

11B Series Controller

Basic Installation Instruction v2.3

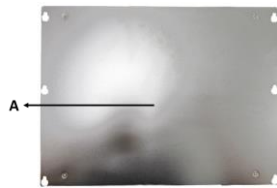
1. Applicable Controller Series:

This manual applies to the controller series below.

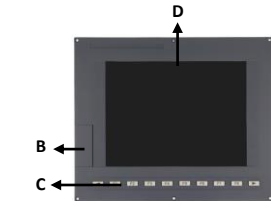
Serial Number	Product Name
1 F01-11MB-SEP	11MB Milling Controller_10.4-inch Split Type
2 F01-11MB-SEP-A	11MB Milling Controller_10.4-inch Split Type (For Vietnam customers of SUN-CNC)
3 F01-11TB-SEP	11TB Lathe Controller_10.4-inch Split Type
4 F01-11TB-SEP-A	11TB Lathe Controller_10.4-inch Split Type (For Vietnam customers of SUN-CNC)
5 F01-11MB-VGA	11MB Milling Controller_The Second Half Split Type

2. Interface Specifications

(The Second-Half Split Series Front View)

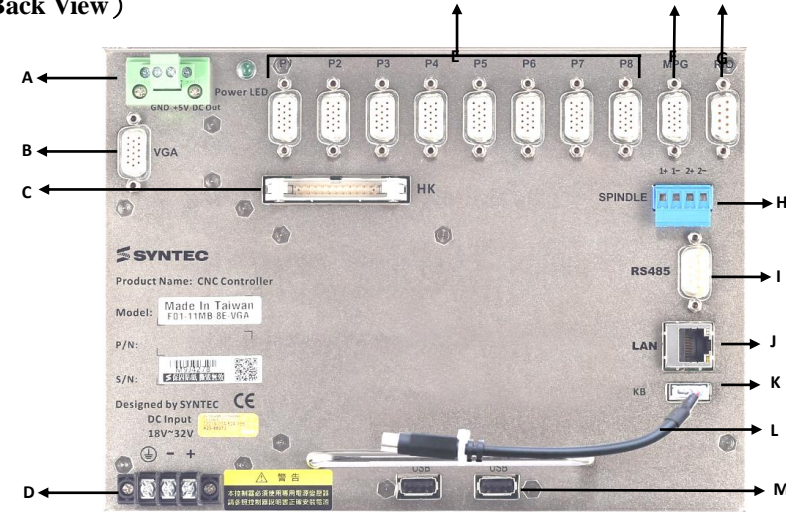


(10.4-inch Split Series Front View)



A	Baffle	Monitor Baffle	C	Function Buttons	Functions correspond to the monitor
B	Flip Cover	2 USB Ports inside	D	Monitor	Display Area

(Back View)

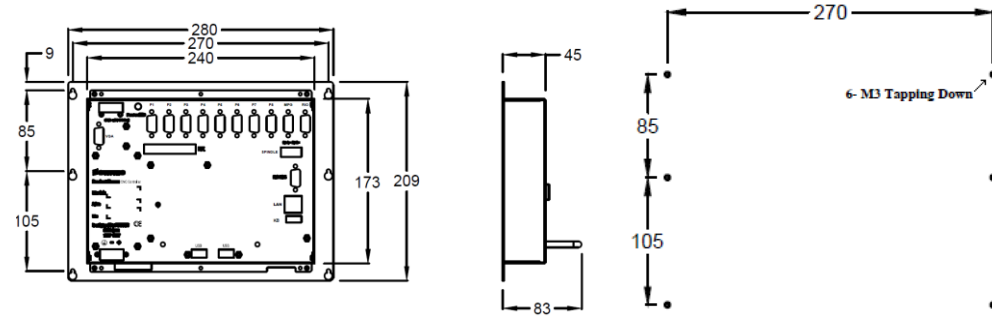


A	DC5V Power Output PORT	DC5V power output for Syntec HK panel
B	VGA PORT	Connect to the monitor interface (VGA only)
C	HK PORT	Connect to Syntec HK panel dedicated interfaces
D	DC 24V,1.67A Power Input PORT	Controller working power input
E	P1~P8 PORT	Servo spindle control output (Encoder feedback included)
F	MPG PORT	MPG input interface (7 sets of I points)

