

- ✓ Isolated Signal Conditioners for a Wide Range of Process Control Signals: Thermocouples, RTDs, mA, mV, V
- Process Current (4-20 and 0-20 mA) Output Module
- ✓ Powered mA Input Module Includes Isolated +24 Vdc Power for a Remote Transmitter
- Bipolar Voltage Input and Output Modules
- ✓ Operates From a Single +24 Vdc Power Supply
- ✓ Provides 1-5 V, 0-10 V, and ±10 V Output Options
- ✓ 1500 V rms of CMV Isolation and 120 V rms Field Wiring Protection
- Compact, 54 x 42 x 14 mm (2.1" x 1.7" x 0.6") Plastic Housing

The OM7 Series modular isolation-based, singlechannel plug-in signal conditioning system accepts inputs from a wide range of process control transducers and signals while providing high-level output voltages. Featuring a maximum nonlinearity of 0.02% and factory calibrated to guarantee maximum accuracy of ±0.1%, the OM7 Series offers superior performance at a lower cost than multipurpose signal conditioners. The modules provide 1500 V rms isolation and 120 V rms of field wiring input protection. The power supplies necessary to drive each individual module's input circuitry are internally isolated, enabling the OM7 modules to offer true channel-to-channel isolation of the input signals. The modules are rated for a nominal power supply input of 24 Vdc and, for maximum flexibility, will accept supply voltages in the 14 Vdc to 35 Vdc range.

All modules are packaged in a compact 54 x 42 x 14 mm (2.1" x 1.7" x 0.6") durable plastic case that readily accommodates high channel density applications. Each module may be operated in high humidity (noncondensing) environments and is rated over the extended -40 to 85°C industrial temperature range. All modules feature a simple pinout that allows



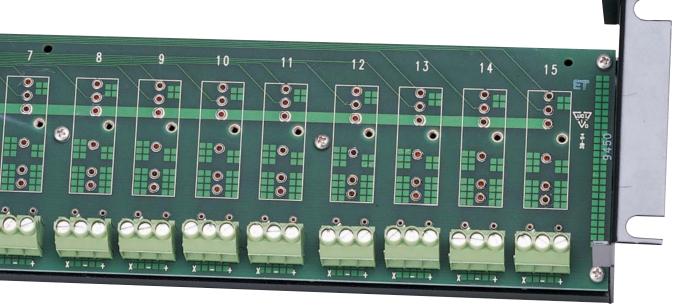












Shown smaller than actual size.

OM7 Series
\$110

Module Starting Price

KMTSS-125G-6 thermocouple probe sold separately, \$24.

them to be mixed and matched within a single backplane design. Furthermore, modules are easily serviced since they can be removed and inserted into the backplane with power applied.

Modules are available to isolate and condition the following input signals and transducers: voltage, process current, RTD, 2-wire transmitter, and thermocouples. The 2-wire transmitter interface module (OM7-35) accepts a 4-20 mA process input and provides an isolated 24 Vdc supply to power the current loop. In this way, a loop-powered transmitter can be directly connected to the OM7-35 without requiring a separate power supply. All of the isolated input modules, with the exception of the OM7-21, provide a high-level output voltage that is factory configured for either the 1-5 V or 0-10 V range. The OM7-21 is a unity gain, isolated input module with an input/output range of ±10 V.

Modules are also available that provide isolated output signals for process current and bipolar voltage. The OM7-39 process current module converts either a 1-5 V signal to a 4-20 mA output or a 0-10 V input to a 0-20 mA output. The input/output ranges of the OM7-39 are factory configured. The OM7-22 is a unity gain module that provides an isolated ±10 V output signal.

A full line of backplanes and rack-mount hardware complete the OM7 Series signal conditioning system. Each backplane contains screw terminals for field wiring connections and a miniature cold junction compensation (CJC) thermistor that is installed under the terminal blocks of each channel. Due to the pinout of the OM7 Series modules, the CJC thermistor affects only the thermocouple modules. This flexibility permits any module type to be used in any channel on the backplane.

