



MELT PRESSURE TRANSMITTER PRECISE TO WITHIN 0.5% WITH 4-20 mA OUTPUT

6-pin connector version

MODEL NHG 170



MODEL NHG 171



MODEL NHG 172



A NEW TECHNOLOGICAL ADVANCE FROM THE EXTRUSION MELT PRESSURE SPECIALISTS

NON-FILLED

The NHG Series represents a new product development designed exclusively by ISI. This sensor utilizes state of the art, high temperature strain gage technology for use up to 350°C (662°F). Since no fill material is used, this sensor is the perfect solution for measuring melt pressure during the extrusion of food, food packaging and medical products, as well as in the extrusion of film, sheet, pipe, profile and fiber.

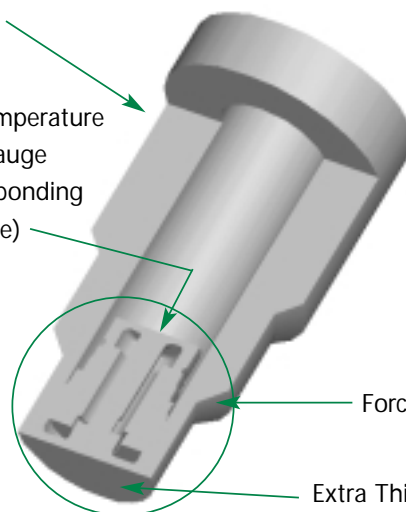
FEATURES

- Extra thick diaphragm for unsurpassed durability and prolonged life* (See Table 1)
- Less than 0.5% Combined Error (linearity, hysteresis and repeatability)
- 4-20 mA output
- Electrically and mechanically interchangeable with existing melt pressure transducers
- 80% built-in R-Cal provided as standard
- Heavy duty flexible capillary available in lengths up to 25 feet

NEW TECHNOLOGY

1/2-20 UNF Threads

High-Temperature Strain Gauge (special bonding technique)



Force Cell (monolithic construction)

Extra Thick Titanium Diaphragm

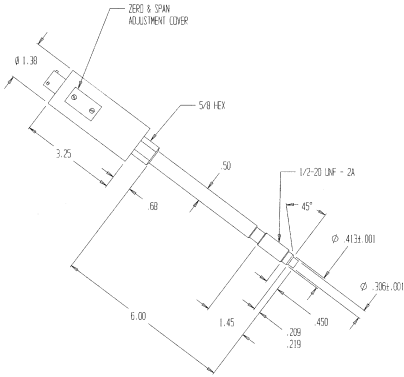
TABLE 1

*NHG SERIES DIAPHRAGM THICKNESS BY RANGE

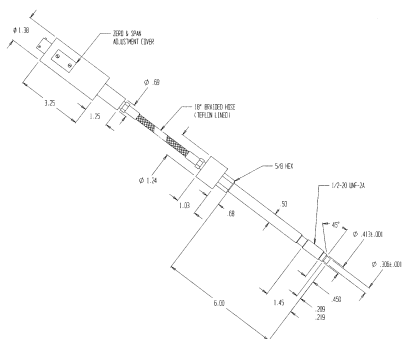
RANGE	INCHES	MM
1,500	0.016	0.4
3,000	0.024	0.6
5,000	0.032	0.8
10,000	0.047	1.2

Diaphragm thickness of a typical filled sensor is 0.004"

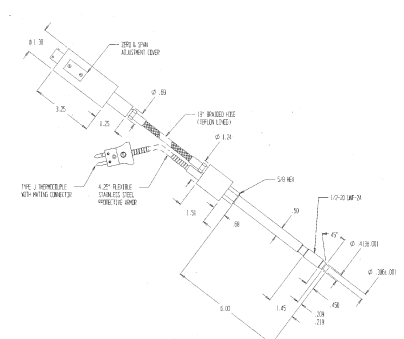
MODEL NHG 170



MODEL NHG 171



MODEL NHG 172



DEVICE SPECIFICATIONS

MECHANICAL

RANGES	PSIG	BAR	PSIG	BAR	PSIG	BAR	
	*0-250	0-17					
	*0-500	0-35	0-1,500	0-100	0-7,500	0-500	
	*0-750	0-50	0-3,000	0-200	0-10,000	0-700	
	0-1,000	0-70	0-5,000	0-350			
Combined Error - includes the following:						±0.5% of full scale output	
Non-Linearity						±0.2% of full scale output	
Repeatability						±0.1% of full scale output	
Hysteresis						0.2% of full scale output	
Overload Capability						1.5 times full scale output	
Mounting Torque	260-300 inch-pounds (280 inch-pounds recommended)						
Diaphragm /Stem Material						Titanium	

ELECTRICAL

Output	4-20 mA
Input Voltage	18-36 Vdc (24 Vdc recommended)
Load Resistance	1200 Ω maximum at 36 Vdc 600 Ω maximum at 24 Vdc
Internal Resistance Calibration (factory adjusted)	Produces a precise electrical signal which is 80% of full scale output within ±0.5%

TEMPERATURE ON AMPLIFIER HOUSING

Maximum Temperature	160°F or 70°C
Zero Shift	.01% of full scale/°F (.02%/°C)
Sensitivity Shift	.01% of full scale/°F (.02%/°C)

TEMPERATURE ON DIAPHRAGM

Maximum Temperature	662°F or 350°C
Zero Shift	.005% of full scale/°F above 250°F (.01%/°C above 120°C)
Sensitivity Shift	.001% of full scale/°F (.002%/°C)

CONNECTIONS

Mounting	1/2-20 UNF thread
Electrical	6 pin Bendix (PT02A-10-6P)
Mating Connector (sold separately)	PT06A-10-6S(SR)

ORDERING GUIDE

MELT PRESSURE TRANSMITTER

When ordering, specify: ISI Model, Code #, Stem Length and Flex Length

Example: NHG 171-5.0T-6/18

ISI MODEL	PRESSURE RANGE			STEM LENGTH	FLEX LENGTH**
	PSIG	CODE #	BAR		
NHG 170	*0-250	0.25 T	0-17	0.17 CB	6 = 6 in. 18 = 18 in.
	*0-500	0.50 T	0-35	0.35 CB	
	*0-750	0.75 T	0-50	0.50 CB	
	0-1,000	1.0 T	0-70	0.70 CB	
NHG 171	0-1,500	1.5 T	0-100	1.0 CB	12 = 12 in. 36 = 36 in.
	0-3,000	3.0 T	0-200	2.0 CB	
NHG 172	0-5,000	5.0 T	0-350	3.5 CB	
	0-7,500	7.5 T	0-500	5.0 CB	
	0-10,000	10.0 T	0-700	7.0 CB	

* special order, consult factory for delivery

**available in lengths up to 300 inches (NHG 171 only)