

ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

Model 742D Military MIL-T-24742 (SH) 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 ±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 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:

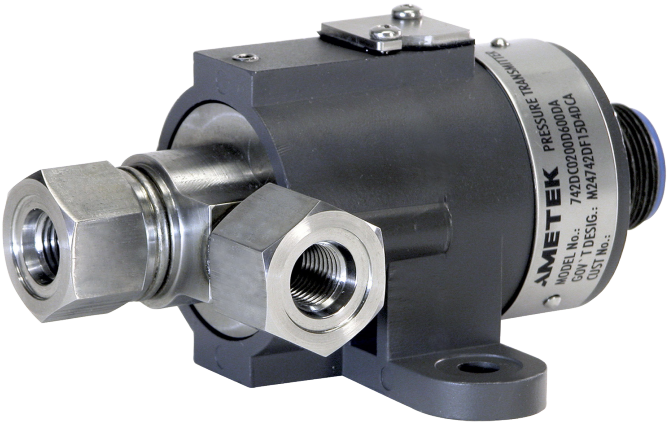
Accuracy: ±1.0% of calibrated span including linearity, hysteresis, and temperature effects

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

AMETEK®
Sales/Technical Support Telephone: +1 215-674-1234 or e-mail: mctpmt.sales@ametek.com
205 Keith Valley Road | Horsham, PA 19053 U.S.A. | Order Fax: +1 215-672-8981

© 2016, by AMETEK, Inc. All rights reserved. Printed in the U.S.A. K796463 – Effective: 5-2016, Supersedes: 8-2015 (110115)
Specifications are subject to change without notice. Visit our Web site for the most up-to-date information.

ISO 9001:2008 CERTIFIED
www.ametekpmt.com



ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

Model 742D Military MIL-T-24742 (SH) 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
150" WC	23	0-150" WC
300" WC	24	0-300" WC
NON-STD	NON-STD	*
010" WC	21	Ranges 10" WC to less than 150" WC
060" WC	22	Consult factory

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 MS3456W14S-5S	*(STANDARD)*
L	MS3452L14S-5P MS3456L14S-5S	*(OPTIONAL ALUMINUM)*
LS	MS3452LS14S-5P MS3456LS14S-5S	*(OPTIONAL 316L STAINLESS STEEL)*

742D	F	015	C	150	D	A	–
M24742D	F	11	C	2	DC	A	–

AMETEK®
Sales/Technical Support Telephone: +1 215-674-1234 or e-mail: mctpmt.sales@ametek.com
205 Keith Valley Road | Horsham, PA 19053 U.S.A. | Order Fax: +1 215-672-8981

© 2016, by AMETEK, Inc. All rights reserved. Printed in the U.S.A. K796463 – Effective: 5-2016, Supersedes: 8-2015 (110115)
Specifications are subject to change without notice. Visit our Web site for the most up-to-date information.

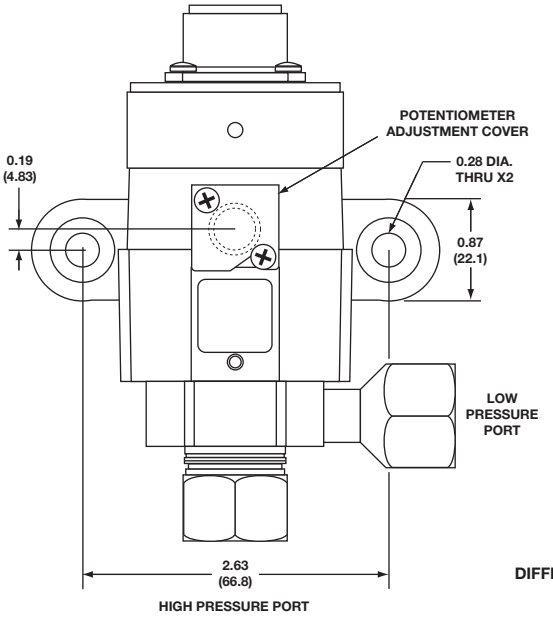
ISO 9001:2008 CERTIFIED

www.ametekpmt.com



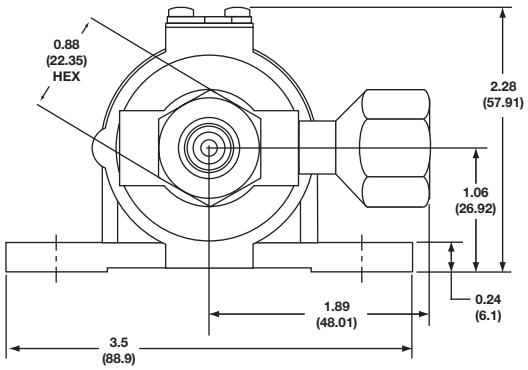
ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

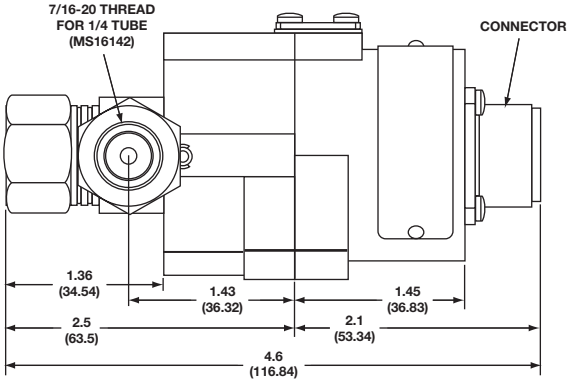
Model 742D Military MIL-T-24742 (SH) Differential Pressure Transducer



INCHES (MM)

DIFFERENTIAL PRESSURE TYPE





AMETEK®
Sales/Technical Support Telephone: +1 215-674-1234 or e-mail: mctpmt.sales@ametek.com
205 Keith Valley Road | Horsham, PA 19053 U.S.A. | Order Fax: +1 215-672-8981

© 2016, by AMETEK, Inc. All rights reserved. Printed in the U.S.A. K796463 – Effective: 5-2016, Supersedes: 8-2015 (110115)
Specifications are subject to change without notice. Visit our Web site for the most up-to-date information.

ISO 9001:2008 CERTIFIED

www.ametekpmt.com