

QUICK RESPONSE AUTOMATIC SPRINKLERS GL SERIES INTERMEDIATE LEVEL UPRIGHT • PENDENT

DESCRIPTION AND OPERATION

The Globe Quick Response Series GL-QR/ST/INT Intermediate Level Sprinklers are primarily designed for use in rack storage sprinkler systems, where their thermosensitive elements must be shielded from the water spray of higher elevation sprinklers which could operate earlier during a fire. The Globe Series GL-QR/ST/INT Sprinkler is a low profile yet durable design which utilizes a frangible glass ampule as the thermosensitive element. This provides sprinkler operation approximately six times faster than ordinary sprinklers. The Quick Response Sprinkler can be installed wherever standard Intermediate Level Sprinklers are specified. Quick Response Sprinklers should be used advisedly and under the direction of approving authorities having jurisdiction and in accordance with their listings.

The Globe Intermediate Level Sprinklers are available in either upright or pendent styles, with 5.6, 8.0*, 8.0, or 11.2 K-factor orifices, in several temperature ratings and with various finishes to meet customer requirements. The Upright style is factory fitted with a water shield having a 3 3/4" diameter. The water shield for the pendent may be either factory fitted or installed in the field (see shield part numbers below). Either style can be provided with sprinkler guards for use where mechanical injury might be expected. The Upright style may be provided with a one piece head guard and shield; when ordered as such (order as GL5615, GL8115, GL8118, or GL1123 with sprinkler guard part number 321406 (red) or 321407 (chrome)).

The heart of Globe's Series GL-QR sprinkler 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 depending upon the deflector style used.



- See reverse side for Approvals and Specifications.
- Temperature Ratings -135°F (57°C), 155°F (68°C), 175°F (79°C), 200°F (93°C), 286°F (141°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
- Bulb Seat copper Spring nickel alloy Seal teflon
- Bulb glass with alcohol based solution, 3mm size
- Shield steel 3 3/4" diameter



SERIES GL-QR/ST/INT QUICK RESPONSE UPRIGHT



SERIES GL-QR/ST/INT QUICK RESPONSE PENDENT

| SHIELD PART NUMBERS | | | | | |
|---------------------|--------|--|--|--|--|
| 1/2"NPT 3/4"NPT | | | | | |
| 325706 | 325707 | | | | |

SPRINKLER TEMPERATURE RATING/CLASSIFICATION and COLOR CODING

| CLASSIFICATION | AVAILABLE SPRINKLER TEMPERATURES | | BULB COLOR | N.F.P.A. MAXII TEMPER | MUM CEILING RATURE |
|--------------------------|-------------------------------------|------------------------|----------------------------|--------------------------|-----------------------|
| ORDINARY INTERMEDIATE | 135°F/155°F 175°F/200°F | 57°C/68°C 79°C/93°C | ORANGE/RED YELLOW/GREEN | 100°F 150°F | 38°C 66°C |
| HIGH | 286°F | 141°C | BLUE | 225°F | 107°C |

JUNE 2018 GFS-400 (Formerly A-39)

QUICK RESPONSE AUTOMATIC SPRINKLERS GL SERIES INTERMEDIATE LEVEL UPRIGHT • PENDENT

SPECIFICATIONS

| NOMINAL | . "K" FACTOR | THREAD SIZE | LENGTH | FINISHES |
|---------|--------------|----------------|-----------------|-----------------------------|
| 5.6 | (80 metric) | 1/2"NPT (15mm) | 2 1/4" (5.7cm) | |
| 8.0 | (115 metric) | 1/2"NPT (15mm) | 2 1/4" (5.7cm) | Footon, Proposi |
| 8.0 | (115 metric) | 3/4"NPT (20mm) | 2 7/16" (6.2cm) | Factory Bronze ¹ |
| 11.2 | (160 metric) | 3/4"NPT (20mm) | 2 7/16" (6.2cm) | |

NOTE: METRIC CONVERSIONS ARE APPROXIMATE. OTHER FINISHES AVAILABLE ON SPECIAL ORDER.

