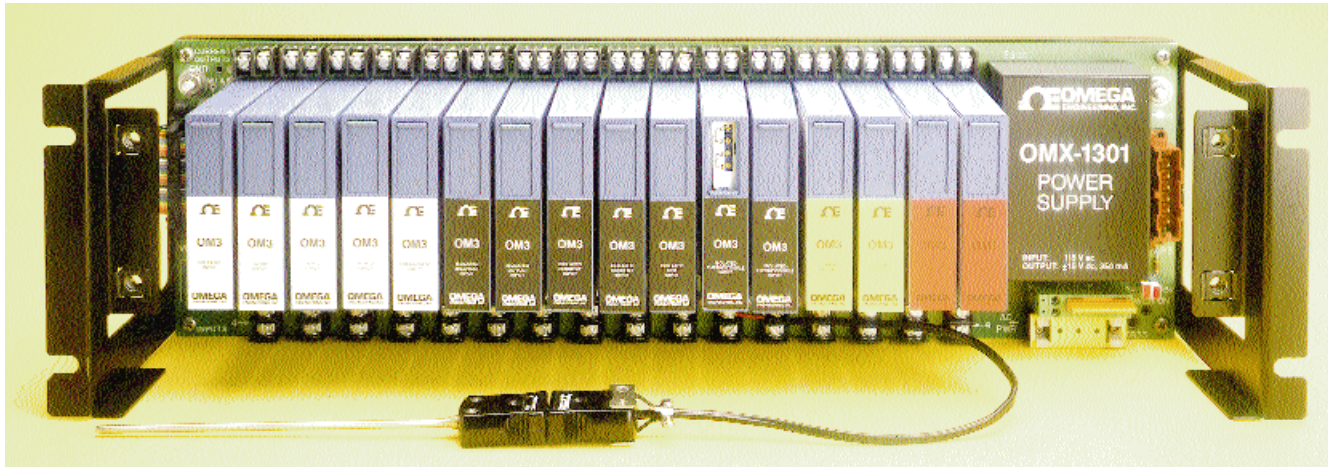


OM3 Modular Signal Conditioners



The OM3 modular signal conditioning system provides a simple, versatile method of interconnecting a wide variety of real world analog signals to industrial measurement and control systems. The OM3 modules interface directly with sensor or analog signals, such as voltage, current, thermocouples, RTDs, LVDTs, strain and frequency, and convert them into high level signals suitable for A to D conversion.

The OM3 is designed for ease of use and flexibility. Screw terminals let you connect directly to any sensor, and modules allow you to “mix and match” your IO requirements to various process sensors and actuators. They can be plugged into sockets on the backplane in any configuration, and then interchanged as your needs change.

SPECIFICATIONS

Input Modules

Input Types: Thermocouple, RTD, strain gage, AD590, ac-dc voltage, ac-dc current, frequency, LVDT.

Outputs (simultaneous): 0-10Vdc or -10 to +10 and 4-20ma or 0-20ma. (Linearized Thermocouple has only voltage output. All other modules have voltage and current)

Accuracy: +- 0.1% of span
Nonlinearity: +-0.01% of span

Isolated Modules

Common Mode Voltage,

Input to Output: +-1500v peak continuous

Transient Protection: Meets IEEE-std 472 (SWC)

Normal Mode Protection: 220Vrms continuous

Current Output Protection: 130 Vrms continuous

Common Mode Rejection: @ 50 or 60 hz-- 60db

Non-isolated Modules

Common Mode Voltage: +-6.5 V

Normal Mode Protection: 130 VRMS

Current Output Protection: 130 Vrms continuous

Common Mode Rejection: @ 50 or 60 hz-- 60db

Normal Mode Rejection: @ 50 or 60 hz-- 60db

MECHANICAL and ENVIRONMENTAL

Module Dimensions: 3.150” x 0.775” x 3.395”

Temperature Range, Rated Performance: -13 to 185F

Storage Temperature Range: -67 to 185F RFI

Susceptibility: +- 0.5% span error, 5W @ 400 MHZ @3ft

Approval: FM approved, Class 1, Division 2, Groups A, B C and D locations.