Modular Signal Conditioning System

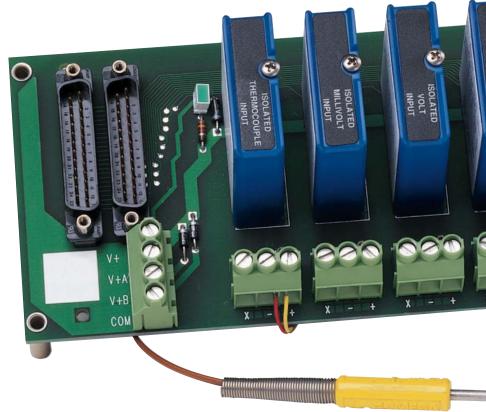
ISOLATED VOLTAGE AND CURRENT INPUT

The OM7 Series feature five isolated voltage/current input modules capable of addressing a wide variety of input voltage ranges and signal dynamics. The OM7-21 is a bipolar unit module featuring a full-scale range of ±10 V. The OM7-30 and OM7-31 accept dc input voltages and provide either a factory configured 1-5 V or 0-10 V output signal. The OM7-32 accepts a 4-20 mA process current input signal and provides an output voltage signal in the 1-5 V range. The OM7-33 isolates a 1-5 V input signal and provides a buffered 1-5 V output signal. The OM7-32 and OM7-33 can also be factory configured to provide a 0-10 V output signal with a 0-20 mA or 0-5 V input, respectively. Both the OM7-32 and OM7-33 have bandwidths of 100 Hz. The OM7-30 and OM7-31 are limited to 3 Hz bandwidth.

ISOLATED THERMOCOUPLE INPUT

The OM7-37 and OM7-47 modules accept inputs from types J, K, T, E, R, S, and B thermocouples and provide a 1-5 V or 0-10 V output signal. The OM7-47 also accepts inputs from type N thermocouples. Both the OM7-37 and OM7-47 have a nominal 3 dB bandwidth of 3 Hz, and they provide for upscale open input detection within 10 sec.

In addition to the signal conditioning capabilities of the OM7-37, the OM7-47 includes an



internallinearization circuit that compensates for the inherent nonlinearities of the thermocouple. With this linearizer, the OM7-47 is able to provide an output voltage that is linear with respect to the actual temperatures being measured by the thermocouple.

The thermocouple input modules accomplish CJC by means of an external thermistor mounted under the field wiring screw terminal blocks of the backplane.

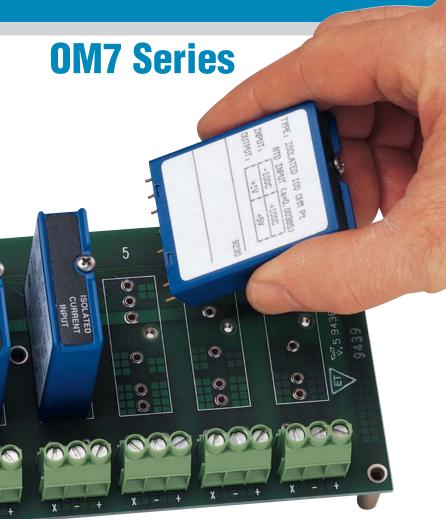
ISOLATED LINEARIZED RTD INPUT

The OM7-34 module accepts inputs from 100Ω platinum and 120Ω

nickel RTDs and produce an output voltage signal that is proportional with temperature measured by the RTD. The OM7-34 modules are available in a factory-configured 1-5 V or 0-10 V output range. Three-wire lead resistance compensation is provided and 2- or 3-wire RTDs may be used. The OM7-34 RTD input module has a nominal 3 dB bandwidth of 3 Hz and upscale open RTD detection with 10 sec.

ISOLATED 2-WIRE TRANSMITTER INTERFACE

The OM7-35 input module accepts a 4-20 mA process current input, provides a standard 1-5 V output



Shown with optional KMTSS-125G-6 Thermocouple sold seperately, \$24

signal, and features an isolated loop power supply for driving the current transmitter. The module has a nominal 3 dB bandwidth of 100 Hz and offers downscale open input detection within 2 sec.

The isolated transmitter loop power supply of the OM7-35 is unregulated and will provide a voltage that is proportional to the voltage used to power the OM7-35 module. The voltage provided by the OM7-35 is between 13 V and 34 V for loop current between 4 mA and 20 mA and supply voltages between 20.4 and 26.4 V. (For nominal +24 V supply, the OM7-35 will supply approximately +24 V to the loop.)

