GA SERIES / MODEL GA-5641 & GA-5643

Dry Sprinkler
Quick Response Sprinkler
Horizontal and Vertical

c UL us LISTED EX15331



Horizontal



Vertical Pendant



Vertical Upright

PRODUCT DESCRIPTION

Dry horizontal and vertical sprinkler model GA-5641 & GA-5643 described in this data sheet have been designed to be used in preaction systems and areas exposed to freezing temperatures, such as cold stores and other non climate-controlled areas.

Thermosensitive glass bulb 3 mm is used. The bulb contains a special liquid hermetically sealed in a glass capsule.

TECHNICAL DATA

Nominal "K" Factor	5,6 (80 metric)
Thread Size	1" NPT (ANSI B2.1) / ISO 7-R1 (Optional)
Temperatures	135ºF (57ºC) 155ºF (68ºC) 175ºF (79ºC) 200ºF (93ºC) 286ºF (141ºC)
Maximum Working Pressure	175 psi (12 bar)
Factory Test Pressure	500 psi (34 bar)
"A" Dimension	Minimum according drawings and maximum 48" (1219 mm) in ¼" (6 mm) increments
Materials	Frame: Brass Alloy Deflector: Cooper Alloy Screw: Brass Alloy Bulb Seat: Copper Alloy Sealing Spring: Nickel Alloy Bulb: Glass, 3 mm size Cup for Concealed Sprinklers: Steel
Reference	Horizontal: **GA5641** Vertical: **GA5643**
Finishes(1)	Bronze Chrome Polyester coated

(1) Other finishes available under request.

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OPERATION

At normal temperatures, the glass bulb contains the fluid in both the liquid phase and the vapor phase. The vapor phase can be seen as a small bubble. As heat is applied, the liquid expands forcing the bubble smaller and smaller as the liquid pressure increases. Continued heating forces the liquid to push out against the bulb, causing to shatter, opening the waterway and allowing the deflector to distribute the discharging water.

INSTALLATION

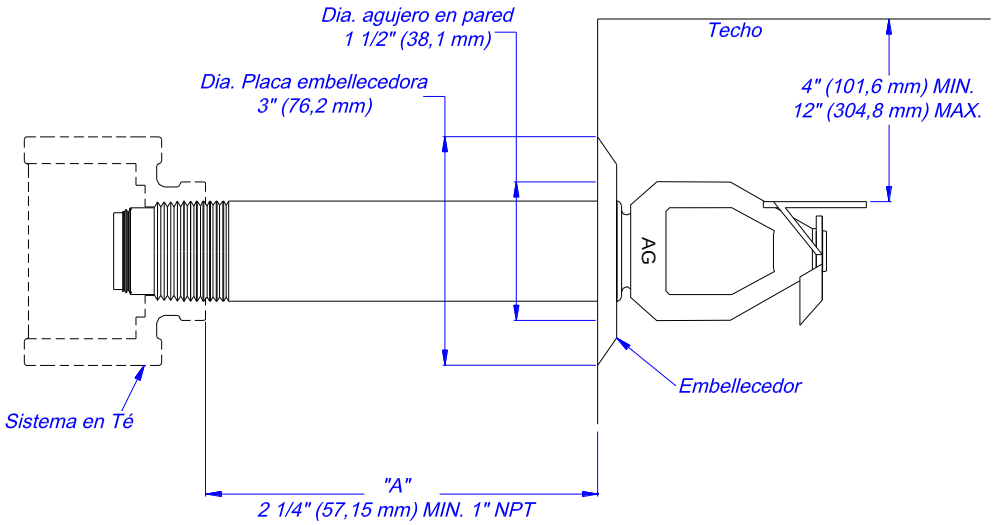
Model GA-5641 & GA-5643 dry sprinklers must be installed only in standard (ANSI B 16.3 class 150 and ANSI B 16.4 class 125) pipe tees in the horizontal position, even at branch line ends. They should not be installed into elbows or pipe couplings located on drop nipples to the sprinklers. For these and other fittings including CPVC, the dry sprinkler should be installed into a fitting to allow protrusion into the fitting in accordance with the diagrams. The “A” dimension of the dry sprinkler, which extends into a freezing zone from wet pipe systems, should be selected to provide, as a minimum, the specified lengths in the “Dimensions” section. They must also be installed with the Model **AC** Sprinkler Wrench specifically designed by AG Fire Sprinkler for use with these sprinklers.

