

# i-87K **Serial Modules**

## SERIES

**87K Analog Input Module Selection Guide**

Module		I-87005W	I-87013	I-87015	I-87016W	I-87017	I-87017R
Analog Input	Resolution	16 bit	16 bit	16 bit	16 bit	16/12 bit	16/12 bit
	Input channel	8 diff.	4 diff.	7 diff.	2 diff.	8 diff.	8 diff.
	Sampling rate	8 Hz (total)	10 Hz (total)	7 Hz (total)	10 Hz	10/60 Hz (total)	10/60 Hz (total)
	Voltage input	–	–	–	+/-15mV +/-50mV +/-100mV +/-500mV +/-1V +/-2.5V	+/-150mV +/-500mV +/-1V +/-5V +/-10V	+/-150mV +/-500mV +/-1V +/-5V +/-10V
	Current input	–	–	–	+/-20mA	+/-20mA	+/-20mA
	Sensor input	Thermistor (2-wire)	RTD Pt/Ni-RTD	RTD Pt/Ni/ Cu-RTD	–	–	–
	Input Linear scaling	–	–	–	Yes	–	–
	Digital Output Channels	8 (open collector)	–	–	–	–	–
	Open Wire Detection	Yes	Yes	Yes	–	–	–
	Isolation Voltage	3000V	3000V	3000V	3000V	3000V	3000V
	Voltage Overload Protection	–	–	–	+/-35V	+/-35V	240Vrms
	Dual Watchdog Timer	Yes	Yes	Yes	Yes	Yes	Yes
	Availability	Note 1	Yes	Yes	Note 1	Yes	Yes

Note 1: Will be available

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I-80000

**87K Analog Input Module Selection Guide**

Module		I-87017RC	I-87017ML	I-87018	I-87018R	I-87019R
Analog Input	Resolution	16/12 bit	16/12 bit	16 bit	16 bit	16 bit
	Input channel	8 diff.	8 diff.	8 diff.	8 diff.	8 diff.
	Sampling rate	10/60 Hz (total)	10/60 Hz (total)	10 Hz (total)	10 Hz (total)	8 Hz (total)
	Voltage input	–	+/-150V +/-50V	+/-15mV +/-50mV +/-100mV +/-500mV +/-1V +/-2.5V	+/-15mV +/-50mV +/-100mV +/-500mV +/-1V +/-2.5V	+/-15mV +/-50mV +/-100mV +/-150mV +/-500mV +/-1V +/-2.5V +/-5V +/-10V
	Current input	+/-20mA 4-20mA 0-20mA	–	+/-20mA	+/-20mA	+/-20mA
	Sensor input	–	–	J.K.T.E.R.S.B. N.C.L.M.L2 thermocouple	J.K.T.E.R.S.B. N.C.L.M.L2 thermocouple	J.K.T.E.R.S.B. N.C.L.M.L2 thermocouple
Input Linear scaling	–	–	–	–	–	
Digital Output Channels	–	–	–	–	–	
Open Wire Detection	–	–	–	Yes	Yes	
Isolation Voltage	3000V	3000V	3000V	3000V	3000V	
Voltage Overload Protection	–	+/-200V	+/-35V	240Vrms	+/-240Vrms	
Dual Watchdog Timer	Yes	Yes	Yes	Yes	Yes	
Availability	Yes	Yes	Yes	Yes	Yes	

**87K Analog Output Module Selection Guide**

Module		I-87022	I-87024	I-87026
Analog Output	Resolution	12 bit	14 bit	16 bit
	Output channels	2 (Note 1)	4	2 (Note 1)
	Voltage output	0-10V	+/-10V, 0-10V, +/-5V, 0-5V	0-10V
	Current output	0-20mA 4-20mA	0-20mA 4-20mA	0-20mA 4-20mA
Safe Value	Yes	Yes	Yes	
Power-on Preset Value	Yes	Yes	Yes	
Dual Watchdog Timer	Yes	Yes	Yes	
Availability	Yes	Yes	Yes	

Note 1: Channel to Channel isolation

# i-87K **Serial Modules**

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### 87K Analog Input Modules

I-87005W-G



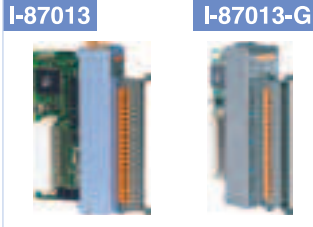
*Available soon*

#### I-87005W-G (Gray color)

##### 8-channel Thermistor Input and 8-channel Digital Output Module

- Analog Input Channels: 8
- Input Type: Precon ST-A3, Type u Fenwell, YSI, User-defined
- Accuracy: +/-0.1%
- Sampling Rate: 8 samples/second (Total)
- Common Mode Rejection: Typical 86dB
- Voltage Input Impedance: >1M Ohms
- Isolation Voltage: 3000VDC
- Individual Channel Configurable
- Wire Opening Detection
- Power Consumption: 1.2W
- Alarm Outputs: 8 (source)
- External Voltage: 10 ~ 40V
- Output Current: 650 mA per channel