ISOLATED CURRENT OUTPUT

The OM7-39 isolated output module accepts either a factory-configured 1-5 V or 0-10V input signal and provides an isolated 4-20 mA or 0-20 mA output current signal. The module can drive a wide range of resistive loads, depending upon +Vs, the supply voltage. At a nominal +Vs of

+24 V, the OM7-39 will drive up to 850Ω .

ISOLATED BIPOLAR VOLTAGE OUTPUT

The OM7-22 is a unity-gain module with an input/output range of ±10 V. The OM7-22 has an input range of ±10 V and provides an isolated bipolar

±10 V output signal to the field. The OM7-22 features 1500 V rms of CMV isolation, 100 dB minimum of common mode rejection, and a 400 Hz bandwidth.

OM7 Specifications:

OM7 Common Input Module Specifications

Common Mode Voltage:

1500 V rms continuous

Input Protection 120 V rms continuous

Output Protection: Short to ground

Output Resistance: <1 ohm Common to All Modules

Operating Range: -40 to 85°C

(-40 to 185°F)

Storage Range: -40 to 85°C

(-40 to 185°F)

Humidity (24 hr): 90%

non-condensing

WEIGHT: 60 G (0.2 OZ)

Modular Signal Conditioning System

OM7 Series Input Module Specifications (typical @23°C and + 24 Vdc)

Model	OM7-21	OM7-30	OM7-31	OM7-32	OM7-33	OM7-34	OM7-35	OM7-37	OM7-47
Input Type	±10 V	±1 mV to ±1V	±1 V to ±10 V	4-20 mA 0-20 mA	1-5 V 0-5 V	RTD	4-20 mA	T/C*	T/C*
Output Range (into 2 kΩ min load)	±10 V	1-5 or 0-10 V	1-5 or 0-10 V	1-5 or 0-10 V	1-5 or 0-10 V	1-5 or 0-10 V	1-5 or 2-10 V	1-5 or 0-10 V	1-5 or 0-10 V
Accuracy	±0.1% span max	See table	±0.1% span max	±0.1% span max	See table				
Nonlinearity	±0.02% span max	See table	±0.02% span max	0.02% span max	N/A				
Input Resistance	2 ΜΩ	10 MΩ	100 kΩ	200 Ω	2 ΜΩ	N/A	N/A	10 MΩ	10 MΩ
Input Bias Current	3 nA	1 nA	0.2 nA	N/A	0.1 nA	N/A	N/A	25 nA	25 nA
Nominal 3 db Bandwidth	300 Hz	3 Hz	3 Hz	100 Hz	100 Hz	3 Hz	100 Hz	3 Hz	3 Hz
Response Time, 0-90%	1 msec	150 msec	150 msec	10 msec	10 msec	250 msec	5 msec	150 msec	150 msec
CJC Accuracy, Ambient Temp. +5 to 45°C	NA	NA	NA	NA	NA	NA	NA	±1.0°C max.	±1.0°C max.
Supply Voltage	19-29 VDC	14-35 VDC	18-35	14-35 VDC	14-35 VDC				
Supply Current	35 mA	25 mA	25 mA	20 mA	20 mA	25 mA	60 mA	25 mA	25 mA

^{*} T/C is thermocouple

OM7 modules shown mounted on OM7-BP-4-C 4-channel backplane, \$110.

Output Module Specifications

Model	OM7-22	OM7-39
Output Range	±10 V	0-20 mA 4-20 mA
Input Range	±10 V	0-10 V 1-5 V
Accuracy	±0.1% Span	±0.1% Span
Nonlinearity	±0.02% Span	±0.02% Span
Output Offset	±0.001% Span/C	±0.0035% Span/C
Max. Output	±14 Vdc	30 Ma
Load Resistance*	5 K Ω m min.	0 -850 Ω
Nominal 3 db Bandwidth	400 Hz	100 Hz
Response Time, 0-90%	1 ms	3 ms
Common Mode Voltage	1500 V rms	1500 V rms
Supply Voltage	19-29 Vdc	14-35 Vdc
Supply Current	20 mA max	60 mA max

^{*}Load resistance of OM7-39 dependent on power supply



Shown smaller than actual size.

