



Discrete I/O Modules (Input)

RSTi discrete input modules are available for a wide range of applications requiring DC voltages (5 VDC, 24 VDC, 48 VDC) and AC voltages (110 VAC, 220 VAC). The input modules are available in 4, 8 or 16 point density to optimize panel space.

	ST-1124	ST-1114	ST-1214	ST-1224	ST-1314
Product Name	5 VDC Input, 4 points Negative Logic	5 VDC Input, 4 points Positive Logic	12/24 VDC Input, 4 points Positive Logic	12/24 VDC Input, 4 points Negative Logic	48 VDC Input, 4 points Positive Logic
Lifecycle Status	Active	Active	Active	Active	Active
Module Type	Discrete Input	Discrete Input	Discrete Input	Discrete Input	Discrete Input
Input Voltage Range	5 VDC (4.5 VDC to 5.5 VDC)	5 VDC (4.5 VDC to 5.5 VDC)	24 VDC (11 VDC to 28.8 VDC)	24 VDC (10.2 VDC to 28.8 VDC)	48 VDC (34 VDC to 60 VDC)
Number of Points	4	4	4	4	4
Points per Common	4	4	4	4	4
Input Impedance	~1.3K ohms	~1.3K ohms	~5.1K ohms	~5.1K ohms	~12K ohms
Input Signal Delay	< 0.5msec	< 0.5msec	3.0msec	3.0msec	3.0msec
Filtering Time	Typical 1.5 msec. (software filtering)	Typical 1.5 msec. (software filtering)	Typical 1.5 msec.	Typical 1.5 msec.	
Trigger Voltage	On State: 2.4 VDC to 5.5 VDC OFF State: 0.8 VDC	On State: 2.4 VDC to 5.5 VDC OFF State: 0.8 VDC	ON State: 10.2 to 28.8 VDC OFF State: 5 VDC	ON State: 10.2 to 28.8 VDC OFF State: 5 VDC	ON State: 48 VDC (34 VDC to 60 VDC) OFF State: 10 VDC
Maximum On State Current	4.5 mA per point at 5.5 VDC	4.5 mA per point at 5.5 VDC	6 mA per point at 28.8 VDC	6 mA per point at 28.8 VDC	4 mA per point at 48 VDC
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Internal Power Used (5 VDC loading)	35 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Discrete I/O Modules (Input)

RSTi discrete input modules are available for a wide range of applications requiring DC voltages (5 VDC, 24 VDC, 48 VDC) and AC voltages (110 VAC, 220 VAC). The input modules are available in 4, 8 or 16 point density to optimize panel space.

	ST-1324	ST-131F	ST-1218	ST-1228	ST-121F
Product Name	48 VDC Input, 4 points Negative Logic	48 VDC Input, 16 points Positive Logic	12/24 VDC Input, 8 points Positive Logic	12/24 VDC Input, 8 points Negative Logic	12/24 VDC Input, 16 points Positive Logic
Lifecycle Status	Active	Active	Active	Active	Active
Module Type	Discrete Input	Discrete Input	Discrete Input	Discrete Input	Discrete Input
Input Voltage Range	48 VDC (34 VDC to 60 VDC)	48 VDC (34 VDC to 60 VDC)	24 VDC (10.2 VDC to 28.8 VDC)	24 VDC (10.2 VDC to 28.8 VDC)	24 VDC (10.2 VDC to 28.8 VDC)
Number of Points	4	16	8	8	16
Points per Common	4	16	8	8	16
Input Impedance	~12K ohms	~12K ohms	~5.1K ohms	~5.1K ohms	~5.1K ohms
Input Signal Delay	3.0msec	3.0msec	3.0msec	3.0msec	3.0msec
Filtering Time		Typical 1.5 msec.	Typical 1.5 msec.	Typical 1.5 msec.	Typical 1.5 msec.
Trigger Voltage	ON State: 48 VDC (34 VDC to 60 VDC) OFF State: 10 VDC	ON State: 48 VDC (34 VDC to 60 VDC) OFF State: 10 VDC	ON State: 10.2 to 28.8 VDC OFF State: 5 VDC	ON State: 10.2 to 28.8 VDC OFF State: 5 VDC	ON State: 10.2 to 28.8 VDC OFF State: 5 VDC
Maximum On State Current	4 mA per point at 48 VDC	2.5 mA per point at 60 VDC	6 mA per point at 28.8 VDC	6 mA per point at 28.8 VDC	6 mA per point at 28.8 VDC
Connector Type	Spring Clamp Terminal Block	Connector Type Hirose, HIF3BA-20D-2.54DSA	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Connector Type Hirose, HIF3BA-20D-2.54DSA
Internal Power Used (5 VDC loading)	35 mA @ 5.0 VDC Maximum	45 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum	45 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Discrete I/O Modules (Input)

