

Working Pressure & Temperature

Max Working Pressure:	300PSI / 21 Bar
Working Temperature:	-10°C to 120°C (14°F to 248°F) Fusion bonded epoxy coated interior and exterior RAL3002
Flanged Ends:	ANSI B16.1 Class 125/150 EN1092-2 PN10/PN16 BS10
Valve Standard:	Conforms to AWWA C515 / BS5163

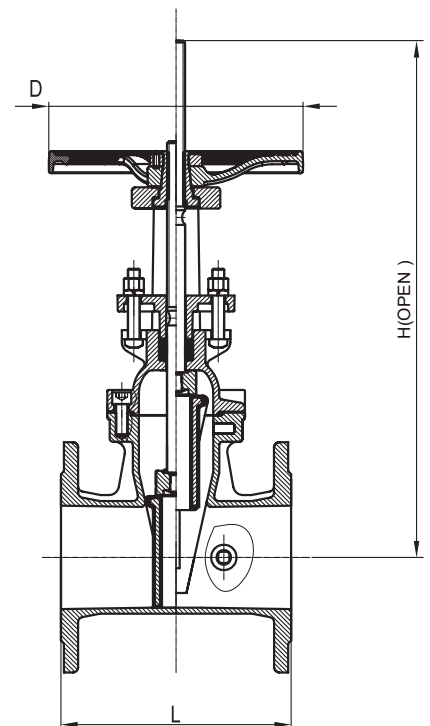


Material List

Component	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge	Ductile Iron ASTM A536 65-45-12 + EPDM
Wedge Nut	Stainless Steel AISI 304
Stem	Stainless Steel AISI 304/420
Bonnet	Ductile Iron ASTM A536 65-45-12
Gasket	EPDM
Packing	Graphite
Stem Nut	Bronze ASTM B62
Handwheel	Ductile Iron A536 65-45-12

Dimensions Inch (mm) and Weight lbs (kg)

DN	L	H	D	Weight
2 (50)	7.01 (178)	16.18 (411)	7.20 (183)	38.89 (17.64)
2 ½ (65)	7.52 (191)	16.18 (411)	7.20 (183)	41.69 (18.91)
3 (80)	8.00 (203)	18.19 (462)	9.96 (253)	48.79 (22.13)
4 (100)	9.00 (229)	20.24 (514)	9.96 (253)	59.88 (27.16)
5 (125)	10.00 (254)	24.76 (629)	12.05 (306)	89.51 (40.6)
6 (150)	10.50 (267)	27.91 (709)	12.05 (306)	103.40 (46.9)
8 (200)	11.50 (292)	36.18 (919)	13.98 (355)	158.73 (72)
10 (250)	13.00 (330)	43.94 (1116)	17.52 (445)	244.71 (111)
12 (300)	14.00 (356)	51.18 (1300)	17.52 (445)	368.17 (167)



Design and materials subject to change without notice.





Resilient Seated OS&Y Flanged Gate Valve

REL-OSY-L399F

Ordering Information

Description	Size (mm)	Part Number
RASCO, (PN16) FXF, 300PSI, OSY, L399F	50 (2")	7U99002330
RASCO, (PN16) FXF, 300PSI, OSY, L399F	65 (2 1/2")	7U99002331
RASCO, (PN16) FXF, 300PSI, OSY, L399F	80 (3")	7U99002332
RASCO, (PN16) FXF, 300PSI, OSY, L399F	100 (4")	7U99002333
RASCO, (PN16) FXF, 300PSI, OSY, L399F	125 (5")	7U99002334
RASCO, (PN16) FXF, 300PSI, OSY, L399F	150 (6")	7U99002335
RASCO, (PN16) FXF, 300PSI, OSY, L399F	200 (8")	7U99002336
RASCO, (PN16) FXF, 300PSI, OSY, L399F	250 (10")	7U99002337
RASCO, (PN16) FXF, 300PSI, OSY, L399F	300 (12")	7U99002380

Description	Size (mm)	Part Number
RASCO, (ANSI) FXF, 300PSI, OSY, L399F	50 (2")	7U99002338
RASCO, (ANSI) FXF, 300PSI, OSY, L399F	65 (2 1/2")	7U99002339
RASCO, (ANSI) FXF, 300PSI, OSY, L399F	80 (3")	7U99002340
RASCO, (ANSI) FXF, 300PSI, OSY, L399F	100 (4")	7U99002341
RASCO, (ANSI) FXF, 300PSI, OSY, L399F	150 (6")	7U99002342
RASCO, (ANSI) FXF, 300PSI, OSY, L399F	200 (8")	7U99002343
RASCO, (ANSI) FXF, 300PSI, OSY, L399F	250 (10")	7U99002344
RASCO, (ANSI) FXF, 300PSI, OSY, L399F	300 (12")	7U99002345



Model REL-FCV-L501F Flanged Swing Check Valve

cULus Listed, FM Approved
300 psi (20.7 bar)

Product Description

Reliable Model REL-FCV-L501F single swing check valves are low friction loss check valves approved for use in fire protection systems. These are used in fire protection systems to allow water-flow in one direction only. Typical applications include connections between public water supplies and private fire systems, at the discharge from fire pumps, at gravity tank connections and at fire department pumper connections.

Maintenance

The owner is responsible for maintaining the fire protection system in proper operating condition. Any system maintenance or testing that involves placing a control valve out of service will eliminate the fire protection that is provided by the fire protection system.

The Reliable flanged swing check valves and associated equipment shall periodically be given a thorough inspection and test. NFPA 25, "Inspection, Testing and Maintenance of Water Based Fire Protection Systems," provides minimum maintenance requirements.

Installation

The Reliable Model REL-FCV-L501F Swing Check Valve shall be installed in accordance with NFPA 13, "Standard for the Installation of Sprinkler Systems," as well as the requirements of any authorities having jurisdiction. Verify compatibility of the Model REL-FCV-L501F materials with the water supply and the environment where the valve will be installed prior to installation. Do not apply lubricants, sealants, or other chemicals to the clapper seal or seat.

Guarantee

For Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.