KMTSS-125G-6 thermocouple sold separately, \$24.

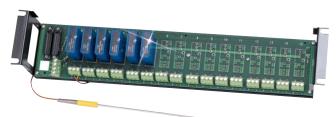
OM7 Series



OM7-34 Linearized RTD Input Module (@ +23°C ±5°C and $V_S = +24Vdc$)

Model	Input Range	Accuracy	Nonlinearity
OM7-34-01-X-C	-100 to +100°C	±0.15%	±0.05%
OM7-34-02-X-C	0 to +100°C	±0.2%	±0.05%
OM7-34-03-X-C	0 to +200°C	±0.15%	±0.05%
OM7-34-04-X-C	0 to +600°C	±0.1%	±0.05%
OM7-N-01-X-C	0 to +300°C	±0.3%	±0.012%
OM7-N-02-X-C	0 to +200°C	±0.3%	±0.14%

The X in the OM7-34 model number designations in the above table is used to identify the output voltage range option. If X=1, then the OM7-34 is factory configured for a 1-5 V output; and if X=2, then the OM7-34 is factory configured for a 0-10 V output. The Standard Range OM7-34s (i.e., OM7-34-01, OM7-34-02, OM7-34-03, OM7-34-04) are configured for a Platinum RTD with the DIN standard alpha of 0.00385. The OM7-34-N Series is configured for Nickel RTDs.



Backplane Specifications

	OM7-BP-1-C (DIN-C)	OM7-BP-2-C (DIN-C)	OM7-BP-4-C (DIN-C)	OM7-BP-8-C (DIN-C)	OM7-BP-16-C (DIN-C)
Channels	1	2	4	8	16

Connectors: Three screw terminals are provided for field connection to sensors/signals. 25-pin D-type male connector provided for interface to user's system.

OM7-47 Linearized Thermocouple Input **Module** (@ $+23^{\circ}$ C $\pm 5^{\circ}$ C and $V_S = +24Vdc$)