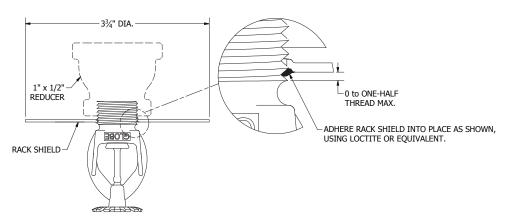
APPROVALS

| STYLE | SIN (previous SIN) | "K" FACTOR | 135°F (57°C) | 155°F (68°C) | 175°F (79°C) | 200°F (93°C) | 286°F (141°C) | cULus | FM | SHIELD P/N |
|-------------|-----------------------|---------------|-----------------|-----------------|-----------------|-----------------|------------------|-------|----|---------------|
| | GL5617 | 5.6 | Х | Х | Х | Х | Х | X | Х | |
| LIDDICUT | GL8117 | 8.0* | × | × | X | X | X | X | | NI/A |
| UPRIGHT | GL8120 | 8.0 | × | × | X | X | X | X | X | N/A |
| | GL1124 | 11.2 | | × | X | X | X | X | | |
| | GL5601 (GL5612) | 5.6 | Х | Х | Х | Х | Х | Х | Х | 225706 |
| \$DENIDENIT | GL8101 (GL8112) | 8.0* | X | X | X | X | X | X | | 325706 |
| *PENDENT | GL8106 (GL8108) | 8.0 | Х | Х | Х | Х | Х | Х | Х | 205707 |
| | GL1114 (GL1115) | 11.2 | | × | X | X | X | X | | 325707 |

^{\$}THE WATER SHIELD FOR THE PENDENT MAY BE EITHER FACTORY FITTED OR INSTALLED IN THE FIELD, PLEASE SPECIFY ON ORDER.

1 SPRINKLERS SHALL BE LIMITED AS PER THE REQUIREMENTS OF NFPA13 AND ANY OTHER RELATED DOCUMENTS.

1 /2"NPT: RETRO-FIT ONLY



NOTE: INSTALL RACK SHIELD ONTO SPRINKLER THREADS BEFORE SYSTEM INSTALL.

ORDERING INFORMATIONSPECIFY

- Quantity SIN Style Orifice
- Thread Size Temperature Finishes desired
- Quantity Wrenches P/N 325390 (1/2");
 P/N 312366 (L.O.);
 P/N 333010 (E.L.O.)

GLOBE® 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).

4077 AIRPARK DRIVE, STANDISH, MICHIGAN 48658 989-846-4583 FAX 989-846-9231 1-800-248-0278 www.globesprinkler.com



PRINTED U.S.A. GFS-400 (Formerly A-39)



QUICK RESPONSE UPRIGHT • PENDENT AUTOMATIC SPRINKLERS FOR USE IN NFPA 13 CMDA STORAGE APPLICATIONS

DESCRIPTION AND OPERATION

The Globe Quick Response GL1114 Pendent and GL1123 Upright Sprinklers are intended for use in NFPA 13 Systems when installed in accordance with Control Mode Density Area protection criteria as specified in the NFPA 13 standard.

The GL1114 and GL1123 sprinklers have a low profile yet durable design which utilizes a 3mm frangible glass ampule as the thermosensitive element. While the sprinklers provide an aesthetically pleasing appearance, they serve to protect various area coverages. This sprinkler series is available in pendent, and upright styles, and several temperature ratings and finishes to meet varying design requirements.

The heart of Globe's GL1114 and GL1123 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.



SERIES GL-QR/ST QUICK RESPONSE UPRIGHT GL1123

TECHNICAL DATA

- See reverse side for Approvals and Specifications.
- Temperature Ratings -155°F (68°C), 175°F (79°C), 200°F (93°C), 286°F (141°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
- Bulb seat copper Spring nickel alloy Seal teflon
- Bulb glass with alcohol based solution, 3mm size



SERIES GL-QR/ST QUICK RESPONSE PENDENT GL1114

SPRINKLER TEMPERATURE RATING/CLASSIFICATION and COLOR CODING

| CLASSIFICATION | | AVAILABLE SPRINKLER TEMPERATURES | | N.F.P.A. M CEILING TEN | |
|----------------|-------------|-------------------------------------|--------------|---------------------------|-------|
| ORDINARY | 155°F | 68°C | RED | 100°F | 38°C |
| INTERMEDIATE | 175°F/200°F | 79°C/93°C | YELLOW/GREEN | 150°F | 66°C |
| HIGH | 286°F | 141°C | BLUE | 225°F | 107°C |