Flanged Swing Check Valve

Ordering Information

Specify the following when ordering:

Model

- REL-FCV-L501F

Valve Size

- 2" (50 mm)
- 2-1/2" (65 mm)
- 3" (80 mm)
- 4" (100 mm)
- 5" (125 mm)
- 6" (150 mm)
- 8" (200 mm)
- 10" (250 mm)
- 12" (300 mm)

End Connection

- ANSI / ASME Class 125 / 150 with Raised Face

Reliable Model REL-FCV-L501F Flanged Swing Check Valve

Technical Specifications

Pressure Rating:
300 psi (20.7 bar)

Material Specifications

Body: ASTM Gr A536 65-45-12 Ductile Iron

Bonnet: ASTM Gr A536 65-45-12 Ductile Iron

Clapper: ASTM Gr A536 65-45-12 Ductile Iron with EPDM rubber

Clapper Arm: ASTM Gr A536 65-45-12 Ductile Iron

Hinge Pin: ASTM A276 Stainless Steel (equivalent to AISI 304)

Seat: ASTM B584 Gr C84400 Red Brass

Product Design & Performance Specifications

AWWA C508

UL 312

FM 1210

End Connections

ANSI / ASME Class 125 / 150 with Raised Face

Coatings

Red paint

Listings and Approvals

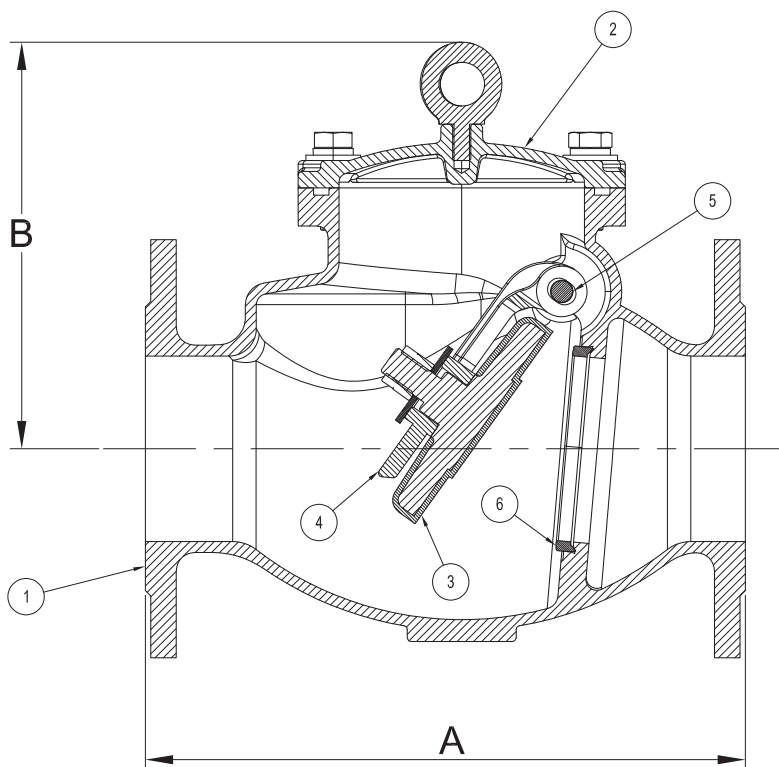
cULus Listed

FM Approved



Reliable Model REL-FCV-L501F Flanged Swing Check Valve Specification and Dimensions

Figure 2



Item Number	Item Description
1	Body
2	Bonnet
3	Clapper
4	Clapper Arm
5	Hinge Pin
6	Seat

Dimensions in. (mm) and Weights lbs (kg)

Table B

Valve Size	A	B	Weight
2" (50)	8" (203)	4-5/8" (117)	24 (10.8)
2-1/2" (65)	10" (254)	5-1/16" (128)	35 (15.75)
3" (80)	11" (279)	5-1/4" (133)	44 (19.8)
4" (100)	13" (330)	8-3/4" (223)	67 (30.6)
5" (125)	14" (356)	11-7/16" (290)	115 (52.2)
6" (150)	16" (406)	11-11/16" (297)	134 (60.57)
8" (200)	19-1/2" (495)	14-3/8" (365)	238 (108)
10" (250)	22" (559)	16-5/16" (418)	345 (156.6)
12" (300)	26" (660)	17-13/16" (453)	488 (221.4)

Features

- NEMA 4X* (IP 65) and 6P (IP 67)
- **Enclosure is 4X. For additional corrosion protection of mounting hardware, use model OSYSU-2 CRH*
- -40° to 140° (-40°C to 60°C) operating temperature range
- Visual switch indicators
- Two conduit entrances
- Adjustable length trip rod
- Accommodates up to 12AWG wire
- Three position switch detects tampering and valve closure
- Knurled mounting bracket prevents slipping
- Fine adjustment feature for fast, easy installation
- RoHS compliant
- One or two SPDT contact models (-1,-2)

NOTICE

Before any work is done on the fire sprinkler or fire alarm system, the building owner or their authorized representative shall be notified. Before opening any closed valve, ensure that opening the valve will not cause any damage from water flow due to open or missing sprinklers, piping, etc.



Important: This document contains important information on the installation and operation of OS&Y valve supervisory switches. Please read all instructions carefully before beginning installation. A copy of this document is required by NFPA 72 to be maintained on site.

Description

The OSYSU is used to monitor the open position of an OS&Y (outside screw and yoke) type gate valve. This device is available in two models; the OSYSU-1, containing one set of SPDT (Form C) contacts and the OSYSU-2, containing two sets of SPDT (Form C) contacts. These switches mount conveniently to most OS&Y valves ranging in size from 2" to 12" (50mm to 300mm). They will mount on some valves as small as 1/2" (12,5mm).

The cover is held in place by two tamper resistant screws that require a special tool to remove. The tool is furnished with each device.

Testing

The operation of the OSYSU and its associated protective monitoring system shall be inspected, tested, and maintained in accordance with all applicable local and national codes and standards and/or the Authority Having Jurisdiction (manufacturer recommends quarterly or more frequently). A minimum test shall consist of turning the valve wheel towards the closed position. The OSYSU shall operate within the first two revolutions of the wheel. Fully close the valve and ensure that the OSYSU does not restore. Fully open the valve and ensure that the OSYSU restores to normal only when the valve is fully opened.

CAUTION

Close the valve fully to determine that the stem threads do not activate the switch. The switch being activated by the stem threads could result in a **false valve open** indication.

Technical Specifications

Dimensions	See Fig 8
Weight	1.6 lbs (0,73 kg)
Enclosure	Cover: Weather/UV/Flame Resistant High Impact Composite Base: Die Cast Finish: Black Powder Coat All parts have corrosion resistant finishes
Cover Tamper	Tamper Resistant Screws Optional Cover Tamper Switch Available
Contact Ratings	OSYSU-1: One Set of SPDT (Form C) OSYSU-2: Two Sets of SPDT (Form C) 10.0 Amps at 125/250 VAC 2.0 Amps at 30VDC Resistive 10 mAmps minimum at 24 VDC
Environmental Limitations	-40° F to 140°F (-40°C to 60°C) NEMA 4X (IP 65) and NEMA 6P (IP 67) Enclosure (Use suitably rated conduit and connector) Indoor or Outdoor Use (See OSYSU-EX Bulletin 5400705 for Hazardous locations)
Conduit Entrances	Two Knockouts for 1/2" conduit provided (See Notice on Page 6 and Fig. 9 on Page 5)
Service Use	NFPA 13, 13D, 13R, 72

Specifications subject to change without notice

Theory of Operation

The OSYSU is a 3 position switch. The center position is the normal installation position. Normal is when the switch is installed on the OS&Y valve, the valve is fully open and the trip rod of the OSYSU is in the groove of the valve stem. Closing the valve causes the trip rod to ride up out of the groove and activates the switches. Removing the OSYSU from the valve causes the spring to pull the trip rod in the other direction and activates the switches.

Visual Switch Status Indication

There are 3 visual indicators to determine the status of the switches.

Fig 1; the actuator button of the micro switches are on the raised section of the switch actuator.

