



ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

Model 742D Military Differential Pressure Transducer

DESCRIPTION

The 742D Differential Pressure Transducer has been specially designed to meet the needs of military and/or marine applications and conforms to military specification MIL-T-24742 (SH). The 742D accurately measures differential pressures and transmits a fully adjustable 4 to 20 mA or 0-5 VDC output signal for remote display, recording, or control.

The 742D is available in differential ranges from 150" WC (5.4 psi) to 600 psi.

Direct Replaceability:

The 742D transducer is directly interchangeable with existing pressure transducers designed to MIL-T-24742. 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

- 742D approved to MIL-T-24742 (SH)
- Non-interacting zero and span adjustments for quick calibration
- Pressure connections conform to MS16142
- Light weight, only 18 oz.

SPECIFICATIONS

Functional Specifications

in accordance with MIL-T-24742 (SH)

Applications: Steam, sea water, flue gas, ammonia, oxygen, other gases, fresh water, condensate, nitrogen, inert gases and liquid hydrocarbons

Output: 4-20 mADC, 0-5 VDC

Power Supply: 28 VDC \pm 4.5 VDC with reverse polarity protection

Loop Resistance: 0 to 250 ohms

Zero/Span Adjustments: \pm 5% 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

Weight: 18 oz. (0.51 kg)

Performance Specifications:

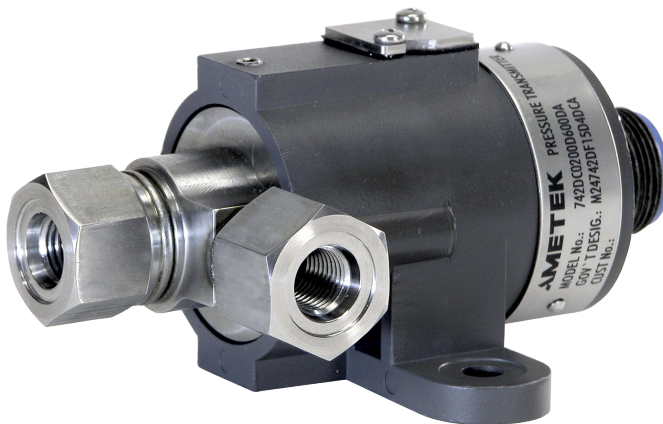
Accuracy: \pm 1.0% of calibrated span including linearity, hysteresis, and temperature effects

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-STD-462 per MIL-T-24742

Vibration: In accordance with MIL-STD-167



Model 742D

military differential
transducer



ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

Model 742D Military Differential Pressure Transducer

Model Numbering:							
● 742D Differential pressure transducer (AMETEK code is first, Mil spec 1.2.1.1 in parenthesis)							
742D (M24742D) Differential pressure transducer							
● Application – AMETEK		Mil spec 1.2.1.2		Sensor material			
	F	F	CRES material				
	M	S	NI CU material				
	O	O	NI CU material				
	C	G	CRES material				
	C	H	CRES material				
● Pressure ranges – AMETEK		Mil spec 1.2.1.2		Pressure			
		015	11	0-15 PSI			
		030	12	0-30 PSI			
		060	13	0-60 PSI			
		100	14	0-100 PSI			
		200	15	0-200 PSI			
		400	16	0-400 PSI			
		600	17	0-600 PSI			
		300" WC	24	Alternate specifications apply			
		NON-STD	NON-STD	* Ranges 10" WC to 150" WC			
		010" WC	21	↓			
		060" WC	22	↓			
		150" WC	23	Refer to Model 870/872 data sheet			
● Designator – AMETEK		Mil spec 1.2.1.2		Units			
		C	C	PSID			
		G	G	WCD			
● Line pressure rating – AMETEK		Mil spec 1.2.1.2		Pressure			
		015	1	15 PSIG			
		150	2	150 PSIG			
		300	3	300 PSIG			
		600	4	600 PSIG			
		NON-STD	NON-STD	*			
● Input power – AMETEK		Mil spec 1.2.1.2					
		D	DC				
● Output – AMETEK		Mil spec 1.2.1.2		Type			
		A	A	4-20mA			
		V	V	0-5 volt (consult factory)			
● Connector							
	Blank	{	MS3452W14S-5P	(STANDARD)			
			MS3456W14S-5S				
	L	{	MS3452L14S-5P	(OPTIONAL ALUMINUM)			
			MS3456L14S-5S				
	LS	{	MS3452LS14S-5P	(OPTIONAL 316L STAINLESS STEEL)			
			MS3456LS14S-5S				
742D	F	015	C	150	D	A	-
M24742D	F	11	C	2	DC	A	-



ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

Model 742D Military Differential Pressure Transducer

