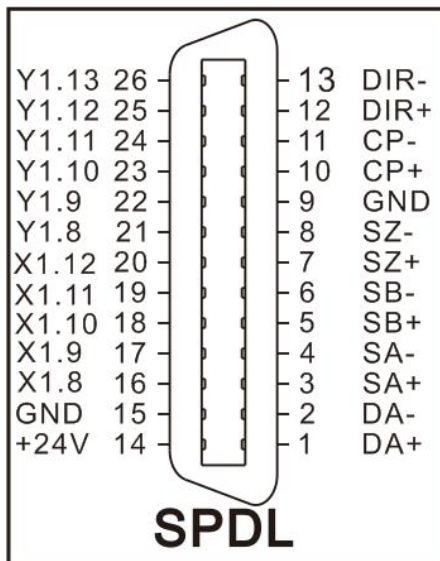
Definition of Bus Product Interface for AUCTECH M6200i

- The pins of the manual interfaces HWL-1 and HWL-2 are defined as follows:



Signal name	Description
F7.0	X-axis selection
F7.1	Y-axis selection
F7.2	Z-axis selection
F7.3	4th axis selection
F7.4	5th axis selection
F7.5	Manual magnification X1
F7.6	Manual magnification X10
F7.7	Manual magnification X100
F7.8	Manual magnification X1000
F7.9	Manual emergency stop
F7.10	6th axis selection
F7.11	7th axis selection
HA	Manual phase A
HB	Manual phase B
+5V, GND	Manual DC5V power supply

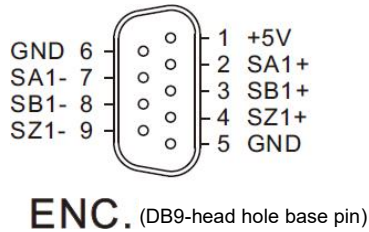
- The signals of main axis interface (high density and 26 cores) are defined as the following table:



Signal name	Function description
+24V, GND	PLC DC24V power supply
X1.8	Spindle ready
X1.9	Spindle orientation completed
X1.10	Spindle zero speed arrival
X1.11	Spindle speed arrival
X1.12	Spindle alarm
Y1.8	Spindle mode switching
Y1.9	Spindle enabling
Y1.10	Spindle orientation
Y1.11	Spindle reverse rotation
Y1.12	Spindle forward rotation
Y1.13	Spindle resetting
SA+, SA-	Feedback signal of phase A
SB+, SB-	Feedback signal of phase B
SZ+, SZ-	Z pulse feedback signal
CP+, CP-	Command pulse output (phase A)

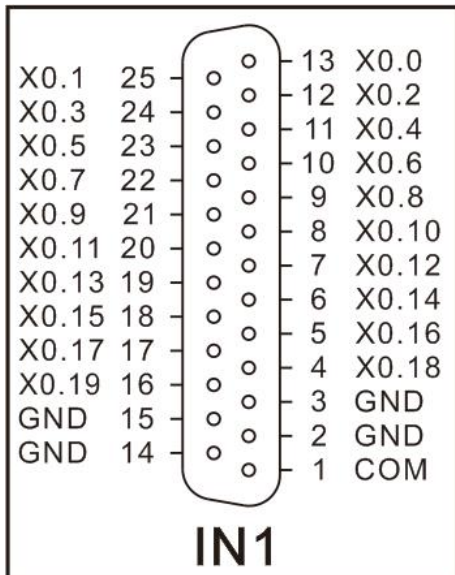
DIR+, DIR-	Command direction output (phase B)
DA+, DA-	Spindle analog command -10~+10v output

● Spindle encoder interface:

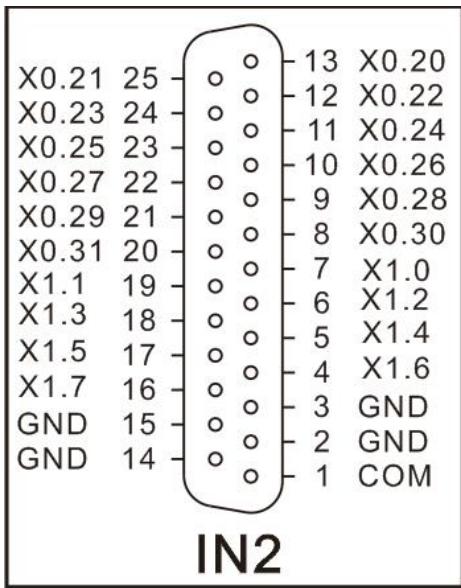


Signal name	Description
SA+, SA-	Feedback signal of phase A of spindle encoder
SB+, SB-	Feedback signal of phase B of spindle encoder
SZ+, SZ-	Z pulse feedback signal of spindle encoder
+5V, GND	DC5V power supply

● Signals of two input interfaces (DB25/F) are defined as follows:

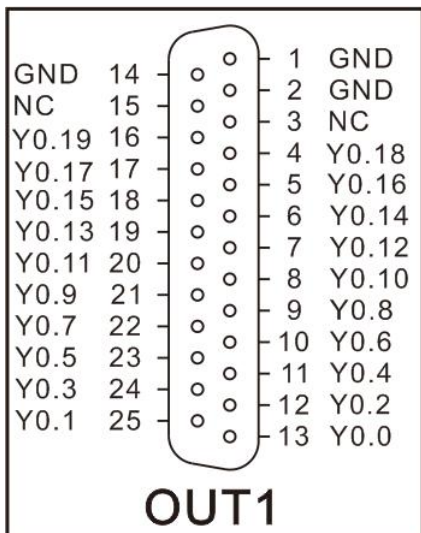


Signal name	Description
COM	Input signal common port (connected to 0V: PNP; connected to 24V: NPN)
GND	PLC 24V power ground
X0.0	
X0.1	
X0.2	
X0.3	
X0.4	
X0.5	
X0.6	
X0.7	
X0.8	
X0.9	
X0.10	
X0.11	
X0.12	
X0.13	
X0.14	
X0.15	
X0.16	
X0.17	
X0.18	
X0.19	
X0.20	
X0.21	
X0.22	
X0.23	

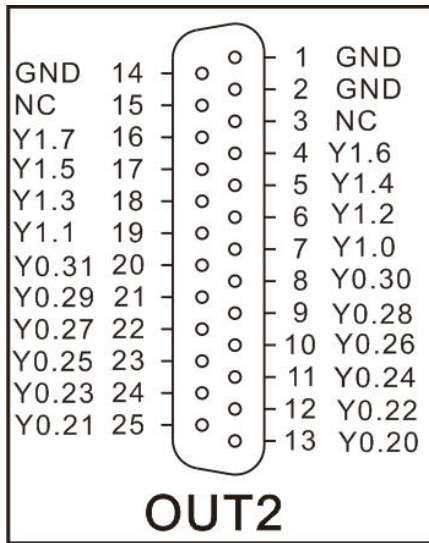


X0.24	
X0.25	
X0.26	
X0.27	
X0.28	
X0.29	
X0.30	
X0.31	
X1.0	
X1.1	
X1.2	
X1.3	
X1.4	
X1.5	
X1.6	
X1.7	

- Signals of two output interfaces (DB25/M) are defined as follows:

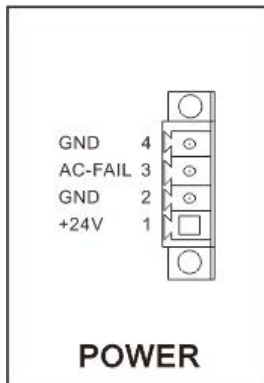


Signal name	Description
GND	PLC 24V power ground
Y0.0	
Y0.1	
Y0.2	
Y0.3	
Y0.4	
Y0.5	
Y0.6	
Y0.7	
Y0.8	
Y0.9	
Y0.10	
Y0.11	
Y0.12	
Y0.13	
Y0.14	
Y0.15	
Y0.16	
Y0.17	
Y0.18	
Y0.19	



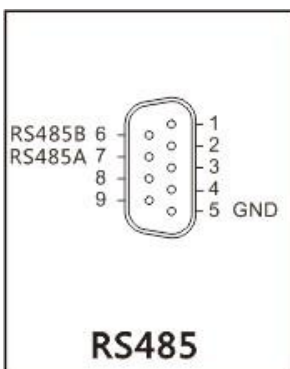
Y0.20	
Y0.21	
Y0.22	
Y0.23	
Y0.24	
Y0.25	
Y0.26	
Y0.27	
Y0.28	
Y0.29	
Y0.30	
Y0.31	
Y1.0	
Y1.1	
Y1.2	
Y1.3	
Y1.4	
Y1.5	
Y1.6	
Y1.7	

- Definition of power interface signals:



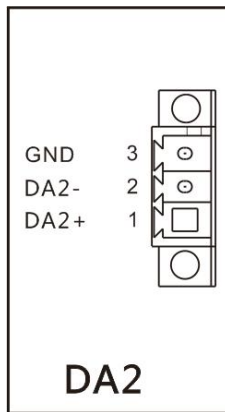
Signal name	Description
+24V GND	DC 24V power supply
AC-FAIL	Power-down detection

- Definition of RS485 communication interface signals:



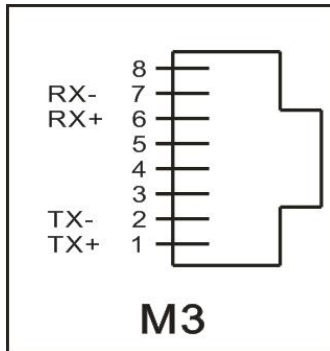
Signal name	Description
GND	Common ground
RS485A, RS485B	RS485 data transmission

- Definition of DA2 2nd spindle interface signals:



Signal name	Description
DA2+	Analog command -10~+10v output of DA2 2 nd spindle
DA2-	DA2 Analog quantity ground
GND	Common ground

- Definition of M3 bus interface:



Signal name	Description
TX+,TX-	Signaling
RX+,RX-	Signal reception

57 inputs: IN1: X0.0~X0.19, 20 inputs in total

IN2: X0.20~X1.7, 20 inputs in total

SPDL: X1.8~X1.12, 5 inputs in total

HWL: F7.0~F7.11, 12 inputs in total

46 outputs: OUT1: Y0.0~Y0.19, 20 outputs in total

OUT2: Y0.21~Y1.7, 20 outputs in total

SPDL: Y1.8~Y1.13, 6 outputs in total