Fig 2; the trip rod is perpendicular to the base and lined up with the alignment mark on the mounting bracket.

Fig 3; the white visual indicator is visible through the window on the back of the switch actuator.

A final test is to meter the contacts marked COM and N.O. to ensure they are an open circuit when the valve is open and that they close and have continuity within 2 revolutions of turning the valve handwheel towards the closed position and the contacts remain closed as the valve is completely closed and until the valve is completely opened when the trip rod drops back into the groove in the valve stem.

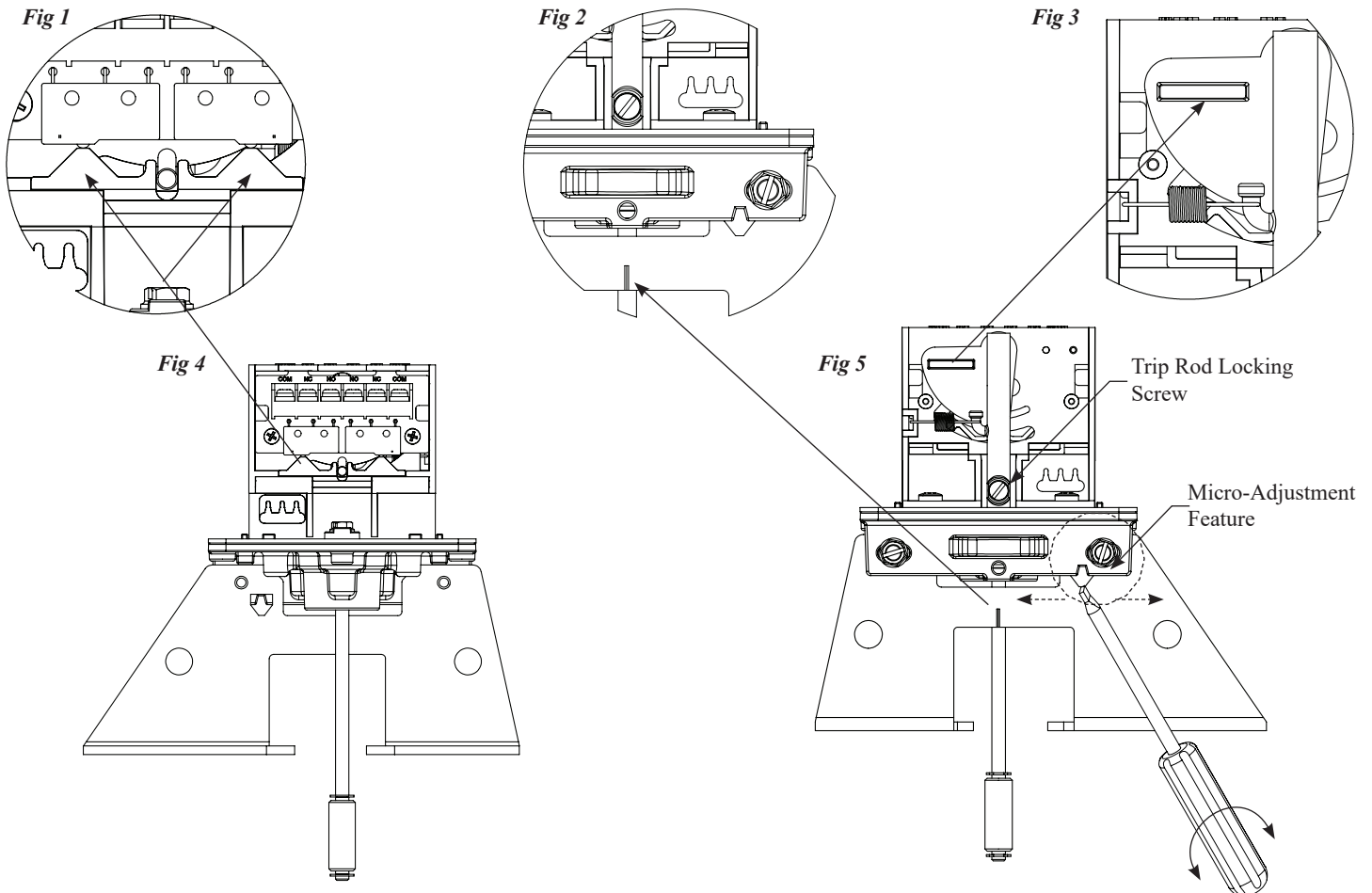
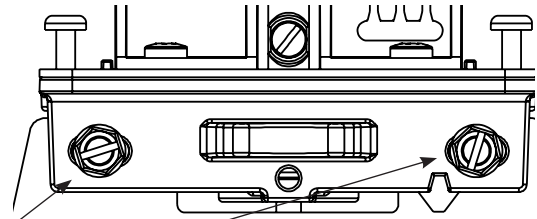
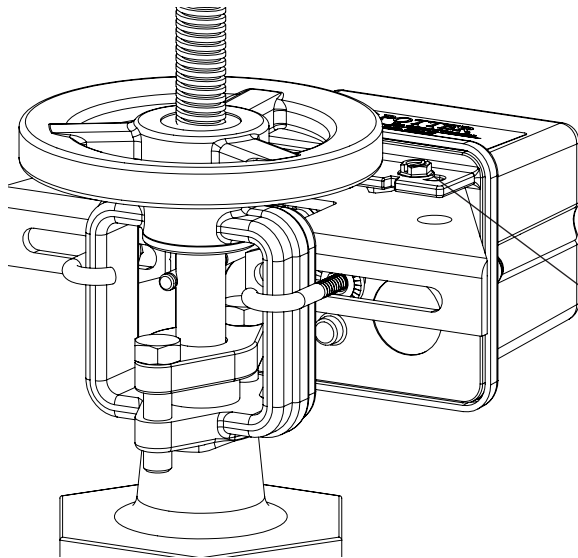


Fig 6

Small Valve Installation - 1/2" Through 2 1/2" Sizes



Slotted mounting holes and micro-adjustment feature may be used for fine adjustment of switch assembly to mounting bracket.
Re-tighten screws to 20 in-lbs minimum.

Small Valve Installation

NOTE: If the valve stem is pre-grooved at 1/8" minimum depth; proceed to step 7.

1. Remove and discard "E" ring and roller from the trip rod.
2. With the valve in the FULL OPEN position, locate the OSYSU across the valve yoke as far as possible from the valve gland so that the spring loaded trip rod of the OSYSU is pulled against the non threaded portion of the valve stem. Position the OSYSU with the bracket near the handwheel as shown in Fig. 6 if possible to avoid creating a pinch point between the wheel and the OSYSU.
3. Loosen the locking screw that holds the trip rod in place and adjust the rod length (see Fig. 5). When adjusted properly, the rod should extend past the valve screw, but not so far that it contacts the clamp bar. Tighten the locking screw to 5 in-lbs minimum to hold the trip rod in place and properly seal the enclosure.
- NOTE:** If trip rod length is excessive, loosen the locking screw and remove the trip rod from the trip lever. Using pliers, break off the one (1) inch long notched section (see Fig. 10). Reinstall trip rod and repeat Step 3 procedure.
4. Mount the OSYSU loosely with the carriage bolts and clamp bar supplied. On valves with limited clearance use J-hooks supplied instead of the carriage bolts and clamp bar to mount the OSYSU.
5. Mark the valve stem at the center of the trip rod.
6. Remove the OSYSU. Utilizing a 3/16" or 1/4" diameter straight file, file a 1/8" minimum depth groove centered on the mark on the valve stem. Deburr and smooth the edges of the groove to prevent damage to the valve packing and to allow the trip rod to move easily in and out of the groove as the valve is operated.

