

ALL STAINLESS STEEL TRANSDUCER MULTIMEDIA COMPATIBILITY HIGH-PERFORMANCE SILICON TECHNOLOGY

PX309 Series

0-1 to 0-10,000 psi
0-0.07 to 0-690 bar
100 mV, 0 to 5 V,
and 4 to 20 mA Outputs



- ✓ 1, 2 & 5 psi Low Pressure Ranges!
- ✓ All Stainless Steel Construction
- ✓ Gage or Absolute Pressure
- ✓ Rugged Solid State Design
- ✓ High Stability, Low Drift
- ✓ 0.25% Static Accuracy
- ✓ IP 65 Protection Class

Starts at
\$175

Metric thread
adaptors available,
see section C.

**LARGE
INVENTORY**
Fast Shipment!



PX319-100GV, \$175.

mini DIN
style.

PX309-100GV, \$175.

Cable style.

PX329-100GV, \$215.

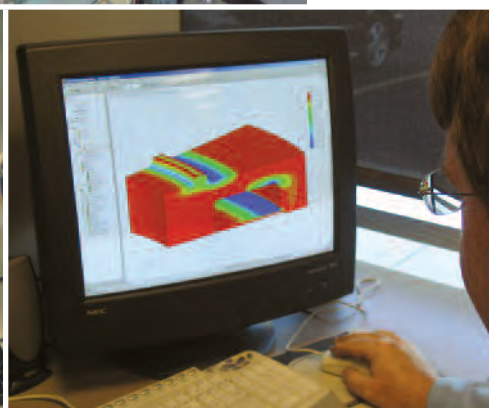
Twist-lock
style.

All models shown actual size.



We provide a complete range of services—from product inception, through design and prototypes, to manufacturing and testing. Our application engineers work closely with our customers to **customize, design** or create entirely **new products**. Call us—whether you're an OEM, manufacturer, or end user.

Engineered from
1 to 10,000 psi.
Low Pressure Ranges:
1, 2 & 5 psi.



RUGGED, GENERAL PURPOSE TRANSDUCER

COMMON SPECIFICATIONS

mV Output Wiring

Wiring	Cable	mini DIN	Twist-Lock
Excitation (+)	Red	Pin 1	Pin A
Output (+)	White	Pin 3	Pin C
Output (-)	Green	Pin 4	Pin D
Excitation (-)	Black	Pin 2	Pin B
Spare			Pin E
Vent			Pin F

5 Vdc Output Wiring

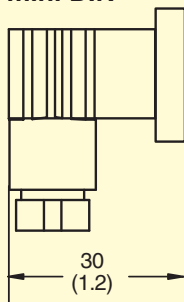
Wiring	Cable	mini DIN	Twist-Lock
Excitation (+)	Red	Pin 1	Pin A
Excitation (-)	Black	Pin 2	Pin B
Output (+)	White	Pin 3	Pin C
N/C†		Pin 4	Pin D
Spare			Pin E
Vent			Pin F

mA Output Wiring

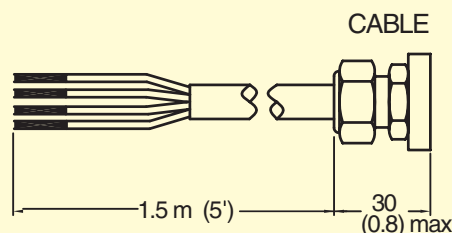
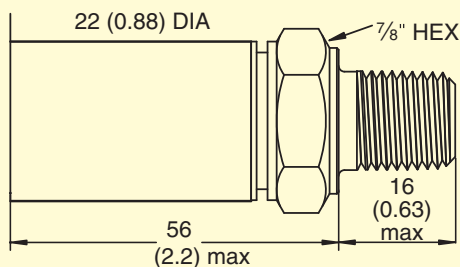
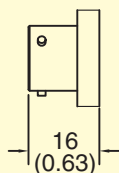
Wiring	Cable	mini DIN	Twist-Lock
Supply (+)	Red	Pin 1	Pin A
Supply (-)	Black	Pin 2	Pin B
N/C†		Pin 3	Pin C
N/C†		Pin 4	Pin D
Spare			Pin E
Vent			Pin F

† N/C: Do not connect any wires to this pin.

mini DIN



Twist-Lock



COMMON SPECIFICATIONS

OMEGA's PX309 Series models below 100 psi use a high-accuracy silicon sensor protected by an oil-filled stainless steel diaphragm. Units 100 psi and above use silicon strain gages molecularly bonded to the stainless steel diaphragm.

