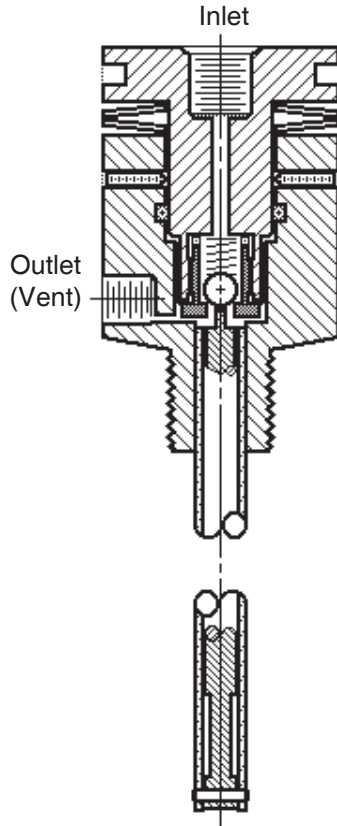




ISO Registered Company

MODEL 135

PNEUMATIC CONTROLLER FOR LOW TEMPERATURE SHUTOFF



The Model 135 thermal probe is a pneumatic controller with an integral, rigid insertion bulb used to protect downstream piping systems and equipment from experiencing temperature excursions below desired minimum operating temperature due to equipment malfunction or customer overdraw of system capacity.

PRINCIPLE OF OPERATION

As thermal probe outer sheath is exposed to lower temperatures, it contracts in length. The internal Invar plunger remains unchanged in length, pushing a ball/plug away from its seat, allowing the inlet gas pressure to be "vented". This is NOT a SAFETY DEVICE

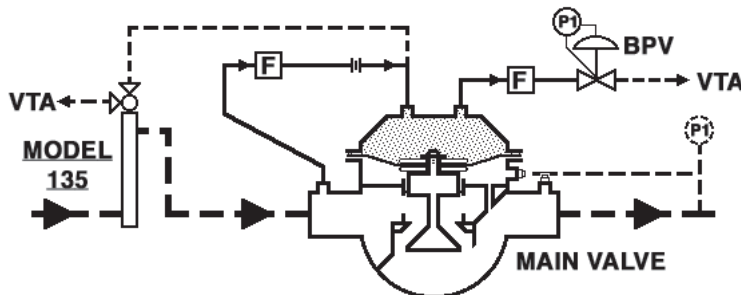
FEATURES

- High static pressure capability.
- BRZ/BR construction; SST construction.
- 8°F ΔT span.
- Std. Opt-55; Cleaned and packaged for GOX service.

APPLICATIONS

Primarily utilized with a pressure loaded reducing regulator with fail-close action upon loss of loading pressure. Used with any compatible fluid that can be vented to atmosphere in an environmentally acceptable method.

HOOKUP SCHEME T1



Use 1/4" tubing (ID of 0.180" or greater) when probe is installed within 18 feet of regulator.

Use 3/8" tubing (ID of 0.277" or greater) when probe is installed within 150 feet of regulator.

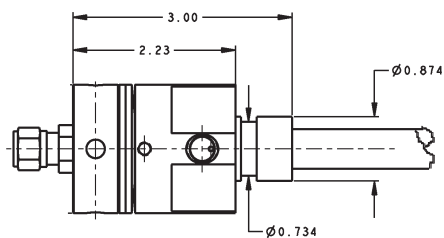
TECHNICAL SPECIFICATIONS

Control Head Inlet Pressure Range:	0 – 600 psig.
Thermal Element Pressure Range:	BRZ/BR – Full vac. to 720 psig SST – Full vac. to 3000 psig
Exposed Fluid Temperature Range:	-320°F to +400°F
Ambient Temperature Range:	-60°F to +140°F
Temperature Set Points Range Between:	-50°F to +50°F
Temperature Span:	Begins venting at 8°F above Temperature Set Point (TSP). "Full Venting " at TSP.

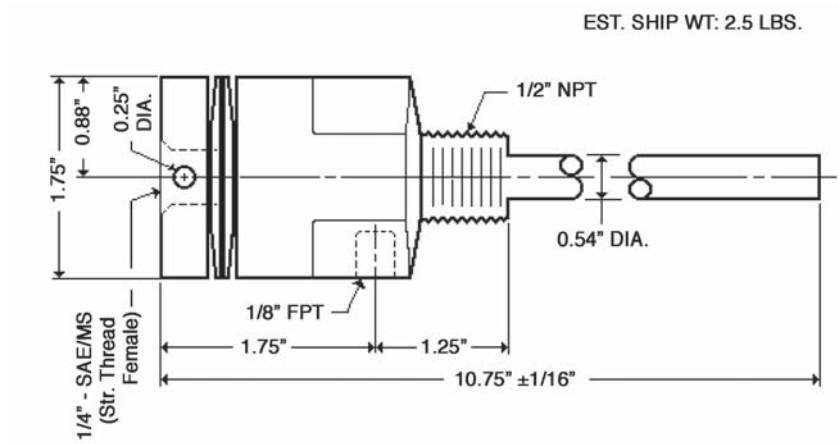
PART	MATERIALS	
	MODEL 135-B	MODEL 135-S
Control Head	Brass ASTM B16 C36000	316L SST ASTM A479
Thermal Element	Brass ASTM B16 C36000	316L SST ASTM A479
Plunger	Invar	Invar
Trim	Brass, SST, Cu	SST, Cu
O-Ring	FK; Fluorosilicone	FK
Belleville Washers	SST	SST
Set Screws	SST	SST
Screen	Monel	Monel
Spring	SST	SST
Brazing Material	Ag	Ag

OPTION SPECIFICATIONS

OPT - 64: **O-RING INSERTION SEAL.** NPT threaded insertion connection replaced with o-ring seal for quick installation/removal. Use requires that a thermal well be supplied by customer.

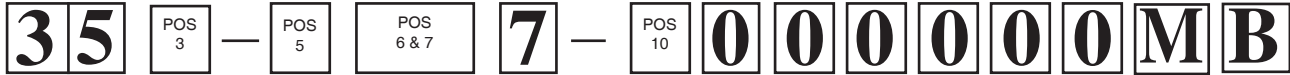


DIMENSIONS & WEIGHTS



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MODEL 135 LOW TEMPERATURE SHUTOFF



POSITION 3 - MODEL / MATERIALS			
MODEL	HEAD	THERMAL ELEMENT	CODE
135-B	BR	BR	B
135-S	SST	SST	S

POSITION 5 - INSERTION CONNECTION.	
INSERT. CONN.	CODE
STD - 1/2" NPT	1
O-RING - OPT-64	2

POSITION 6 & 7 - MODEL / INTERNALS		
MODEL	INTERNALS	CODE
135-B	Cu, Brass, FK, SST	BR
135-S	Cu, SST, FK	SS

POSITION 10 - TEMPERATURE SET POINT			
TEMPERATURE - °F	CODE	TEMPERATURE - °F	CODE
+50	1	-10	7
+30	2	-15	8
+25	3	-20	9
+15	4	-30	A
+10	5	-40	B
0	6	-50	C