NOTE: A groove depth of up to approximately 3/16" can

make it easier to install the OSYSU so that it does not restore as it rolls over by the threads of the valve stem.

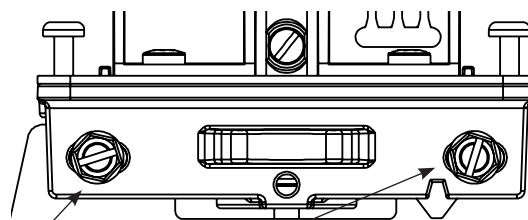
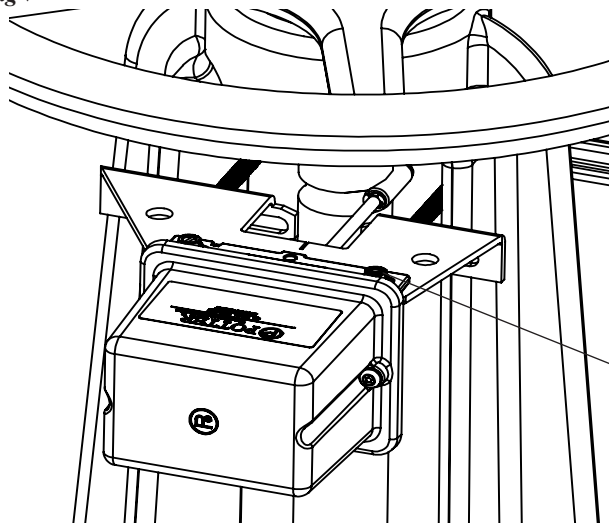
7. Mount the OSYSU on the valve yoke with the spring loaded trip rod of the OSYSU pulled against the valve stem and centered in the groove of the stem. If possible, position the OSYSU with the flat side of the bracket toward the hand wheel, as shown in Fig. 6, to help avoid creating a pinch point between the wheel and OSYSU. When in this preferred mounting position, it is usually best to use the white indicator visible through the window, as illustrated in Fig. 3, to aid in initially locating the OSYSU in the correct position on the yoke. If the unit must be installed inverted with the white indicator no longer easily visible, use the visual indicators of the actuator buttons on the micro-switches, as illustrated in Fig. 1, or the trip rod alignment mark on the bracket, as illustrated in Fig. 2, to aid in initially locating the OSYSU.
8. Final adjustment can be made by slightly loosening the two screws on the bracket and using the fine adjustment feature (see Fig. 5). The adjustment is correct when the plungers on the switches are depressed by the actuator and there is no continuity between the COM and NO terminals on the switches.
9. Tighten the adjustment screws and all mounting hardware securely (20 in-lbs minimum). Check to insure that the rod moves out of the groove easily and that the switches activate within two turns when the valve is operated from the FULL OPEN towards the CLOSED position.
10. Reinstall the cover and tighten the cover screws to 15 in-lbs minimum to properly seal the enclosure.

CAUTION

Close the valve fully to determine that the stem threads do not activate the switch. The switch being activated by the stem threads could result in a **false valve open** indication.

Fig 7

Large Valve Installation - 3" Through 12" Sizes



Slotted mounting holes and micro-adjustment feature may be used for fine adjustment of switch assembly to mounting bracket. Re-tighten screws to 20 in-lbs minimum.

Large Valve Installation

NOTE: If the valve stem is pre-grooved at 1/8" minimum depth; proceed to step 6.

1. With the valve in the FULL OPEN position, locate the OSYSU across the valve yoke as far from the valve gland as possible so that the spring loaded trip rod of the OSYSU is pulled against the non threaded portion of the valve stem. Position the OSYSU with the bracket near the handwheel as shown in Fig. 7 if possible to avoid creating a pinch point between the wheel and the OSYSU.
2. Mount the OSYSU loosely with the carriage bolts and clamp bar supplied.
3. Loosen the locking screw that holds the trip rod in place and adjust the rod length (see Fig. 5). When adjusted properly, the rod should extend past the valve screw, but not so far that it contacts the clamp bar. Tighten the locking screw to 5 in-lbs minimum to hold the trip rod in place and properly seal the enclosure.
4. Mark the valve stem at the center of the trip rod.
5. Remove the OSYSU. Utilizing a 3/8" or 1/2" diameter straight file, file a 1/8" minimum depth groove centered on the mark on the valve stem. Deburr and smooth the edges of the groove to prevent damage to the valve packing and to allow the trip rod to move easily in and out of the groove as the valve is operated.

NOTE: A groove depth of up to approximately 3/16" can make it easier to install the OSYSU so that it does not restore

as it rolls over by the threads of the valve stem.

