SYSTEM VALVES

Commercial Riser Basic / Basic + Pressure Relief Valve
Sizes 2”, 2 ½”, 3”, 4” y 6”

Technical Data sheet 0322 Rev. R05

Updated document

Characteristics

The AG Fire Sprinkler system valve; Commercial Riser consists of a flow detector, a Test & Drain valve, a pressure gauge and, if that configuration is chosen, a relief valve. All of this is rated at 300 psi working pressure for use in firefighting systems in accordance with NFPA 13 “Standard for the Installation of Sprinkler Systems”. The function of the entire Commercial Riser assembly is to provide a cost effective and reliable solution as a floor control assembly or system water riser.

The Commercial Riser assembly has a Test & Drain valve that allows water to be drained from the main, to which it is attached, when required, by observing it falling through its sight glasses. Another small relief valve can be assembled to this valve, whose function is to automatically evacuate water when it reaches a pressure of 300 psi (21 bar). The riser also has a flow detector in the main pipe that sends a signal to the electrical system when it detects flow through it, as well as a pressure gauge for quick pressure checks.

The Commercial Riser system valve is supplied from the factory with AWWA C606 grooved end connections for ease of installation or maintenance. The Test & Drain valve can be supplied with a wide selection of K-Factor. The valve is supplied with 1” NPT threaded connections for 2” riser size, 1 ¼” NPT threaded connections for 2”, 2 ½” and 3” riser sizes and with 2” NPT threads for sizes 4” and 6”. Their installation must be vertical, as their function is to provide a water riser, drain and test system. However, it can also be installed in horizontal position. If this last position is chosen, it should be noted that the assembly is not listed nor approved, but all its individual components are.

The Commercial Riser assembly consists of standard components that can be installed or disassembled with common tools available to any professional. AG Sprinkler's specific design features a connection of the Test & Drain to the main by means of a mechanical tee. This makes installation or replacement much easier, as there is no need for a welded sleeve on the main pipe, just drilling the corresponding holes for the tee and the flow detector is sufficient.

Both the AG Fire Sprinkler Commercial Riser basic and basic with relief valve configurations are a fantastic solution for performance testing and easy maintenance of fire water supply lines. In addition, the flow detector can provide an electrical alarm, and is a cost-effective and reliable option when installing, upgrading or replacing a fire sprinkler line.

Operating instructions

To perform a test, make sure there is water in the system. Then turn the handle from OFF to the TEST position. It may be necessary to press the metal ball down to turn it. When the test is completed, return the valve to the OFF position.

If the system is to be drained, move the handle from OFF to TEST and press the ball to rotate it to DRAIN. When the system is drained, return the handle to the OFF position.

Instalación

The AG fire Sprinkler Commercial Riser is supplied with its components already assembled at the factory. The pressure gauge, Test & Drain and, if available, the relief valve are already assembled on the main pipe body. To install it in the system, it is only necessary to anchor it to the pipe line connections with appropriate groove connectors, along with a drain connection coming off the Test & Drain. Once in position, connect the flow detector to the power line, open the 3-way valve to operate the pressure gauge and set the Test & Drain to the appropriate position. Once this is done, it will be safe to turn on the water supply.

For horizontal position, the flow detector and pressure gauge shall be on the top side of the pipe in an accessible place.



Listings and approvals

The individual components of the commercial riser are:

1. Listed by Underwriters Laboratories, Inc.
2. Approved by Factory Mutual Research Corp.

Cuidado y mantenimiento

The AG Fire Sprinkler Commercial Riser must be kept free of foreign matter, freezing environments, corrosive atmospheres, contaminated water supplies, and any conditions that could impair its operation or damage the device.

Before shutting down the operation of any fire protection system by shutting off its main water supply, the necessary permission must be obtained and the proper authorities notified, as well as all personnel who may be affected thereby.

The owner is responsible for the inspection, testing and maintenance of both the fire protection system as a whole and the devices covered in this document.