RSTi discrete input modules are available for a wide range of applications requiring DC voltages (5 VDC, 24 VDC, 48 VDC) and AC voltages (110 VAC, 220 VAC). The input modules are available in 4, 8 or 16 point density to optimize panel space.

	ST-122F	ST-1804	ST-1904
Product Name	12/24 VDC Input, 16 points Negative Logic	110 VAC Input, 4 points (47 to 63Hz)	240 VAC Input, 4 points (47 to 63Hz)
Lifecycle Status	Active	Active	Active
Module Type	Discrete Input	Discrete Input	Discrete Input
Input Voltage Range	24 VDC (10.2 VDC to 28.8 VDC)	120 VAC (85 VAC to 132 VAC)	240 VAC (170 VAC to 264 VAC)
Number of Points	16	4	4
Points per Common	16	4	4
Input Impedance	~5.1K ohms	~11K ohms	~22K ohms
Input Signal Delay	3.0msec	10.0msec	10.0msec
Filtering Time	Typical 1.5 msec.		
Trigger Voltage	ON State: 10.2 to 28.8 VDC OFF State: 5 VDC	ON State: 85 VAC to 132 VAC OFF State: 60 VAC	ON State: 170 VAC to 264 VAC OFF State: 130 VAC
Maximum On State Current	6 mA per point at 28.8 VDC	8 mA per point at 132 VAC	12 mA per point at 264 VAC
Connector Type	Connector Type Hirose, HIF3BA-20D-2.54DSA	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Internal Power Used (5 VDC loading)	45 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Analog I/O Modules (Input)

RSTi analog input modules are available in a wide range of voltage and current signals. Analog input modules are available in 12 bit or 14 bit resolution.

	ST-3114	ST-3118	ST-3134	ST-3214	ST-3218
Product Name	Analog 0 to 20 mA, 12bit Input, 4 channels	Analog 0 to 20 mA, 12bit Input, 8 channels	Analog 0 to 20 mA, 14bit Input, 4 channels	Analog 4 to 20 mA, 12bit Input, 4 channels	Analog 4 to 20 mA, 12bit Input, 8 channels
Lifecycle Status	Active	Active	Active	Active	Active
Module Type	Analog Input	Analog Input	Analog Input	Analog Input	Analog Input
Range	0 to 20 mA Range	0 to 20 mA Range	0 to 20 mA Range	4 to 20 mA Range	4 to 20 mA Range
Number of Points	4	8	4	4	8
Points per Common	4	8	4	4	8
Diagnostic Supported				Open Wire if < 3 mA	
Update Rate	4msec/All channels	4msec/All channels	4msec/All channels	4msec/All channels	4msec/All channels
Resolution	12 bits: 4.88 microAmp/bit	12 bits: 4.88 microAmp/bit	14 bits: 1.22 microAmp/bit	12 bits: 3.9 microAmp/bit	12 bits: 3.9 microAmp/bit
Accuracy	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C
Input Impedance	120 ohms	120 ohms	120 ohms	120 ohms	120 ohms
Internal Power Used (5 VDC loading)	165 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum	165 mA @ 5.0 VDC Maximum	165 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Analog I/O Modules (Input)

RSTi analog input modules are available in a wide range of voltage and current signals. Analog input modules are available in 12 bit or 14 bit resolution.