DEC 2017 GFS-410 (Formerly A-48)

QUICK RESPONSE UPRIGHT • PENDENT AUTOMATIC SPRINKLERS FOR USE IN NFPA 13 CMDA STORAGE APPLICATIONS

SPECIFICATIONS

| NOMINAL "K" FACTOR | THREAD SIZE | LENGTH | FINISHES |
|--------------------|----------------|-----------------|--|
| 11.2 (160 metric) | 3/4"NPT (20mm) | 2 7/16" (6.2cm) | Factory Bronze Chrome White Polyester ³ Black Polyester ^{2,3} |

NOTE: METRIC CONVERSIONS ARE APPROXIMATE.

APPROVALS

| STYLE SIN | | | | | TEMPE | RATURE | | | | MIN. |
|-----------|-------------|---------|-----------------|-----------------|-----------------|------------------|-------|------------------------------|--|---------|
| | K FACTOR | HAZARD¹ | 155°F (68°C) | 175°F (79°C) | 200°F (93°C) | 286°F (141°C) | cULus | NYC - DOB MEA 101-92-E | DISTANCE BETWEEN SPRINKLERS Feet (Meters) | |
| UPRIGHT | GL1123 | 11.2 | STORAGE | X | X | X | X | × | X | 6 (1.8) |
| PENDENT | GL1114 | 11.2 | OTOTOTOL | | , | , | | | , A | 0 (1.0) |

SPRINKLERS SHALL BE LIMITED AS PER THE REQUIREMENTS OF NFPA13 AND ANY OTHER RELATED DOCUMENTS.

ORDERING INFORMATION

- Quantity
 SIN
 Style
 Orifice
- Thread Size Temperature Finishes desired
- Quantity Wrenches P/N 333010

GLOBE® 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).



²FINISHES AVAILABLE ON SPECIAL ORDER.

³AVAILABLE AS cULus LISTED CORROSION RESISTANT WHEN SPECIFIED ON ORDER.



STANDARD RESPONSE AUTOMATIC SPRINKLERS GL SERIES INTERMEDIATE LEVEL UPRIGHT • PENDENT

DESCRIPTION AND OPERATION

The Globe Series **GL-SR/ST/INT** Intermediate Level **Sprinklers** primarily are designed for use in rack storage sprinkler systems, where their thermosensitive elements must be shielded from the water spray of higher elevation sprinklers which could operate lier during Series GL-SR/ST/INT а fire. The Globe Sprinkler is low profile vet durable design which utilizes a frangible glass ampule as the thermosensitive element.

The Globe Intermediate Level Sprinklers are available in either upright or pendent styles, with 5.6, 8.0*, 8.0, or 11.2 K-factor orifices, in several temperature ratings and with various finishes to meet customer requirements. The Upright style is factory fitted with a water shield having a 3 3/4" diameter. The water shield for the pendent may be either factory fitted or installed in the field (see shield part numbers below). Either style can be provided with sprinkler guards for use where mechanical injury might be expected. The Upright style may be provided with a one piece head guard and shield; when ordered as such (order as GL5661, GL8161, GL8164, or GL1167 with sprinkler guard part number 321406 (red) or 321407 (chrome)).

The heart of Globe's Series GL-SR Sprinkler 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 depending upon the deflector style used.

TECHNICAL DATA

- · See reverse side for Approvals and Specifications.
- Temperature Ratings -135°F (57°C), 155°F (68°C), 175°F (79°C), 200°F (93°C), 286°F (141°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
- Bulb seat copper Spring nickel alloy Seal teflon
- · Bulb glass with glycerin solution, 5mm size
- Shield steel 3 3/4" diameter



SERIES GL-SR/ST STANDARD RESPONSE UPRIGHT



SERIES GL-SR/ST STANDARD RESPONSE PENDENT

| SHIELD PAR | T NUMBERS | | | | | |
|------------|-----------|--|--|--|--|--|
| 1/2"NPT | 3/4"NPT | | | | | |
| 325706 | 325707 | | | | | |