MODELS HIGHLIGHTED

Model Range (typical) (max) OM7-47-J-01-1-C 0 to +760°C 0.15% span 0.38% span OM7-47-J-01-2-C 0 to +760°C 0.13% span 0.32% span OM7-47-J-02-1-C -100 to +300°C 0.16% span 0.35% span OM7-47-J-02-2-C -100 to +300°C 0.14% span 0.30% span OM7-47-K-03-1-C 0 to +1300°C 0.15% span 0.32% span OM7-47-K-03-2-C 0 to +1300°C 0.15% span 0.32% span OM7-47-K-04-1-C 0 to +600°C 0.09% span 0.20% span OM7-47-K-04-2-C 0 to +600°C 0.08% span 0.18% span OM7-47-T-05-1-C 0 to +400°C 0.24% span 0.50% span OM7-47-T-05-2-C 0 to +400°C 0.29% span 0.50% span OM7-47-T-06-1-C -100 to +200°C 0.29% span 0.47% span OM7-47-T-06-2-C -100 to +900°C 0.18% span 0.41% span OM7-47-R-08-1-C +500 to +1750°C 0.15% span 0.36% span OM7-47-R-08-1-C +500 to +1750°C 0.13% span 0.31% span <th></th> <th>_</th> <th></th> <th>_</th>		_		_
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OM7-47-T-05-1-C 0 to +400°C 0.24% span 0.50% span OM7-47-T-05-2-C 0 to +400°C 0.19% span 0.38% span OM7-47-T-06-1-C -100 to +200°C 0.29% span 0.57% span OM7-47-T-06-2-C -100 to +200°C 0.25% span 0.47% span OM7-47-E-07-1-C 0 to +900°C 0.15% span 0.34% span OM7-47-R-08-1-C +500 to +1750°C 0.15% span 0.36% span OM7-47-R-08-2-C +500 to +1750°C 0.13% span 0.30% span OM7-47-S-09-1-C +700 to +1750°C 0.11% span 0.25% span OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-K-04-1-C	0 to +600°C	0.09% span	0.20% span
OM7-47-T-05-2-C 0 to +400°C 0.19% span 0.38% span OM7-47-T-06-1-C -100 to +200°C 0.29% span 0.57% span OM7-47-T-06-2-C -100 to +200°C 0.25% span 0.47% span OM7-47-E-07-1-C 0 to +900°C 0.18% span 0.41% span OM7-47-E-07-2-C 0 to +900°C 0.15% span 0.36% span OM7-47-R-08-1-C +500 to +1750°C 0.15% span 0.36% span OM7-47-R-08-2-C +500 to +1750°C 0.13% span 0.30% span OM7-47-S-09-1-C +700 to +1750°C 0.11% span 0.25% span OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-K-04-2-C	0 to +600°C	0.08% span	0.18% span
OM7-47-T-06-1-C -100 to +200°C 0.29% span 0.57% span OM7-47-T-06-2-C -100 to +200°C 0.25% span 0.47% span OM7-47-E-07-1-C 0 to +900°C 0.18% span 0.41% span OM7-47-E-07-2-C 0 to +900°C 0.15% span 0.34% span OM7-47-R-08-1-C +500 to +1750°C 0.15% span 0.36% span OM7-47-R-08-2-C +500 to +1750°C 0.13% span 0.30% span OM7-47-S-09-1-C +700 to +1750°C 0.13% span 0.31% span OM7-47-B-10-1-C +800 to +1800°C 0.11% span 0.25% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-T-05-1-C	0 to +400°C	0.24% span	0.50% span
OM7-47-T-06-2-C -100 to +200°C 0.25% span 0.47% span OM7-47-E-07-1-C 0 to +900°C 0.18% span 0.41% span OM7-47-E-07-2-C 0 to +900°C 0.15% span 0.34% span OM7-47-R-08-1-C +500 to +1750°C 0.15% span 0.36% span OM7-47-R-08-2-C +500 to +1750°C 0.13% span 0.30% span OM7-47-S-09-1-C +700 to +1750°C 0.13% span 0.31% span OM7-47-S-09-2-C +700 to +1750°C 0.11% span 0.25% span OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-T-05-2-C	0 to +400°C	0.19% span	0.38% span
OM7-47-E-07-1-C 0 to +900°C 0.18% span 0.41% span OM7-47-E-07-2-C 0 to +900°C 0.15% span 0.34% span OM7-47-R-08-1-C +500 to +1750°C 0.15% span 0.36% span OM7-47-R-08-2-C +500 to +1750°C 0.13% span 0.30% span OM7-47-S-09-1-C +700 to +1750°C 0.13% span 0.31% span OM7-47-S-09-2-C +700 to +1750°C 0.11% span 0.25% span OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-T-06-1-C	-100 to +200°C	0.29% span	0.57% span
OM7-47-E-07-2-C 0 to +900°C 0.15% span 0.34% span OM7-47-R-08-1-C +500 to +1750°C 0.15% span 0.36% span OM7-47-R-08-2-C +500 to +1750°C 0.13% span 0.30% span OM7-47-S-09-1-C +700 to +1750°C 0.13% span 0.31% span OM7-47-S-09-2-C +700 to +1750°C 0.11% span 0.25% span OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-T-06-2-C	-100 to +200°C	0.25% span	0.47% span
OM7-47-R-08-1-C +500 to +1750°C 0.15% span 0.36% span OM7-47-R-08-2-C +500 to +1750°C 0.13% span 0.30% span OM7-47-S-09-1-C +700 to +1750°C 0.13% span 0.31% span OM7-47-S-09-2-C +700 to +1750°C 0.11% span 0.25% span OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-E-07-1-C	0 to +900°C	0.18% span	0.41% span
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OM7-47-S-09-1-C +700 to +1750°C 0.13% span 0.31% span OM7-47-S-09-2-C +700 to +1750°C 0.11% span 0.25% span OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-R-08-1-C	+500 to +1750°C	0.15% span	0.36% span
OM7-47-S-09-2-C +700 to +1750°C 0.11% span 0.25% span OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-R-08-2-C	+500 to +1750°C	0.13% span	0.30% span
OM7-47-B-10-1-C +800 to +1800°C 0.19% span 0.41% span OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-S-09-1-C	+700 to +1750°C	0.13% span	0.31% span
OM7-47-B-10-2-C +800 to +1800°C 0.17% span 0.35% span OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-S-09-2-C	+700 to +1750°C	0.11% span	0.25% span
OM7-47-N-11-1-C +200 to +1300°C 0.14% span 0.31% span	OM7-47-B-10-1-C	+800 to +1800°C	0.19% span	0.41% span
	OM7-47-B-10-2-C	+800 to +1800°C	0.17% span	0.35% span
OM7-47-N-11-2-C 1200 to 1300°C 0.00% span 0.27% span	OM7-47-N-11-1-C	+200 to +1300°C	0.14% span	0.31% span
01111-41-11-2-0 +200 to +1300 0 0.03/0 spall 0.21/0 spall	OM7-47-N-11-2-C	+200 to +1300°C	0.09% span	0.27% span

