

HIGH-ACCURACY MELT PRESSURE TRANSDUCERS



PX330-500GV

PX340-1000GV

PX360-3KGV

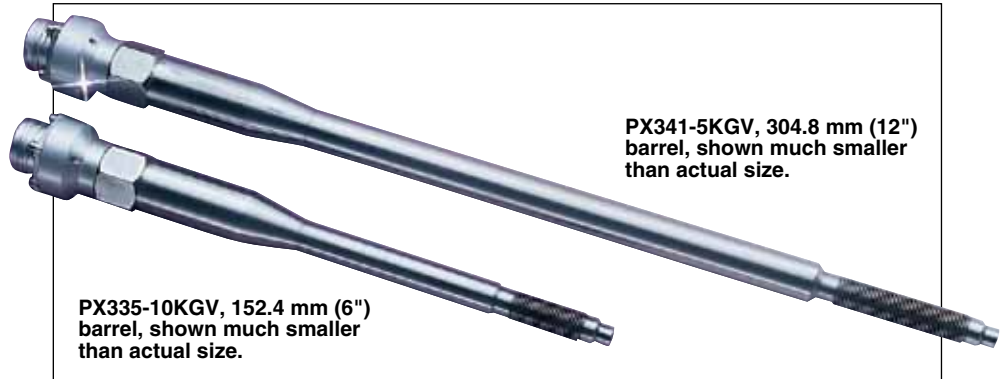
PX351-3KGV

All models shown smaller than actual size.

PX330 Series



Optional



PX341-5KGV, 304.8 mm (12") barrel, shown much smaller than actual size.

PX335-10KGV, 152.4 mm (6") barrel, shown much smaller than actual size.

- ✓ 88.9, 152.4, and 304.8 mm (3½, 6, and 12") Barrels; Heavy-Duty Stainless Steel Construction, Adaptable to a Wide Range of Space Requirements
- ✓ 0.5% Full Scale and 1% Full Scale Accuracy Models
- ✓ Force Rod Construction, No Fill Fluid to Contaminate System
- ✓ High-Temperature Design—399°C (750°F) at the Diaphragm to Work with Today's Higher Extrusion Temperatures

- ✓ Fits Standard Sensor Wells
- ✓ Calibration Sheet Supplied with Each Transducer
- ✓ Rupture-Resistant Diaphragms in 17-4 PH Stainless Steel, Hastelloy C-276, and Hard Chrome Plate



WK6-21C-1/4 mating connector, sold separately.

PX350-1500GV, 88.9 mm (3½") barrel for limited space areas, shown smaller than actual size.

MELT TRANSDUCERS FOR ABRASIVE, NON-ABRASIVE, CORROSIVE, AND NON-CORROSIVE MATERIALS

OMEGA is proud to feature state-of-the-art melt pressure transducers for general purpose and precision requirements. We also offer digital indicator/controllers, thermocouples, accessory cables, and connectors for plastic extrusion.

Our transducers have been selected for applications with abrasive, non-abrasive, corrosive, or non-corrosive material. They offer a choice of 1% or 0.5% accuracy, and they feature stainless steel barrels in 3 lengths to meet the space requirements imposed by complex machinery, piping, and insulation.