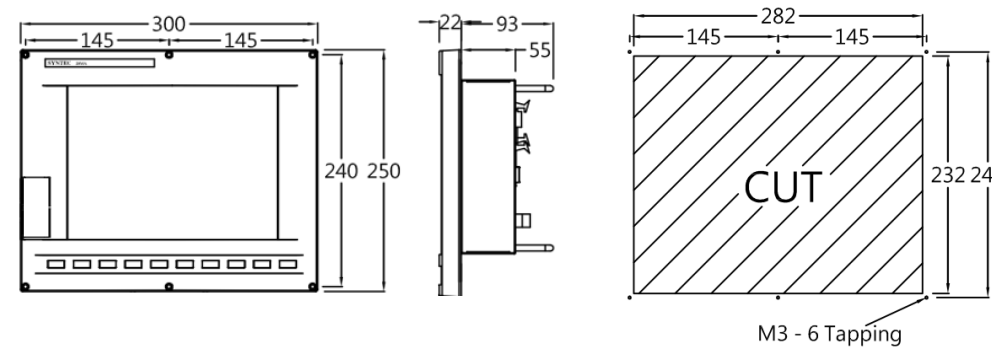
G	RIO PORT	Connect to Syntec RIO module interfaces
H	DA Output PORT	Two sets of D/A output interface
I	RS485 PORT	Provide 1 set of RS485 interface Able to connect to RS485 peripheral devices
J	LAN PORT	10/100M Internet Interface
K	KB PORT	Keyboard interface Able to connect to Syntec script keyboard
L	PS/2 Transfer Wire	Able to connect to standard PS/2 keyboard (VGA only)
M	USB PORT	Standard USB Port

3. External Dimension and Mounting Hole Specifications (Unit : mm)

(Second-Half Split Series)



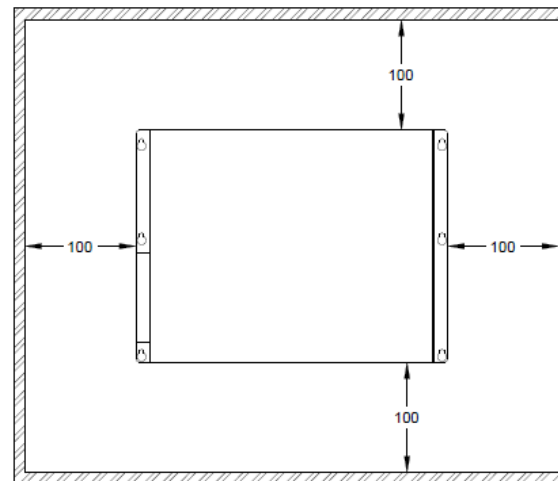
(10.4-inch Split Series)



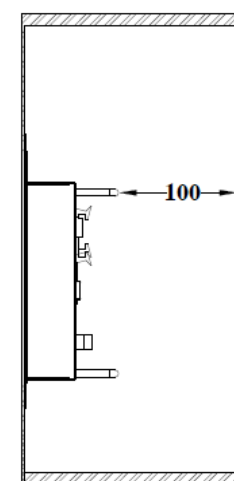
4. Installation Specifications (Unit : mm)

※The measuring point is based on the second half measuring point marked in the graph.

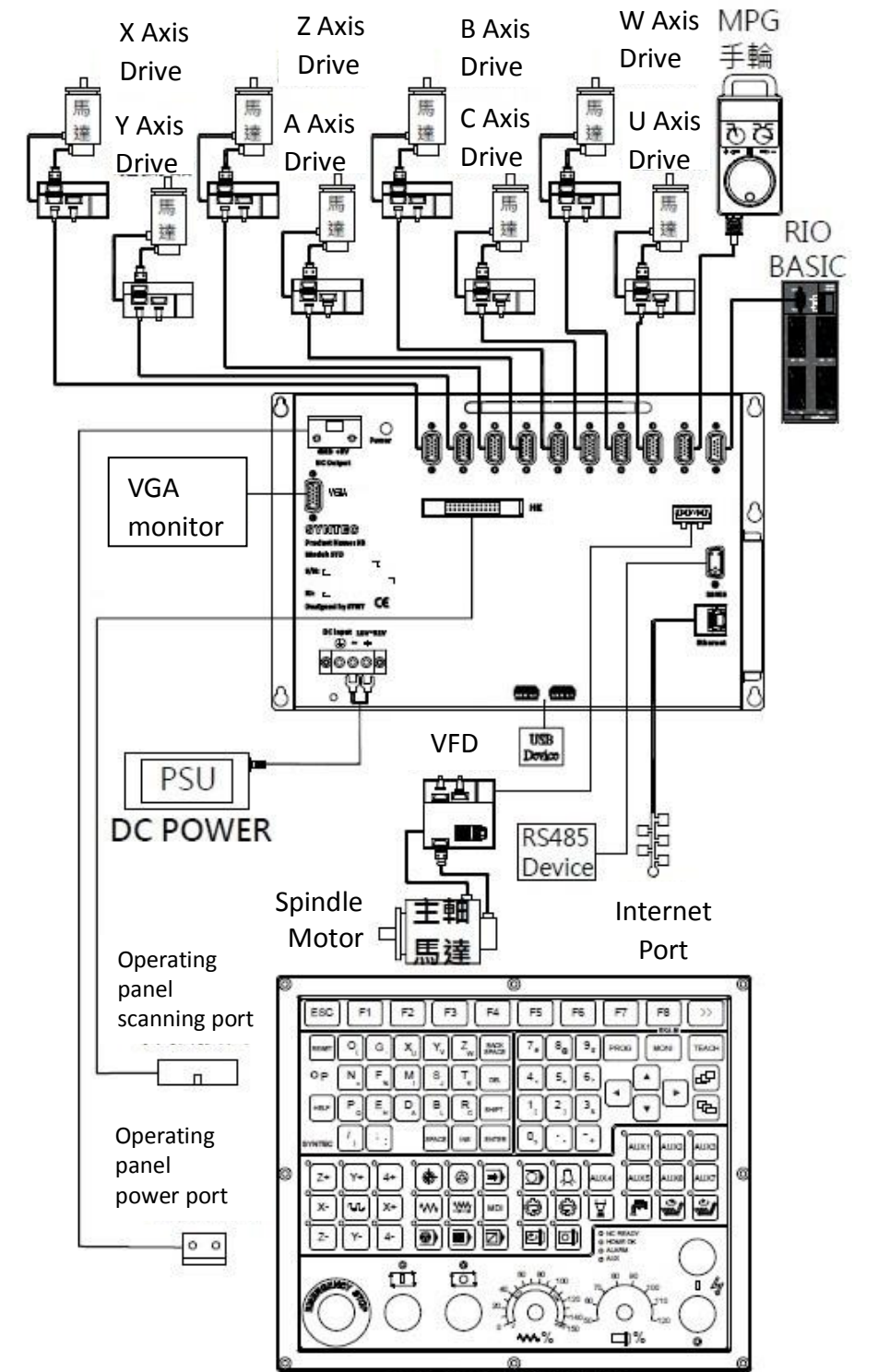
(Front View)



