Digital I/O Modules

The ST Series Digital Input/Output modules come in various sizes and capacities, with counts as low as 2 points and as high as 16 points. These modules can be assembled in any order and mixed with analog I/O modules as well. Each I/O module requires a corresponding base module, which will be individually keyed to that type of I/O module after the first use. This prevents spare modules to be placed in incorrect position during maintenance such as Online Module Change.

Digital Input Modules

Model Number		ST1X2-DE1	ST1X4-DE1	ST1X16-DE1	ST1X1616-DE1-S1
Stocked Item		S	S	S	S
Certification		CE	CE	CE	CE
Occupied Slices		1	1	8	8
Number of Input Points		2	4	16	32
Rated Input Voltage		24VDC (+20/-15%)			
Rated Input Current		4mA	4mA	4mA	5mA
Minimum Input Response Speed		0.5/1.5ms or less			
5VDC Internal Power Consumption		85	95	120	200
Weight (kg)		0.03	0.03	0.11	0.11
Dimensions (W x H x D) mm		12.6 x 55.4 x 74.1		100.8 x 55.4 x 74.1	
Applicable Base Modules	Spring Clamp	ST1B-S4X2	ST1B-S6X4	ST1B-S4X16	ST1B-S6X32
	Screw Clamp	ST1B-E4X2	ST1B-E6X4	ST1B-E4X16	ST1B-E6X32

Digital Output Modules

Model Number		ST1Y2-TE2	ST1Y16-TE2	ST1Y2-TPE3	ST1Y16-TPE3	ST1Y2-TE8	ST1Y2-R2
Stocked Item		S	S	S	S	S	S
Certification		CE	CE	CE	CE	CE	CE
Occupied Slices		1	8	1	8	1	1
Number of Output Points and Type		2 Transistor	16 Transistor	2 Transistor	16 Transistor	16 Transistor	2 Relay
Rated Load Voltage		24VDC (+20/-15%)					24VDC (+20/-15%), 240VAC
Maximum Load Current		0.5A/pt, 1A/com	0.5A/pt, 4A/com	1A/pt, 2A/com	1A/pt, 4A/com	2A/pt, 4A/com	24VDC 2A or 240VAC 2A / point, 4A/com
Response Time	OFF – ON	1ms or less		0.5ms or less		1ms or less	10ms or less
	ON – OFF	1ms or less		1.5ms or less		1ms or less	12ms or less
Protection Function		-	-	Thermal and Short Circuit Protection		-	-
5 VDC Internal Power Consumption		90mA	150mA	95mA	160mA	95mA	90mA
Weight (kg)		0.03	0.11	0.03	0.11	0.04	0.04
Dimensions (W x H x D) mm		12.6 x 55.4 x 74.1	100.8 x 55.4 x 74.1	12.6 x 55.4 x 74.1	100.8 x 55.4 x 74.1	12.6 x 55.4 x 74.1	
Applicable Base Modules	Spring Clamp	ST1B-S3Y2	ST1B-S3Y16	ST1B-S3Y2	ST1B-S3Y16	ST1B-S3Y2	ST1B-S4IR2
	Screw Clamp	ST1B-E3Y2	ST1B-E3Y16	ST1B-E3Y2	ST1B-E3Y16	ST1B-E3Y2	ST1B-E4IR2

Analog I/O Modules

The ST Series Analog Input/Output modules add 1 to 2 channels of analog-to-digital or digital-to-analog conversion per slice. These modules can be assembled in any order and mixed with digital I/O modules as well. Each I/O module requires a corresponding base module, which will be individually keyed to that type of I/O module after the first use. This prevents spare modules to be placed in incorrect position during maintenance such as Online Module Change.

Analog Input Modules

Model Number		ST1AD2-V	ST1AD2-I	ST1TD2	ST1RD2
Stocked Item		S	S	S	S
Certification		CE	CE	CE	CE
Occupied Slices		1	1	1	1
Number of Input Channels		2	2	2	2
Analog Input		-10 to +10V, 0 to +10V, 0 to 5V, 1 to 5V	0 to 20mA, 4 to 20mA	Thermocouple Input: K,T:0.3°C; E:0.2°C; J:0.1°C; B:0.7°C; R,S:0.8°C; N:0.4°C	PT100/PT1000
Absolute Maximum Input		±15V	±30mA	±4V, ±80µV	
Resolution		12bit+sign		4µV	0.1°C
Conversion Speed		0.1ms per channel		Cold junction temperature compensation setting not set: 30ms/ch, set: 60ms/ch	80ms per channel
5VDC Internal Power Consumption		110mA		95mA	80mA
Weight (kg)		0.04			
Dimensions (W x H x D) mm		12.6 x 55.4 x 74.1		12.6 x 55.4 x 77.6	
Applicable Base Modules	Spring Clamp	ST1B-S4IR2		ST1B-S4TD2	
	Screw Clamp	ST1B-E4IR2		ST1B-E4TD2	

Analog Output Modules

Model Number		ST1DA2-V-F01	ST1DA1-I-F01
Stocked Item		S	S
Certification		CE	CE
Occupied Slices		1	1
Number of Output Channels		2	1
Analog Output Range		-10 to +10V, 0 to +10V, 0 to 5V, 1 to 5V	0 to 20mA, 4 to 20mA
Absolute Maximum Input		±15V	±30mA
Resolution		12bit+sign	
Conversion Speed		0.1ms per channel	
5VDC Internal Power Consumption		95mA	
Weight (kg)		0.04	
Dimensions (W x H x D) mm		12.6 x 55.4 x 74.1	
Applicable Base Modules	Spring Clamp	ST1B-S4IR2	
	Screw Clamp	ST1B-E4IR2	

Absolute Encoder Input Module

Model Number		ST1SS1
Stocked Item		S
Certification		CE
Occupied Slices		2
Counting Range		31-bit binary (0 to 2147483647)
Resolution		2 to 31bits
SSI Baud Rate		125kHz, 250kHz, 500kHz, 1MHz, 2MHz
External Input		1pt, 24VDC, 12mA
5VDC Internal Power Consumption (mA)		80
Weight (kg)		0.04
Dimensions (W x H x D) mm		12.6 x 77.6 x 55.4
Applicable Base Modules	Spring Clamp	ST1B-S4IR2
	Screw Clamp	ST1B-E4IR2