SCIM7B

Isolated Process Control Signal Conditioning Products

SCIM7B Modules

SCIM7B Isolated Process Control Signal Conditioning Modules provide a complete selection of backpanels DIN rail mounting accessories, interface cables and rack mounting hardware. Each SCIM7B module provides a single of isolated analog input or output. Various input modules accept analog voltage or current signals from all types of field sensors and sources, filter, isolate amplify, linearize and convert these input signals to high-level analog outputs suitable for use in a process control system. Output modules accept high-level analog voltage sgnals from a process control system, then buffer, isolate, filter, convert and amplify before providing a current or voltage output to a field device.

Features

- Low cost
- Improved Performance
  - Low Peak and RMS Noise
  - 5-Pole Low Pass Filtering
  - Low Drift Input Circuitry for Long-Term Stability.
- Wide supply voltage, 14 - 35VDC
- 1.5KV Isolation & 120V rms field-Side Protection.
- Factory-Calibrated Accuracy, ±0.03% of Span Typical, ±0.1% max
- ANSI/IEEE C37.90.1 Transient Protection
- Backpanels Allow Use of Industry Standard Digital I/O, Solid State Relay Modules and third party control systems
- DIN Rail Mounting with suitable DINrail base element
- Customization Available
- CSA , FM , CE and ATEX Compliant

Custom Signal Conditioning

custom modules are available; consult facctory for minimum quantity and pricing details on custom input ranges. output ranges, bandwidth, and any other key parameters.

SCIM7B Selection Guide

ISOLATED VOLTAGE INPUT MODULES

nput Range	Output Range	
SCIM7B21	±10V	1,2,3,4,5
SCIM7B30-01	0 to +10mV	1,2,3,4,5
SCIM7B30-02	0 to +100mV	1,2,3,4,5
SCIM7B30-03	0 to +1V	1,2,3,4,5
SCIM7B30-05	+1 to +5V	1,2,3,4,5
SCIM7B30-06	±10mV	1,2,3,4,5
SCIM7B30-07	±100mV	1,2,3,4,5
SCIM7B30-08	±1V	1,2,3,4,5
SCIM7B31-01	0 to +10V	1,2,3,4,5
SCIM7B31-02	±5V	1,2,3,4,5
SCIM7B31-03	±10V	1,2,3,4,5
SCIM7B31-04	0 to +5V	1,2,3,4,5

ISOLATED VOLTAGE INPUT MODULES

Model	Input Range	Output Range
SCIM7B22	±10V	±10V

ISOLATED PROCESS CURRENT INPUT MODULES

Model	Input Range	Output Range
SCIM7B32-01	4 to 20mA	1,2,3,4,5
SCIM7B32-02	0 to 20mA	1,2,3,4,5

ISOLATED PROCESS VOLTAGE INPUT MODULES

Model	Input Range	Output Range
SCIM7B33-01	+1 to +5V	1,2,3,4,5
SCIM7B33-02	0 to +5V	1,2,3,4,5

ISOLATED LINEARIZED 100Ω Pt RTD INPUT MODULES

Model	Input Range	Output Range
SCIM7B34-01	-100°C to +100°C [-148°F to +212°F]	1,2,3,4,5
SCIM7B34-02	0°C to +100°C [+32°F to +212°F]	1,2,3,4,5
SCIM7B34-03	0°C to +200°C [+32°F to +392°F]	1,2,3,4,5
SCIM7B34-04	0°C to +600°C [+32°F to +1112°F]	1,2,3,4,5
SCIM7B34-05	-50°C to +350°C [-58°F to +662°F]	1,2,3,4,5

ISOLATED LINEARIZED 120W NI RTD INPUT MODULES

Model	Input Range	Output Range
SCIM7B34N-01	0°C to +300°C [+32°F to +572°F]	1,2,3,4,5
SCIM7B34N-02	0°C to +200°C [+32°F to +392°F]	1,2,3,4,5

ISOLATED 2-WIRE XMTR INTERFACE MODULES with LOOP POWERED

Model	Input Range	Output Range
SCIM7B35-01	4 to 20mA	1,2,3
SCIM7B35-02	4 to 20mA	+2 to +10V