Long-Term Stability (1 Year):

±0.25% typical

Typical Life: 10 million cycles typical

Operating Temperature: -40 to 85°C (-40 to 185°F)

Proof Pressure:

All psia and ≤50 psig Ranges:

3x capacity or 20 psi, whichever is greater

100 psig Ranges: 2x capacity

Burst Pressure: 500% of capacity or 25 psi, whichever is greater

Response Time: <1 ms

Shock: 50 g, 11 ms half-sine

Vibration: ±20 g

Protection Class: IP 65

Wetted Parts:

316 SS for all psia and 1 to 50 psig ranges; 17-4 PH stainless steel for ranges 100 to 10,000 psig

Pressure Port: ¼-18 MNPT

Electrical Connections:

PX309: 1.5 m (5') 2-, 3-, or 4-conductor cable (mA, 5V, mV outputs, respectively)

PX319: mini DIN connector with mating connector included

Compatible Meters/Controllers for PX309 Series Pressure Transducers

Starting at \$150, the iSeries is available in ½, ¼, and ⅛ DIN programmable process controllers with serial and embedded Internet/Ethernet communications (Order EI Option CNI16D). The iSeries features programmable color displays, free software and ActiveX Controls, selectable full autotune PID control, and NEMA 4 (IP65) rated front bezel. Ordering Examples: DPiS8, strain/process (monitor only), ½ DIN, \$300; CNI8, strain/process controller with 2 control outputs, \$370. See pages D-7 thru D-21 for the complete selection.



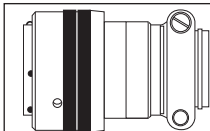
PX329: Twist-lock connector, vented mating connector sold separately (PT06V-10-6S)

Weight:

PX309: 154 g (5.4 oz)

PX319: 100 g (3.5 oz)

PX329: 100 g (3.5 oz)



PX329 Mating Connector
PT06V-10-6S
\$26.50

Order a snubber to protect your pressure transducer!



PS-4G, \$12.75, shown actual size.

Snubbers protect sensors from fluid hammers/spikes.

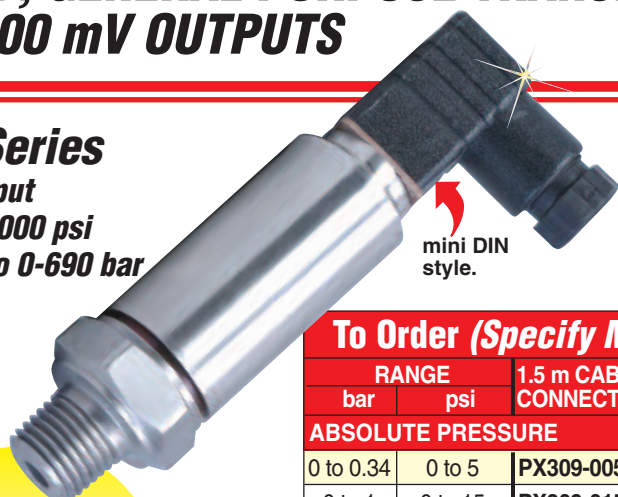
HOW TO ORDER PX309 SERIES

RUGGED, GENERAL PURPOSE TRANSDUCERS

WITH 100 mV OUTPUTS

See Section Y for a Selection of Scientific, Technical, and Reference Books Available from omega.com

PX309 Series
100 mV Output
0-1 to 0-10,000 psig
0-70 mbar to 0-690 bar



mini DIN style.

PX319-050GV, \$175, mini DIN connector included, shown smaller than actual size.

Metric thread adaptors available, see section C.

