

PA/PG3000 Series Absolute and Gage Pressure Transmitter

FOR POWER GENERATION, GAS PIPELINE, COMPRESSOR, CHEMICAL, OIL, AND GAS APPLICATIONS



ABSOLUTE AND GAGE PRESSURE TRANSMITTER

AMETEK's PA/PG3000, an absolute and gage transmitter, offers all 316 SST welded hermetically sealed construction, making it ideal for severe environment or submersible applications (to 1500 meters). The PA/PG3000 offers a Fast Response (7ms) option as well as a wide selection of pressure ranges (0-10 to 0-10,000 psi).

The Fast Response option makes the unit ideal for process surge control and critical media monitoring and control. The High Temperature option allows location closer to the point of measurement, increasing response time and reduction of installation cost.

Offering features such as fast response, high accuracy and reliability, the PA/PG3000 is found on many industrial gas turbines and compressors. The fast response feature provides instantaneous measurements for critical control of fuel and air, as well as compressor balancing.



FEATURES AND BENEFITS

- 4-20 mA output
- $\pm 0.25\%$ accuracy ($\pm 0.1\%$ optional)
- Fast 3ms response time (optional)
- Hermetically sealed submersible 316 SST housing is protective to 1500 meters
- HT (high temperature) option to 220°F
- Explosion-proof and intrinsically safe certifications FMS, CSA, CENELEC ATEX
- Non-interacting zero and span
- Five year warranty

SPECIFICATIONS

FUNCTIONAL DATA

Service

- Gas, liquid or vapor

Power Required

- 12-55 VDC (30 VDC maximum hazardous locations)
reverse polarity protected

Output

- 4-20 mA, (27 mA maximum)

Overpressure Rating

- 2 X URL 20 psi through 5,000 psi
- 1.5 X URL 10,000 psi

Temperature Limits

- Operating: -20 to +180°F (-29 to 82°C)
- Maximum process: -65 to 250°F (-54 to 121°C)
- Storage: -65 to 200°F (-54 to 93°C)

HT Option

- Operating: -40 to 220°F (-40 to 104°C)
- Maximum Process: -40 to 300°F (-40 to 149°C)
- Storage: -65 to 220°F (-54 to 104°C)

Humidity

- 100% RH

AMETEK[®]

**POWER
INSTRUMENTS**

Experience the Power™

SPECIFICATIONS

PERFORMANCE DATA

Accuracy

- $\pm 0.25\%$ or $\pm 0.1\%$ (optional) factory calibrated span, including nonlinearity, hysteresis and repeatability

Stability

- $< \pm 0.25\%$ of URL for 6 months

Repeatability

- $< \pm 0.1\%$ at maximum span

Response Time

- 300 msec. for a 63% step optional ≤ 3 msec

Ambient Temperature Effect

- $< \pm 1.5\%$ URL from -20 to 180°F (-29 to 82°C) reference at 80°F (27°C)

HT Option

- The output error at any point from -40 to +220°F (-40 to +104°C) with reference to the output at +75°F (24°C) shall be $< \pm 1.5\%$

RFI / EMI Effect

- Negligible to 500 MHz at 5W direct contact

Mounting Position Effect

- None

Zero/Span Adjustability

- 5:1 turndown (0-20 and 0-50 psi Ranges have 2:1 turndown)

Zero Elevation

- Full vacuum

Zero Suppression

- +80% of URL (except for 20 psi and 50 psi ranges)

PHYSICAL MATERIALS

Pressure Retaining

- CRES 316

Mounting Bracket

- Aluminum (standard)
- CRES 316 (optional)

Electrical Connection

- 3/4" NPTM

Process Connection

- 1/2" - 14 NPTF

Weight

- Transmitter: 4.0 lbs. (1.8 kg)
- Junction Box: 2.3 lbs. (1.1 kg)
- Meter: 4.0 lbs. (1.8 kg)
- Brackets: 2.0 lbs. (0.9 kg)

APPROVALS

Enclosure Rating(s):

- NEMA 3, 4, 6, 7 & 9

CE Mark

NACE

- Certain configurations comply with NACE MR-01-75 (96)

ELECTRICAL TERMINATIONS

Leads

- White: Negative, Black: Positive, Green: Ground

PA/PG3000/HT Ordering Information

TYPICAL MODEL NUMBER (coded by color)

PA3000	-100	-4	8	-13	-21	-1	3	-62
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Code Description

PA/PG3000 Sealed Adjustable Pressure Transmitter (Absolute or Gage)
PA/PG3000HT Sealed Adjustable Pressure Transmitter (Absolute or Gage and High Temperature)

