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Northbrook Division
333 Pfingsten Road
Northbrook, IL 60062-2096 USA
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tel: 1 847 272 8800

VIKING CORP
MR E JACKSON
210 N INDUSTRIAL PARK RD
HASTINGS MI 49058

Your most recent Certification is shown below. You may also view this information, or a portion of this information (depending on the product category), on UL's Online Certifications Directory at www.ul.com/database. Please review the text and contact the Conformity Assessment Services staff member who handled your project if revisions are required. For instructions on placing an order for this information in a 3 x 5-inch format, you may refer to the enclosed order form for UL Card Service.

VLTR
Accessories for Special Systems

July 12, 2003

VIKING CORP
210 N INDUSTRIAL PARK RD, HASTINGS MI 49058

EX1130

Valve tripping equipment and accessories for "Viking" water supply control valves.

Thermostatic (combined rate-of-rise and fixed temperature): Thermostatic releases, Models C-1, C-2, releasing air or water under pressure from the pilot line. Maximum smooth ceiling spacing, 50 by 50 ft. For Model C-1. Model C-2 with spacing of 40 ft by 40 ft.

Thermostatic (fixed temperature): Pilot line equipped with Listed "Viking" automatic sprinklers opening of which bleeds pressure (air or water) from line.

Thermostatic fixed temperature release: Model M, glass bulb type; 135, 155, 175, 200, 286 F temperature ratings, for use on sprinkler system pilot lines for system pressures up to 250 psig. Upon activation the fixed temperature release bleeds pressure (air or water) from pilot line. Maximum smooth ceiling spacing, 20 by 20 ft for 155, 200, 286 F temperature ratings and 40 by 40 ft for 135 and 175 F temperature ratings. The spacings specified are for flat, smooth ceiling construction of ordinary height, generally regarded as the most favorable condition for distribution of heated air currents resulting from a fire. Under other forms of ceiling construction reduced spacing may be required. The fire tests conducted to determine the suitability of the spacings are conducted in a 60 by 60 ft room having a 15 ft 9 in. high smooth ceiling and minimum air movement. The test fire (denatured alcohol) is located approximately 3 ft above the floor and of a magnitude so that sprinkler operation is obtained in approximately two minutes.

For comparative purposes, automatic sprinklers rated 160 F are installed on a 10 by 10 ft spacing schedule in an upright position with the deflectors approximately 7 in. below the ceiling. At the maximum permissible spacing for the heat detectors they must operate prior to operation of the sprinklers. The placement and spacing of the fixed temperature releases should be based on consideration of the ceiling construction, ceiling height, room or space areas, spaced sub-divisions, the normal room temperature, possible exposure of the devices to abnormal heat such as may be produced by manufacturing processes or equipment and to draft conditions likely to be encountered at the time of a fire.

Electric: Magnetically operated switches (industrial control) electrically operated actuating valves, Viking Part Nos. 07831, 07832, 07833, 11601, 11602, 11591NC, 11592NC, 11593NC, 1159YNC, 11595NO, 11596NO, to release air or water under pressure from pilot line. Valve circuit energized by connection to Listed electric type fire detectors, thermostats for releasing device service, or Viking releasing device control panel.

For wet pilot line having water under pressure: Viking Model C-1 pressure-operated relief valve, for use with Viking special system water control valves as indicated in the installation instructions for each type valve and when thermostatically operated tripping mechanism is employed. Maximum operating service pressure 250 psig.

Pneumatic actuators, Models H-1, R-1 for use with Viking special system water control valves as indicated in the individual Listings and manufacturer's installation instructions for each type valve.

Prime shut-off valves, Models A-1, A-2 for use with Viking special system water control valves as indicated in the individual Listings and manufacturer's installation instructions for each type valve.

For pressure regulating valve trim: Viking Model C-2 pilot pressure regulating valve, for use in Viking Model H-1 and H-2 deluge valve pressure regulating trim assemblies, Part Nos. 09065, 09066, 09067, 09068 only.

Heat detector assembly for releasing device service: Firecycle Model B (Viking Part Nos. 04711A, 04717A, 04718A, 04719A, 08288, 08289, 08290, 08291) rate compensation type fixed temperature normally closed circuit contact detector in the 140, 160, 190, 225 F temperature ratings. For indoor use only. For use in extra hazards applications with Listed (HNIR) Firecycle detector cable (Viking Part No. 04632-A) or other Listed 30 min fire rated, power limited cable; Viking Part No. 09954 or 11988 or other Listed 2 hour fire rated, power limited cable in the detection section of Listed (VLLA) Firecycle III- Special System Water Control Valve- Flow Cycling Assemblies. Upon activation the detector contacts open and provide the electrical detection signal to the flow cycling assembly releasing device panel. The detector assembly is to be located and mounted in accordance with NFPA 72, Chapter 5, local codes and the manufacturer's installation instructions with a maximum smooth ceiling spacing of

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40 by 40 ft. for the 140 F temperature rating and 25 by 25 ft. for the 160, 190 and 225 F temperature ratings with the distance of the detector assembly from any walls or partition not more than 20 ft. for the 140 F and 12.5 ft. for the 160, 190 and 225 F temperature ratings.