Starts at
\$175



- ✓ Gage or Absolute Pressure
- ✓ Low Pressure to 1 psig
- ✓ Rugged Solid State Design
- ✓ All Stainless Steel Construction
- ✓ High Stability, Low Drift
- ✓ 0.25% Accuracy

100 mV Output Specifications

Excitation:

0 to 50 psig and All psia Ranges:
 10 Vdc (ratiometric), (5 to 12 Vdc limits)

100 to 10,000 psig Ranges:
 5 Vdc (ratiometric), (3 to 10 Vdc limits)

Output: 0 to 100 mV, except
 2 psi = 40 mV and 1 psi = 20 mV

Accuracy: $\pm 0.25\%$ FS BSL at 25°C;
 includes linearity, hysteresis and repeatability

Zero Offset: $\pm 2\%$ FSO;
 $\pm 4\%$ for 1 and 2 psi ranges

Span Setting: $\pm 2\%$ FSO;
 $\pm 4\%$ for 1 and 2 psi ranges

Compensated Temperature: 0 to 50°C
 (32 to 122°F)

Thermal Zero and Span Effects

(Over Compensated Range):

15 to 10,000 psi Ranges: $\pm 2\%$ FSO

5 psi Range: $\pm 3\%$ FSO

2 psi Range: $\pm 4\%$ FSO

1 psi Range: $\pm 5\%$ FSO

LOW-PRESSURE RANGES HIGHLIGHTED

To Order (Specify Model Number)

RANGE		1.5 m CABLE CONNECTION		MINI DIN CONNECTION		TWIST-LOCK CONNECTION	
bar	psi		PRICE		PRICE		PRICE
ABSOLUTE PRESSURE							
0 to 0.34	0 to 5	PX309-005AV	\$300	PX319-005AV	\$300	PX329-005AV	\$300
0 to 1	0 to 15	PX309-015AV	195	PX319-015AV	215	PX329-015AV	235
0 to 2.1	0 to 30	PX309-030AV	195	PX319-030AV	215	PX329-030AV	235
0 to 3.4	0 to 50	PX309-050AV	195	PX319-050AV	215	PX329-050AV	235
0 to 6.9	0 to 100	PX309-100AV	195	PX319-100AV	215	PX329-100AV	235
0 to 14	0 to 200	PX309-200AV	195	PX319-200AV	215	PX329-200AV	235
0 to 21	0 to 300	PX309-300AV	195	PX319-300AV	215	PX329-300AV	235
GAGE PRESSURE							
0 to 0.07	0 to 1	PX309-001GV	\$300	PX319-001GV	\$300	PX329-001GV	\$300
0 to 0.14	0 to 2	PX309-002GV	300	PX319-002GV	300	PX329-002GV	300
0 to 0.34	0 to 5	PX309-005GV	300	PX319-005GV	300	PX329-005GV	300
0 to 1	0 to 15	PX309-015GV	175	PX319-015GV	175	PX329-015GV	215
0 to 2.1	0 to 30	PX309-030GV	175	PX319-030GV	175	PX329-030GV	215
0 to 3.4	0 to 50	PX309-050GV	175	PX319-050GV	175	PX329-050GV	215
0 to 6.9	0 to 100	PX309-100GV	175	PX319-100GV	175	PX329-100GV	215
0 to 10	0 to 150	PX309-150GV	175	PX319-150GV	175	PX329-150GV	215
0 to 14	0 to 200	PX309-200GV	175	PX319-200GV	175	PX329-200GV	215
0 to 21	0 to 300	PX309-300GV	175	PX319-300GV	175	PX329-300GV	215
0 to 34	0 to 500	PX309-500GV	175	PX319-500GV	175	PX329-500GV	215
0 to 69	0 to 1000	PX309-1KGV	175	PX319-1KGV	175	PX329-1KGV	215
0 to 138	0 to 2000	PX309-2KGV	175	PX319-2KGV	175	PX329-2KGV	215
0 to 207	0 to 3000	PX309-3KGV	175	PX319-3KGV	175	PX329-3KGV	215
0 to 345	0 to 5000	PX309-5KGV	175	PX319-5KGV	175	PX329-5KGV	215
0 to 517	0 to 7500	PX309-7.5KGV	175	PX319-7.5KGV	175	PX329-7.5KGV	215
0 to 690	0 to 10,000	PX309-10KGV	175	PX319-10KGV	175	PX329-10KGV	215

Comes complete with 5-point NIST-traceable calibration.

Notes: 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage. 2. For alternative performance specifications to suit your application, contact Engineering.

