# EXTENDED COVERAGE <br> Extra Hazard (NFPA13) Standard Response Sprinkler Horizontal Sidewall 



## DESCRIPTION:

The horizontal sidewall sprinkler model MBEC-14 is a special application sprinkler for the protection of metal buildings with purlin roof support. The sprinkler has a very extra large orifice, Nominal $\mathrm{K}=14$ (200). When the system is designed to NFPA 13 requirements, MBEC-14 sprinklers provide protection in Ordinary Hazard (Groups 1 and 2) and Extra Hazard (Groups 1 and 2) Occupancies to $175 \mathrm{ft} 2(16.3 \mathrm{~m} 2)$ per sprinkler. These sprinklers must be installed according this data sheet. FM does not permit the use of these sprinklers in areas with flammable liquids or shielded discharge.

TECHNICAL DATA:

| Nominal "K" Factor | 14 (200 metric) |
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| Thread Size | 3/4" NPT (R3/4) |
| Nominal Orifice | 0,70" (18 mm) |
| Temperatures | $\begin{gathered} 165^{\circ} \mathrm{F}\left(74^{\circ} \mathrm{C}\right) \\ 212^{\circ} \mathrm{F}\left(100^{\circ} \mathrm{C}\right) \end{gathered}$ |
| Minimum Sprinkler Spacing | $7 \mathrm{ft}(2,1 \mathrm{~m})$ for NFPA and $8 \mathrm{ft}(2,4 \mathrm{~m})$ for FM |
| Maximum Sprinkler Spacing | $14 \mathrm{ft}(4,3 \mathrm{~m})$ |
| Maximum water discharge length from pipe | 12,5 ft (3,8 m) |
| Maximum coverage area | $175 \mathrm{ft}^{2}\left(16 \mathrm{~m}^{2}\right)$ |
| Minimum density | $0,21 \mathrm{gpm} / \mathrm{ft}^{2}\left(8,56 \mathrm{lpm} / \mathrm{m}^{2}\right)$ |
| Maximum building height peak | $32 \mathrm{ft}(9,8 \mathrm{~m})$ |
| Maximum protected bay width | $25 \mathrm{ft}(7,6 \mathrm{~m})$ |
| Minimum distance from Deflector to commodity clearance | $10 \mathrm{ft}(3,1 \mathrm{~m})$ |
| Deflector distance below roof/ceiling | From 12" (305 mm) to 16" (406 mm) |
| In sloping ceilings | Not exceeding 2" (50,8 mm) of rise in 12" ( 305 mm ) |
| Maximum / Minimum Operating Pressure | 175 psi (12 bar) / 7 psi (0,5 bar) |
| Finishes ${ }^{(1)}$ | Brone Chrome |


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## OPERATION

The sprinkler model MBEC-14 uses a central link with compression weld. The fusible is captured in the capsule cylinder through a stainless steel ball. When the fusible melts, the ball displaces thought the cylinder, allowing the cylinder to separate from the central link. When it occurs, the lever is liberated and it removes from de sprinkler, this way all the operating items unblock the water way and allow the deflector to distribute the water discharge.

## INSTALLATION:

Model MBEC-14 sprinklers are designed for installation as specified in NFPA 13. They must also be installed with the Model AG3 Sprinkler Wrench specifically designed.
The sprinkler joint can be obtained with a torque of $14-20 \mathrm{ft}$-lbs (19-27,1 N-m). Do not tighten sprinklers over maximum recommended torque. It may cause leakage or impairment of these sprinklers..

TEMPERATURE RATING:

| Classification | Nominal Sprinkler <br> Temperature |  | Maximum Ceiling <br> Temperature |  |
| :---: | :---: | :---: | :---: | :---: |
|  | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{F}$ | ${ }^{\circ} \mathrm{C}$ |
| Ordinary | 16 | 74 | 100 | 3 |
|  | 5 |  |  | 8 |
| Interme | 21 | 100 | 150 | 6 |
| diate | 2 |  |  | 6 |


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## DIMENSIONS:



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