Output Modules

Input: 0 to +10Vdc or -10 to +10 Vdc

Output: 4 to 20ma or 0 to 20ma

Accuracy: +- 0.1% of span

Nonlinearity: +- 0.01% of span

Isolation: +-1500 V peak continuous

Current Output Protection: 220Vrms continuous

Modular Signal Conditioners

Input Modules



Thermocouple Input Non-Linearized, Output Range 0 to 10 V and 4 to 20 mA/0 to 20 mA

Model No.	Price	Input Range	Output Range	Thermocouple Type
OM3-ITC-J	\$255	-100 to 760°C	0-10 V, 4-20 mA/0-20 mA	Type J
OM3-ITC-K	255	-100 to 1350°C	0-10 V, 4-20 mA/0-20 mA	Type K
OM3-ITC-T	255	-100 to 400°C	0-10 V, 4-20 mA/0-20 mA	Type T
OM3-ITC-E	255	0 to 900°C	0-10 V, 4-20 mA/0-20 mA	Type E
OM3-ITC-R	255	0 to 1750°C	0-10 V, 4-20 mA/0-20 mA	Type R
OM3-ITC-S	255	0 to 1750°C	0-10 V, 4-20 mA/0-20 mA	Type S
OM3-ITC-B	255	0 to 1800°C	0-10 V, 4-20 mA/0-20 mA	Type B
OM3-ITC-P	255	Programmable*	0-10 V, 4-20 mA/0-20 mA	Programmable*

Thermocouple Input Linearized, Isolated, 0 to 10 V Output Range

Model No.	Price	Input Range	Output Range	Thermocouple Type
OM3-LTC-J1	\$315	0 to 760°C	0-10 V	Type J
OM3-LTC-J2	315	-100 to 300°C	0-10 V	Type J
OM3-LTC-J3	315	0 to 500°C	0-10 V	Type J
OM3-LTC-K1	315	0 to 1000°C	0-10 V	Type K
OM3-LTC-K2	315	0 to 500°C	0-10 V	Type K
OM3-LTC-T1	315	-100 to 400°C	0-10 V	Type T
OM3-LTC-T2	315	0 to 200°C	0-10 V	Type T
OM3-LTC-E	315	0 to 1000°C	0-10 V	Type E
OM3-LTC-R	315	500 to 1750°C	0-10 V	Type R
OM3-LTC-S	315	500 to 1750°C	0-10 V	Type S
OM3-LTC-B	315	500 to 1800°C	0-10 V	Type B

RTD Input, Isolated 2 or 3 Wire Copper 10 Ohm

Model No.	Price	Input Range	Output Range
OM3-IC-120A	\$254	0 to 120°C	0-10 V and 4-20 mA/0-20 mA
OM3-IC-120B	254	0 to 120°C	0-10 V and 4-20 mA/0-20 mA
OM3-IC-P	254	Programmable*	0-10 V and 4-20 mA/0-20 mA

RTD Input, Isolated 2, 3 or 4 Wire Pt 100, alpha = 0.00385

Model No.	Price	Input Range	Output Range
OM3-IP-N100	\$254	-100 to 100°C	0-10 V and 4-20 mA/0-20 mA
OM3-IP-100	254	0 to 100°C	0-10 V and 4-20 mA/0-20 mA
OM3-IP-200	254	0 to 200°C	0-10 V and 4-20 mA/0-20 mA
OM3-IP-600	254	0 to 600°C	0-10 V and 4-20 mA/0-20 mA
OM3-IP-P	254	Programmable*	0-10 V and 4-20 mA/0-20 mA

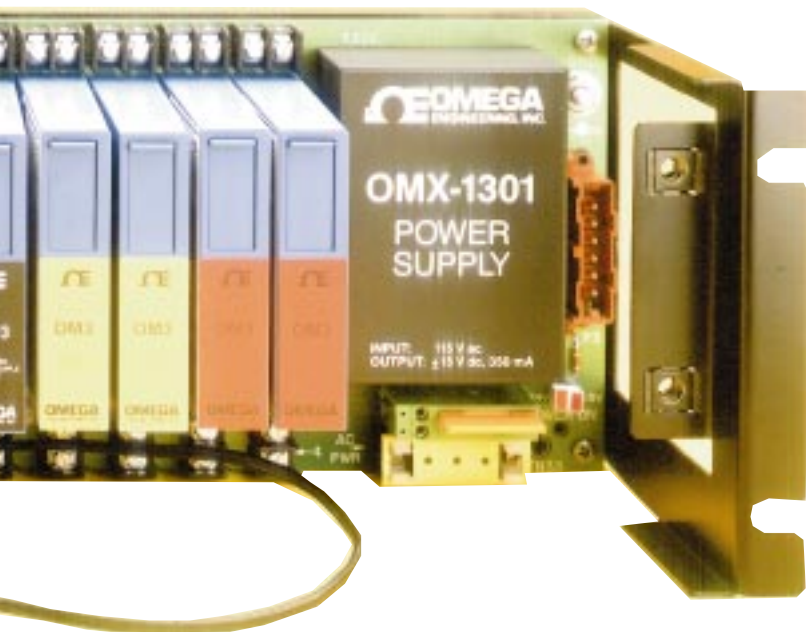
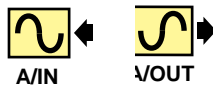
*Programmable modules require OMX-1310 plug-on ranging card.
For custom modules, consult Engineering.

