

## DESCRIPTION

The Model ACT is an extremely accurate, Analog Compensated Transducer ideal for OEM customers that desire high-speed (< 1 ms), ratiometric, differential outputs into their control systems. It is available in brass and stainless steel wetted parts, with a 0 to 100mV output.

Multiple NPT mounting options are available, with both stainless steel or brass construction, and numerous pressure ranges. The ACT is fully compensated for the effect of pressure and temperature change, and calibrated to produce industry standard electrical outputs. It accepts both regulated and pulsed excitation voltages. The universal design incorporates a stainless steel isolation diaphragm and construction for use with most media types. An economical, non-isolated brass transducer, used for clean, dry media is also available.

## SUPPLY

Maximum Input Supply Voltage: **10 VDC, output ratiometric with input from 2 to 10 VDC**

## ACCURACY

Null Offset (at 25° C): **± 2% span**

Span (at 25° C): **± 2% span**

Accuracy: **± 0.2% span typical, ± 0.3% span maximum  
(includes repeatability, hysteresis, non-linearity - BFS)**

One Year Stability: **< 0.25% span**

Thermal Effect on Zero (Null): **± 1% span (typical) over compensated temperature range**

Thermal Effect on Span: **± 1% span (typical) over compensated temperature range, 2% max**

## TEMPERATURE RANGE

Operating Temperature Range: **-40 to 80° C**

Compensated Temperature Range: **-5 to 55° C**

Process Temperature: **-40 to 100° C**

## OUTPUT

Range: **0 to 100 mVDC @ 10 VDC**

Resistance: **3.5 KΩ to 6 KΩ**

## FEATURES

- Analog Compensated — High accuracy for interchange ability and high precision measurements
- Multiple Pressure Port Options — Ease of installation and attachment and no adapters required
- 0.2% Typical Accuracy — Offers superior accuracy to competitive models and can be used on critical applications.
- Factory Calibrated for Pressure and Temperature — No need for field calibration. Plug and play reliability
- Rugged, Compact Design — Easy to package or install
- Custom Designs Available — Adaptable to special needs



## STANDARD CONNECTIONS

All Model DCT Pressure Transducers are available with stainless steel or brass construction, with 1/8" or 1/4" NPT style threads.

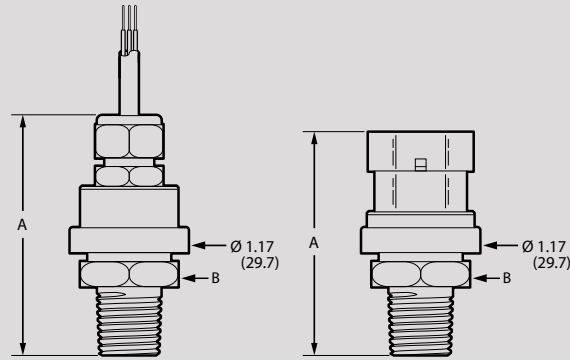


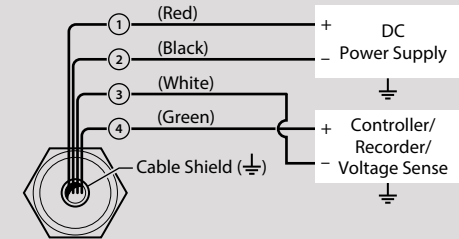
Figure 1

Figure 2

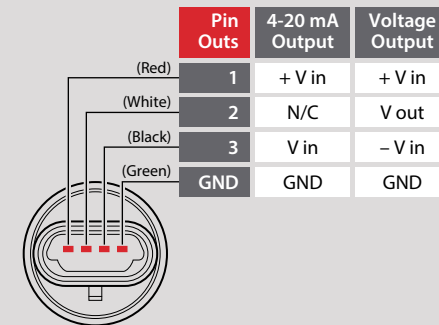
Cable Output (Figure 1)	Brass (Up to 500 psig)	316 / 316 L Stainless Steel	>500 psig and all Absolute Ranges
Dimension A*	2.46 (62.5)	2.61 (66.3)	2.84 (72.1)
Dimension B	7/8 Hex	7/8 Hex	1-1/8 Hex
Packard Output (Figure 2)	Brass (Up to 500 psig)	316 / 316 L Stainless Steel	>500 psig and all Absolute Ranges
Dimension A*	2.30 (58.3)	2.48 (63.0)	2.69 (68.2)
Dimension B	7/8 Hex	7/8 Hex	1-1/8 Hex

\* Dimension A should be used as a general measurement. The exact dimension will be based on final configuration. Consult the factory for proper dimensions. Dimensions are in inches/millimeters.

### ► mV Output Typical Wiring



### ► Pinouts for Packard Connectors



## ENCLOSURE

Shock: **30 g; MIL-STD-202F, Method 213B, Condition A**

Vibration: **10 g, 55 to 2000 Hz; MIL-STD-202F, Method 204D, Part 1 and Part 2**

Weight: **< 140 grams**

Electrical Terminations: **Cable or Packard**

Wetted Parts: (STAINLESS STEEL) **316/316L stainless steel**  
*All welded, with a permanently filled diaphragm seal.*  
(BRASS) **Brass, 316/316L stainless steel, and Viton**  
*Additional materials may be present. Contact factory for details.*

Housing Material: **Aluminum or ULTEM (for Packard connector)**

Process Connection: **1/8 or 1/4 NPT**

## BURST PRESSURE

**3x full scale for all ranges except 200 and 500 psi, which have a burst pressure of 750 psi**

*See the Model Numbering table below for a complete list of available ranges.*

## MODEL NUMBERING

Model	Pressure Type	Pressure Range	Input/Output	Electrical Connection*	Pressure Connection Type*	Pressure Connection Material
ACT						
	Gauge Pressure . . . . . <b>G</b>	to 1 psi full scale . . . . . <b>0001</b>	10 VDC/0-100 mV . . . . . <b>A</b>	18" long, 24 AWG cable . . . . . <b>PT</b>	1/8 NPT . . . . . <b>01</b>	316 Stainless Steel . . . . . <b>1</b>
	Absolute Pressure . . . . . <b>A</b>	to 6 psi full scale . . . . . <b>0006</b>		Packard (4-pin #12162189) . . . . . <b>PK</b>	1/4 NPT . . . . . <b>02</b>	Brass (500 psi or less) . . . . . <b>2</b>
	Compound . . . . . <b>C</b> (-14.7 psi to full scale)	to 15 psi full scale . . . . . <b>0015</b>				
		to 30 psi full scale . . . . . <b>0030</b>				
		to 50 psi full scale . . . . . <b>0050</b>				
		to 100 psi full scale . . . . . <b>0100</b>				
		to 150 psi full scale . . . . . <b>0150</b>				
		to 200 psi full scale . . . . . <b>0200</b>				
		to 500 psi full scale . . . . . <b>0500</b>				
		to 1500 psi full scale . . . . . <b>1500</b>				
		Custom ranges available** . . . . . <b>xxxx</b>				

\* Consult factory for additional options.  
\*\* Higher pressure ranges are available upon request at usg.sales@ametek.com.

### SAMPLE PART NUMBERS

ACTG0100APT012 . . . 100 psi gauge-pressure pressure transducer; input of 10 VDC and output of 0-100 mV; 18", 24 AWG cable; and 1/8 NPT, brass connector.  
ACTA1500APK021 . . . 1500 psi absolute-pressure pressure transducer; input of 10 VDC and output of 0-100 mV; Packard (4-pin #12162189) connection; and 1/4 NPT, 316 stainless steel connector.