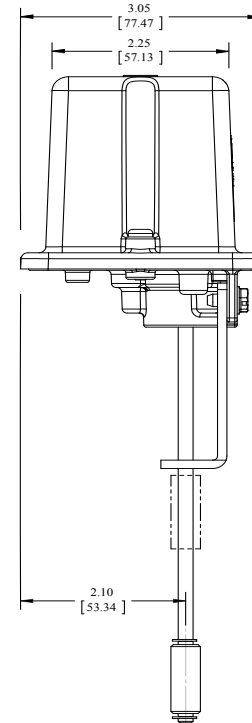
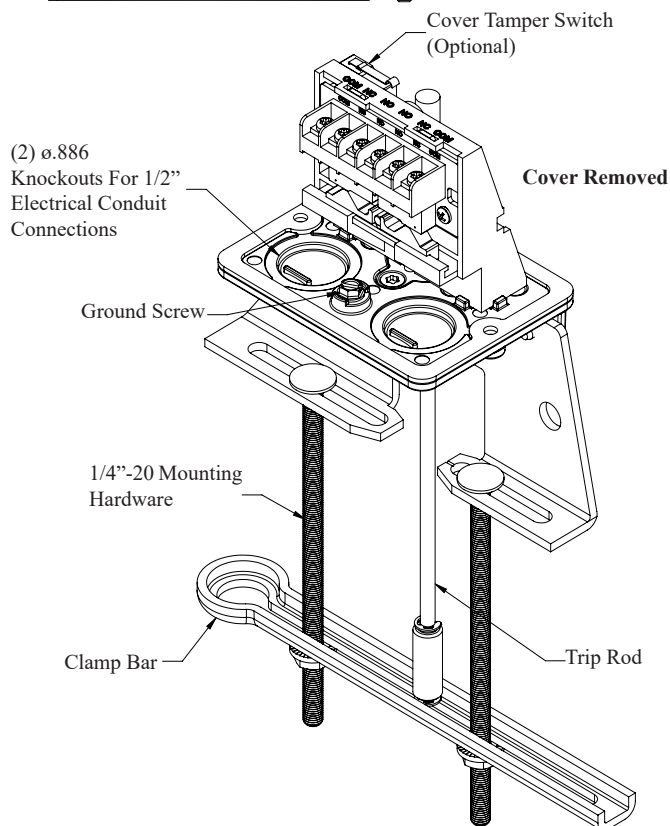
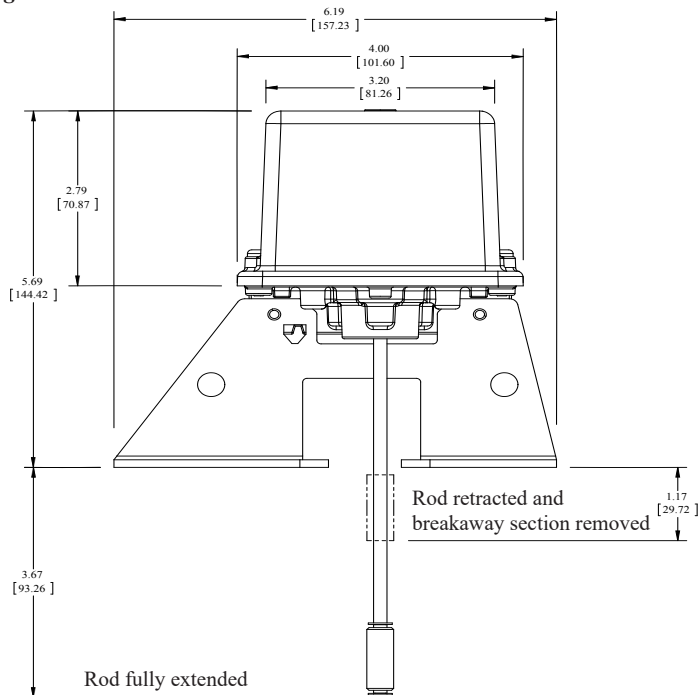
6. Mount the OSYSU on the valve yoke with the spring loaded trip rod of the OSYSU pulled against the valve stem and centered in the groove of the stem. If possible, position the OSYSU with the flat side of the bracket toward the hand wheel, as shown in Fig. 7, to help avoid creating a pinch point between the wheel and OSYSU. When in this preferred mounting position, it is usually best to use the white indicator visible through the window, as illustrated in Fig. 3, to aid in initially locating the OSYSU in the correct position on the yoke. If the unit must be installed inverted with the white indicator no longer easily visible, use the visual indicators of the actuator buttons on the micro-switches, as illustrated in Fig. 1, or the trip rod alignment mark on the bracket, as illustrated in Fig. 2, to aid in initially locating the OSYSU.
7. Final adjustment can be made by slightly loosening the two screws on the bracket and using the fine adjustment feature (see Fig. 5). The adjustment is correct when the plungers on the switches are depressed by the actuator and there is no continuity between the COM and NO terminals on the switches.
8. Tighten the adjustment screws and mounting hardware securely (minimum 20 in-lbs). Check to insure that the rod moves out of the groove easily and that the switches activate within two turns when the valve is operated from the FULL OPEN towards the CLOSED position.
9. Reinstall the cover and tighten the cover screws to 15 in-lbs minimum to properly seal the enclosure.

CAUTION

Close the valve fully to determine that the stem threads do not activate the switch. The switch being activated by the stem threads could result in a **false valve open** indication.

Dimensions

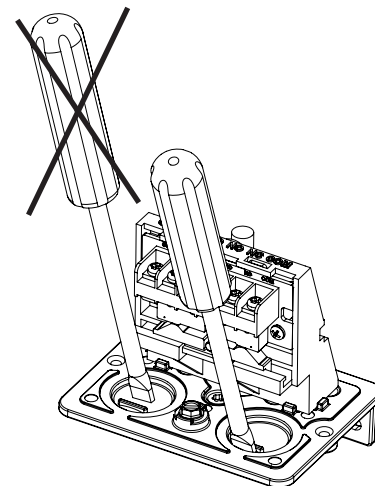
Fig 8



Knockout Removal

Fig 9

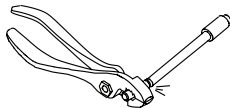
To remove knockouts: Place screwdriver at inside edge of knockouts, not in the center.



NOTE: Do not drill into the base as this creates metal shavings which can create electrical hazards and damage the device. Drilling voids the warranty.

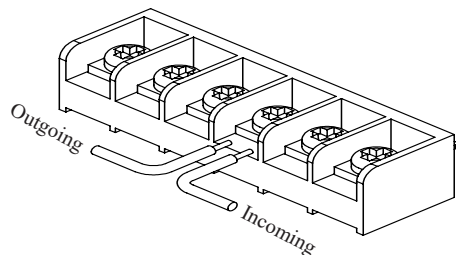
Breaking Excessive Rod Length

Fig 10



Switch Terminal Connections Clamping Plate Terminal

Fig 11



WARNING

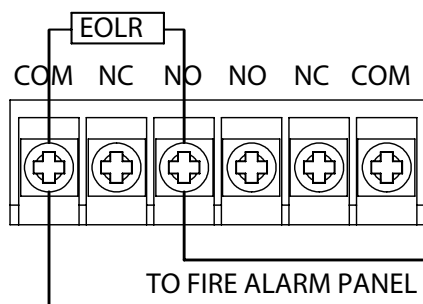
An uninsulated section of a single conductor should not be looped around the terminal and serve as two separate connections. The wire must be severed, thereby providing supervision of the connection in the event that the wire become dislodged from under the terminal. Failure to sever the wire may render the device inoperable risking severe property damage and loss of life. Do not strip wire beyond 3/8" of length or expose an uninsulated conductor beyond the edge of the terminal block. When using stranded wire, capture all strands under the clamping plate.

NOTICE

All conduit and connectors selected for the installation of this product shall be suitable for the environment for which it is to be used and shall be installed to the manufacturer's installation instructions. For NEMA 4, 4X, 6, 6P installations, the cover screws are recommended to be tightened to 15 in-lbs minimum and the trip rod locking screw tightened to 5 in-lbs minimum to properly seal the enclosure.

