

# Model 89D

## Military QPL Differential Pressure Transducer



### Description

The Model 89 Differential Pressure Transducer has been specially designed to meet the needs of military and/or marine applications and conforms to military specification MIL-D-24304B. The Model 89 accurately measures differential pressures and transmits a fully adjustable 4 to 20 mA output signal for remote display, recording, or control.

The Model 89 is available in differential ranges from 300 inch wtr to 400 psi.

### Direct Replaceability:

The Model 89D transducer is directly interchangeable with existing pressure transducers designed to MIL-D-24304B. The mounting is designed to match the footprint of existing transducers for quick and easy installation.

### Minimal Maintenance:

Calibration is quick and easy with the non-interacting zero and span adjustments.

### Features

- QPL approved to MIL-D-24304B
- Non-interacting zero and span adjustments for quick calibration
- Mounting interchangeable with existing instrument mounts
- Pressure connections conform to MS16142

### Specifications

- **Functional Specifications:** in accordance with MIL-D-24304B
- **Applications:** steam, oil, sea water, flue gas, ammonia, oxygen, other gases, fresh water, condensate
- **Output:** 4-20 mADC
- **Power Supply:** 28 VDC with reverse polarity protection
- **Loop Resistance:** 0 to 250 ohms
- **Zero/Span Adjustments:** 8% full scale output
- **Temperature Limits:** Compensated: 0°C to 65°C (32°F to 149°F)
- **Overpressure:** 200% of range or maximum rated line pressure (whichever is greater)
- **Humidity:** 0 to 100% RH
- **Volumetric Displacement:** less than 0.002 cc

### Performance Specifications

- **Accuracy:**  $\pm 1.0\%$  of calibrated span including linearity, hysteresis, and temperature effects
- **Repeatability:** within 0.5% of span
- **Shock Test:** in accordance with Grade-A, Class I, Type C of MIL-S-901
- **EMI:** in accordance with MIL-D-24304B

# QPL Differential Pressure Transducer

## Model Numbering:

**89D QPL differential pressure transducer – AMETEK code is first, Mil spec in parenthesis**

**89D (PDT)** Differential pressure transducer

Application – AMETEK	Mil spec	Diaphragm material
GP	GP	CRES material
SW	SW	NI CU material
FG	FG	CRES material
OX	OX	NI CU material

Pressure ranges – AMETEK	Mil spec	Pressure	Rating
15	15	0-15 PSID	150
20	20	0-20 PSID	150
30	30	0-30 PSID	150
60	60	0-60 PSID	150
100	100	0-100 PSID	150
200	200	0-200 PSID	600
400	400	0-400 PSID	600
300	300	0-300 WCD	150

**Units**  
**PSID** unit for standard or Mil spec  
**WCD** unit for standard or Mil spec

Pressure rating – AMETEK	Mil spec
150	150
600	600

**Power Supply for Mil spec**  
**2** 28 VDC

**CONN** For non-standard connection options, consult AMETEK

89D PDT    GP GP    30 30    PSID PSID    150 150    2 2

## Dimensions