SCIM7B Selection Guide (Continued)

ISOLATED POTENTIOMETER INPUT MODULES

Model	Input Range	Output Range
SCIM7B36-01	0 to 100Ω	1,2,3,4,5
SCIM7B36-02	0 to 200Ω	1,2,3,4,5
SCIM7B36-03	0 to 500Ω	1,2,3,4,5
SCIM7B36-04	0 to 1KΩ	1,2,3,4,5
SCIM7B36-05	0 to 5KΩ	1,2,3,4,5
SCIM7B36-06	0 to 10KΩ	1,2,3,4,5

ISOLATED THERMOCOUPLE INPUT MODULES

Model	Type	Input Range	Output Range
SCIM7B37J-01	J	-100°C to +100°C [-148°F to +212°F]	1,2,3,4,5
SCIM7B37J-10	J	0°C to +200°C [+32°F to +392°F]	1,2,3,4,5
SCIM7B37J-11	J	0°C to +400°C [+32°F to +752°F]	1,2,3,4,5
SCIM7B37J-12	J	0°C to +600°C [+32°F to +1112°F]	1,2,3,4,5
SCIM7B37J-13	J	+300°C to +600°C [+572°F to +1112°F]	1,2,3,4,5
SCIM7B37K-02	K	-100°C to +1350°C [-148°F to +2462°F]	1,2,3,4,5
SCIM7B37K-20	K	0°C to +300°C [+32°F to +572°F]	1,2,3,4,5
SCIM7B37K-21	K	0°C to +600°C [+32°F to +1112°F]	1,2,3,4,5
SCIM7B37K-22	K	0°C to +1200°C [+32°F to +2192°F]	1,2,3,4,5
SCIM7B37K-23	K	+600°C to +1200°C [+1112°F to +2192°F]	1,2,3,4,5
SCIM7B37T-03	T	-100°C to +400°C [-148°F to +752°F]	1,2,3,4,5
SCIM7B37E-04	E	0°C to +900°C [+32°F to +1652°F]	1,2,3,4,5
SCIM7B37R-05	R	0°C to +1750°C [+32°F to +3182°F]	1,2,3,4,5
SCIM7B37S-06	S	0°C to +1750°C [+32°F to +3272°F]	1,2,3,4,5
SCIM7B37B-07	B	0°C to +1800°C [+32°F to +3272°F]	1,2,3,4,5

ISOLATED CURRENT OUTPUT MODULES

Model	Input Range	Output Range
SCIM7B39-01	+1 to +5V	4 to 20mA
SCIM7B39-02	0 to +10V	0 to 20mA
SCIM7B39-03	0 to +10V	4 to 20mA
SCIM7B39-04	4 to 20mA	4 to 20mA

ISOLATED VOLTAGE INPUT MODULES, WIDE BANDWIDTH

Model	Input Range	Output Range
SCIM7B40-02	0 to +100mV	1,2,3,4,5
SCIM7B40-03	0 to +1V	1,2,3,4,5
SCIM7B40-07	±100mV	1,2,3,4,5
SCIM7B40-08	±1V	1,2,3,4,5
SCIM7B41-01	0 to +10V	1,2,3,4,5
SCIM7B41-02	±5V	1,2,3,4,5
SCIM7B41-03	±10V	1,2,3,4,5
SCIM7B41-04	0 to +5V	1,2,3,4,5
SCIM7B41-05	0 to +20V	1,2,3,4,5
SCIM7B41-06	0 to +40V	1,2,3,4,5