• SPRINKLER TEMPERATURE RATING/CLASSIFICATION and COLOR CODING

| CLASSIFICATION | AVAILABLE SPRINKLER TEMPERATURES | | BULB COLOR | | MUM CEILING RATURE |
|----------------|-------------------------------------|-----------|--------------|-------|-----------------------|
| ORDINARY | 135°F/155°F | 57°C/68°C | ORANGE/RED | 100°F | 38°C |
| INTERMEDIATE | 175°F/200°F | 79°C/93°C | YELLOW/GREEN | 150°F | 66°C |
| HIGH | 286°F | 141°C | BLUE | 225°F | 107°C |

DEC 2017 GFS-430 (Formerly A-75)

STANDARD RESPONSE **AUTOMATIC SPRINKLERS GL SERIES** INTERMEDIATE LEVEL **UPRIGHT • PENDENT**

SPECIFICATIONS

| NOMINAL | "K" FACTOR | THREAD SIZE | LENGTH | FINISHES |
|---------|--------------|----------------|-----------------|-----------------------------|
| 5.6 | (80 metric) | 1/2"NPT (15mm) | 2 1/4" (5.7cm) | |
| 8.0 | (115 metric) | 1/2"NPT (15mm) | 2 1/4" (5.7cm) | Factory Drawns 1 |
| 8.0 | (115 metric) | 3/4"NPT (20mm) | 2 7/16" (6.2cm) | Factory Bronze ¹ |
| 11.2 | (160 metric) | 3/4"NPT (20mm) | 2 7/16" (6.2cm) | |

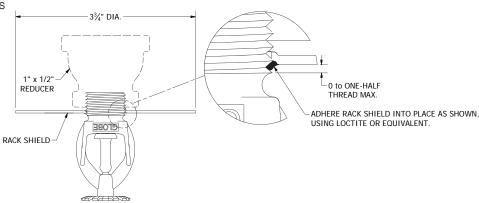
NOTE: METRIC CONVERSIONS ARE APPROXIMATE. OTHER FINISHES AVAILABLE ON SPECIAL ORDER.

APPROVALS

| STYLE | SIN (previous SIN) | "K" FACTOR | HAZARD¹ | 135°F (57°C) | 155°F (68°C) | 175°F (79°C) | 200°F (93°C) | 286°F (141°C) | cULus | FM | SHIELD P/N |
|------------|-----------------------|---------------|---------|-----------------|-----------------|-----------------|-----------------|------------------|-------|-----|---------------|
| | GL5663 | 5.6 | | X | Х | X | X | Х | X | X | |
| LIDDICLIT | GL8163 | 8.0* | A.I.I. | X | X | X | X | Х | X | | NI/A |
| UPRIGHT | GL8166 | 8.0 | ALL | X | X | X | X | X | X | Χ | N/A |
| | GL1168 | 11.2 | | | X | X | X | X | X | **X | |
| | GL5651 (GL5672) | 5.6 | A.L.I. | Х | Х | Х | X | Х | Х | Χ | 225700 |
| SDENIDENIT | GL8151 (GL8172) | 8.0* | ALL | X | X | X | X | X | X | | 325706 |
| \$PENDENT | GL8156 (GL8158) | 8.0 | A.I.I. | Х | Х | Х | Х | Х | Х | Χ | 225707 |
| | GL1160 (GL1161) | 11.2 | ALL | | X | X | X | X | X | | 325707 |

^{\$}THE WATER SHIELD FOR THE PENDENT MAY BE EITHER FACTORY FITTED OR INSTALLED IN THE FIELD, PLEASE SPECIFY ON ORDER.

ALL: ALL HAZARDS



NOTE: INSTALL RACK SHIELD ONTO SPRINKLER THREADS BEFORE SYSTEM INSTALL.

ORDERING INFORMATION SPECIFY

- Quantity SIN Style Orifice
- Thread Size Temperature Finishes desired
- Quantity Wrenches P/N 325390 (1/2"); P/N 312366 (L.O.); P/N 333010 (E.L.O.)

GLOBE® 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).

FIRE SPRINKLER CORPORATION

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PRINTED U.S.A. **DEC 2017** GFS-430 (Formerly A-75)

 $^{^{1}}$ SPRINKLERS SHALL BE LIMITED AS PER THE REQUIREMENTS OF NFPA13 AND ANY OTHER RELATED DOCUMENTS.