Ordering Examples: PX309-100GV, 100 psi gage pressure transducer with 100 mV output at 5 Vdc excitation and 1.5 m cable termination, \$175. PX319-015AV, 15 psi absolute pressure transducer with 100 mV output @ 10 Vdc excitation and mini DIN termination, \$215.

PX329-3KGV, 3000 psi gage pressure transducer with 100 mV output @ 5 Vdc excitation and twist-lock termination, \$215. Mating connector sold separately, order PT06V-10-6S, \$26.50. Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
CAL-3	\$150.00	Recalibration: 5-point NIST traceable
PT06V-10-6S	26.50	Mating connector for PX329
CA-39-4PC22-5	90.00	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	15.00	Extra mini DIN connector for PX319



MILLIVOLT OUTPUT
 PRESSURE TRANSDUCERS

B

HOW TO ORDER PX309 SERIES

RUGGED, GENERAL PURPOSE TRANSDUCERS

WITH 0 TO 5 Vdc OUTPUT

See Section Y for a
Selection of Scientific,
Technical, and Reference
Books Available from
omega.com

PX309 Series
0 to 5 Vdc Output
0-1 to 0-10,000 psi
0-70 mbar to 0-690 bar



Twist-lock style.

PX329-015G5V, \$275, shown
larger than actual size.

Metric thread
adaptors available,
see section C.

Starts at
\$225



- ✓ Gage or Absolute Pressure
- ✓ Low Pressure to 1 psig
- ✓ Rugged Solid State Design
- ✓ All Stainless Steel Construction
- ✓ High Stability, Low Drift
- ✓ 0.25% Static Accuracy

5 V Output Specifications

Excitation: 9 to 30 Vdc
(reverse polarity and overvoltage protected)

Output: 0 to 5 Vdc

Static Accuracy 5 to 10,000 psi:
±0.25% FS BSL at 25°C; includes
linearity, hysteresis and repeatability

Zero Offset: ±2% FSO;
±4% for 1 and 2 psi ranges

Span Setting: ±2% FSO; ±4% for 1
and 2 psi ranges

Compensated Temperature:

>5 psi Range: -20 to 85°C (-4 to 185°F)

≤5 psi Range: 0 to 50°C (32 to 122°F)

Total Error Band: ±2% FSO; includes
linearity, hysteresis, repeatability,
thermal hysteresis and thermal errors
(except 2 psi = ±3% and 1 psi = ±4.5%)

LOW-PRESSURE RANGES HIGHLIGHTED

To Order (Specify Model Number)

RANGE		1.5 m CABLE CONNECTION		MINI DIN CONNECTION		TWIST-LOCK CONNECTION	
bar	psi		PRICE		PRICE		PRICE
ABSOLUTE PRESSURE							
0 to 0.34	0 to 5	PX309-005A5V	\$325	PX319-005A5V	\$325	PX329-005A5V	\$350
0 to 1	0 to 15	PX309-015A5V	245	PX319-015A5V	245	PX329-015A5V	295
0 to 2.1	0 to 30	PX309-030A5V	245	PX319-030A5V	245	PX329-030A5V	295
0 to 3.4	0 to 50	PX309-050A5V	245	PX319-050A5V	245	PX329-050A5V	295
0 to 6.9	0 to 100	PX309-100A5V	245	PX319-100A5V	245	PX329-100A5V	295
0 to 14	0 to 200	PX309-200A5V	245	PX319-200A5V	245	PX329-200A5V	295
0 to 21	0 to 300	PX309-300A5V	245	PX319-300A5V	245	PX329-300A5V	295
GAGE PRESSURE							
0 to 0.07	0 to 1	PX309-001G5V	\$345	PX319-001G5V	\$345	PX329-001G5V	\$370
0 to 0.14	0 to 2	PX309-002G5V	325	PX319-002G5V	325	PX329-002G5V	350
0 to 0.34	0 to 5	PX309-005G5V	300	PX319-005G5V	300	PX329-005G5V	325
0 to 1	0 to 15	PX309-015G5V	225	PX319-015G5V	225	PX329-015G5V	275
0 to 2.1	0 to 30	PX309-030G5V	225	PX319-030G5V	225	PX329-030G5V	275
0 to 3.4	0 to 50	PX309-050G5V	225	PX319-050G5V	225	PX329-050G5V	275
0 to 6.9	0 to 100	PX309-100G5V	225	PX319-100G5V	225	PX329-100G5V	275
0 to 10	0 to 150	PX309-150G5V	225	PX319-150G5V	225	PX329-150G5V	275
0 to 14	0 to 200	PX309-200G5V	225	PX319-200G5V	225	PX329-200G5V	275
0 to 21	0 to 300	PX309-300G5V	225	PX319-300G5V	225	PX329-300G5V	275
0 to 34	0 to 500	PX309-500G5V	225	PX319-500G5V	225	PX329-500G5V	275
0 to 69	0 to 1000	PX309-1KG5V	225	PX319-1KG5V	225	PX329-1KG5V	275
0 to 138	0 to 2000	PX309-2KG5V	225	PX319-2KG5V	225	PX329-2KG5V	275
0 to 207	0 to 3000	PX309-3KG5V	225	PX319-3KG5V	225	PX329-3KG5V	275
0 to 345	0 to 5000	PX309-5KG5V	225	PX319-5KG5V	225	PX329-5KG5V	275
0 to 517	0 to 7500	PX309-7.5KG5V	225	PX319-7.5KG5V	225	PX329-7.5KG5V	275
0 to 690	0 to 10,000	PX309-10KG5V	225	PX319-10KG5V	225	PX329-10KG5V	275