- 1) The CJC sensor accuracy should be added to the module accuracy listed in this table in order to compute the overall measurement accuracy.
- 2) Accuracy includes the effects of repeatability, hysteresis, and conformity.

Modular Signal Conditioning System

MOST POPULAR MODELS HIGHLIGHTED

Millivolt Input - Unipolar

OM7-30-01-1-C	\$110	0-10 mV	1-5 V
OM7-30-01-2-C	110	0-10 mV	0-10 V
OM7-30-02-1-C	110	0-100 mV	1-5 V
OM7-30-02-2-C	110	0-100 mV	0-10 V

Millivolt Input - Bipolar

Model No.	Price	Input Range	Output Range
OM7-30-06-1-C	\$110	±10 mV	1-5 V
OM7-30-06-2-C	110	±10 mV	0-10 V
OM7-30-07-1-C	110	±100 mV	1-5 V
OM7-30-07-2-C	110	±100 mV	0-10 V

Voltage Input - Unipolar

Model No.	Price	Input Range	Output Range
OM7-30-03-1-C	\$110	0-1 V	1- 5 V
OM7-30-03-2-C	110	0-1 V	0-10 V
OM7-31-04-1-C	110	0-5 V	1-5 V
OM7-31-04-2-C	110	0-5 V	0-10 V
OM7-30-05-1-C	110	1-5 V	1-5 V
OM7-30-05-2-C	110	1-5 V	0-10 V
OM7-31-01-1-C	110	0-10 V	1-5 V
OM7-31-01-2-C	110	0-10 V	0-10 V

Linearized Thermocouple

		Input	Output	Thermo- couple
Model No.	Price	Range	Range	Туре
OM7-47-J-01-1-C	\$150	0 to +760°C	1-5 V	J
OM7-47-J-01-2-C	150	0 to +760°C	0-10 V	J
OM7-47-J-02-1-C	150	-100 to +300°C	1-5 V	J
OM7-47-J-02-2-C	150	-100 to +300°C	0-10 V	J
OM7-47-K-03-1-C	150	0 to +1300°C	1-5 V	K
OM7-47-K-03-2-C	150	0 to +1300°C	0-10 V	K
OM7-47-K-04-1-C	150	0 to +600°C	1-5 V	K
OM7-47-K-04-2-C	150	0 to +600°C	0-10 V	K
OM7-47-T-05-1-C	150	0 to +400°C	1-5 V	Т
OM7-47-T-05-2-C	150	0 to +400°C	0-10 V	T
OM7-47-T-06-1-C	150	-100 to +200°C	1-5 V	Т
OM7-47-T-06-2-C	150	-100 to +200°C	0-10 V	Т
OM7-47-E-07-1-C	150	0 to +900°C	1-5 V	E
OM7-47-E-07-2-C	150	0 to +900°C	0-10 V	E
OM7-47-R-08-1-C	150	+500 to +1750°C	1-5 V	R
OM7-47-R-08-2-C	150	+500 to +1750°C	0-10 V	R
OM7-47-S-09-1-C	150	+700 to +1750°C	1-5 V	S
OM7-47-S-09-2-C	150	+700 to +1750°C	0-10 V	S
OM7-47-B-10-1-C	150	+800 to +1800°C	1-5 V	В
OM7-47-B-10-2-C	150	+800 to +1800°C	0-10 V	В
OM7-47-N-11-1-C	150	+200 to +1300°C	1-5 V	N
OM7-47-N-11-2-C	150	+200 to +1300°C	0-10 V	N