^{**}NO FM APPROVALS FOR 175°F (79°C)

^{*1/2&}quot;NPT: RETRO-FIT ONLY



STANDARD RESPONSE UPRIGHT • PENDENT AUTOMATIC SPRINKLERS FOR USE IN NFPA 13 CMDA STORAGE APPLICATIONS

DESCRIPTION AND OPERATION

The Globe Standard Response GL1160 Pendent and GL1167 Upright Sprinklers are intended for use in NFPA 13 Systems when installed in accordance with Control Mode Density Area protection criteria as specified in the NFPA 13 standard.

The GL1160 and GL1167 sprinklers have a low profile yet durable design which utilize a 5mm frangible glass ampule as the thermosensitive element. While the sprinklers provide an aesthetically pleasing appearance, they serve to protect various area coverages. This sprinkler series is available in pendent, and upright styles, and several temperature ratings and finishes to meet varying design requirements.

The heart of Globe's GL1160 and GL1167 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.



SERIES GL-SR/ST STANDARD RESPONSE UPRIGHT GL1167

TECHNICAL DATA

- See reverse side for Approvals and Specifications.
- Temperature Ratings -155°F (68°C), 175°F (79°C), 200°F (93°C), 286°F (141°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
- Bulb seat copper Spring nickel alloy Seal teflon
- Bulb glass with glycerin solution, 5mm size



SERIES GL-SR/ST STANDARD RESPONSE PENDENT GL1160

SPRINKLER TEMPERATURE RATING/CLASSIFICATION and COLOR CODING

| CLASSIFICATION | | AVAILABLE SPRINKLER TEMPERATURES | | N.F.P.A. M CEILING TEN | |
|----------------|-------------|-------------------------------------|--------------|---------------------------|-------|
| ORDINARY | 155°F | 68°C | RED | 100°F | 38°C |
| INTERMEDIATE | 175°F/200°F | 79°C/93°C | YELLOW/GREEN | 150°F | 66°C |
| HIGH | 286°F 141°C | | BLUE | 225°F | 107°C |

DEC 2017 GFS-440 (Formerly A-80)

STANDARD RESPONSE UPRIGHT • PENDENT AUTOMATIC SPRINKLERS FOR USE IN NFPA 13 CMDA STORAGE APPLICATIONS

SPECIFICATIONS

| NOMINAL "K" FACTOR | THREAD SIZE | LENGTH | FINISHES | | |
|--------------------|----------------|-----------------|--|--|--|
| 11.2 (160 metric) | 3/4"NPT (20mm) | 2 7/16" (6.2cm) | Factory Bronze Chrome White Polyester ³ Black Polyester ^{2,3} | | |

NOTE: METRIC CONVERSIONS ARE APPROXIMATE.

APPROVALS

| STYLE | SIN HAZARD¹ | | TEMPERATURE | | | | | NIVO DOD | MIN. | |
|---------|-------------|---------|-----------------|-----------------|-----------------|------------------|-------|----------|-----------------|--|
| | | HAZARD¹ | 155°F (68°C) | 175°F (79°C) | 200°F (93°C) | 286°F (141°C) | cULus | *FM | MEA 101-92-E | DISTANCE BETWEEN SPRINKLERS Feet (Meters) |
| UPRIGHT | GL1167 | STORAGE | X | Х | X | Х | Х | Х | x | 6 (1.8) |
| PENDENT | GL1160 | STORAGE | Х | Х | Х | Х | Х | | Х | |

 $^{^{1}}$ SPRINKLERS SHALL BE LIMITED AS PER THE REQUIREMENTS OF NFPA13 AND ANY OTHER RELATED DOCUMENTS. * NO FM APPROVALS FOR 175 $^{\circ}$ F (79 $^{\circ}$ C).

ORDERING INFORMATIONSPECIFY

- Quantity SIN Style Orifice
- Thread Size Temperature Finishes desired
- Quantity Wrenches P/N 333010

GLOBE® 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).

²FINISHES AVAILABLE ON SPECIAL ORDER.

³AVAILABLE AS cULus LISTED CORROSION RESISTANT WHEN SPECIFIED ON ORDER.