	ST-3234	ST-3274	ST-3424	ST-3428	ST-3444
Product Name	Analog 4 to 20 mA, 14bit Input, 4 channels	Analog 4 to 20 mA, 12bit Input, 4 channels (connector type)	Analog 0 to 10 VDC, 12bit Input, 4 channels	Analog 0 to 10 VDC, 12bit Input, 8 channels	Analog 0 to 10 VDC, 14bit Input, 4 channels
Lifecycle Status	Active	Active	Active	Active	Active
Module Type	Analog Input	Analog Input	Analog Input	Analog Input	Analog Input
Range	4 to 20 mA Range	4 to 20 mA Range	0 to 10 VDC	0 to 10 VDC	0 to 10 VDC
Number of Points	4	4	4	8	4
Points per Common	4	4	4	8	4
Diagnostic Supported	Open Wire if < 3 mA	Open Wire if < 3 mA			
Update Rate	4msec/All channels	4msec/All channels	4msec/All channels	4msec/All channels	4msec/All channels
Resolution	14 bits: 0.9 microAmp/bit	12 bits: 3.9 microAmp/bit	12 bits: 2.44 mV/bit	12 bits: 2.44 mV/bit	14 bits: 0.6 mV/bit
Accuracy	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C
Input Impedance	120 ohms	120 ohms	500K ohms	500K ohms	500K ohms
Internal Power Used (5 VDC loading)	165 mA @ 5.0 VDC Maximum	165 mA @ 5.0 VDC Maximum	165 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum	170 mA @ 5.0 VDC Maximum
Connector Type	Spring Clamp Terminal Block	Requires Sensor Connect 3M Mini-Clamp Plug, 37104 Series	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Analog I/O Modules (Input)

RSTi analog input modules are available in a wide range of voltage and current signals. Analog input modules are available in 12 bit or 14 bit resolution.

	ST-3524	ST-3544	ST-3624	ST-3644
Product Name	Analog -10 to 10 VDC, 12bit Input, 4 channels	Analog -10 to 10 VDC, 14bit Input, 4 channels	Analog 0 to 5 VDC, 12bit Input, 4 channels	Analog 0 to 5 VDC, 14bit Input, 4 channels
Lifecycle Status	Active	Active	Active	Active
Module Type	Analog Input	Analog Input	Analog Input	Analog Input
Range	-10 to 10 VDC	-10 to 10 VDC	0 to 5 VDC	0 to 5 VDC
Number of Points	4	4	4	4
Points per Common	4	4	4	4
Diagnostic Supported				
Update Rate	4msec/All channels	4msec/All channels	4msec/All channels	4msec/All channels
Resolution	12 bits: 4.8 mV/bit	14 bits: 1.2 mV/bit	12 bits: 1.22 mV/bit	14 bits: 0.3 mV/bit
Accuracy	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C
Input Impedance	500K ohms	500K ohms	500K ohms	500K ohms
Internal Power Used (5 VDC loading)	170 mA @ 5.0 VDC Maximum	170 mA @ 5.0 VDC Maximum	170 mA @ 5.0 VDC Maximum	170 mA @ 5.0 VDC Maximum
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Discrete I/O Modules (Output)

RSTi discrete output modules are available for a wide range of applications requiring DC voltages (5 VDC, 24 VDC, 48 VDC) and AC voltages (12 VAC, 125 VAC). The modules are available in 4, 8 or 16 point density to optimize panel space. Relay output modules are also available. The ST-2792 has an added feature of manual/automatic override.