Voltage Input - Bipolar

Model No.	Price	Input Range	Output Range
OM7-30-08-1-C	\$110	±1 V	1-5 V
OM7-30-08-2-C	110	±1 V	0-10 V
OM7-31-02-1-C	110	±5 V	1-5 V
OM7-31-02-2-C	110	±5 V	0-10 V
OM7-31-03-1-C	110	±10 V	1-5 V
OM7-31-03-2-C	110	±10 V	0-10 V
OM7-21-C	120	±10 V	±10 V

Process Voltage Inputs

Model No.	Price	Input Range	Output Range		
OM7-33-01-1-C	\$100	1-5 V	1-5 V		
OM7-33-01-2-C	100	1-5 V	0-10V		
OM7-33-02-1-C	100	0-5 V	1-5 V		
OM7-33-02-2-C	100	0-5 V	0-10 V		

Process Current Inputs

Model No.	Price	Input Range	Output Range
OM7-32-01-1-C	\$110	4-20 mA	1-5 V
OM7-32-01-2-C	110	4-20 mA	0-10 V
OM7-32-02-1-C	110	0-20 mA	1-5V
OM7-32-02-2-C	110	0-20 mA	0-10V

RTD Inputs (Linearized 100Ω Pt 2-Wire or 3-Wire, Alpha = 0.00385)

Model No.	Price	Input Range	Output Range	
OM7-34-01-1-C	\$120	-100 to +100°C	1-5 V	
OM7-34-01-2-C	120	-100 to +100°C	0-10 V	
OM7-34-02-1-C	120	0 to +100°C	1-5 V	
OM7-34-02-2-C	120	0 to +100°C	0-10 V	
OM7-34-03 -1-C	120	0 to + 200°C	1-5 V	
OM7-34-03-2-C	120	0 to +200°C	0- 10 V	
OM7-34-04-1-C	120	0 to +600°C	1-5 V	
OM7-34-04-2-C	120	0 to +600°C	0- 10 V	
OM7-34-05-1-C	120	-50 to +350°C	1-5 V	
OM7-34-05-2-C	120	-50 to +350°C	0-10 V	

RTD Inputs (Linearized 120 Ω Ni 2-Wire or 3-Wire)

Model No.	Price	Input Range	Output Range
OM7-34-N-01-1-C	\$120	0 to +300°C	1-5 V
OM7-34-N-01-2-C	120	0 to +300°C	0-10 V
OM7-34-N-02-1-C	120	0 to +200°C	1-5 V
OM7-34-N-02-2-C	120	0 to +200°C	0-10 V