I-87013



I-87013-G

#### I-87013 / I-87013-G (Gray color)

##### 4-channel RTD Input Module

- Analog Input Channels: 4
- Input Type: 2/3/4 wire RTD
- Accuracy: +/-0.1%
- Sampling Rate: 10Hz (total)
- C.M.R.: 150dB @50.60Hz
- N.M.R.: 100dB @50/60Hz
- Isolation: 3000Vrms
- Power Consumption: 0.8W

I-87015-G



*NEW!!*

#### I-87015-G (Gray color)

##### 7-channel RTD Input Module

- Analog Input Channels: 7
- Input Type: Pt100, Pt1000, Ni120, Cu100, Cu1000 supports 2/3 wire RTD
- Accuracy: +/-0.05%
- Sampling Rate: 10 samples/second (Total)
- Common Mode Rejection: Typical 86dB
- Voltage Input Impedance: >1M Ohms
- Isolation Voltage: 3000VDC
- Individual Channel Configurable
- Wire Opening Detection
- Power Consumption: 1.0W

# i-87K Serial Modules

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I-80000

### 87K Analog Input Modules

I-87016W-G



#### I-87016W-G (Gray color) 2-channel Isolated Strain Gauge Input Module

- Analog Input Channels: 2
- Isolation: 3000V
- Detail spec. call distributor

I-87017



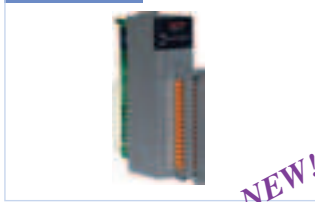
I-87017-G



#### I-87017 / I-87017-G (Gray color) 8-channel Analog Input Module

- Analog Input Channels: 8 diff.
- Input Type: mV, V, mA (requires optional external 125  $\Omega$  resistor)
- Input Impedance: 20M
- Sampling Rate: 10Hz (total)
- Accuracy: +/-0.1%
- C.M.R.: 86dB
- Overvoltage Protection: -35~+35V
- Isolation: 3000Vrms
- Power Consumption: 1.1W

I-87017R-G



#### I-87017R-G (Gray color) 8-channel Analog Input Module with High Over Voltage Protection

- Analog Input Channels: 8 diff.
- Input Type: mV, V, mA (requires optional external 125 $\Omega$  resistor)
- Input Impedance: >1M Ohms
- Sampling Rate: 10Hz (Total)
- Accuracy: +/-0.1%
- C.M.R.: 86dB
- Overvoltage Protection: 240VRMS
- Isolation: 3000VDC
- Power Consumption: 1.2W

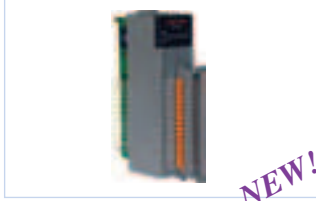
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## i-87K Serial Modules

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### 87K Analog Input Modules

I-87017RC-G



#### I-87017RC-G (Gray color)

##### 8-channel Current Input Module

- Analog Input Channels: 8 diff.
- Input Type: +/-20mA, 0-20mA, 4-20mA (built-in 125Ω resistor)
- Sampling Rate:  
Normal mode: 10Hz (total)  
Fast mode: 60Hz (total)
- Accuracy:  
Normal mode: +/-0.1%  
Fast mode: +/-0.5%
- C.M.R.: 86dB
- Common Voltage: 200VDC
- Isolation: 3000VDC
- Power Consumption: 1.2W

I-87017ML-G



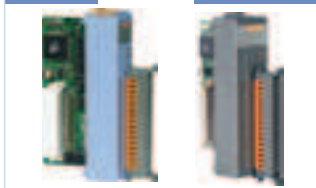
#### I-87017ML-G (Gray color)

##### 8-channel High Voltage Input Module

- Analog Input Channels: 8 diff.
- Input Type: +/-50V, +/-150V
- Input Impedance: 290K Ohms
- Sampling Rate:  
Normal mode: 10Hz (total)  
Fast mode: 60Hz (total)
- Accuracy:  
Normal mode: +/-0.1%  
Fast mode: +/-0.5%
- C.M.R.: 86dB
- Overvoltage Protection: +/-200VDC
- Isolation: 3000VDC
- Power Consumption: 1.2W