A leak tight 1" NPT (R1) sprinkler joint can be obtained with a torque of 8-18ft-lbs (10,8-24,4 N-m). Do not tighten sprinklers over maximum recommended torque. It may cause leakage or impairment of these sprinklers.

TEMPERATURE RATINGS

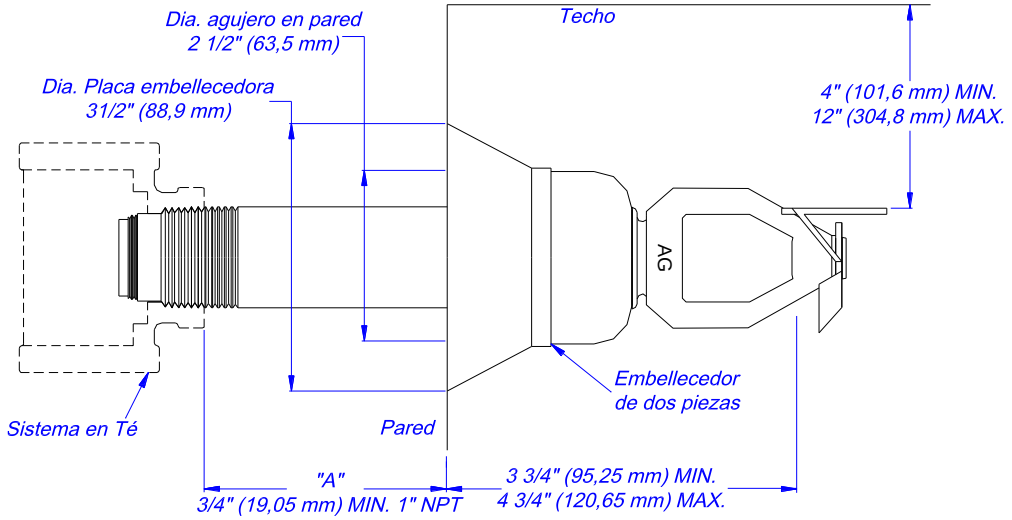
Classification	Sprinkler Temperature		Maximum Ceiling Temp.		Bulb Color
	ºF	ºC	ºF	ºC	
Ordinary	135	57	100	38	Orange
Ordinary	155	68	100	38	Red
Intermediate	175	79	150	66	Yellow
Intermediate	200	93	150	66	Green
High	286	141	225	107	Blue

DIMENSIONS

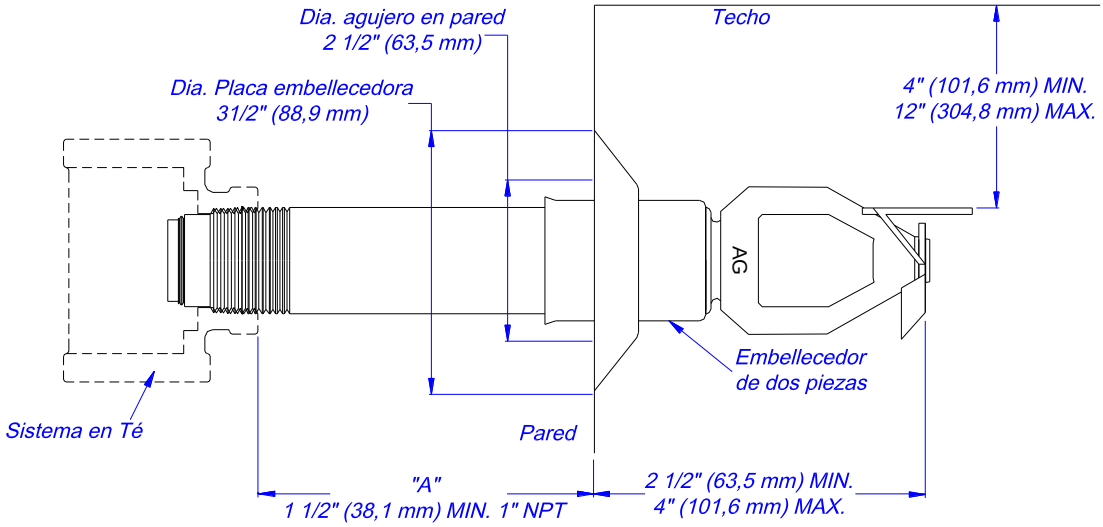


DRY HORIZONTAL HSW SPRINKLER

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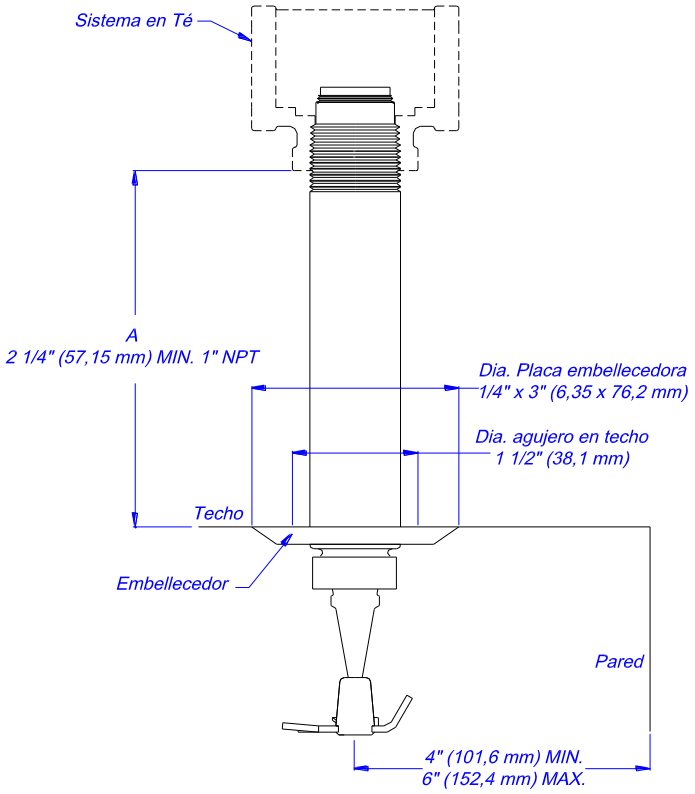


