Temperature Sensing Valve
Model 4155A

Typical applications

- Monitors liquid temperature in engines and other industrial plant
- Can be used as a single component or as part of a complete safety shutdown system for monitoring:
  - Jacket water
  - Lube oil
  - Bearing lube oil temperature
  - Gear box oil

Model 4155A
Temperature Sensing Valve

Key features and benefits

- Fast response
- Easy installation
- Adjustable 16°C - 120°C (61°F - 248°F)
- Virtually no maintenance

Accreditations available

- PED/PE(S)R — Suitable for Group 1 & 2 liquids (Ensure materials are compatible)
- ATEX/UKEX — Ex II 2 G Ex h IIC T6...T4 Gb X
- CE /UKCA — Complies with all relevant EU directives and UK regulations

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Temperature Sensing Valve - Model 4155A

Overview

AMOT Model 4155 comprises a temperature sensing element which operates a pushrod in response to increasing temperature. At a predetermined temperature, the valve assembly is lifted from its seating, allowing the sensing medium to vent and reduce pressure within the control circuit.

The temperature at which the valve opens is determined by the setting of the adjusting screw.

Operation

At a predetermined temperature, the valve assembly is lifted from its seating, allowing the sensing medium from the inlet port to pass through to the vent port, and reduce pressure within the control circuit.

When the sensed temperature falls below the set point, the valve closes.

Installation

- AMOT Model 4155 is supplied set to the required temperature, which is stamped on the attached nameplate.
- Use the model code in How to Order table on page 4 to determine the type of installation thread, and fit into the required threaded hole, using suitable thread sealant or Teflon tape.
- Connect the process fluid pipework to the inlet and vent ports, using suitably rated ¼" NPT fittings, again using suitable thread sealant or Teflon tape. Both ports must be connected, and checked for leakage before start up.
- Since the set point adjustment screw is inside the unit, it is not possible to adjust it with a pipe connected to the inlet port. If adjustment is required, the unit must be returned to AMOT.

Set point verification procedure

- To verify that the valve operates at the correct temperature, connect pressure to the inlet port, and a pipe to the vent port. Place the sensing end of the valve into water at slightly less than the set point temperature, and allow to rest for a minimum of 5 minutes, whilst checking that the valve has not operated.
- Gradually increase the temperature, leaving a suitable dwell time after each increase, until a temperature is reached where the valve operates – indicated by pressure from the inlet port being connected to the vent port.

Temperature Sensing Valve - Model 4155A

How to Order

Use the table below to select the unique specification of your Model 4155 Temperature Sensing Valve.