OM7 Series

MOST POPULAR MODELS HIGHLIGHTED

Non-Linearized Thermocouple

NOII-LIIICAI IZ				Thorma
Model No.	Price	Input Range	Output Range	Thermo- couple Type
OM7-37-J-01- 1-C	\$110	-100 to +760°C	1-5 V	J
OM7-37-J-01-2-C	110	-100 to +760°C	0-10 V	J
OM7-37-J-10-1-C	110	0 to +200°C	1-5 V	J
OM7-37-J-10-2-C	110	0 to +200°C	0-10 V	J
OM7-37-J-11-1-C	110	0 to +400°C	1- 5 V	J
OM7-37-J-11-2-C	110	0 to +400°C	0-10 V	J
OM7-37-J-12-1-C	110	0 to +600°C	1-5 V	J
OM7-37-J-12-2-C	110	0 to +600°C	0-10 V	J
OM7-37-J- 13-1-C	110	+300 to +600°C	1-5 V	J
OM7-37-J-13-2-C	110	+300 to +600°C	0-10 V	J
OM7-37-K-02-1-C	110	-100 to +1350°C	1-5 V	K
OM7-37-K-02-2-C	110	-100 to +1350°C	0-10 V	K
OM7-37-K-20-1-C	110	0 to +300°C	1-5 V	K
OM7-37-K-20-2-C	110	0 to +300°C	0-10 V	K
OM7-37-K-21-1-C	110	0 to +600°C	1-5 V	K
OM7-37-K-21-2-C	110	0 to +600°C	0-10 V	K
OM7-37-K-22-1-C	110	0 to +1200°C	1-5 V	K
OM7-37-K-22-2-C	110	0 to +1200°C	0-10 V	K
OM7-37-K-23-1-C	110	+600 to +1200°C	1-5 V	K
OM7-37-K-23-2-C	110	+600 to +1200°C	0-10 V	K
OM7-37-T-03-1-C	110	-100 to +400°C	1-5 V	Т
OM7-37-T-03-2-C	110	-100 to +400°C	0-10 V	Т
OM7-37-E-04-1-C	110	0 to +900°C	1- 5 V	Е
OM7-37-E-04-2-C	110	0 to +900°C	0-10 V	Е
OM7-37-R-05-1-C	110	0 to +1750°C	1-5 V	R
OM7-37-R-05-2-C	110	0 to +1750°C	0-10 V	R
OM7-37-S-06-1-C	110	0 to +1750°C	1-5 V	S
OM7-37-S-06-2-C	110	0 to +1750°C	0-10 V	S
OM7-37-B-07-1-C	110	0 to +1800°C	1-5 V	В
OM7-37-B-07-2-C	110	0 to +1800°C	0-10 V	В

Accessories

Model No.	Price	Description
U24Y101	\$128	Power supply (110 VAC input, 24 VDC @ 1000 mA output
OM7-PROTO	22	OM7 Breadboard kit
OM7-BP-EV	96	1 Channel evaluation
OM7-IF	56	Universal interface board
OM7-RK002	59	19" rack for mounting backplane
OM7-RI	10	250ohm current conversion resistor
OM7-DIN-SF	7	DIN Base element with snap foot
OM7-DIN-WSF	7	DIN Side element without snap foot
OM7-DIN-SE	2	DIN Side elements
OM7-DIN-CP	2	DIN Connector pins





2-Wire Transmitter Inputs with Loop Power (with Sense Resistor)

Model No.	Price	Input Range	Output Range
OM7-35-01-1-C	\$125	4-20 mA	1 -5 V
OM7-35-01-2-C	125	4-20 mA	2-10 V

Output Modules

Model No.	Price	Input Range	Output Range
OM7-22-C	\$120	±10 V	±10 V
OM7-39-01-C	110	1-5 V	4-20 mA
OM7-39-02-C	110	0-10 V	0-20 mA



Backplanes

Model No.	Price	Description
OM7-BP-1-C	\$33	1 Channel backplane
OM7-BP-1-DIN-C	46	1 Channel backplane DIN Rail
OM7-BP-2-C	49	2 Channel backplane
OM7-BP-2-DIN-C	60	2 Channel backplane DIN Rail
OM7-BP-4-C	122	4 Channel backplane
OM7-BP-4-DIN-C	134	4 Channel backplane DIN Rail
OM7-BP-8-C	198	8 Channel backplane
OM7-BP-8-DIN-C	209	8 Channel backplane DIN Rail
OM7-BP-16-C	331	16 Channel backplane
OM7-BP-16-DIN-C	342	16 Channel backplane DIN Rail
RAIL-35-2	15	35mm Din Rail, 2 Meter Length

Cables

Model No.	Price	Description
OM7-CA-01	\$22	6" cable (25-pin, D-type connector to 26-pin male header connector) converts OM7 backplane connector to an OM5 backplane connector pin out
OM7-CA-02	34	3-foot cable (25 pin, D-type connector on both ends)

	System Example					
Qty	Model No.	Price				
4	OM7-37-K-02-1-C non linearized Type K thermocouple inputs @ \$110 each	\$440				
4	OM7-34-02-2-C linearized 100 ohm RTD inputs @ \$120 each	480				
1	OM7-BP-8 8-channel backplane	198				
1	OM7-CA-02 3' cable	30				
1	OM7-RK002 19" rack mount kit for backplane	59				
1	U24Y101 power supply Total Price	<u>128</u> \$1335				

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Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

Data Acquisition

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ehernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters