



# **RESIDENTIAL AUTOMATIC SPRINKLERS MODEL GL4431 HORIZONTAL SIDEWALL RECESSED HORIZONTAL SIDEWALL**

## **DESCRIPTION AND OPERATION**

The Globe Model GL4431 Residential Horizontal Sidewall Sprinklers have a durable design which utilizes a 3mm frangible glass ampule as the thermosensitive element. They feature economy, aesthetics and low flow.

The combination of the 3mm frangible glass ampule and specially designed deflector make the Model GL4431 Sprinklers the ultimate in life safety and fire control. These Globe Horizontal Sidewall and Recessed Horizontal Sidewall Residential Sprinklers have met the strict requirements of Underwriters Laboratories Inc. as described in the UL Standard for Residential Sprinklers for Fire Protection Service, UL 1626, and should be used accordingly. These sprinklers should also be installed in accordance with the appropriate NFPA Standard 13, 13D or 13R and under the direction of the approving authorities having jurisdiction.

The heart of Globe's Model GL4431 sprinklers proven actuating assembly is a hermetically sealed frangible glass ampule that contains a precisely measured amount of fluid. When heat is absorbed, the liquid within the bulb expands increasing the internal pressure. At the prescribed temperature the internal pressure within the ampule exceeds the strength of the glass causing the glass to shatter. This results in water discharge which is distributed in an approved pattern.

The sprinkler and escutcheon are not factory assembled. Assembly is done in the field.



**RESIDENTIAL  
HORIZONTAL SIDEWALL**



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## **TECHNICAL DATA**

- See reverse side for Approvals and Specifications.
- Temperature Rating - 155°F (68°C), 175°F (79°C)
- Water Working Pressure Rating - 175 psi (12 Bars)
- Factory tested hydrostatically to 500 psi (34 Bars)
- Maximum low temperature glass bulb rating is -67°F (-55°C)
- Frame - bronze • Deflector - brass • Screw - brass
- Lodgement Wire - stainless steel • Bulb seat - copper
- Spring - nickel alloy • Seal - teflon
- Bulb - glass with alcohol based solution, 3mm size
- Escutcheon Assembly - steel

### **•SPRINKLER TEMPERATURE RATING/CLASSIFICATION and COLOR CODING**

<b>CLASSIFICATION</b>	<b>AVAILABLE SPRINKLER TEMPERATURES</b>		<b>BULB COLOR</b>	<b>N.F.P.A. MAXIMUM CEILING TEMPERATURE</b>	
ORDINARY	155°F	68°C	RED	100°F	38°C
INTERMEDIATE	175°F	79°C	YELLOW	150°F	66°C

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## SPECIFICATIONS AND APPROVALS

SIN MODEL	NOMINAL "K" FACTOR	THREAD SIZE	LENGTH	FINISHES	cULus CE
GL4431	4.4 (62 metric)	1/2"NPT (15mm)	2 1/2" (6.4cm)	Factory Bronze Chrome White Polyester <sup>2</sup> Black Polyester <sup>1,2</sup>	X

**NOTE:** METRIC CONVERSIONS ARE APPROXIMATE.

<sup>1</sup>FINISHES AVAILABLE ON SPECIAL ORDER.

<sup>2</sup>AVAILABLE AS cULus LISTED CORROSION RESISTANT WHEN SPECIFIED ON ORDER.

## INSTALLATION DATA FOR FLAT AND SLOPED CEILINGS\*\*

SIN MODEL	STYLE	TEMPERATURE		MAX. AREA OF COVERAGE <sup>3</sup> Feet (Meters)	*MIN. PRESSURE P.S.I. (bars)	*MIN. FLOW G.P.M. (L/min.)	DEFLECTOR TO CEILING DISTANCE Inches (mm)	MIN. DISTANCE BETWEEN SPRINKLERS Feet (Meters)
		155°F (68°C)	175°F (79°C)					
GL4431	HORIZONTAL SIDEWALL RECESSED HORIZONTAL SIDEWALL	X	X	12 (3.7) x 12 (3.7)	8.7 (.60)	13 (49)	4 (101.6) to 6 (152.4)	8 (2.4)
				14 (4.3) x 14 (4.3)	11.6 (.80)	15 (57)		
				16 (4.9) x 16 (4.9)	13.2 (.91)	16 (61)		
				16 (4.9) x 18 (5.5)	18.7 (1.41)	19 (72)		
				16 (4.9) x 20 (6.1)	27.3 (1.88)	23 (87)		

**NOTE:** METRIC CONVERSIONS ARE APPROXIMATE.

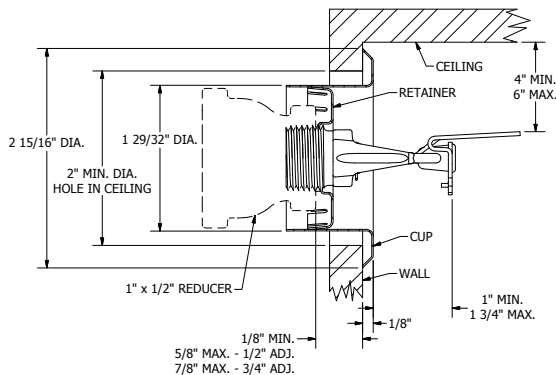
\*WHEN THESE SPRINKLERS ARE USED IN NFPA 13 SYSTEMS, A 0.1 DESIGN DENSITY MINIMUM SHALL BE UTILIZED.

\*\*REFER TO PAGE 2 OF GLOBE'S RESIDENTIAL SPRINKLER INSTALLATION GUIDE (BULLETIN R.S.I.G.) FOR NFPA 13D AND 13R REQUIREMENTS.

<sup>3</sup>FOR COVERAGE AREA DIMENSIONS LESS THAN OR BETWEEN THOSE INDICATED, USE THE MINIMUM REQUIRED FLOW FOR THE NEXT HIGHEST COVERAGE AREA FOR WHICH HYDRAULIC DESIGN CRITERIA ARE STATED.

THE LENGTH x WIDTH REFERS TO THE BACKWALL WHERE THE SPRINKLER IS LOCATED (WIDTH) x HORIZONTAL THROW OF THE SPRINKLER (LENGTH).

## CROSS SECTION



### 1/2" OR 3/4" ADJUSTMENT RECESSED HORIZONTAL SIDEWALL

## ORDERING INFORMATION

### SPECIFY

- Quantity • Model Number • Style
- Orifice • Temperature • Finishes desired
- Quantity - Wrenches - P/N 325390
- Quantity - Recessed Wrenches - P/N 327102
- Quantity - Protective Caps - P/N 327109-CAP (Friction Fit Recessed)

## GLOBE<sup>®</sup> PRODUCT WARRANTY

Globe agrees to repair or replace any of its own manufactured products found to be defective in material or workmanship for a period of one year from date of shipment.

For specific details of our warranty please refer to Price List Terms and Conditions of Sale (Our Price List).