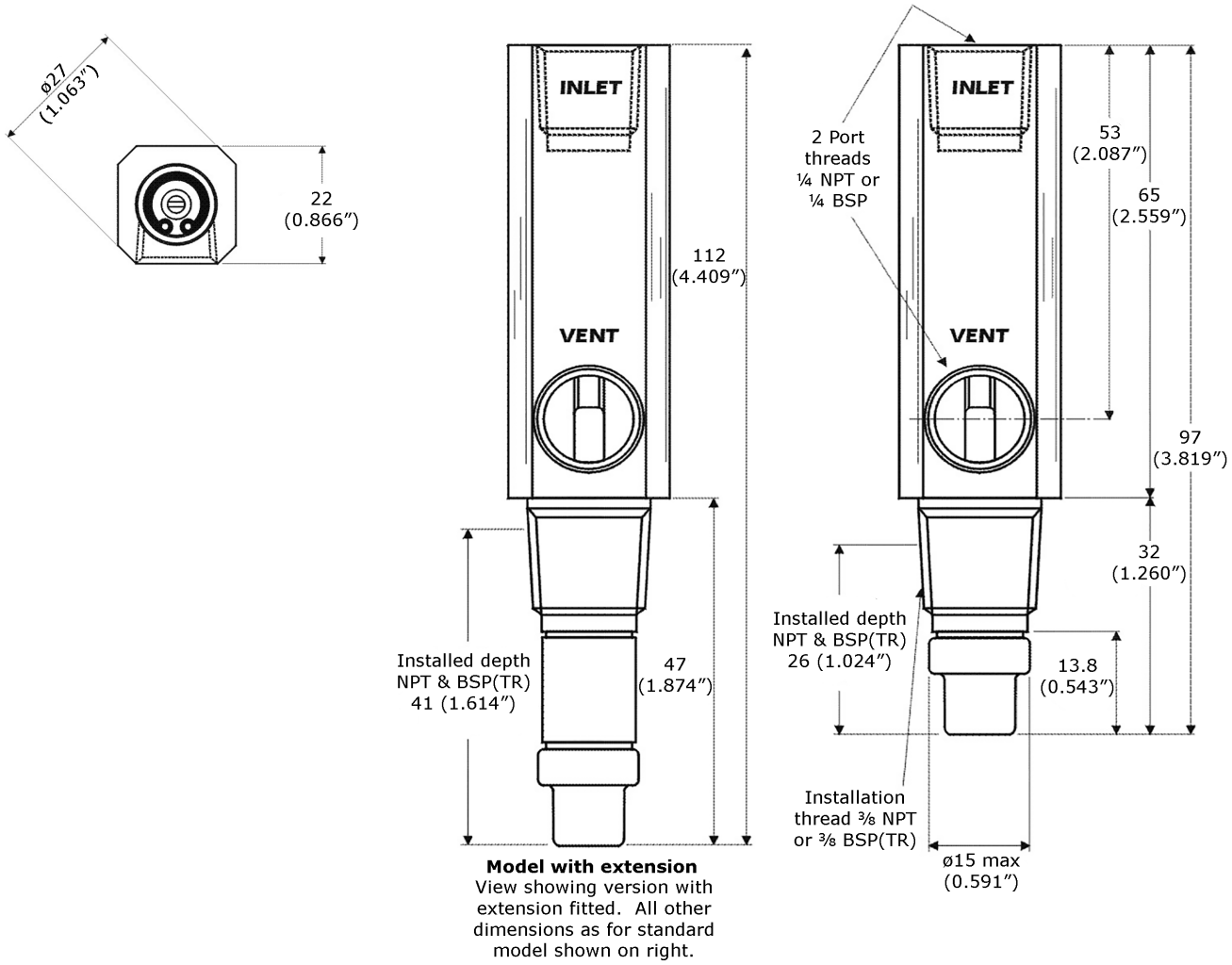
Example	4155A	1	2	1	A	-AA	**Code description**		**Comments**
							Basic model number (A)		
Basic model number (A)	4155A								
							Thread and finish (B)		
							Installation	**Inlet and vent**	
Thread and finish (B)		1					⅜" NPT	¼" NPT	
		2					⅜" BSP (TR)	¼" NPT	UK ONLY
							Seal material (C)		
Seal material (C)			2				Viton		
							Temperature element extension (D)		
							Installed depth		
							Inches	**mm**	
Temperature element extension (D)				0			1.030"	26 mm	
				1			1.621"	41 mm	
							Temperature range (E)		
							°C	**°F**	**Max. cont. temp.**
Temperature range (E)					A		16 - 50	61 - 122	88°C (190°F)
					B		50.6 - 65	123 - 149	93°C (200°F)
					C		65.6 - 82.2	150 - 180	102°C (215°F)
					D		82.8 - 100	181 - 212	110°C (230°F)
					E		100.6 - 120	213 - 248	128°C (262°F)
							Customer special requirements (F)		
Customer special requirements (F)						-AA	Standard	May be omitted	
						-***	Made-to-order	Contact AMOT	

Specification

		Metric units	**English units**
Housing material	Brass		
Standard seals	Viton		
Sensor type	Wax mixture		
Medium sensed	Liquids		
Adjustable temperature range		16°C - 120°C	61°F - 248°F
Maximum element temperature range		54°C - 120°C	129°F - 248°F
Maximum continuous temperature		88°C - 128°C	190°F - 262°F
Maximum control pressure		7 bar	100 psi
Net weight		0.56 kg	1 ¼ lbs
Accreditations available	PED/PE(S)R	Suitable for Group 1 & 2 liquids (Ensure materials are compatible)	
	ATEX/UKEX	Ex II 2 G Ex h IIC T6...T4 Gb X	
	CE /UKCA	Complies with all relevant EU directives	

Dimensions

Dimensions - mm (inches)



Model with extension
View showing version with extension fitted. All other dimensions as for standard model shown on right.

Maintenance

AMOT Model 4155 Temperature Sensing Valves maintenance is limited to operational checks and calibration adjustments. Please refer to the set point verification procedure on page 3.

AMOT recommends checking any safety control system every FEW months to ensure optimum valve performance.

There are no user serviceable components for the 4155 Temperature Sensing Valves.

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