U.S. AND CANADA

For sales and service, call:
1-800-82-66342SM
1-800-TC-OMEGA

For technical assistance, call:
1-800-327-4333SM
1-800-DAS-IEEE

OM3 Series



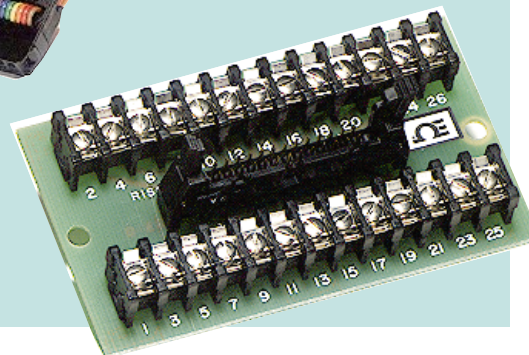
Frequency Input, Voltage Input 10 mV to 220 V RMS

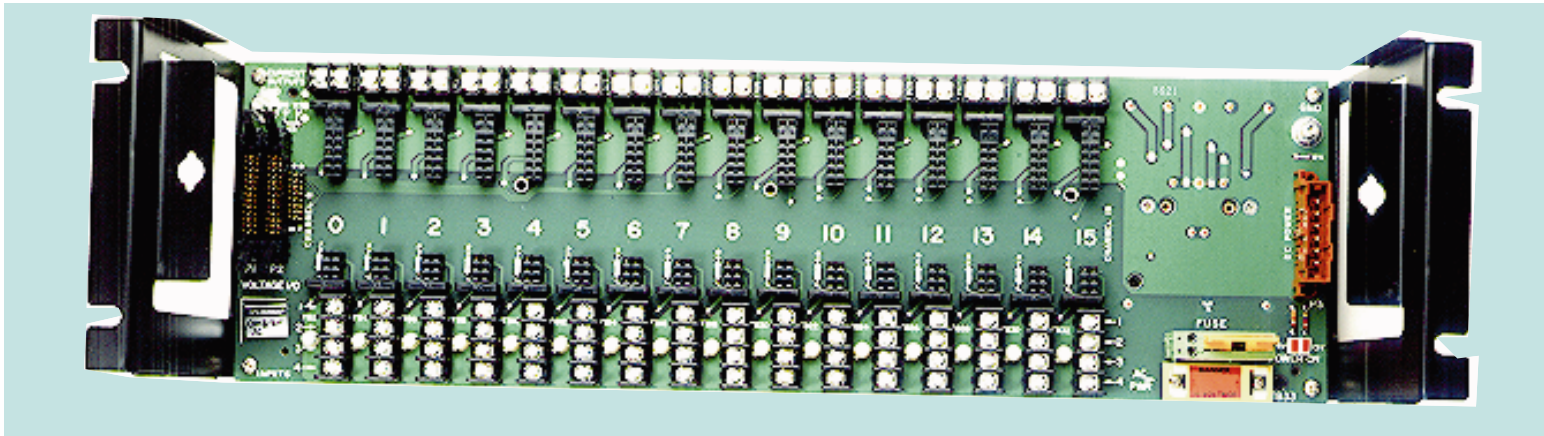
Model No.	Price	Input Range	Output Range
OM3-IFI-25	\$275	0 to 25 Hz	0-10 V and 4-20 mA/0-20 mA
OM3-IFI-300	275	0 to 300 Hz	0-10 V and 4-20 mA/0-20 mA
OM3-IFI-1.5K	275	0 to 1.5 kHz	0-10 V and 4-20 mA/0-20 mA
OM3-IFI-3K	275	0 to 3 kHz	0-10 V and 4-20 mA/0-20 mA
OM3-IFI-25K	275	0 to 25 kHz	0-10 V and 4-20 mA/0-20 mA
OM3-IFI-P1	275	Programmable* (25 Hz min. span, 1100 Hz max. span)	0-10 V and 4-20 mA/0-20 mA
OM3-IFI-P2	275	Programmable* (520 Hz mn. span, 25 kHz max. span)	0-10 V and 4-20 mA/0-20 mA