Heat detector assembly for releasing device service: Firecycle III-OH Model C (Viking Part Nos. 11723, 11724, 11725, 11726, 11727, 11728, 11729, 11730) rate compensation type fixed temperature normally closed circuit contact detector in the 140, 160, 190, 225 F temperature ratings. For indoor use only. For use in ordinary and light hazard applications with Listed (HNIR) Firecycle detector cable (Viking Part Nos. 04632-A) or other Listed 30 min. fire rated, power limited cable, Viking Part Nos. 099954 or 11988 or other Listed 2 hour fire rated, power limited cable in the detection section of Listed (VLLA) Firecycle III- Special System Water Control Valve- Flow Cycling Assemblies. Upon activation the detector contacts open and provide the electrical detection signal to the flow cycling assembly releasing device panel. The detector assembly is to be located and mounted in accordance with NFPA 72, Chapter 5, local codes and the manufacturer's installation instructions with a maximum smooth ceiling spacing of 40 by 40 ft. for the 140 F temperature rating and 25 by 25 ft. for the 160, 190 and 225 F temperature ratings with the distance of the detector assembly from any walls or partition not more than 20 ft. for the 140 F and 12.5 ft. for the 160, 190 and 225 F temperature ratings.

Manual emergency stations, Viking Models C-1, C-2, C-3. An emergency station connected to the pilot line of a deluge valve in order to provide a remote manual means of releasing pressure from the line, thereby tripping the deluge valve.

Authorities having jurisdiction should be consulted before installation.

LOOK FOR LISTING MARK ON PRODUCT

Northbrook, Illinois • (847) 272-8800
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North Carolina • (919) 549-1400
Camas, Washington • (360) 817-5500



VIKING CORP
MR E JACKSON
210 N INDUSTRIAL PARK RD
HASTINGS MI 49058

RE: Project Number(s) - 02NK41919

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VLTR
Accessories for Special Systems

October 18, 2002

VIKING CORP
210 N INDUSTRIAL PARK RD, HASTINGS MI 49058

EX1130

Valve tripping equipment and accessories for "Viking" water supply control valves.

Thermostatic (combined rate-of-rise and fixed temperature): Thermostatic releases, Models C-1, C-2, releasing air or water under pressure from the pilot line. Maximum smooth ceiling spacing, 50 by 50 ft. For Model C-1. Model C-2 with spacing of 40 ft by 40 ft.

Thermostatic (fixed temperature): Pilot line equipped with Listed "Viking" automatic sprinklers opening of which bleeds pressure (air or water) from line.

Thermostatic fixed temperature release: Model M, glass bulb type; 135, 155, 175, 200, 286 F temperature ratings, for use on sprinkler system pilot lines for system pressures up to 250 psig. Upon activation the fixed temperature release bleeds pressure (air or water) from pilot line. Maximum smooth ceiling spacing, 20 by 20 ft for 155, 200, 286 F temperature ratings and 40 by 40 ft for 135 and 175 F temperature ratings. The spacings specified are for flat, smooth ceiling construction of ordinary height, generally regarded as the most favorable condition for distribution of heated air currents resulting from a fire. Under other forms of ceiling construction reduced spacing may be required. The fire tests conducted to determine the suitability of the spacings are conducted in a 60 by 60 ft room having a 15 ft 9 in. high smooth ceiling and minimum air movement. The test fire (denatured alcohol) is located approximately 3 ft above the floor and of a magnitude so that sprinkler operation is obtained in approximately two minutes.

For comparative purposes, automatic sprinklers rated 160 F are installed on a 10 by 10 ft spacing schedule in an upright position with the deflectors approximately 7 in. below the ceiling. At the maximum permissible spacing for the heat detectors they must operate prior to operation of the sprinklers. The placement and spacing of the fixed temperature releases should be based on consideration of the ceiling construction, ceiling height, room or space areas, spaced sub-divisions, the normal room temperature, possible exposure of the devices to abnormal heat such as may be produced by manufacturing processes or equipment and to draft conditions likely to be encountered at the time of a fire.

Electric: Magnetically operated switches (industrial control) electrically operated actuating valves, Viking Part Nos. 07831, 07832, 07833, 11601, 11602, 11591NC, 11592NC, 11593NC, 1159YNC, 11595NO, 11596NO, to release air or water under pressure from pilot line. Valve circuit energized by connection to Listed electric type fire detectors, thermostats for releasing device service, or Viking releasing device control panel.

