

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 differential 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 pressure transducers designed to MIL-T-24742 (SH). 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

- 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 \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 up to maximum of 12,000 (whichever is less)
- **Humidity:** 0 to 100% RH
- **Weight:** 15 oz. (0.43 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 test methods of MIL-STD-462 per MIL-T-24742
- **Vibration:** in accordance with MIL-STD-167

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

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 AMETEK Mil spec 1.2.1.3 Pressure

TYPE 742R

0015	31	0-15 PSI
0030	32	0-30 PSI
0060	33	0-60 PSI
0100	34	0-100 PSI
0200	35	0-200 PSI
0300	36	0-300 PSI
0600	37	0-600 PSI
1000	38	0-1000 PSI
1500	39	0-1500 PSI
3000	41	0-3000 PSI
6000	42	0-6000 PSI
010K	43	0-10000 PSI
XXXX	*	NON-STD

TYPE 742C

0015	51	30" HG 0-15 PSI
0030	52	30" HG 0-30 PSI
0100	53	30" HG 0-100 PSI
0150	54	30" HG 0-150 PSI
0300	55	30" HG 0-300 PSI
0600	56	30" HG 0-600 PSI
XXXX	*	NON-STD

TYPE 742R

0010	71	0-10" WC
0060	72	0-60" WC
0150	73	0-150" WC
0300	74	0-300" WC
XXXX	*	NON-STD

* Consult factory

Designator – 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

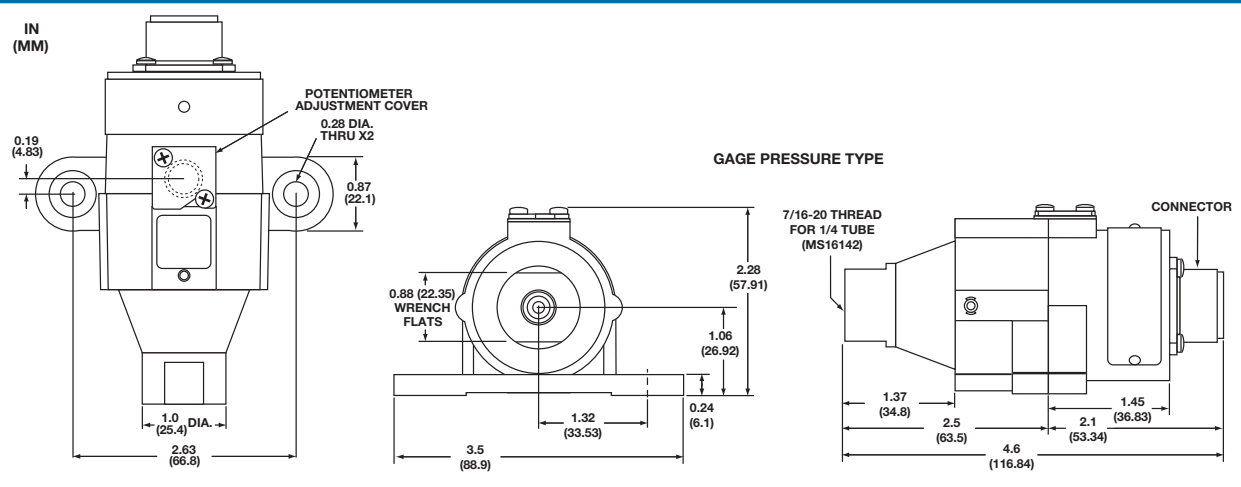
A	A	4-20mA
V	V	0-5 volt*

Connector

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

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

Dimensions



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