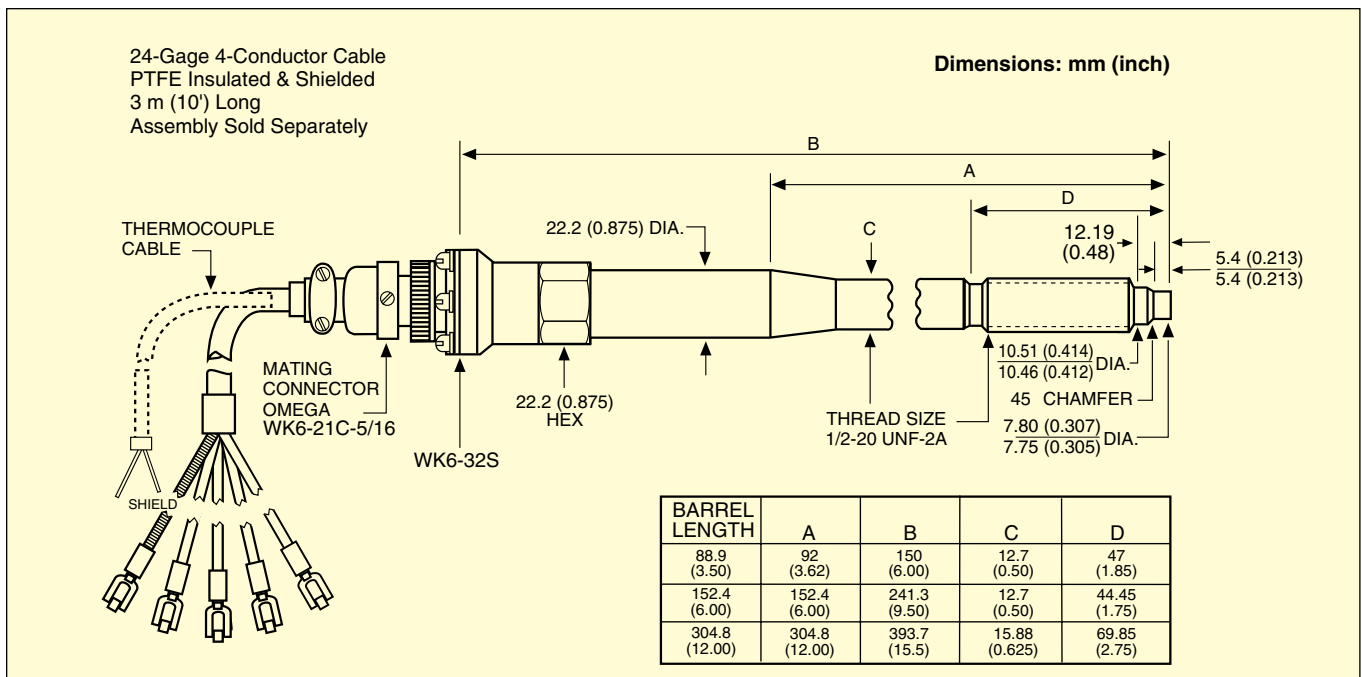
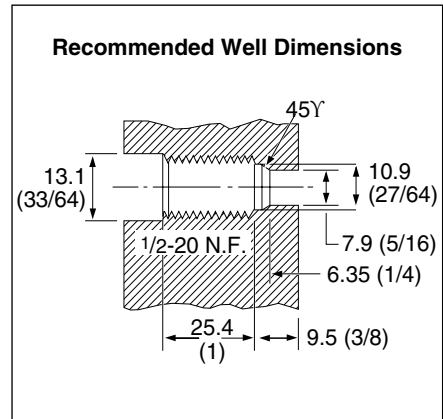
Models 330, 335, 340, 341, 370, 371. Offered in 88.9, 152.4, and 304.8 mm (3½, 6, and 12") barrel lengths, these transducers feature a 17-4 PH stainless steel diaphragm for melt pressure usage with non-corrosive and non-abrasive materials; ±1% FS non-linearity (models 330, 340, 341) for general purpose applications; ±0.5% full scale non-linearity (models 335, 370, 371) for high accuracy; and a -17.7 to 399°C (0 to 750°F) operating range.

Models 350, 351, 380, 381 are offered in 6" and 12" units with Hastelloy C-276 diaphragm for melt pressure usage with corrosive

materials such as PTFE, PVDF, and fluorocarbon polymers. These transducers also feature ±1% full scale non-linearity (models 350, 351) for general purpose applications; ±0.5% full scale non-linearity (models 380, 381) for high accuracy; and a -17.7 to 399°C (0 to 750°F) operating range.

Models 360, 361, 390, 391 are offered in 152.4 and 304.8 mm (6 and 12") units with hard chrome plate diaphragm for melt pressure usage with abrasive materials such as fiberglass, aluminum, and cereal. These transducers also feature ±1% full scale non-linearity (models 360, 361) for general purpose applications; ±0.5% full scale non-linearity (models 390, 391) for high accuracy; and a -17.7 to 399°C (0 to 750°F) operating range.

Built-In Thermocouples. Models with OMEGA's Type J (Iron-Constantan) or K (CHROMEGA®-ALOMEGA®) high-accuracy thermocouples enable simultaneous temperature/pressure measurements up to 399°C (750°F). These transducers are designed for applications in which precision control is critical and where space for only one sensor is available.



