

ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

Model 742 Military Pressure Transducer

DESCRIPTION

The 742 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 742 accurately measures pressures and transmits a fully adjustable 4 to 20 mA or 0-5 VDC output signal for remote display, recording, or control.

The 742 is available in gauge, compound, vacuum and absolute ranges from 30" Hg vacuum to 0-10,000 psi.

Direct Replaceability:

The 742 transducer is directly interchangeable with existing MIL-T-24742 (SH) pressure transducers. The mounting is designed to match the footprint of existing transducers for ease of installation.

Minimal Maintenance:

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

FEATURES

- 742 approved to MIL-T-24742 (SH)
- Non-interacting zero and span adjustments for quick calibration
- Pressure connections conform to MS16142
- Light weight, only 15 oz. (0.43 kg)

SPECIFICATIONS

Functional Specifications: In accordance with MIL-T-24742 (SH)

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

Output: 4-20 mADC, 0-5 VDC

Power Supply: 28 VDC ±4.5 VDC with reverse polarity protection

Loop Resistance: 0 to 250 ohms

Zero/Span Adjustments: ±5% full scale output

Temperature Limits:
Compensated: 0°C to 65°C (32°F to 149°F)

Overpressure: 200% of range up to maximum of 12,000 (whichever is less)

Humidity: 0 to 100% RH

Weight: 15 oz. (0.43 kg)

Performance Specifications

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

Repeatability: Within 0.5% of span

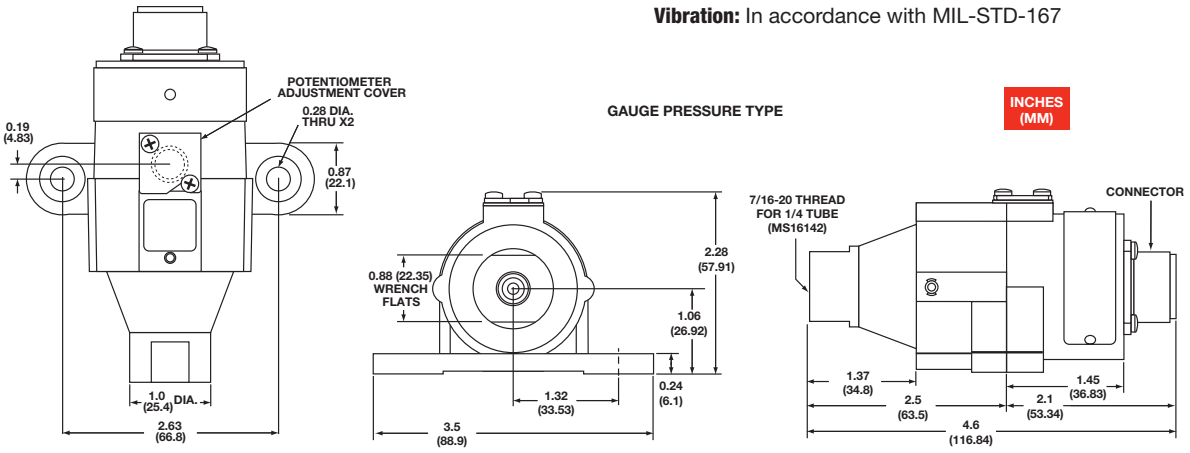
Shock Test: In accordance with Grade-A, Class I, Type C of MIL-S-901

EMI: In accordance with test methods of MIL-STD-462 per MIL-T-24742

Vibration: In accordance with MIL-STD-167

Model 742





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Model 742 Military Pressure Transducer

Model Numbering:

742R Military pressure transducer – AMETEK code is first, Mil spec 1.2.1.1 in parenthesis

742R (M24742R)	Gauge pressure transducer
742V (M24742V)	Vacuum pressure transducer
742C (M24742C)	Compound pressure transducer

Application – AMETEK / Mil spec 1.2.1.2 / Sensor material

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 1.2.1.3 / Pressure

TYPE 742R			TYPE 742C		
0015	31	0-15 PSI	0015	51	30" HG 0-15 PSI
0030	32	0-30 PSI	0030	52	30" HG 0-30 PSI
0060	33	0-60 PSI	0100	53	30" HG 0-100 PSI
0100	34	0-100 PSI	0150	54	30" HG 0-150 PSI
0200	35	0-200 PSI	0300	55	30" HG 0-300 PSI
0300	36	0-300 PSI	0600	56	30" HG 0-600 PSI
0600	37	0-600 PSI	XXXX	*	NON-STD
1000	38	0-1000 PSI			
1500	39	0-1500 PSI	TYPE 742R		
3000	41	0-3000 PSI	0010	71	0-10" WC
6000	42	0-6000 PSI	0060	72	0-60" WC
010K	43	0-10000 PSI	0150	73	0-150" WC
XXXX	*	NON-STD	0300	74	0-300" WC
			XXXX	*	NON-STD
TYPE 742V					
0030	61	30" HG VAC			
XXXX	*	NON-STD			

** Consult Factory*

Designator – AMETEK / Mil spec 1.2.1.3 / Units

AMETEK	Mil spec 1.2.1.3	Units
A	A	in Hg VAC
B	B	PSIA
D	D	PSIG
E	E	PSIS
F	F	WC

Input power – AMETEK / Mil spec 1.2.1.5

D	DC

Output – AMETEK / Mil spec 1.2.1.6 / Type

AMETEK	Mil spec 1.2.1.6	Type
A	A	4-20mA
V	V	0-5 volts*

Connector

Blank	MS3452W14S-5P MS3456W14S-5S
L	MS3452L14S-5P MS3456L14S-5S
LS	MS3452LS14S-5P MS3456LS14S-5S

742R	F	0150	D	X	D	A
M24742R	F	73	D	X	DC	A

** Consult factory for additional options.*

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