

# BACK-TO-BACK SPECIFIC APPLICATION ATTIC PROTECTION SCHEME

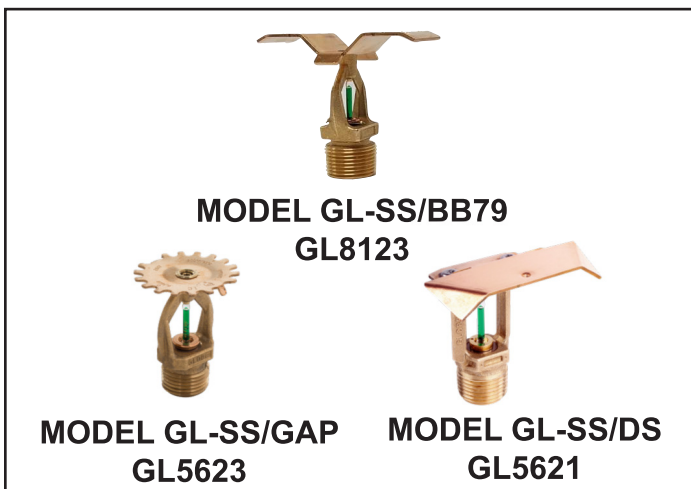
## GENERAL DESCRIPTION

The Globe Specific Application Attic Protection Scheme, utilizing Dual Directional GL-SS/BB sprinklers at the Gable/Peak, has undergone full scale fire testing with Underwriters Laboratories and is Listed to be utilized per NFPA 13 in conformance with the New Technology and Equivalency Sections as well as the Special Sprinkler Section.

The Globe Specific Application Attic Protection Scheme has been engineered to consider most construction conditions typically found in the attic built environment. The positioning and use of these sprinklers in conjunction with each other, and their complimentary effects on fire control has been carefully considered for sloped attic spaces, with exposed upper structural members creating "channels" as well as with upper roof surfaces without channels (i.e. non-combustible insulation filled channels creating a flat sloped surface). Consequently, the required number of sprinklers to calculate and system demand is drastically reduced from that seen with standard protection schemes.

The Globe Specific Application Attic Protection Scheme, utilizing Dual Directional GL-SS/BB sprinklers at the Gable/Peak, employs three specifically listed sprinklers, each with a fixed flow and pressure requirement. The "Area/Density" allowances of NFPA 13 do not apply. Moreover, as a fixed flow and pressure sprinkler which has been full scale fire tested in its intended installed environment, the slope ceiling penalty of "Area/Density" sprinklers per the prescriptive requirements of NFPA 13 does not apply.

The Globe Attic Protection Scheme, utilizing Dual Directional GL-SS/BB sprinklers at the Gable/Peak, requires identifying separate "spaces/ areas" within an attic as "Gable", "Eave", "Single Slope" and "Hip". See FIGURE 1 for a reference to identify these areas and refer to FIGURE 5 through FIGURE 8 for clarification of how these areas may be protected. Refer to FIGURE 9 through FIGURE 16 for detailed sprinkler layout rules for each scenario. Refer to FIGURE 18 through FIGURE 27 for hydraulic design requirements.



## SYSTEM CRITERIA

### SLOPE

- See TABLE 1

### SPAN

- Maximum 60 ft- with MODEL GL-SS/BB sprinklers only
- Maximum 84 ft - with MODEL GL-SS/BB and Model GL-SS/GAP sprinklers located at the eave.

### TOTAL SYSTEM DEMAND

- See Hydraulic Calculation section for details

### SYSTEM TYPE

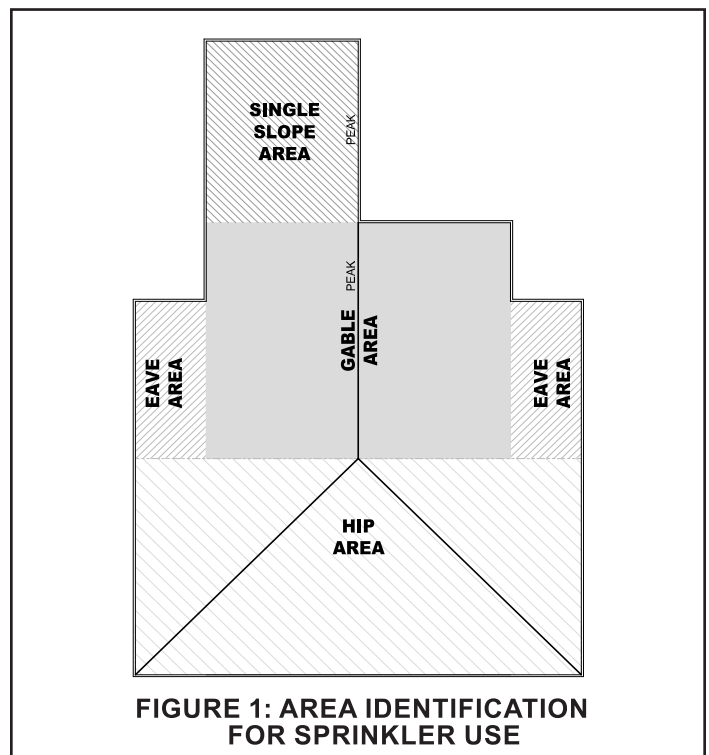
- Wet type system
  - CPVC installation allowed for wet system only.
- Dry type system
  - 60 second fluid delivery time

### ATTIC CEILING CONFIGURATION

- Exposed Upper Structural Members
- Non-Combustible Insulation Filled Channels Flat Sloped Upper Surfaces

### HAZARD

- Light Hazard, combustible and non-combustible sloped attic spaces, including wood joist/rafters and wood trussed attics with a ceiling below.



# SPRINKLER TECHNICAL DATA

## Approvals

- cULus specific application attic sprinkler protection scheme

## Maximum Working Pressure

- 175 psi (12 bar)

## Temperature Rating for All Sprinklers

- 200°F (93.3°C)

## Materials of Construction

- See FIGURE 3

## Response Type for All Sprinklers

- Quick Response