Pressure Range

020	0-10 to 0-20 psi	01M	0-200 to 0-1000 psi
050	0-20 to 0-50 psi	02M	0-400 to 0-2000 psi
100	0-20 to 0-100 psi	05M	0-1000 to 0-5000 psi
200	0-40 to 0-200 psi	10M	0-2000 to 0-10,000 psi
500	0-100 to 0-500 psi		

Pressure Cap Configuration

4	1/2" - 14 NPTF
8	Flange fitting for 3-valve manifold
9	.250 Autoclave Port

Electrical Terminations

0	3 conductor cable, 18 AWG, TEFLON ¹ insulation, 5' length standard
2	3 leads, 3' length standard, PVC insulation, 3rd wire is ground
6	Factory molded submersible neoprene cable, 10' length standard (specify length to 500)
8	Factory mounting of electrical accessory (e.g. MA136 Junction Box)

Process Wetted Parts (Consult factory for special options)

	END CAPS	DIAPHRAGM	FILL FLUID
12	316 SST	316 SST	Silicone Oil DC-200 ¹
13	316 SST	HASTELLOY C-276 [†]	Silicone Oil DC-200

Electrical Accessories (Mounted)

XX	None
02	TP114 - Transient Protector, 55v Max.
07	C100 - Electrical Connector (Receptacle)
08	C100 and C101 Electrical Connectors (Receptacle/Plug)
19	MA134 - Linear Meter (0-100%)
20	MA135 - Square Root Meter (0-100%)
21	MA136 - Junction Box, short
25	MA134 with TP131 - Transient Protector
27	MA135 with TP131 - Transient Protector
29	MA136 with TP131 - Transient Protector

Mechanical Accessories

0	None
1	Standard Mounting Bracket EW3 (Alum)
2	Optional Mounting Bracket EW7 (CRES)

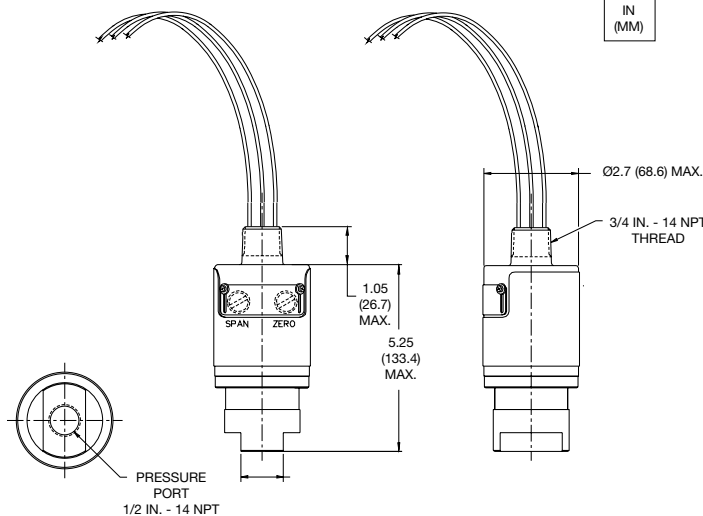
Accuracy and Response Selection

	ACCURACY	RESPONSE
0	Standard accuracy = $\pm 0.25\%$	Standard response - 300mS
1	Standard accuracy = $\pm 0.25\%$	Fast response - 3mS
2	High accuracy = $\pm 0.1\%$	Standard response - 300mS
3	High accuracy = $\pm 0.1\%$	Fast response - 3mS

Certification Agency

00	None		
51	CENELEC ATEX FMS & CSA	I.S. I.S.	EEx ia IIC T5 (Std) T4 (HT) CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G
52	CENELEC ATEX FMS & CSA	Exp Exp	EEx d IIC T5 (Std) T4 (HT) CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G
61	CENELEC ATEX	I.S.	EEx ia IIC T5 (Std) T4 (HT)
62	CENELEC ATEX	Exp	EEx d IIC T5 (Std) T4 (HT)
91	FMS & CSA	I.S.	CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G
92	FMS & CSA	Exp	CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G
93	FMS & CSA	I.S. & Exp	CL I, Div I, GRP A, B, C, D CL II, Div I, GRP E, F, G

NOTE: I.S. approvals with barriers (consult factory for details)
NOTE: J Box option may carry different certification numbers
[†] All other company, product, and service names and logos are registered trademarks of their respective owners.



Option availability is subject to change without notice.

AMETEK



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ISO 9001 Certified