Current Input

Model No.	Price	Input Range	Output Range
OM3-II-4/20	\$224	4-20 mA, isolated	0-10 V and 4-20 mA/0-20 mA
OM3-II-0/20	224	0-20 mA, isolated	0-10 V and 4-20 mA/0-20 mA
OM3-II-P	224	Programmable*	0-10 V and 4-20 mA/0-20 mA

*Programmable modules require OMX-1310 plug-on ranging card.
For custom modules, consult Engineering.





AC Voltage Input, Frequency Range 50 to 400 Hz

Model No.	Price	Input Range	Output Range
OM3-ACV-50MV	\$255	0 to 50 mV RMS	0-10 V and 4-20 mA/0-20 mA
OM3-ACV-100MV	255	0 to 100 mV RMS	0-10 V and 4-20 mA/0-20 mA
OM3-ACV-10V	255	0 to 10 V RMS	0-10 V and 4-20 mA/0-20 mA
OM3-ACV-150V	255	0 to 150 V RMS	0-10 V and 4-20 mA/0-20 mA
OM3-ACV-250V	255	0 to 250 V RMS	0-10 V and 4-20 mA/0-20 mA
OM3-ACV-P1	255	Programmable (20 mV-1 V RMS)	0-10 V and 4-20 mA/0-20 mA
OM3-ACV-P2	255	Programmable* (1 V-50 V RMS)	0-10 V and 4-20 mA/0-20 mA
OM3-ACV-P3	255	Programmable (50 V-550 V RMS)	0-10 V and 4-20 mA/0-20 mA

Strain Gage Input

Model No.	Price	Input Range	Output Range
OM3-S-3	\$205	±30 mV @10 V Exc.	-10 to 10 V and 4-20 mA/0-20 mA
OM3-S-P	205	Programmable*	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBS-30**	205	±30 mV @10 V Exc.	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBS-10**	205	±10 mV @3.3 V Exc.	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBS-P**	205	Programmable*	-10 to 10 V and 4-20 mA/0-20 mA

Current Output Modules

Model No.	Price	Input Range	Output Range
OM3-IVI	\$195	±10 V/0-10 V	4-20 mA or 0-20 mA, isolated

Position Input, 4, 5 or 6 Wire LVDT or RVDT

Model No.	Price	Input Range	Output Range
OM3-LV-25	\$275	3 V RMS @2.5 kHz	-10 to 10 V and 4-20 mA/0-20 mA
OM3-LV-50	275	5 V RMS @5 kHz	-10 to 10 V and 4-20 mA/0-20 mA
OM3-LV-75	275	5 V RMS @7.5 kHz	-10 to 10 V and 4-20 mA/0-20 mA
OM3-LV-100	275	1 V RMS @10 kHz	-10 to 10 V and 4-20 mA/0-20 mA
OM3-LV-P	275	Programmable*	-10 to 10 V and 4-20 mA/0-20 mA

Isolated Voltage Input

Model No.	Price	Input Range	Output Range
OM3-IMV-10	\$231	-10 to +10 mV	-10 to 10 V and 4-20 mA/0-20 mA
OM3-IMV-50	231	-50 to +50 mV	-10 to 10 V and 4-20 mA/0-20 mA
OM3-IMV-100	231	-100 to +100 mV	-10 to 10 V and 4-20 mA/0-20 mA
OM3-IMV-P	231	Programmable*	-10 to 10 V and 4-20 mA/0-20 mA
OM3-IV-1	231	-1 to +1 V	-10 to 10 V and 4-20 mA/0-20 mA
OM3-IV-5	231	-5 to +5 V	-10 to 10 V and 4-20 mA/0-20 mA
OM3-IV-10	231	-10 to +10 V	-10 to 10 V and 4-20 mA/0-20 mA
OM3-IV-P	231	Programmable*	-10 to 10 V and 4-20 mA/0-20 mA