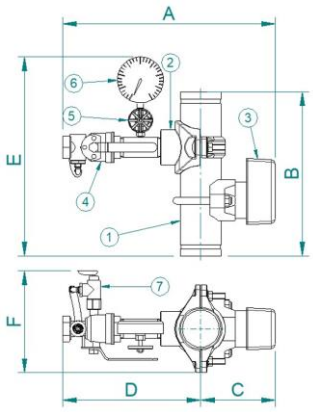
It is recommended that such inspection, testing and maintenance be performed by a qualified inspection service in accordance with local regulations and/or national laws.

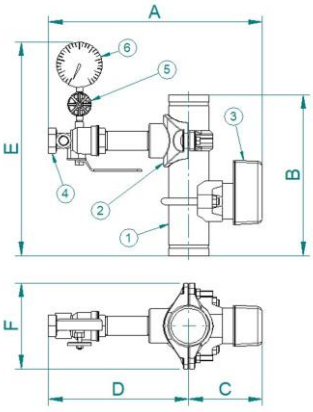
Technical information

Model	Commercial Riser basic Commercial Riser basic + Pressure relief valve
Available sizes	2” DN50, 2 ½” DN65, 3” DN80, 4” DN100, 6” DN150.
Maximum working pressure	300 psi (21 bar)
Position	Vertical (Standard) Horizontal (under request)
Certifications	FM/UL for all the individual components of the product
Connection	Standard groove according to ANSI/AWWA C606
Working temperature	42ºF to 180ºF (from -7ºC to 80ºC)
Coating	Cured polyamide epoxy in RAL3000

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Dimensions





Basic + Pressure Relief Valve Commercial Riser (mm)					
Dimension	2" DN50	2 ½" DN65	3" DN80	4" DN100	6" DN150
A	414	452	496	627	707
B	305	356	356	356	356
C	108	134	162	208	235
D	306	318	334	419	472
E	381	473	473	482	482
F	193	204	221	265	360

Basic Commercial Riser (mm)					
Dimension	2" DN50	2 ½" DN65	3" DN80	4" DN100	6" DN150
A	388	427	470	538	617
B	305	356	356	356	356
C	108	134	162	208	235
D	280	293	308	330	382
E	381	472	472	489	489
F	119	156	190	244	360

Components

No.	Description	Quant.
1	Commercial Riser´s body	1
2	Mechanical tee	1
3	Flow detector	1
4	Test & Drain valve	1
5	3-way valve	1
6	Pressure gauge	1
7	Pressure relief valve	1

Ordering information

		COMMERCIAL RISER		
Valve size	K factor	Basic trim	Basic + pressure relief valve trim	
2" DN50	K40 (2.8) K60 (4.2) K80 (5.6) K115 (8.0) K160 (11.2)	PH050CRRB‡RO	PH050CRRA‡RO	• 6" available in 165 and 168mm • 2 ½" available in 73 and 76,1mm • Replace ‡ with the required k value (40, 60, 80, 115, 160, 200 or 365). • Replace # with connection type: RO (threaded), ROR (thread/groove) or RA (groove)
2 ½" DN65	K40 (2.8) K60 (4.2) K80 (5.6) K115 (8.0) K160 (11.2) K200 (14)	PH065CRRB‡RO	PH065CRRA‡RO	
3" DN80		PH080CRRB‡RO	PH080CRRA‡RO	
4" DN100	K60 (4.2) K80 (5.6) K115 (8.0) K160 (11.2) K200 (14) K240 (16.8) K320 (22.4) K360 (25)	PH100CRRB‡RO	PH100CRRA‡RO	
6" DN150		PH150CRRB‡RO	PH150CRRA‡RO	

Position		
	Vertical	Standard
	Horizontal	Under request

The equipment presented in this data sheet is to be installed in accordance with the latest published Standards of the national fire protection association (NFPA), FM Global, LPCB, VdS or other similar organizations, 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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