Typical Electrical Connections

Fig 12



Ordering Information

Model	Description	Stock No.
OSYSU-1	Outside Screw & Yoke Supervisory Switch (Single switch)	1010102
OSYSU-2	Outside Screw & Yoke Supervisory Switch (Double switch)	1010202
OSYSU-2 CRH	Outside Screw & Yoke Supervisory Switch (Double Switch). Corrosion resistant hardware of 316 stainless steel	1010210
	Cover Screw	5490424
	Hex Key for Cover Screws and Installation Adjustments	5250062
	Optional Cover Tamper Switch Kit	0090200

Engineering Specifications: OS&Y Valves

UL, CUL Listed / FM Approved and CE Marked valve supervisory switches shall be furnished and installed on all OS&Y type valves that can be used to shut off the flow of water to any portion of the fire sprinkler system, where indicated on the drawings and plans and as required by applicable local and national codes and standards. The supervisory switch shall be NEMA 4X and 6P rated and capable of being mounted in any position indoors or out and be completely submerged without allowing water to enter the enclosure.. The enclosure shall be held captive by tamper resistant screws. The device shall contain two 1/2" conduit entrances and one or two Single Pole Double Throw (SPDT) switches. There shall be a visual indicator to display the status of the switches. To aid in installation, it shall be possible to make fine adjustments to the position of the switch on the valve without loosening the mounting bracket from the valve. The device shall contain an adjustable length trip rod and roller, the trip rod shall be held captive by a set screw accessible upon removal of the cover. The switch contacts shall be rated at 10A, 125/250VAC and 2A, 30VDC. OS&Y Valve supervisory switch shall be model OSYSU-1 for the single switch model and OSYSU-2 for the two switch model manufactured by Potter Electric Signal Company LLC

NOTICE

Supervisory switches have a normal service life of 10-15 years. However, the service life may be significantly reduced by local environmental conditions.



WFD Series Waterflow Detector

The System Sensor WFD series is compatible with schedule 10 through 40 steel pipe, sizes 2" through 8", and can be mounted in a vertical or horizontal position.

Features

- Two-inch mounting hole provided in new WFD30-2 models
- UL-listed models are NEMA 4 rated
- Sealed retard mechanism immune to dust and other contaminants
- Visual switch activation
- Field-replaceable retard mechanism and SPDT switches
- Rugged, dual SPDT switches enclosed in a durable terminal block
- Accommodates up to 12 AWG wire
- Designed for both indoor and outdoor use
- 100 percent synchronization activates both alarm panel and local bell
- Tamper-resistant cover screws



Robust Construction. The WFD series consists of a rugged, NEMA 4-rated enclosure. Designed for both indoor and outdoor use, the WFD series operates across a wide temperature range, from 32°F to 120°F.

Reliable Performance. UL-listed models are equipped with tamper-resistant cover screws to prevent unauthorized entry. Inside, two sets of SPDT (Form C) synchronized switches are enclosed in a durable terminal block to assure reliable performance.

False Alarm Immunity. The WFD series incorporates a mechanical retard feature, which minimizes the risk of false alarm due to pressure surges or air trapped in the sprinkler system. In addition, the mechanical retard's unique sealed design is immune to dust and other contaminants.

Simplified Operation. The WFD series is designed to simplify installation. Two conduit openings permit easy attachment to the local alarm system. The retard mechanism and dual SPDT switches are field-replaceable.

Agency Listings



Waterflow Detector Specifications

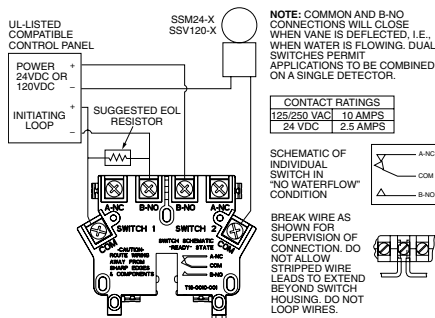
Engineering Specifications

Vane-type waterflow detectors shall be installed on system piping as designated on the drawing and/or as specified herein. Detectors shall mount on any clear pipe span of the appropriate nominal size, either a vertical upflow or horizontal run, at least 6" from any fittings that may change water direction, flow rate, or pipe diameter or no closer than 24" from a valve or drain. Detectors shall have a sensitivity in the range of 4 to 10 gallons per minute and a static pressure rating of 450 psi* for 2" – 8" pipes. The detector shall respond to waterflow in the specified direction after a preset time delay that is field adjustable. The delay mechanism shall be a sealed mechanical pneumatic unit with visual indication of actuation. The actuation mechanism shall include a polyethylene vane inserted through a hole in the pipe and connected by a mechanical linkage to the delay mechanism. Outputs shall consist of dual SPDT switches (Form C contacts). Two conduit entrances for standard fittings of commonly used electrical conduit shall be provided on the detectors. A grounding provision is provided. Unless noted, enclosures shall be NEMA 4 listed by Underwriters Laboratories Inc. All detectors shall be listed by Underwriters Laboratories Inc. for indoor or outdoor use.

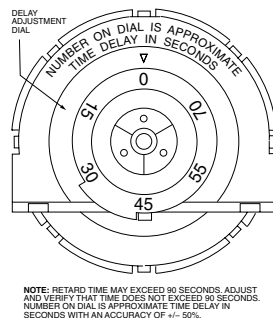
Standard Specifications

Static Pressure Rating	450 PSI*	Operating Temperature Range	32°F to 120°F (0°C to 49°C)
Maximum Surge	18 Feet Per Second (FPS)	Enclosure Rating*	NEMA 4 – suitable for indoor/outdoor use
Triggering Threshold Bandwidth (Flow Rate)	4–10 GPM	Cover Tamper Switch	Standard with ULC models, optional for UL models, part no. 546-7000
Conduit Entrances	Two openings for ½" conduit. One open, one knock-out type	Service Use	Automatic Sprinkler: NFPA-13 One or Two Family Dwelling: NFPA 13D Residential Occupancies up to 4 Stories: NFPA 13R National Fire Alarm Code: NFPA-72
Contact Ratings	Two sets of SPDT (Form C) 10.0 A, ½ HP @ 125/250 VAC 2.5 A @ 6/12/24 VDC	U.S. Patent Numbers	5,213,205
Compatible Pipe	Steel water pipe, schedule 10 through 40	Warranty	3 Years

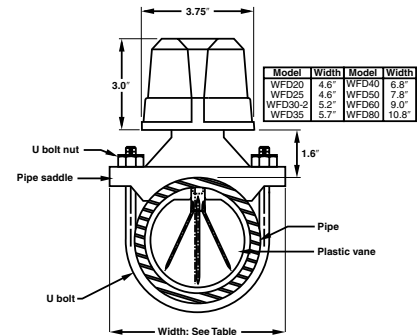
WFD Field Wiring Diagram



Delay Adjustment Dial



Overall Dimensions, Installed



Ordering Information

UL Model	ULC Model	Pipe Size	Hole Size	Shipping Weight
WFD20	WFD20A	2"	1 ¼"	4.2 lbs.
WFD25	WFD25A	2 ½"	1 ¼"	4.3 lbs.
WFD30-2	WFD30-2A	3"	2"	4.5 lbs.
WFD35	WFD35A	3 ½"	1 ¼"	4.7 lbs.
WFD40	WFD40A	4"	2"	5.2 lbs.
WFD50	WFD50A	5"	2"	6.3 lbs.
WFD60*	WFD60A	6"	2"	6.8 lbs.
WFD80*	WFD80A	8"	2"	7.5 lbs.

Accessories

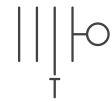
A3008-00	Retard mechanism
A77-01-02	Terminal block
546-7000	Tamper-proof switch kit
WFDW	Tamper-proof wrench for cover
WFDN4	Gasket kit

*Maximum pressure rating 400 psi as approved by Factory Mutual.



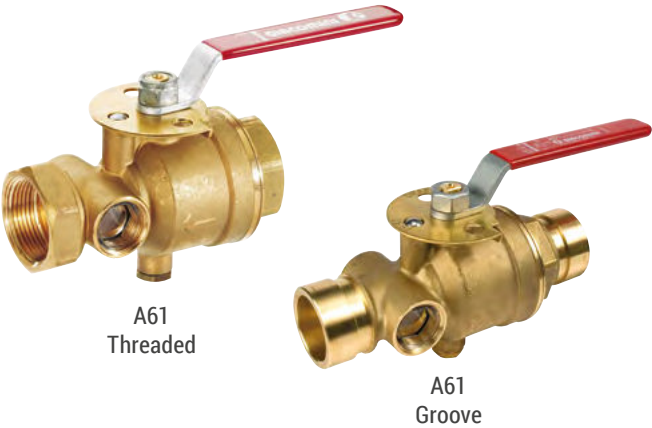
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495

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A05-0180-013 • 1/09 • #1922



Test and drain valves

Datasheet
0686EN  09/2025



A61 Test and Drain valves for sprinkler systems combines the functions of test and drain for wet sprinkler systems. A61 valves is made of DZR (dezincification resistant) brass body with chrome plated brass ball valve and PTFE seats. The valves features a single handle with three working positions. They include tamper resistant test orifice and sight glass for the visual control. In compliance with the requirements of NFPA-13, NFPA13R and NFPA-13D and with FM and UL 258:2025 for fire protection applications with water.

➤ Versions and product codes

SERIES	SIZE	TYPE
A61	1"	Rp, EN 10226 (F) x Rp, EN 10226 (F)
	1-1/4"	
	1-1/2"	
	2"	
	1"	NPT (F) x NPT (F)
	1-1/4"	
	1-1/2"	
	2"	
	1-1/4"	Groove x Groove
	2"	

➤ Technical data

- Suitable for fire protection applications with water
- Rated pressure: 300 psi (20,6 bar)

Materials

- Forged DZR UNI EN 12165 CW602N brass body
- Chrome plated ball
- Steel lever handle with anti-corrosion treatment and red PVC coating
- Valve seat in PTFE
- Indication disk in brass
- Sight glasses in polycarbonate

Approvals

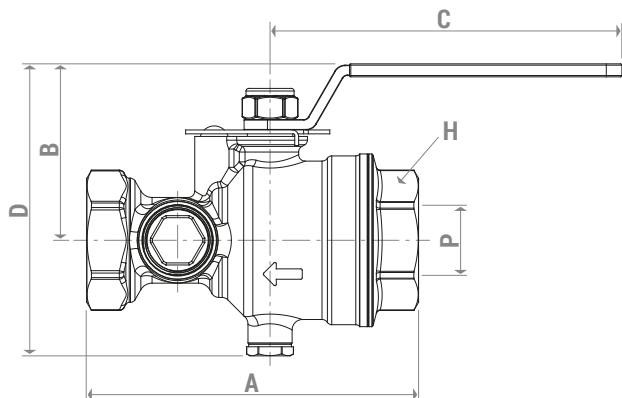
- UL 258:2025
- FM

➤ Orifice codes and K-factor

VALVES SIZE	SIZE	K FACTOR
1"	3/8"	2,8
	7/16"	4,2
	1/2"	5,6
	17/32"	8,0
1-1/4"	3/8"	2,8
	7/16"	4,2
	1/2"	5,6
	17/32"	8,0
	5/8"	11,2
	3/4"	14,0
1-1/2" 2"	7/16"	4,2
	1/2"	5,6
	17/32"	8,0
	5/8"	11,2
	3/4"	14,0
	15/16"	16,8
	1-5/64"	22,4
	1-9/64"	25,2

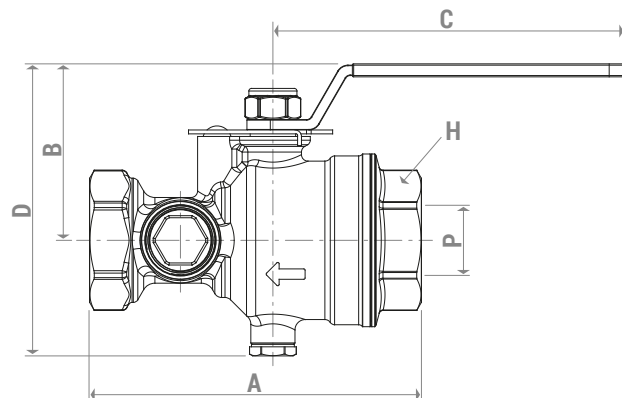
➤ Dimensions

A61 (Rp-F x Rp-F)



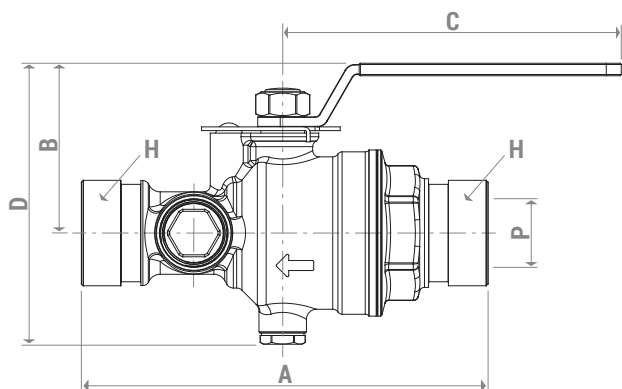
SIZE	C (PLUG)	P (PORT)	A	B	C	D	H
1"	1/4"	1-1/16"	5-1/18"	2-43/64"	5-11/32"	4-27/64"	1-57/64"
1-1/4"	1/4"	1-1/16"	5-7/16"	2-43/64"	5-11/32"	4-27/64"	1-57/64"
1-1/2"	1/4"	1-18/32"	6-3/16"	4"	6-26/32"	4-21/64"	2-40/64"
2"	1/4"	1-12/16"	6-21/32"	4"	6-26/32"	4-21/64"	2-40/64"

A61 (NPT-F x NPT-F)



SIZE	C (PLUG)	P (PORT)	A	B	C	D	H
1"	1/4"	1-1/16"	5-1/32"	2-43/64"	5-11/32"	4-27/64"	1-57/64"
1-1/4"	1/4"	1-1/16"	5-1/32"	2-43/64"	5-11/32"	4-27/64"	1-57/64"
1-1/2"	1/4"	1-18/32"	6-6/32"	4"	6-26/32"	6-21/64"	2-40/64"
2"	1/4"	1-12/16"	6-6/32"	4"	6-26/32"	6-21/64"	2-40/64"

A61 (Groove x Groove)



SIZE	C (PLUG)	P (PORT)	A	B	C	D	H
1-1/4"	1/4"	1-1/16"	6-13/32"	2-43/64"	5-11/32"	4-27/64"	1-1/4" GROOVE
2"	1/4"	1-12/16"	7-17/32"	4"	6-26/32"	6-21/64"	2" GROOVE

➤ Product specifications

A61

Test and drain valve for sprinkler systems combines the functions of test and drain for wet sprinkler systems. In compliance with the requirements of NFPA-13, NFPA13R and NFPA-13D and with FM and UL 258:2025 for fire protection applications with water.