PLASTIC MELT PRESSURE MEASUREMENT

SPECIFICATIONS

PERFORMANCE CHARACTERISTICS

Accuracy: $\pm 0.5\%$ or $\pm 1.0\%$ full scale

Repeatability: Within $\pm 0.1\%$ full scale maximum

Resolution: Infinite

Overload Pressure: 150% of rated range, no damage

ELECTRICAL CHARACTERISTICS

Sensor Type: Bonded strain gage, 4-leg Wheatstone bridge

Bridge Resistance: $350 \Omega \pm 5.0\%$

Sensitivity: 3.0 mV/V nominal

Zero Balance: $\pm 10.0\%$

Excitation: 5 to 12 Vdc or Vac (rms), maximum 15 V

External Shunt Calibration Resistor: Standard feature (also available to be Dynisco compatible)

Insulation Resistance:

100 M Ω @ 50 Vdc

Thermocouple: Types J and K available as indicated

TEMPERATURE CHARACTERISTICS

Diaphragm: -18 to 400°C (0 to 750°F)

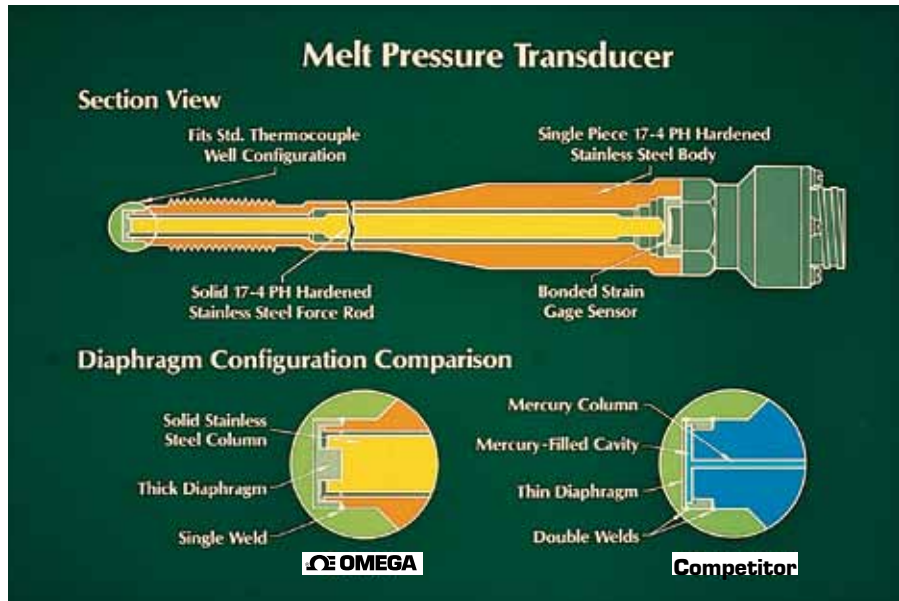
Electrical Connector: -18 to 121°C (0 to 250°F)

Zero Drift: $\pm 0.01\%$ full scale/°F
 $\pm 0.02\%$ full scale/°C

Sensitivity-Drift: $\pm 0.01\%$ full scale/°F
 $\pm 0.02\%$ full scale/°C

MECHANICAL CHARACTERISTICS

Diaphragm Material: Standard 17-4 PH stainless steel. Other choices include hard chrome plate, Hastelloy C-276.



Pressure Fitting:

$\frac{1}{2}$ -20 UNF-2A

Mounting Torque:

10 foot-pounds minimum
20 foot-pounds maximum

Electrical Connector:

WK6-325

Mating Connector:

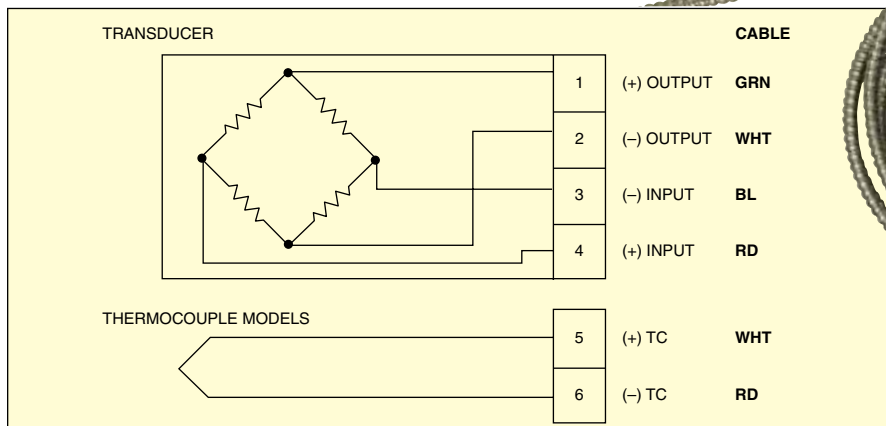
WK6-21C-1/4 (sold separately)

Weight:

$3\frac{1}{2}$ " = 145 g (0.32 lb)

6" = 309 g (0.68 lb)

12" = 560 g (1.23 lb)



Accessory Cables and Connectors Available, See Next Page

Complete your transducer installation with OMEGA® accessory hookup cables, PTFE insulated for good abrasion and water resistance. Or choose armored 0.275" diameter BX cable for extra heavy duty. OMEGA also offers standard cable connector in order to make our transducers compatible with your existing wiring. See order chart.