	ST-2114	ST-2124	ST-2314	ST-2324
Product Name	5 VDC/20 mA TTL Inverting Output, 4 points	5 VDC, 4 Points, TTL Non-Inverting Output (Default: 0V)	4 points, 24 VDC Negative Logic, Output 0.5 Amps	4 points, 24 VDC Positive Logic, Output 0.5 Amps
Lifecycle Status	Active	Active	Active	Active
Module Type	Digital Outputs	Digital Outputs	Digital Outputs	Digital Outputs
Output Range	5 VDC nominal, Min. 4.5 VDC to Max. 5.5 VDC	5 VDC nominal, Min. 4.5 VDC to Max. 5.5 VDC	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC
Number of Points	4	4	4	4
Points per Common	4	4	4	4
Diagnostic Supported				
Protection	Output Short-Circuit protection Field Power Over Voltage Protection (about 6.7 VDC) Field Power Reverse Voltage Protection	Output Short-Circuit protection Field Power Over Voltage Protection (about 6.7 VDC) Field Power Reverse Voltage Protection	Over Temperature shut down: Min. 150°C Over Current Limit : Min. 3.5A/Max. 7A Per Channel Short Circuit Protection ESD Protection: 16.5Kv	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 3.5A/Max.7.5A Per Channel Short Circuit Protection ESD Protection: 5.0Kv
ON Voltage/OFF Voltage	Min. 4.8 VDC @ 5 VDC, 5 mA	Max. 0.3 VDC @ 0 VDC, 5 mA		
Load Current per Point	Max. 20 mA Per Channel Max. 80 mA All Common	Max. 20 mA Per Channel Max. 80 mA All Common	Max. 0.5A Per Channel Max. 2.0A All Common	Max. 0.5A Per Channel Max. 2.0A All Common
Output Inrush Current	40 mA For 10ms, Repeatable Every 1 Sec.	40 mA For 10ms, Repeatable Every 1 Sec.		
Response Time (ms)	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON : Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms
Polarity	TTL Inverting	TTL Non-Inverting	Negative Logic	Positive Logic
Field Power Requirement	5 VDC (4.5 VDC to 5.5 VDC)	5 VDC (4.5 VDC to 5.5 VDC)	24 VDC (11 VDC to 28.8 VDC)	24 VDC (11 VDC to 28.8 VDC)
Power Dissipation			5 mA @ 28.8 VDC Per Channel	5 mA @ 28.8 VDC Per Channel
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Internal Power Used (5 VDC loading)	50 mA @ 5.0 VDC Maximum	50 mA @ 5.0 VDC Maximum	45 mA @ 5.0 VDC Maximum	45 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Discrete I/O Modules (Output)

RSTi discrete output modules are available for a wide range of applications requiring DC voltages (5 VDC, 24 VDC, 48 VDC) and AC voltages (12 VAC, 125 VAC). The modules are available in 4, 8 or 16 point density to optimize panel space. Relay output modules are also available. The ST-2792 has an added feature of manual/automatic override.

	ST-2414	ST-2424	ST-2514	ST-2524
Product Name	4 points, 24 VDC Negative Logic, Output 0.5 Amps with Diagnostics	4 points, 24 VDC Positive Logic, Output 0.5 Amps with Diagnostics	4 points, 24 VDC Negative Logic, Output 2 Amps with Diagnostics	4 points, 24 VDC Positive Logic, Output 2 Amps with Diagnostics
Lifecycle Status	Active	Active	Active	Active
Module Type	Digital Outputs	Digital Outputs	Digital Outputs	Digital Outputs
Output Range	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC
Number of Points	4	4	4	4
Points per Common	4	4	4	4
Diagnostic Supported	Point Fault Reported to Network Interface	Point Fault Reported to Network Interface	Point Fault Reported to Network Interface	Point Fault Reported to Network Interface
Protection	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 3.5A/Max. 7A Per Channel Short Circuit Protection ESD Protection: 16.5Kv	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 3.5A/Max.7.5A Per Channel Short Circuit Protection ESD Protection: 5.0Kv	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 3.5A/Max. 7A Per Channel Short Circuit Protection ESD Protection: 16.5Kv	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 6A/Max. 15A Per Channel Short Circuit Protection ESD Protection: 5.0Kv
ON Voltage/OFF Voltage				
Load Current per Point	Max. 0.5A Per Channel Max. 2.0A All Common	Max. 0.5A Per Channel Max. 2.0A All Common	Max. 2A Per Channel Max. 8A All Common	Max. 2A Per Channel Max. 8A All Common
Output Inrush Current				
Response Time (ms)	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON : Max. 0.3ms ON to OFF: Max. 0.3ms
Polarity	Negative Logic	Positive Logic	Negative Logic	Positive Logic
Field Power Requirement	24 VDC (11 VDC to 28.8 VDC)	24 VDC (11 VDC to 28.8 VDC)	24 VDC (11 VDC to 28.8 VDC)	24 VDC (11 VDC to 28.8 VDC)
Power Dissipation	5 mA @ 28.8 VDC Per Channel	5 mA @ 28.8 VDC Per Channel	5 mA @ 28.8 VDC Per Channel	5 mA @ 28.8 VDC Per Channel
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Internal Power Used (5 VDC loading)	45 mA @ 5.0 VDC Maximum	45 mA @ 5.0 VDC Maximum	45 mA @ 5.0 VDC Maximum	45 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Discrete I/O Modules (Output)

RSTi discrete output modules are available for a wide range of applications requiring DC voltages (5 VDC, 24 VDC, 48 VDC) and AC voltages (12 VAC, 125 VAC). The modules are available in 4, 8 or 16 point density to optimize panel space. Relay output modules are also available. The ST-2792 has an added feature of manual/automatic override.

	ST-2318	ST-2328	ST-221F	ST-222F
Product Name	8 points, 24 VDC Negative Logic, Output 0.5 Amps	8 points, 24 VDC Positive Logic, Output 0.5 Amps	16 points, 24 VDC Negative Logic, Output 0.5 Amps (Connector Style)	16 points, 24 VDC Positive Logic, Output 0.5 Amps (Connector Style)
Lifecycle Status	Active	Active	Active	Active
Module Type	Digital Outputs	Digital Outputs	Digital Outputs	Digital Outputs
Output Range	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC	24 VDC nominal, Min. 11 VDC to Max. 28.8 VDC
Number of Points	8	8	16	16
Points per Common	8	8	16	16
Diagnostic Supported				
Protection	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 3.5A/Max. 7A Per Channel Short Circuit Protection ESD Protection: 16.5Kv	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 3.5A/Max. 7A Per Channel Short Circuit Protection ESD Protection : 16.5Kv	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 3.5A/Max. 7A Per Channel Short Circuit Protection ESD Protection : 16.5Kv	Over Temperature shut down: Min. 150°C Over Current Limit: Min. 3.5A/Max. 7A Per Channel Short Circuit Protection ESD Protection: 16.5Kv
ON Voltage/OFF Voltage				
Load Current per Point	Max. 0.5A Per Channel Max. 2.0A All Common	Max. 0.5A Per Channel Max. 2.0A All Common	Max. 0.5A Per Channel Max. 4.0A All Common	Max. 0.5A Per Channel Max. 4.0A All Common
Output Inrush Current				
Response Time (ms)	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms	OFF to ON: Max. 0.3ms ON to OFF: Max. 0.3ms
Polarity	Negative Logic	Positive Logic	Negative Logic	Positive Logic
Field Power Requirement	24 VDC (11 VDC to 28.8 VDC)	24 VDC (11 VDC to 28.8 VDC)	24 VDC (11 VDC to 28.8 VDC)	24 VDC (11 VDC to 28.8 VDC)
Power Dissipation	5 mA @ 28.8 VDC Per Channel	5 mA @ 28.8 VDC Per Channel	3 mA @ 28.8 VDC Per Channel	3 mA @ 28.8 VDC Per Channel
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Connector Type Hirose, HIF3BA-20D-2.54DSA	Connector Type Hirose, HIF3BA-20D-2.54DSA
Internal Power Used (5 VDC loading)	60 mA @ 5.0 VDC Maximum	45 mA @ 5.0 VDC Maximum	80 mA @ 5.0 VDC Maximum	80 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Discrete I/O Modules (Output)

RSTi discrete output modules are available for a wide range of applications requiring DC voltages (5 VDC, 24 VDC, 48 VDC) and AC voltages (12 VAC, 125 VAC). The modules are available in 4, 8 or 16 point density to optimize panel space. Relay output modules are also available. The ST-2792 has an added feature of manual/automatic override.

	ST-2742	ST-2744	ST-2748	ST-2852
Product Name	2 points, Relay Output, 2 Amps	4 points, Relay Output, 2 Amps	8 points, Relay Output, 2 Amps	2 points, 12 to 125 VAC Output, 0.5 Amps
Lifecycle Status	Active	Active	Active	Active
Module Type	Digital Outputs	Digital Outputs	Digital Outputs	Digital Outputs
Output Range	5~28.8 VDC @ 2.0A Resistive 48 VDC @ 0.8A Resistive 110 VDC @ 0.5A Resistive 250 VAC @ 2.0A Resistive	5~28.8 VDC @ 2.0A Resistive 48 VDC @ 0.8A Resistive 110 VDC @ 0.5A Resistive 250 VAC @ 2.0A Resistive	5~28.8 VDC @ 2.0A Resistive 48 VDC @ 0.8A Resistive 110 VDC @ 0.5A Resistive 250 VAC @ 2.0A Resistive	15~132 VAC 47 to 63Hz
Number of Points	2	4	8	2
Points per Common	1	4	8	2
Diagnostic Supported				
Protection				
ON Voltage/OFF Voltage				
Load Current per Point	2A @ 5~28.8 VDC 0.8A @ 48 VDC 0.5A @ 110 VDC 2A @ 250 VAC	2A @ 5~28.8 VDC 0.8A @ 48 VDC 0.5A @ 110 VDC 2A @ 250 VAC	2A @ 5~28.8 VDC 0.8A @ 48 VDC 0.5A @ 110 VDC 2A @ 250 VAC	0.5 Amp
Output Inrush Current				40 Amp for 16 mSec. or 4 Amp for 30 Sec.
Response Time (ms)	OFF to ON : Max. 10ms ON to OFF: Max. 10ms	OFF to ON: Max. 10ms ON to OFF: Max. 10ms	OFF to ON: Max. 10ms ON to OFF: Max. 10ms	OFF to ON: Max. 3ms ON to OFF: Max. 1/2 Cycle plus 3ms
Polarity				
Field Power Requirement	24 VDC, 240 VAC	No Connection with Field Power Field Power passes though to the next module	No Connection with Field Power Field Power passes though to the next module	120 VAC nominal Voltage Range: 12~125 VAC
Power Dissipation				
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Internal Power Used (5 VDC loading)	65 mA @ 5.0 VDC Maximum	130 mA @ 5.0 VDC Maximum	150 mA @ 5.0 VDC Maximum	35 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 24 x 70	99 x 12 x 70



Analog I/O Modules (Output)

RSTi analog output modules are available in a wide range of voltage and current signals. Specialty analog modules are also available for manual over-ride and 0 to 1 Amp analog out.

	ST-4112	ST-4114	ST-4212	ST-4214
Product Name	2 channels Current Output, 0 to 20 mA, 12bit	4 channels Current Output, 0 to 20 mA, 12bit	2 channels Current Output, 4 to 20 mA, 12bit	4 channels Current Output, 4 to 20 mA, 12bit
Lifecycle Status	Active	Active	Active	Active
Module Type	Analog Output	Analog Output	Analog Output	Analog Output
Output Range	0 to 20 mA	0 to 20 mA	4 to 20 mA	4 to 20 mA
Number of Points	2	4	2	4
Points per Common	2	4	2	4
Resolution	12 bits : 4.88uA/Bit	12 bits : 4.88uA/Bit	12 bits : 3.9uA/Bit	12 bits : 3.9uA/Bit
Accuracy	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C (100uA~20 mA) ±0.25% Full Scale @ 25°C(0uA~100uA) ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C
Update Rate	2msec for all channels	4msec for all channels	2msec for all channels	4msec for all channels
Maximum Output Load	Max. 500 Ω	Max. 500 Ω	Max. 500 Ω	Max. 500 Ω
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Internal Power Used (5 VDC loading)	60 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Analog I/O Modules (Output)

RSTi analog output modules are available in a wide range of voltage and current signals. Specialty analog modules are also available for manual over-ride and 0 to 1 Amp analog out.

	ST-4274	ST-4422	ST-4424	ST-4474
Product Name	4 channels Current Output, 4 to 20 mA, 12bit (Connector Style)	2 channels Voltage Output, 0 to 10 VDC, 12bit	4 channels Voltage Output, 0 to 10 VDC, 12bit	4 channels Current Output, 0 to 10 VDC, 12bit (Connector Style)
Lifecycle Status	Active	Active	Active	Active
Module Type	Analog Output	Analog Output	Analog Output	Analog Output
Output Range	4 to 20 mA	0 to 10 VDC	0 to 10 VDC	0 to 10 VDC
Number of Points	4	2	4	4
Points per Common	4	2	4	4
Resolution	12 bits : 3.91uA/Bit	12 bits : 2.44mV/Bit	12 bits : 2.44mV/Bit	12 bits : 2.44mV/Bit
Accuracy	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C
Update Rate	1.2msec for all channels	2msec for all channels	4msec for all channels	1.2msec for all channels
Maximum Output Load	Max. 500 Ω	Min. 5 kΩ	Min. 2 kΩ	Min. 2 kΩ
Connector Type	Requires Sensor Connect 3M Mini-Clamp Plug, 37104 Series AWG#20~22 available	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Requires Sensor Connect 3M Mini-Clamp Plug, 37104 Series AWG#20~22 available
Internal Power Used (5 VDC loading)	40 mA @ 5.0 VDC Maximum	155 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Analog I/O Modules (Output)

RSTi analog output modules are available in a wide range of voltage and current signals. Specialty analog modules are also available for manual over-ride and 0 to 1 Amp analog out.

	ST-4491	ST-4522	ST-4622	ST-4911
Product Name	1 channels Voltage Output, 0 to 10 VDC, 12bit. (Manual Override or Automatic Operation)	2 channels Voltage Output, -10 to +10 VDC, 12bit	2 channels Voltage Output, 0 to 5 VDC, 12bit	1 channels Voltage Output, 0 to 1 Amp, 12bit.
Lifecycle Status	Active	Active	Active	Active
Module Type	Analog Output	Analog Output	Analog Output	Analog Output
Output Range	0 to 10 VDC	-10 to +10 VDC	0 to 5 VDC	0 to 1 Amp
Number of Points	1	2	2	1
Points per Common	1	2	2	1
Resolution	12 bits : 2.44mV/Bit	12 bits : 4.88mV/Bit	12 bits : 1.22mV/Bit	12 bits : 2.44 mA/Bit
Accuracy	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C
Update Rate	1.2msec for all channels	2msec for all channels	2msec for all channels	1msec for all channels
Maximum Output Load	Min. 2 kΩ	Min. 5 kΩ	Min. 5 kΩ	13 Ω, ±5%
Connector Type	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block	Spring Clamp Terminal Block
Internal Power Used (5 VDC loading)	60 mA @ 5.0 VDC Maximum	155 mA @ 5.0 VDC Maximum	155 mA @ 5.0 VDC Maximum	60 mA @ 5.0 VDC Maximum
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



RTD Modules

RSTi RTD input modules 2 and 3 wire sensors. The modules also support diagnostics.

RTD Input Types

- PT100, PT200, PT500, PT1000, PT50
- JPT100, JPT200, JPT500, JPT1000, JPT50
- NI100, NI200, NI500, NI000
- NI120, NI1000LG
- CU10

Resistance Input

- 100 mΩ/bit, 10 mΩ/bit, 20 mΩ/bit, 50 mΩ/bit

	ST-3702	ST-3704	ST-3708
Product Name	2 Channels, RTD Input (2 and 3 Wire)	4 Channels, RTD Input (3 Wire) Connector Style	8 Channels, RTD Input (3 Wire) Connector Style
Lifecycle Status	Active	Active	Active
Module Type	Temperature Sensing		
Range	PT50, PT100, PT200, PT500, PT1000, JPT100, JPT200, JPT500, JPT1000, NI100, NI200, NI500, NI1000, NI120, CU10, Resistance 100 mΩ/Bit, Resistance 10 mΩ/Bit, Resistance 20 mΩ/Bit	PT100, PT200, PT500, PT1000, PT50 JPT100, JPT200, JPT500, JPT1000, JPT50 NI100, NI200, NI500, NI000 NI120, NI1000LG Resistance Input 100 mΩ/bit, 10 mΩ/bit, 20 mΩ/bit, 50 mΩ/bit	PT100, PT200, PT500, PT1000, PT50 JPT100, JPT200, JPT500, JPT1000, JPT50 NI100, NI200, NI500, NI1000 NI120, NI1000LG Resistance Input 100 mΩ/bit, 10 mΩ/bit, 20 mΩ/bit, 50 mΩ/bit
Number of Points	2	4	8
Points per Common	2	4	8
Diagnostic Supported	Open Channel	Open Channel Over Range	Open Channel Over Range
Resolution	0.1°C / 10 mΩ	±0.1°C/ F, 10 mΩ	±0.1°C/ F, 10 mΩ
Accuracy	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.3% Full Scale @ 25°C ±0.5% Full Scale @ 0°C, 60°C	±0.3% Full Scale @ 25°C ±0.5% Full Scale @ 0°C, 60°C
Update Rate	200msec for all channels	30msec per channel	30msec per channel
Internal Power Used (5 VDC loading)	70 mA @ 5.0 VDC Maximum	100 mA @ 5.0 VDC Maximum	100 mA @ 5.0 VDC Maximum
Connector Type	Spring Clamp Terminal Block	Requires connector type Hirose, HIF3BA-20D-2.54C	Requires connector type Hirose, HIF3BA-20D-2.54C
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70



Thermocouple Modules

RSTi Thermocouple/mV input modules support a wide range of thermocouple sensors. The modules also support diagnostics and Cold Junction Compensation.

Thermocouple Inputs

- Type K/J/T/B/R/S/E/N/L/U/C/D

mV Input

- 10uV/bit, 1uV/bit, 2uV/bit

	ST-3802	ST-3804	ST-3808
Product Name	2 Channels, Thermocouple Input/mV	4 Channels, Thermocouple Input/mV (External CJC support)	8 Channels, Thermocouple Input/mV (External CJC support)
Lifecycle Status	Active	Active	Active
Module Type	Temperature Sensing	Temperature Sensing	Temperature Sensing
Range	Type K/J/T/B/R/S/E/N/L/U/C/D mV Input 10uV/Bit, 1uV/Bit, 2uV/Bit	Type K/J/T/B/R/S/E/N/L/U/C/D mV Input 10uV/bit, 1uV/bit, 2uV/bit	Type K/J/T/B/R/S/E/N/L/U/C/D mV Input 10uV/bit, 1uV/bit, 2uV/bit
Number of Points	2	4	8
Points per Common	2	4	8
Diagnostic Supported	Open Channel	Open Channel Over Range	Open Channel Over Range
Resolution	0.1°C / 10mΩ	0.1°C / °F, 10uV	±0.1°C / F, 1uV
Accuracy	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C	±0.1% Full Scale @ 25°C ±0.3% Full Scale @ 0°C, 60°C
Update Rate	200msec for all channels	30msec per channel	30msec per channel
Internal Power Used (5 VDC loading)	70 mA @ 5.0 VDC Maximum	120 mA @ 5.0 VDC Maximum	140 mA @ 5.0 VDC Maximum
Connector Type	Spring Clamp Terminal Block	Requires connector type Hirose, HIF3BA-20D-2.54C	Requires connector type Hirose, HIF3BA-20D-2.54C
Dimensions (H x W x D) in mm	99 x 12 x 70	99 x 12 x 70	99 x 12 x 70