For wet pilot line having water under pressure: Viking Model C-1 pressure-operated relief valve, for use with Viking special system water control valves as indicated in the installation instructions for each type valve and when thermostatically operated tripping mechanism is employed. Maximum operating service pressure 250 psig.

Releasing device control panel, Model A-1, Part No. 039860, to be used with Listed power supply having battery back up capable of 24 hr. standby. It is designed to provided multiple application capabilities in one standard control unit.

Pneumatic actuators, Models H-1, R-1 for use with Viking special system water control valves as indicated in the individual Listings and manufacturer's installation instructions for each type valve.

Prime shut-off valves, Models A-1, A-2 for use with Viking special system water control valves as indicated in the individual Listings and manufacturer's installation instructions for each type valve.

For pressure regulating valve trim: Viking Model C-2 pilot pressure regulating valve, for use in Viking Model H-1 and H-2 deluge valve pressure regulating trim assemblies, Part Nos. 09065, 09066, 09067, 09068 only.

Heat detector assembly for releasing device service: Firecycle Model B (Viking Part Nos. 04711A, 04717A, 04718A, 04719A, 08288, 08289, 08290, 08291) rate compensation type fixed temperature normally closed circuit contact detector in the 140, 160, 190, 225 F temperature ratings. For indoor use only. For use in extra hazards applications with Listed (HNIR) Firecycle detector cable (Viking Part No. 04632-A) or other Listed 30

min fire rated, power limited cable; Viking Part No. 09954 or 11988 or other Listed 2 hour fire rated, power limited cable in the detection section of Listed (VLLA) Firecycle III- Special System Water Control Valve- Flow Cycling Assemblies. Upon activation the detector contacts open and provide the electrical detection signal to the flow cycling assembly releasing device panel. The detector assembly is to be located and mounted in accordance with NFPA 72, Chapter 5, local codes and the manufacturer's installation instructions with a maximum smooth ceiling spacing of 40 by 40 ft. for the 140 F temperature rating and 25 by 25 ft. for the 160, 190 and 225 F temperature ratings with the distance of the detector assembly from any walls or partition not more than 20 ft. for the 140 F and 12.5 ft. for the 160, 190 and 225 F temperature ratings.

Heat detector assembly for releasing device service: Firecycle III-OH Model C (Viking Part Nos. 11723, 11724, 11725, 11726, 11727, 11728, 11729, 11730) rate compensation type fixed temperature normally closed circuit contact detector in the 140, 160, 190, 225 F temperature ratings. For indoor use only. For use in ordinary and light hazard applications with Listed (HNIR) Firecycle detector cable (Viking Part Nos. 04632-A) or other Listed 30 min. fire rated, power limited cable, Viking Part Nos. 099954 or 11988 or other Listed 2 hour fire rated, power limited cable in the detection section of Listed (VLLA) Firecycle III- Special System Water Control Valve- Flow Cycling Assemblies. Upon activation the detector contacts open and provide the electrical detection signal to the flow cycling assembly releasing device panel. The detector assembly is to be located and mounted in accordance with NFPA 72, Chapter 5, local codes and the manufacturer's installation instructions with a maximum smooth ceiling spacing of 40 by 40 ft. for the 140 F temperature rating and 25 by 25 ft. for the 160, 190 and 225 F temperature ratings with the distance of the detector assembly from any walls or partition not more than 20 ft. for the 140 F and 12.5 ft. for the 160, 190 and 225 F temperature ratings.

Manual emergency stations, Viking Models C-1, C-2, C-3. An emergency station connected to the pilot line of a deluge valve in order to provide a remote manual means of releasing pressure from the line, thereby tripping the deluge valve.

Authorities having jurisdiction should be consulted before installation.

LOOK FOR LISTING MARK ON PRODUCT

Northbrook, Illinois • (847) 272-8800
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Santa Clara, California • (408) 985-2400
Research Triangle Park,
North Carolina • (919) 549-1400
Camas, Washington • (360) 817-5500



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HASTINGS MI 49058

RE: Project Number(s) - 01RS57539

Your most recent Certification is shown below. You may also view this information, or a portion of this information (depending on the product category), on UL's Online Certifications Directory at www.ul.com/database. Please review the text and contact the Conformity Assessment Services staff member who handled your project if revisions are required. For instructions on placing an order for this information in a 3 x 5-inch format, you may refer to the enclosed order form for UL Card Service.

VLTR
Accessories for Special Systems

November 19, 2001

VIKING CORP
210 N INDUSTRIAL PARK RD, HASTINGS MI 49058

EX1130

Valve tripping equipment and accessories for "Viking" water supply control valves.

Thermostatic (combined rate-of-rise and fixed temperature): Thermostatic releases, Models C-1, C-2, releasing air or water under pressure from the pilot line. Maximum smooth ceiling spacing, 50 by 50 ft. For Model C-1. Model C-2 with spacing of 40 ft by 40 ft.

Thermostatic (fixed temperature): Pilot line equipped with Listed "Viking" automatic sprinklers opening of which bleeds pressure (air or water) from line.

Thermostatic fixed temperature release: Model M, glass bulb type; 135, 155, 175, 200, 286 F temperature ratings, for use on sprinkler system pilot lines for system pressures up to 250 psig. Upon activation the fixed temperature release bleeds pressure (air or water) from pilot line. Maximum smooth ceiling spacing, 20 by 20 ft for 155, 200, 286 F temperature ratings and 40 by 40 ft for 135 and 175 F temperature ratings. The spacings specified are for flat, smooth ceiling construction of ordinary height, generally regarded as the most favorable condition for distribution of heated air currents resulting from a fire. Under other forms of ceiling construction reduced spacing may be required. The fire tests conducted to determine the suitability of the spacings are conducted in a 60 by 60 ft room having a 15 ft 9 in. high smooth ceiling and minimum air movement. The test fire (denatured alcohol) is located approximately 3 ft above the floor and of a magnitude so that sprinkler operation is obtained in approximately two minutes.

For comparative purposes, automatic sprinklers rated 160 F are installed on a 10 by 10 ft spacing schedule in an upright position with the deflectors approximately 7 in. below the ceiling. At the maximum permissible spacing for the heat detectors they must operate prior to operation of the sprinklers. The placement and spacing of the fixed temperature releases should be based on consideration of the ceiling construction, ceiling height, room or space areas, spaced sub-divisions, the normal room temperature, possible exposure of the devices to abnormal heat such as may be produced by manufacturing processes or equipment and to draft conditions likely to be encountered at the time of a fire.

Electric: Magnetically operated switches (industrial control) electrically operated actuating valves, Types ASCO HV-264-857-1, 24 VDC or 120 VAC, Viking Part No. 07832 or 07833 Respectively, to release air or water under pressure from pilot line. Valve circuit energized by connection to Listed electric type fire detectors, thermostats for releasing device service, or Viking releasing device control panel.

For wet pilot line having water under pressure: Viking Model C-1 pressure-operated relief valve, for use with Viking special system water control valves as indicated in the installation instructions for each type valve and when thermostatically operated tripping mechanism is employed. Maximum operating service pressure 250 psig.

Releasing device control panel, Model A-1, Part No. 039860, to be used with Listed power supply having battery back up capable of 24 hr. standby. It is designed to provide multiple application capabilities in one standard control unit.

Pneumatic actuators, Models H-1, R-1 for use with Viking special system water control valves as indicated in the individual Listings and manufacturer's installation instructions for each type valve.

Prime shut-off valves, Models A-1, A-2 for use with Viking special system water control valves as indicated in the individual Listings and manufacturer's installation instructions for each type valve.

For pressure regulating valve trim: Viking Model C-2 pilot pressure regulating valve, for use in Viking Model H-1 and H-2 deluge valve pressure regulating trim assemblies, Part Nos. 09065, 09066, 09067, 09068 only.

Heat detector assembly for releasing device service: Firecycle Model B (Viking Part Nos. 04711A, 04717A, 04718A, 04719A, 08288, 08289, 08290, 08291) rate compensation type fixed temperature normally closed circuit contact detector in the 140, 160, 190, 225 F temperature ratings. For indoor use only with Listed (HNIR) Firecycle detector cable (Viking Part Nos. 04632-A, 099954) in the detection section of Listed (VLLA) Firecycle III- Special System Water Control Valve- Flow Cycling Assemblies. Upon activation the detector contacts open and provide the electrical detection

signal to the flow cycling assembly releasing device panel. The detector assembly is to be located and mounted in accordance with NFPA 72, Chapter 5, local codes and the manufacturer's installation instructions with a maximum smooth ceiling spacing of 40 by 40 ft. for the 140 F temperature rating and 25 by 25 ft. for the 160, 190 and 225 F temperature ratings with the distance of the detector assembly from any walls or partition not more than 20 ft. for the 140 F and 12.5 ft. for the 160, 190 and 225 F temperature ratings.

Manual emergency stations, Viking Models C-1, C-2, C-3. An emergency station connected to the pilot line of a deluge valve in order to provide a remote manual means of releasing pressure from the line, thereby tripping the deluge valve.

Electrically operated actuating valves, Models 11591NC, 11593NC.

Authorities having jurisdiction should be consulted before installation.

LOOK FOR LISTING MARK ON PRODUCT