MELT PRESSURE TRANSDUCERS, CABLES, AND CONNECTORS

1. Select the barrel length:

88.9, 152.4, or 304.8 mm (3½", 6", or 12"), diaphragm material (stainless steel, Hastelloy, hard chrome), and accuracy (1%, 0.5%) as shown below.

2. Thermocouple option:

Add "J" (iron-constantan) or "K" (CHROMEGA®-ALOMEGA®) to the transducer model number. For additional cost (see Ordering Examples below).

3. Add range suffix to transducer model number as follows:

RANGE	ORDERING SUFFIX
0 to 500 psi	-500GV*
0 to 1000 psi	-1000GV*
0 to 1500 psi	-1500GV
0 to 3000 psi	-3KGV
0 to 5000 psi	-5KGV
0 to 10,000 psi	-10KGV
0 to 15,000 psi	-15KGV

* Add additional cost for these ranges.

4. Ordering Examples:

PX351-10KGV, Hastelloy diaphragm, 12" barrel and 1% accuracy with a range of 0 to 10,000 psi.

PX351J-10KGV, same as above with optional J thermocouple.

To Order

BARREL LENGTH	DIAPHRAGM MATERIAL	ACCURACY FS (NON-LINEARITY BFSL)	MODEL NO.
88.9 mm (3½")	Stainless Steel	1%	PX330-(*)
88.9 mm (3½")	Stainless Steel	0.5%	PX335-(*)
152.4 mm (6")	Stainless Steel	1%	PX340-(*)
304.8 mm (12")	Stainless Steel	1%	PX341-(*)
152.4 mm (6")	Hastelloy	1%	PX350-(*)
304.8 mm (12")	Hastelloy	1%	PX351-(*)
152.4 mm (6")	Hard Chrome	1%	PX360-(*)
304.8 mm (12")	Hard Chrome	1%	PX361-(*)
152.4 mm (6")	Stainless Steel	0.5%	PX370-(*)
304.8 mm (12")	Stainless Steel	0.5%	PX371-(*)
152.4 mm (6")	Hard Chrome	0.5%	PX390-(*)
304.8 mm (12")	Hard Chrome	0.5%	PX391-(*)

* Specify range; see range table above.

† For 5-point NIST calibration, add suffix "-CAL3" to model number for additional cost.

Series CX340 Extension Cables

SPECIFICATIONS

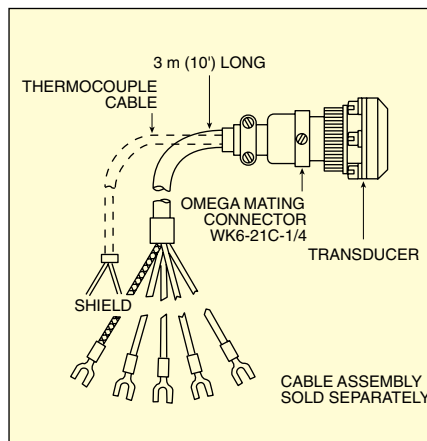
Wire: 24-gage shielded

Number of Conductors: 4 plus shield

Insulation: PTFE

Thermocouple: 24-gage with fiberglass insulation (standard limits of error)

Armored: 6.96 mm (0.275") Dia. BX covering



WK6-21C-1/4 mating connector, sold separately.

To Order

MODEL NO.	LENGTH	THERMOCOUPLE
PTFE CABLE-MATING CONNECTOR/SPADE LUGS		
CX340-10	3.05 m (10')	NONE
CX340-10J	3.05 m (10')	TYPE J
CX340-10K	3.05 m (10')	TYPE K
ARMORED CABLE-MATING CONNECTOR/SPADE LUGS		
CX340A-10	3.05 m (10')	NONE
CX340A-10J	3.05 m (10')	TYPE J
CX340A-10K	3.05 m (10')	TYPE K
WK6-21C-1/4	Mating Connector	