(Side View)



5. Basic Wiring Diagram



Syntec SK Series Module
or Lathe/Milling Series Key Panel Module


6. Interface Configurations

Please notice the value and polarities of voltages.

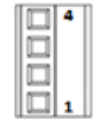
● P1~P8 Connector Arrangement

SP	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
	1	A+	6	Z-	11	CW+
	2	A-	7	ALM+	12	CW-
	3	B+	8	ALM-	13	CCW+
	4	B-	9	SERVO-ON	14	CCW-
	5	Z+	10	SERVO-CLR	15	OUT_COM

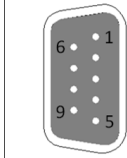
● MPG Connector Arrangement

MPG	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
	1	MPG_A+	6		11	XDI 60
	2	MPG_A-	7	XDI56 ⁺	12	XDI 61
	3	MPG_B+	8	XDI 57 ⁺	13	XDI 62
	4	MPG_B-	9	XDI 58 ⁺	14	GND
	5		10	XDI 59 ⁺	15	+5V

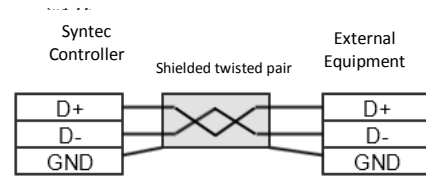
● DA Connector Arrangement

DA	PIN	SIGNAL
	1	1DA+
	2	1DA-
	3	2DA+
	4	2DA-

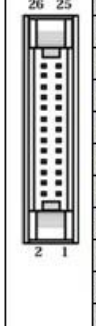
● RS485 Connector Arrangement

RS485	PIN	SIGNAL	PIN	SIGNAL
	1	--	6	RS485_D-
	2	--	7	RS485_D+
	3	--	8	--
	4	--	9	5V
	5	GND	10	--

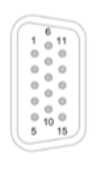
※Notice: Please apply shielded twisted pair when using the RS485 interface. Besides the D+ and D- signal cable, please make sure the air gap is connected to GND on both sides to prevent the RS485 interface from burning down.



● HK Connector Arrangement

HK	PIN	SIGNAL	PIN	SIGNAL
	26	--	25	XDI55
	24	XDI54	23	XDI53
	22	XDI52	21	XDI51
	20	XDI50	19	XDI49
	18	XDI48	17	5V
	16	GND	15	XDO62
	14	XDO61	13	XDO60
	12	XDO59	11	XDO58
	10	XDO57	09	XDO56
	08	XDO55	07	XDO57
	06	XDO53	05	XDO52
	04	XDO51	03	XDO50
	02	XDO49	01	XDO48

● VGA Connector Arrangement

VGA	PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
	1	R	6	GND	11	--
	2	G	7	GND	12	SDA
	3	B	8	GND	13	HS
	4	--	9	--	14	VS
	5	GND	10	GND	15	SCL

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