ISOLATED LINEARIZED THERMOCOUPLE INPUT MODULES

Model	Type	Input Range	Output Range
SCIM7B47J-01	J	0°C to +760°C [+32°F to +1400°F]	1,2,3,4,5
SCIM7B47J-02	J	-100°C to +300°C [-148°F to +572°F]	1,2,3,4,5
SCIM7B47K-03	K	0°C to +1300°C [+32°F to +2372°F]	1,2,3,4,5
SCIM7B47K-04	K	0°C to +600°C [+32°F to +1112°F]	1,2,3,4,5
SCIM7B47T-05	T	0°C to +400°C [+32 °F to +752°F]	1,2,3,4,5
SCIM7B47T-06	T	-100°C to +200°C [-148°F to +392°F]	1,2,3,4,5
SCIM7B47E-07	E	0°C to +900°C [+32°F to +1652°F]	1,2,3,4,5
SCIM7B47R-08	R	+500°C to +1750°C [+932 °F to +3182°F]	1,2,3,4,5
SCIM7B47S-09	S	+7000°C to +1750°C [+1292°F to +3182°F]	1,2,3,4,5
SCIM7B47B-10	B	+800°C to +1800°C [+1472°F to +3272°F]	1,2,3,4,5
SCIM7B47N-11	N	+200°C to +1300°C [+392°F to +2372°F]	1,2,3,4,5

Accessories

Model	Description
SCIM7BXEV	1 channel evealuation backpanel
SCIM7BP01	1 channel backpanel
SCIM7BP02	2 channel backpanel
SCIM7BP01-DIN	SCIM7BP01 with DIN Rail Mounting option
SCIM7BP02-DIN	SCIM7BP02 with DIN Rail Mounting option
SCIMXBEFE	DIN Base element with snap foot
SCIMXBE	DIN Base element without snap foot
SCIMXSE	DIN Side elements
SCIMXVS	DIN Connection pins
SCIMXRAIL1-XX	DIN EN 50022-35x7.5 (Slotted steel), length-xx, in meters.
SCIMXRAIL2-XX	DIN EN 50035-G32 (Slotted steel), length-xx, in meters.
SCIMXRAIL3-XX	DIN EN 50022-35x15 (Slotted steel), length-xx, in meters.
SCIM7BP04	4 channel backpanel
SCIM7BP04-DIN	SCIM7BP04 With DIN Rail Mounting option.
SCIM7BP08	8 channel backpanel.
SCIM7BP08-DIN	SCIM7BP08 With DIN Rail Mounting option.
SCIM7BP16	16 channel backpanel
SCIM7BP16-DIN	SCIM7B16 With DIN Rail Mounting option.
SCIM7XRK-002	19'' Rack for Mounting backpanels.
SCIM7BXCA01	6'' system adapter cable (DB25F to 26M)
SCIM7BXCA02	3 system interface cable (DB25F to DB25F)
SCIM XCA004-XX	xx - meter system interface cable (26F to 26F)
SCIM XIF	Universal interface board
SCIM7BXR1	250W Current conversion resistor
SCIM7BPT	Non-isolated signal pass thru modules
SCIM7BPROTO	Breadboard kit

Output Ranges Available

Output Range	Part No. Suffix	Example
1. 1 to +5V	NONE	SCIM7B30-01
2. 0 to +5V	A	SCIM7B30-01A
3. 0 to +10V	D	SCIM7B30-01D
4. -5V to +5V	C	SCIM7B30-01C
5. -10V to +10V	B	SCIM7B30-01B

Power Supplies

DPWR-RPS5A	Power Supply, 24V, 0.3A, 100-240V AC input
DPWR-RPS5B	Power Supply, 24V, 0.6A, 100-240V AC input.
DPWR-RPS5C	Power Supply, 24V, 1.3A, 100-240V AC input.
DPWR-RPS5D	Power Supply, 24V, 2.1A, 100-240V AC input.
DPWR-RPS5E	Power Supply, 24V, 4.2A, 100-240V AC input.

Thermocouple Alloy Combinations

Standrads: DIN IEC 584, ANSI MC96-1-82, JIS C 1602-1981

Type	Input Range
J	Iron vs. Copper-Nickel
K	Nickel-Cromium vs. Nickel-Aluminum
T	Copper vs. Copper-Nickel
E	Nickel-Cromium vs. Copper-Nickel
R	Platinum-13% Rhodium vs. Platinum
S	Platinum-10% Rhodium vs. Platinum
B	Platinum-30% Rhodium vs. Platinum-6% Rhodium
N	Nickel-14.2% Chromium-1.4% Silicon vs. Nickel-4.4% Silicon-0.1% magnesum

** RTD Standrads

Type	Alpha Coefficient	DIN	JIS
100W PT	0.00385	DIN 43760	JIS C
120W NI	0.00672		1604-1989