Comes complete with 5-point NIST-traceable calibration.

Notes: 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage.
2. For alternative performance specifications to suit your application, contact Engineering.

Ordering Examples: PX309-100G5V, 100 psi gage pressure transducer with 0 to 5 Vdc output and 1.5 m cable termination, \$225.

PX319-015A5V, 15 psi absolute pressure transducer with 0 to 5 Vdc output and mini DIN termination, \$245.

PX329-3KG5V, 3000 psi gage pressure transducer with 0 to 5 Vdc output and twist-lock termination, \$275.
Mating connector sold separately; order PT06V-10-6S, \$26.50. Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
CAL-3	\$150.00	Recalibration: 5-point NIST traceable
PT06V-10-6S	26.50	Mating connector for PX329
CA-39-4PC22-5	90.00	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	15.00	Extra mini DIN connector for PX319

HOW TO ORDER PX309 SERIES

RUGGED GENERAL PURPOSE TRANSDUCERS

WITH 4 TO 20 mA OUTPUT

See Section Y for a Selection of Scientific, Technical, and Reference Books Available from omega.com

PX309 Series
4 to 20 mA Output
0-1 to 0-10,000 psi
0-70 mbar to 0-690 bar



Cable style.

PX309-030GI,
 \$225, shown larger
 than actual size.

Metric thread
 adaptors available,
 see section C.

LOW-PRESSURE RANGES HIGHLIGHTED

To Order (Specify Model Number)

RANGE		1.5 m CABLE CONNECTION PRICE		MINI DIN CONNECTION PRICE		TWIST-LOCK CONNECTION PRICE	
bar	psi						
ABSOLUTE PRESSURE							
0 to 0.34	0 to 5	PX309-005AI	\$325	PX319-005AI	\$325	PX329-005AI	\$350
0 to 1	0 to 15	PX309-015AI	245	PX319-015AI	245	PX329-015AI	295
0 to 2.1	0 to 30	PX309-030AI	245	PX319-030AI	245	PX329-030AI	295
0 to 3.4	0 to 50	PX309-050AI	245	PX319-050AI	245	PX329-050AI	295
0 to 6.9	0 to 100	PX309-100AI	245	PX319-100AI	245	PX329-100AI	295
0 to 14	0 to 200	PX309-200AI	245	PX319-200AI	245	PX329-200AI	295
0 to 21	0 to 300	PX309-300AI	245	PX319-300AI	245	PX329-300AI	295
GAGE PRESSURE							
0 to 0.07	0 to 1	PX309-001GI	\$345	PX319-001GI	\$345	PX329-001GI	\$370
0 to 0.14	0 to 2	PX309-002GI	325	PX319-002GI	325	PX329-002GI	350
0 to 0.34	0 to 5	PX309-005GI	300	PX319-005GI	300	PX329-005GI	300
0 to 1	0 to 15	PX309-015GI	225	PX319-015GI	225	PX329-015GI	275
0 to 2.1	0 to 30	PX309-030GI	225	PX319-030GI	225	PX329-030GI	275
0 to 3.4	0 to 50	PX309-050GI	225	PX319-050GI	225	PX329-050GI	275
0 to 6.9	0 to 100	PX309-100GI	225	PX319-100GI	225	PX329-100GI	275
0 to 10	0 to 150	PX309-150GI	225	PX319-150GI	225	PX329-150GI	275
0 to 14	0 to 200	PX309-200GI	225	PX319-200GI	225	PX329-200GI	275
0 to 21	0 to 300	PX309-300GI	225	PX319-300GI	225	PX329-300GI	275
0 to 34	0 to 500	PX309-500GI	225	PX319-500GI	225	PX329-500GI	275
0 to 69	0 to 1000	PX309-1KGI	225	PX319-1KGI	225	PX329-1KGI	275
0 to 138	0 to 2000	PX309-2KGI	225	PX319-2KGI	225	PX329-2KGI	275
0 to 207	0 to 3000	PX309-3KGI	225	PX319-3KGI	225	PX329-3KGI	275
0 to 345	0 to 5000	PX309-5KGI	225	PX319-5KGI	225	PX329-5KGI	275
0 to 517	0 to 7500	PX309-7.5KGI	225	PX319-7.5KGI	225	PX329-7.5KGI	275
0 to 690	0 to 10,000	PX309-10KGI	225	PX319-10KGI	225	PX329-10KGI	275