I-87018

I-87018-G



#### I-87018 / I-87018-G (Gray color)

##### 8-channel Analog Input Module

- Analog Input Channels: 8 diff.
- Input Type: mV, V, mA (requires optional external 125 Ω resistor), Thermocouple (J/K/T/E/R/S/B/N/C/L/ML2)
- Input Impedance: 20MΩ
- Sampling Rate: 10Hz (total)
- Accuracy: +/-0.1%
- C.M.R.: 150dB @50/60Hz  
N.M.R.: 100dB @50/60Hz
- Overvoltage Protection: -35~+35V
- Isolation: 3000Vrms
- Power Consumption: 1W

# i-87K **Serial Modules**

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i-80000

### 87K Analog Input Modules

I-87018R-G



#### I-87018R-G (Gray color)

##### 8-channel Analog Input Module

- Analog Input Channels: 8 diff.
- Input Type: mV, V, mA (requires optional external 125Ω resistor), Thermocouple (J/K/T/E/R/S/B/N/C/L/M/L2)
- Input Impedance: >1M Ohms
- Sampling Rate: 10Hz (Total)
- Accuracy: +/-0.25%
- C.M.R.: 150dB @50/60Hz
- N.M.R.: 100dB @50/60Hz
- Overvoltage Protection: 240Vrms
- Isolation: 3000VDC
- Power Consumption: 1W

I-87019R-G



#### I-87019R-G (Gray color)

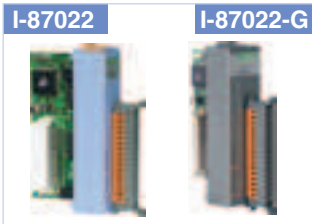
##### 8-channel Universal Analog Input Module

- Input Type: mV, V, mA, Thermocouple
- Sampling Rate: 8 samples/second (Total)
- -3dB BandWidth: 15.7Hz
- Accuracy: +/-0.1%
- Common Mode Rejection: Typical 86dB
- Voltage Input Impedance: 1M Ohms
- Overvoltage Protection: 240Vrms
- Isolation Voltage: 3000VDC
- Individual Channel Configurable
- Wire Opening Detection
- Power Consumption: 1.1W

## i-87K Serial Modules

### SERIES

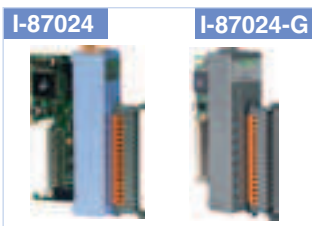
#### 87K Analog Output Modules



##### I-87022 / I-87022-G (Gray color)

#### 2-channel Isolated Analog Output Module

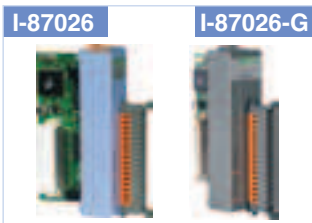
- Analog Output channels: 2
- Voltage Output: 0-10V
- Current Output: 0~20mA/4~20mA
- Resolution: 12 bits
- Power-on pre-set value
- Safe value
- Channel to channel isolation
- Power Consumption: 2.4W



##### I-87024 / I-87024-G (Gray color)

#### 4-channel Isolated Analog Output Module

- Analog Output Channels: 4
- Voltage Output: +/-10V, +/-5V, 0~10V, 0~5V
- Current Output: 0~20mA/4~20mA
- Accuracy: +/-0.1% of FSR
- Resolution: +/-0.02% of FSR
- Span Temperature Co.: +/-20ppm/°C
- Isolation: 3000V
- Power Consumption: 1.7W

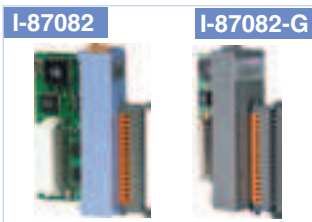


##### I-87026 / I-87026-G (Gray color)

#### 2-channel Isolated Analog Output Module

- Analog Output channels: 2
- Voltage Output: 0-10V
- Current Output: 0~20mA/4~20mA
- Resolution: 16 bits
- Power-on pre-set value
- Safe Value
- Channel to Channel Isolation
- Power Consumption: 2.2W

#### 87K Counter/Frequency Modules



##### I-87082 / I-87082-G (Gray color)

#### 2-channel Counter/Frequency Module

- Counter Channels: 2
- Input Frequency:  
100KHz (1Hz~100KHz)
- Power Consumption: 1W