Main feature as following:

- Rp, EN 10226 threads 1", 1-1/4", 1-1/2", 2"
- NPT threads 1", 1-1/4", 1-1/2", 2"
- Groove connections 1-1/4", 2"
- Forged DZR UNI EN 12165 CW602N brass body
- Chrome plated brass ball
- PTFE seats
- Single handle ball valves with three working positions
- Tamper resistant test orifice and sight glass included.

⚠ Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

♻ Package Disposal. Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

ℹ Additional information. For more information, go to giacomini.com or contact our technical assistance service. This document provides only general indications. Giacomini S.p.A. may change at any time, without notice and for technical or commercial reasons, the items included herewith. The information included in this technical sheet do not exempt the user from strictly complying with the rules and good practice standards in force.

♻ Product Disposal. Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.

Pressure Gauge

Model 7500

WWW.AGFMANUFACTURING.COM

The AGF Manufacturing Pressure Gauge Model 7500 is a 4" FM Approved and UL Listed pressure gauge designed for use on wet fire sprinkler systems. The Model 7500 is designed to meet the requirements specified in NFPA 13.

Size:

4"

1. M7500 Pressure Gauge
2. M7600 Universal Valve (sold separately)
3. M7500 Pressure Gauge with M7600 Universal Valve

Specifications

Accuracy Class

±3/2/3% of span (ASME B40.100 Grade B)

Operating Temperatures

Ambient: -40° F to 140° F (-40° C to 60° C)

Media: 140° F (+60° C) maximum

Pressure Connection

Material: Copper Alloy

1/4" NPT Lower Mount (LM)

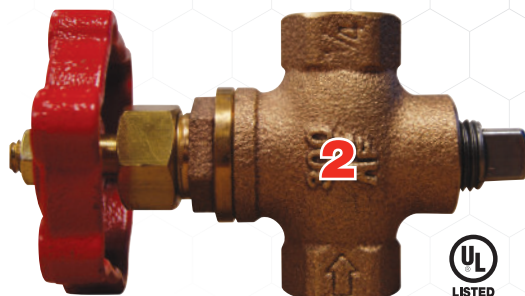
Materials:

Dial: White Aluminum with stop pin

Pointer: Black Aluminum

Case: Black Polycarbonate

Window: Snap-In Clear Polycarbonate

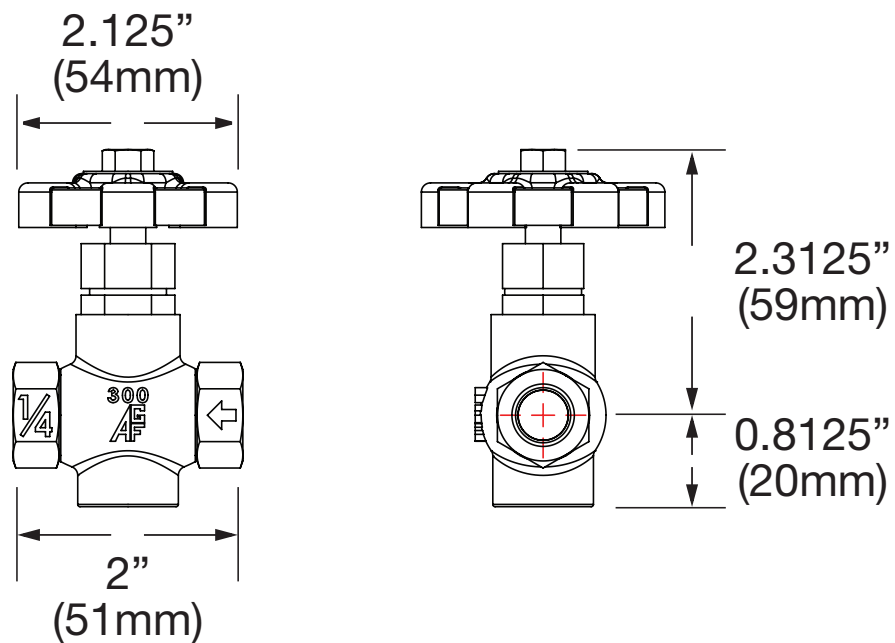
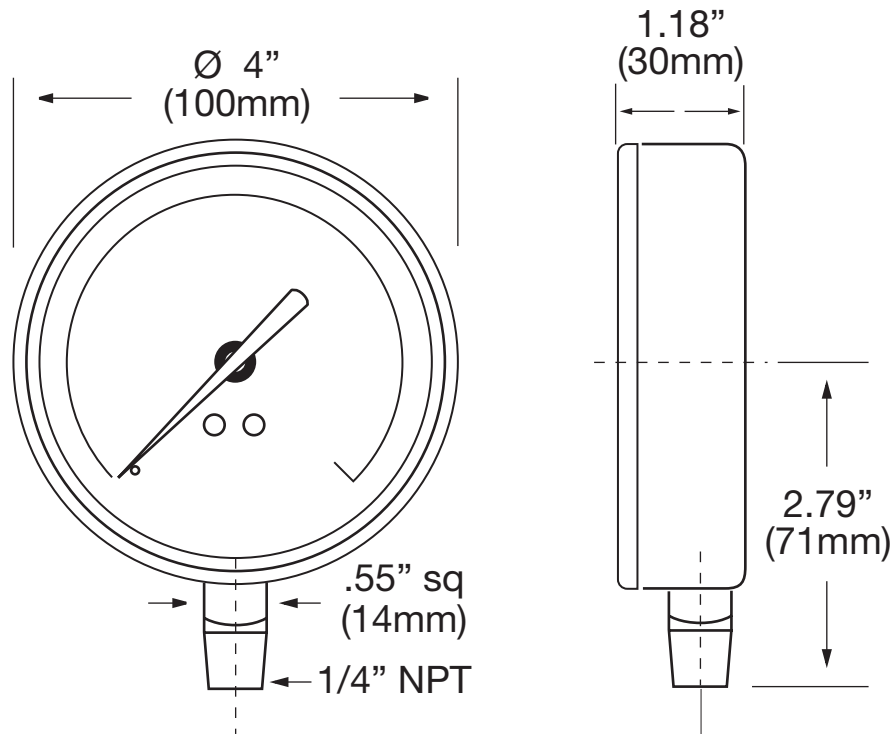


The Model 7600 is a UL Listed, 1/4" 3-Way Universal Valve designed to connect the pressure gauge to the sprinkler system. The M7600 has been designed to meet NFPA 13 System Attachments stating: "...each gauge shall be equipped with a shutoff valve and provision for drainage." The M7600 3-Way Universal Valve is sold separately.



Reliability, Versatility, Code Compatibility

Dimensions



Patent Pending



AGF Manufacturing Inc.
100 Quaker Lane, Malvern, PA 19355
Phone: 610-240-4900
Fax: 610-240-4906
www.agfmanufacturing.com

Job Name: _____
Architect: _____
Engineer: _____
Contractor: _____