Starts at
\$225



- ✓ Gage or Absolute Pressure
- ✓ Low Pressure to 1 psig
- ✓ Rugged Solid State Design
- ✓ All Stainless Steel Construction
- ✓ High Stability, Low Drift
- ✓ 0.25% Static Accuracy

4 to 20 mA Output Specifications

Excitation: 9 to 30 Vdc
 (reverse polarity and overvoltage protected)

Output: 4 to 20 mA

Static Accuracy 5 to 10,000 psi:
 ±0.25% FS BSL at 25°C; includes linearity, hysteresis and repeatability

Zero Offset: ±2% FSO;
 ±4% for 1 and 2 psi ranges

Span Setting: ±2% FSO;
 ±4% for 1 and 2 psi ranges

Compensated Temperature:

>5 psi Range: -20 to 85°C
 (-4 to 185°F)

≤5 psi Range: 0 to 50°C
 (32 to 122°F)

Total Error Band: ±2% FSO; includes linearity, hysteresis, repeatability, thermal hysteresis and thermal errors (except 2 psi = ±3% and 1 psi = ±4.5%)

Comes complete with 5-point NIST-traceable calibration.

Notes: 1. Units 100 psig and above may be subjected to vacuum on the pressure port without damage. 2. For alternative performance specifications to suit your application, contact Engineering.

Ordering Examples: PX309-100GI, 100 psi gage pressure transducer with 4 to 20 mA output and 1.5 m cable termination, \$225. PX319-015AI, 15 psi absolute pressure transducer with 4 to 20 mA output and mini DIN termination, \$300. PX329-3KGI, 3000 psi gage pressure transducer with 4 to 20 mA output and twist-lock termination, \$275. Mating connector sold separately; order PT06V-10-6S, \$26.50. Consult Sales for OEM pricing.

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
CAL-3	\$150.00	Recalibration: 5-point NIST traceable
PT06V-10-6S	26.50	Mating connector for PX329
CA-39-4PC22-5	90.00	4-conductor mating twist-lock connector with 1.5 m (5') cable for PX329
CX5302	15.00	Extra mini DIN connector for PX319



MILLIVOLT OUTPUT
 PRESSURE TRANSDUCERS

B



UNITED STATES

www.omega.com
1-800-TC-OMEGA
Stamford, CT.

CANADA

www.omega.ca
Laval(Quebec)
1-800-TC-OMEGA

GERMANY

www.omega.de
Deckenpfronn, Germany
0800-8266342

UNITED KINGDOM

www.omega.co.uk
Manchester, England
0800-488-488

FRANCE

www.omega.fr
Guyancourt, France
088-466-342

CZECH REPUBLIC

www.omegaeng.cz
Karviná, Czech Republic
596-311-899

BENELUX

www.omega.nl
Amstelveen, NL
0800-099-33-44



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• pH and Conductivity

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

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 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, Strain Gages, 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