Isolated Wideband Voltage Input, Frequency Bandwidth 10 kHz

Model No.	Price	Input Range	Output Range
OM3-WBV-10MV	\$255	-10 to +10 mV	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBV-50MV	255	-50 to +50 mV	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBV-100MV	255	-100 to +100 mV	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBV-P1	255	Programmable*	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBV-1V	255	-1 to +1 V	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBV-5V	255	-5 to +5 V	-10 to 10 V and 4-20 mA/0-20 mA
OM3-WBV-P2	255	Programmable*	-10 to 10 V and 4-20 mA/0-20 mA

*Wideband modules (OM3-WBS Series) have a 10 kHz bandwidth, all others have 3 Hz bandwidths.

*Programmable Modules Require OMX-1310 plug-on ranging card.
For custom modules, consult Engineering .

OM3 Series



Power Supplies

Model No.	Price	Input Voltage	Output Voltage & Current	Description
OMX-1300(*)	\$135	115 Vac	±15 Vdc, ±200 mA	AC Power Supply
OMX-1301(*)	179	115 Vac	±15 Vdc, ±350 mA	AC Power Supply
OMX-1302	145	24 Vdc	±15 Vdc, ±190 mA	DC/DC Converter
OMX-1307	266	115 Vac	±15 Vdc, +800 mA, -225 mA	AC Power Supply

*For 220Vac, add suffix "-E" to model number; for 100 Vac add suffix "-F" to model number, for 240 Vac add suffix "-H" to model number.

Power Cords

Model No.	Price	Description	Used With
OMX-1340D	\$7	7' Power cord	OM3-BP-16, OM3-BP-8, OM3-BP-4
OMX-1341	23	6' DC power cable	OM3-BP-16, OM3-BP-8, OM3-BP-4

Mounting Kits

Model No.	Price	Description	Used With
OMX-1330	\$80	19" Rack mount kit	OM3-BP-16, OM3-BP-8, OM3-BP-4
OMX-1331	60	16-Channel surface kit	OM3-BP-16
OMX-1332	60	8-Channel surface kit	OM3-BP-8
OMX-1333	60	4-Channel surface kit	OM3-BP-4

Cables

Model No.	Price	Description
OMX-1315	\$23	2' 26-Pin cable with two connectors which connects OM3 backplanes to OMX-1324 terminal panel
OMX-800-OM3	155	3' Cable to interface two OM3-BP-16 backplanes to WB-800/815 Series plug-in cards
OMX-1335	90	3' Cable to interface one OM3-BP-16 backplane to WB-800/815 Series plug-in cards
C8MB1	40	1 m Cable, connects DAS-8PGA, UCDA8-8PGA, DAS-800, CIO-DAS08, CIO-DAS08-PGH and CIO-DAS08-PGL to OM3 backplanes
C16MB1	40	1 m Cable, connects DAS-16/F, DAS-16F, DAS-16G, UCDA8-16G, DAS-1200/1400/1600/, CIO-DAS16, CIO-DAS16F and CIO-DAS16-JR to OM3 backplanes
C20MB1	40	1 m Cable, connects DAS-20 to OM3 backplanes

Accessories

Model No.	Price	Description
OMX-1342	\$4	100 Ohm current sense resistor (spare), for use with OM3-I, OM3-II
OMX-1343	6	2 kohm current sense resistor (spare), for use with OM3-A-590
OMX-1344	8	10 Jumpers (spare), for use with any OM3 module
OMX-1345	12	Individual mounting kit with CJC sensor, for use with any OM3 module
OMX-1350	60	Blank module (includes PC board, case and connector), custom function with OM3's

Custom Ranging Card (required for Programmable Input Modules)

Model No.	Price	Description
OMX-1310	\$17	Plug-on card requiring user-supplied resistors for use with any OM3 input module

Backplanes

Model No.	Price	No. of Positions
OM3-BP-16	\$435	16
OM3-BP-8	305	8
OM3-BP-4	160	4

Connectors and Universal Adaptor Boards

Model No.	Price	Description
OMX-1312	\$15	26-Pin female mating connector that connects to OM3 backplanes
OMX-1324	55	Universal adaptor, 26-pin connector in, 26 screw terminals out, to interface one OM3 backplane to user's equipment. Requires OMX-1315 cable
OMX-1325	60	Universal adapter, two 26-pin connectors in, patterns of 50 sockets out, to interface two OM3 backplanes to user's equipment

