ThermOmegaTech®

1" GURU PC® & HEATER ASSEMBLY

PASSENGER CAR POTABLE WATER SYSTEM FREEZE PROTECTION

BENEFITS

- Eliminates costly freeze damage in passenger cars
- Self-operating valve, no power or signal required
- High flow design for rapid draining
- Easy installation
- Minimal maintenance required
- NSF 61/372 Certified
- Shock & Vibration tested

DESIGN FEATURES

- Exclusive **Thermoloid**® thermal actuator
- No power or air required when used without heater
- Low lead brass/bronze
- Dual port seals
- In-line serviceable

OPERATION

Freezing conditions which put water tanks and piping at risk for freeze damage occur when the car heat is turned off for switching locomotives or even brief layovers. The 1" GURU PC® valve is installed within the potable water bearing system on a passenger car to continuously monitor ambient temperatures and automatically drain the system before freeze damage can occur. Since the valve is completely mechanical, no electrical or air connections are required; however, an electric heater assembly is available to quickly heat up the valve after a drain occurrence.

System Design Note: Valves are typically installed inside equipment cabinets or between the inner and outer car body. If a valve is to be installed outside or underneath the car, provide proper protection (e.g. skid plate) to avoid damage from impacts of roadside debris. All car designs should be properly validated and tested.

HEATER ASSEMBLY

Valves placed in equipment cabinets tend to be colder than the heated passenger areas and take longer to heat back up when the car heat is restored. This can significantly delay the ability to refill the water systems and get the car back into service after a valve activation. The heater assembly causes the valve to heat up and close quickly. This allows refilling of the water system and getting the passenger car back into service as quickly as possible.

DESIGN FEATURES

- 2 LED lights for easy visual status check of power and heater
- Fully encapsulated PC board
- Self limiting heater
- No moving parts to wear
- Minimal electrical noise
- Easy installation/removal with one hand or gloves
- Heaters available: 120VAC/74VDC & 230 VAC

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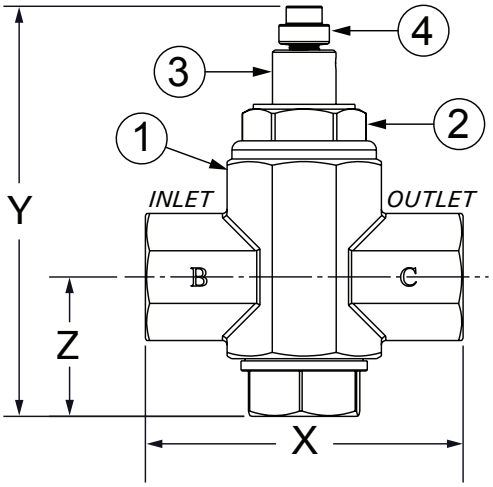
PARTS & MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	VALVE BODY	Low lead Bronze
2	VALVE CAP	Brass
3	INSULATOR BUSHING	Acetal Plastic
4	THERMAL ACTUATOR	Brass

DIMENSIONS & CAPACITIES

END CONNECTIONS	X		Y		Z		Weight		Cv	Maximum Operating Pressure	Full Open Temp.	Closing Temp.	Operating/ Storage Temperature Range
	in	cm	in	cm	in	cm	lb	kg					
1" NPT	4-3/8	11.1	5-5/8	14.3	1-7/8	4.8	4.1	1.9	6.3	120 PSIG (8.3 BAR)	35°F (1.7°C)	45°F (7°C)	-67°F - 160°F (-55°C - 71°C)

ORDERING

Part Number	Description
451-000000-035	1" GURU® PC[3]
455-000000-060	120VAC/74VDC with plug and 5ft cord[1,2]
455-010000-060	120VAC/74VDC with plain end and 5ft cord[1,2]
456-010000-060	230VAC with plain end and 5ft cord[1,2]

NOTES

1. Other wiring options available
2. Complies with fire safety requirements under Title 49, Chapter II, Part 238.103
3. NSF 61/372 Certified
4. Warranty information disclosed at www.thermomegatech.com/terms-conditions/

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Because of continuous improvements, ThermOmegaTech®, Inc. reserves the right to change the design and specifications without notice