DRY HORIZONTAL HSW SPRINKLER WITH ESCHUTCHEON

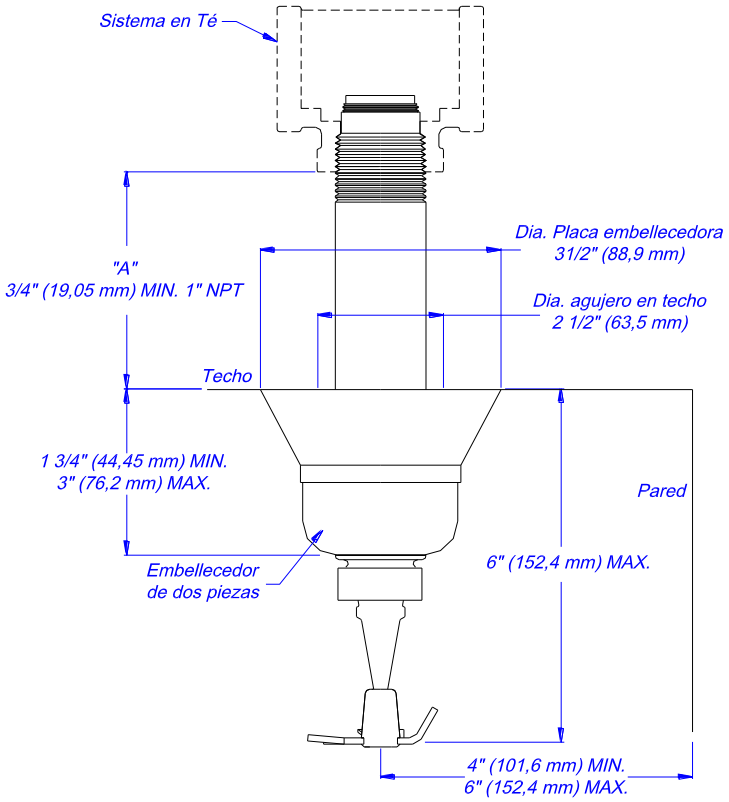


DRY HORIZONTAL HSW SPRINKLER WITH SLEEVE AND SKIRT

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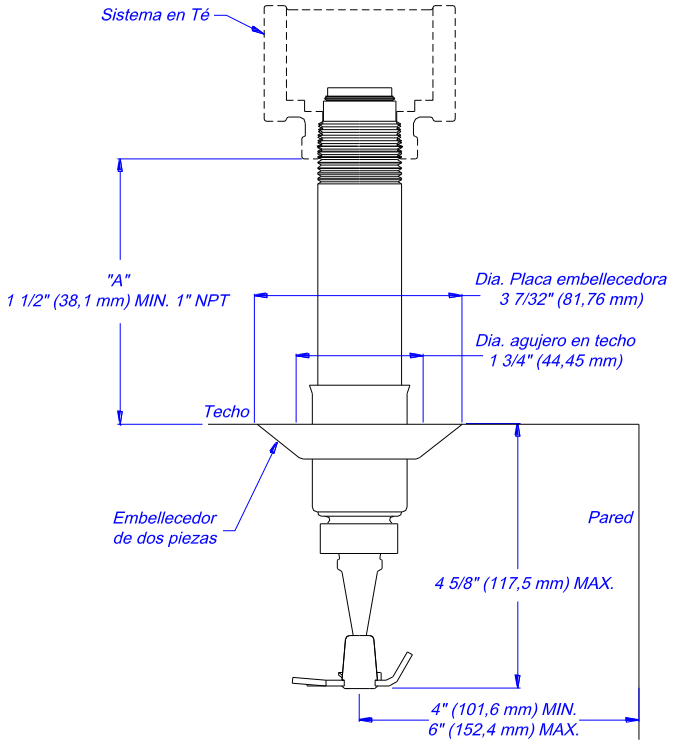


DRY VERTICAL VSW SPRINKLER

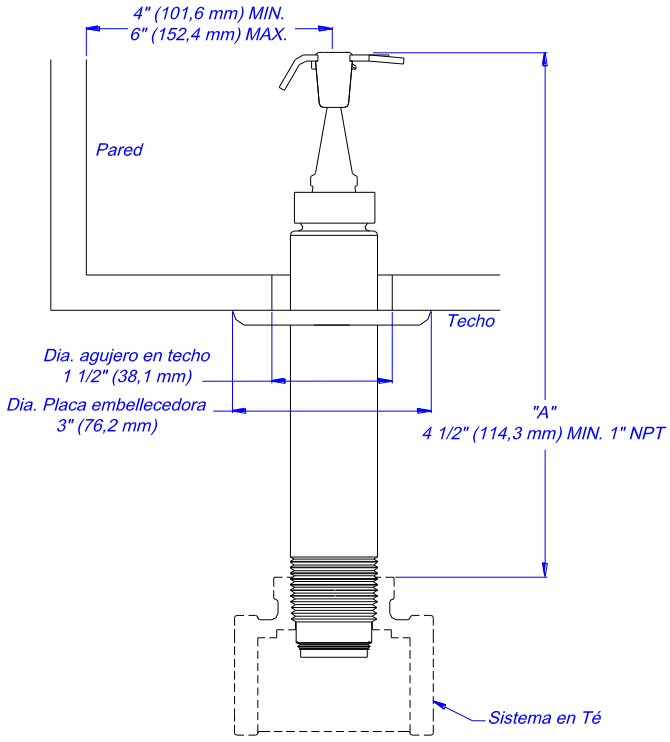


DRY VERTICAL VSW SPRINKLER WITH ESCHUTCHEON

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DRY VERTICAL VSW SPRINKLER WITH SLEEVE & SKIRT



DRY VERTICAL UPRIGHT VSW SRPINKLER

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ORDERING INFORMATION

P/N	GAXXXX Y Z LV

DESCRIPTION	CODE
Horizontal	GA5641
Vertical	GA5643

Y	1	57ºC	135ºF
	2	68ºC	155ºF
	4	79ºC	175ºF
	5	93ºC	200ºF
	7	141ºC	286ºF

Z	1	BRASS
	2	CHROME
	3	WHITE RAL9003

LV	02	2” – 5 ¾”	27	27” – 29 ¾”
	06	6” – 7 ¾”	30	30” – 32 ¾”
	08	8” – 11 ¾”	33	33” – 35 ¾”
	12	12” – 14 ¾”	36	36” – 38 ¾”
	15	15” – 17 ¾”	39	39” – 41 ¾”
	18	18” – 20 ¾”	42	42” – 44 ¾”
	21	21” – 23 ¾”	45	45” – 48”
	24	24” – 26 ¾”		

Specify:

Quantity	
Model Number	
Type	
Orifice	
Type deflector	
Temperature	
Finishes	
Escutcheon finish	

The equipment presented in this bulletin is to be installed in accordance with the latest published Standard of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable.
This documentation is not contractual. AG Fire Sprinkler reserves the right to any kind of change without notice.

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