

# DYNISCO MODELS E242 & S242

## Thread-Mount Melt Pressure Transmitters for Hazardous Locations

### Description

Models E242 and S242 are designed for use in hazardous locations where explosive gases are present. The E242 is a conduit fitting style unit that carries Factory Mutual (FM) explosion - proof approval. The S242 is FM and SIRA approved for intrinsically safe and is available in a conduit fitting or 6 or 8 pin connector version. Approvals are for Class I, Division I, Groups A, B, C and D. Its all - welded construction features a 1/2 - 20 UNF thread for installation in standard transducer mounting holes.

### Features

- Better than  $\pm 0.25\%$  accuracy
- FM explosion - proof or FM/SIRA intrinsically safe
- 4 to 20 mA loop - powered output
- 0 - 250 to 0 - 30,000 psi
- Side zero and span adjustments
- Welded electronics housing
- Signal meets IEC801-3 standard
- Thermocouple or RTD option, intrinsically safe model S242 only
- Conduit fitting only Model E242, Model S242 has conduit or 6 or 8 pin connector

### Benefits

- Precise pressure measurement
- Carries either IS or EP certification for hazardous areas
- Output to DCS or computer system
- Choice of pressure ranges
- Convenient access, easy to use
- Extra rugged
- Broad spectrum RFI/EMI immunity
- Temperature measurement alternatives
- Choice of electrical connections



**Note:** E Series models carry FM/SIRA intrinsically safe and FM explosion-proof approvals (standard unit), S Series models have FM/SIRA intrinsically safe approval only.

## Specifications

### Performance Characteristics

**Ranges (psi):** 0 - 250, 0 - 500, 0 - 750, 0 - 1,000, 0 - 1,500, 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000, 0 - 15,000, 0 - 20,000, 0 - 30,000  
**Accuracy:**  $\pm 0.25\%$  FSO (0.5% for 500, 750 and 1,000 psi ranges)  
**Repeatability:**  $\pm 0.1\%$  FSO

**Mounting torque:** 500 inch - lbs. maximum  
**Maximum pressure:** 2 x full range or 35,000 psi (whichever is less)  
**Material in contact with pressure media:** 15 - 5 PH stainless steel, DyMax™ coated  
**Weight:** 3 lbs.



### Electrical Characteristics

**Output:** 4 to 20 mA  
**Input voltage:** 12 to 36 Vdc  
**Electrical termination:** 1/2 to 14 NPT conduit fitting with 42" (1.15m) long lead wires  
**Optional:** 6 or 8 pin connector (model S242 only)

**Zero balance adjustment range:** -40% to +10%; -80% to +20% for <500 psi  
**Gain span adjustment range:** -10% to +50%  
**Load resistance:** 1,200 Ohms maximum at +36 Vdc, 600 Ohms maximum at +24 Vdc

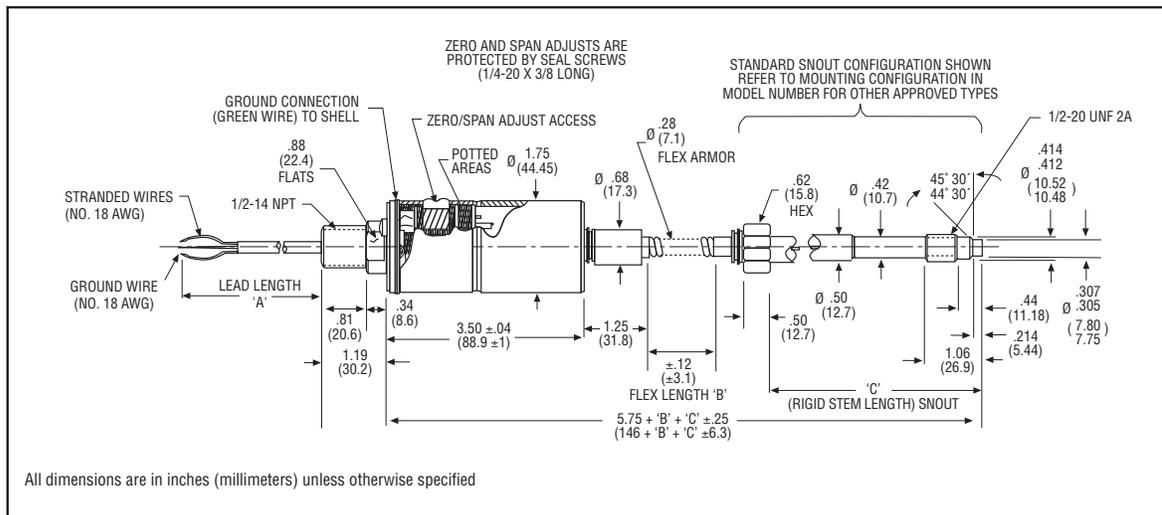
### Temperature Characteristics

**Transducer diaphragm:**  
*Maximum diaphragm temperature:* 750°F (400°C)  
*Zero shift due to temperature change:* 15 psi/100°F typical (27 psi/100°C)

**Electronics housing:**  
*Operating temperature range:* -20°F to +185°F (-29°C to +85°C)  
*Temperature effects over a compensated temperature range of 0 to +150°F (-18°C to +65°C):*  
Zero: 0.01% full scale/°F maximum (0.02% full scale/°C maximum)  
Span: 0.01% full scale/°F maximum (0.02% full scale/°C maximum)

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### Ordering Guide

Model	Diaphragm/Material Coating		Mounting Configuration	
	Code	Material/Coating	Code	Mounting
E242 (FM Explosion - proof)	B	15 - 5 PH SST with DyMax™ coating	1/2B	1/2 THD (standard)
	H	15 - 5 PH SST with Borofuse coating	1/2L	1/2 - 20 with loose nut
	I	Hastelloy	M14	M14 x 1.5 THD
	T	15 - 5 PH SST with Titanium Nitride Coating	M18	M18 x 1.5 THD
S242 (FM and SIRA Intrinsically Safe)			G2T	G1/4 THD with taper seat
			G2L	G1/4 THD with loose nut
			G3	G3/8 THD with flat seat
			G3L	G3/8 THD with loose nut
			G3T	G3/8 THD with taper seat
			G8L	G1 THD with loose nut
			JB1	1/2 - 20 jam nut with exposed capillary

Pressure Range (psi)		Rigid Stem		Flexible Stem		Lead Length	Electrical Connection		Thermocouple/RTD	
Code	Range	Code	Length	Code	Length	Description	Conduit Fitting w/Cable	Connectors	Code	Type
2.5C (M18)	0 - 250					42" (standard)	Conduit fitting	C6 = PT02A-10-6P	TC	J
5C	0 - 500					Additional lengths available up to 999"	with cable	C6G = PT02H-10-6P		(Model S242 only)
7.5C	0 - 750						42" (standard)	C6H = PT1H-10-6P		
1M	0 - 1,000							C7D = DIN 7 pins		
1.5M	0 - 1,500	3	3"				Additional lengths available up to 999"	C7T = TAJIMI		
3M	0 - 3,000	4	4"					C8 = PC02E-12-8P		
5M	0 - 5,000	6	6"	30	30"					
7.5M	0 - 7,500	9	9"							
10M	0 - 10,000	12	12"							
15M	0 - 15,000									
20M	0 - 20,000									
30M	0 - 30,000									

(For model S242 only)

- Notes:** 1. Consult factory for available options and alternate full scale settings  
 2. Model PT252 (0 - 10 Vdc) and model PT262 (0 - 5 Vdc) also available. Please consult factory.

Ordering Examples: E242 - 5C - 6/18; S242 - 5M - 6/30 - C6H; S242 - 5M - 6/30 - C6 - TC