



# INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

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No. 0510002286 (1)

## Model SP153DPDT Flow Switch

**NOTE TO INSTALLER: Please leave this information with the Maintenance Department.**

### LIMITED WARRANTY

HAWS warrants that this specific product is guaranteed against defective material or poor workmanship for a period of **one year from date of shipment**. HAWS liability under this warranty shall be discharged by furnishing without charge F.O.B. HAWS Factory any goods, or part thereof, which shall appear to the Company upon inspection to be of defective material or not of first class workmanship, provided that claim is made in writing to Haws within a reasonable period after receipt of the product. Where claims for defects are made, the defective part or parts shall be delivered to the Company, prepaid, for inspection. HAWS will not be liable for the cost of repairs, alterations or replacements, or for any expense connected therewith made by the owner or his agents, except upon written authority from HAWS, Sparks, Nevada. HAWS will not be liable for any damages caused by defective materials or poor workmanship, except for replacements, as provided above. Buyer agrees that Haws has made no other warranties either expressed or implied in addition to those above stated, except that of title with respect to any of the products or equipment sold hereunder and that HAWS shall not be liable for general, special, or consequential damages claimed to arise under the contract of sale.

The emergency equipment manufactured by HAWS is warranted to function if installation and maintenance instructions provided are adhered to. The units also must be used for the purpose for which they were intended. This product is intended to supplement first-aid treatment. Due to widely varying conditions, Haws cannot guarantee that the use of this emergency equipment will prevent serious injury or the aggravation of existing or prior injuries.

**NO OTHER WARRANTIES EXPRESSED OR IMPLIED ARE AUTHORIZED, PROVIDED OR GIVEN BY HAWS.**

**SHOULD YOU EXPERIENCE DIFFICULTY WITH THE INSTALLATION OF THIS MODEL, PLEASE CALL:**

**1-800-766-5612**

**FOR PARTS CALL:**

**1-888-640-4297**

## IMPORTANT, PLEASE READ

This flow switch has been specially modified by the manufacturer to provide for switch actuation at the low flow rate of 2.0 GPM. The switch must be mounted with the tee horizontal and switch body positioned vertically as shown in installation drawing. Never unthread switch body from tee bushing or switch will be ruined and void warranty. Switch must be mounted with 6" straight pipe sections on both sides to prevent the introduction of turbulence which would raise the flow rate required for switch actuation. These switches are assembled and shipped as matched switch-bushing-tee sets and must be returned fully assembled for warranty claims.

### ELECTRICAL RATING:

Max Switching Current: 24 VDC: 4A, 110/120 VAC: 4A, 230/240 VAC: 3A

Max in-rush: 24A

Supply Voltage: 24 VDC, 110/120 VAC, 230/240 VAC

Max Voltage: 240 VAC

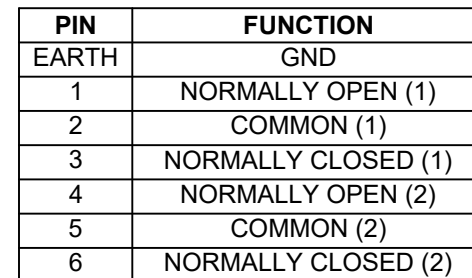
**MINIMUM FLOW RATING:** 2.0 GPM (8 liters/min)

**MAXIMUM FLOW RATING:** 20 GPM (75 liters/min)

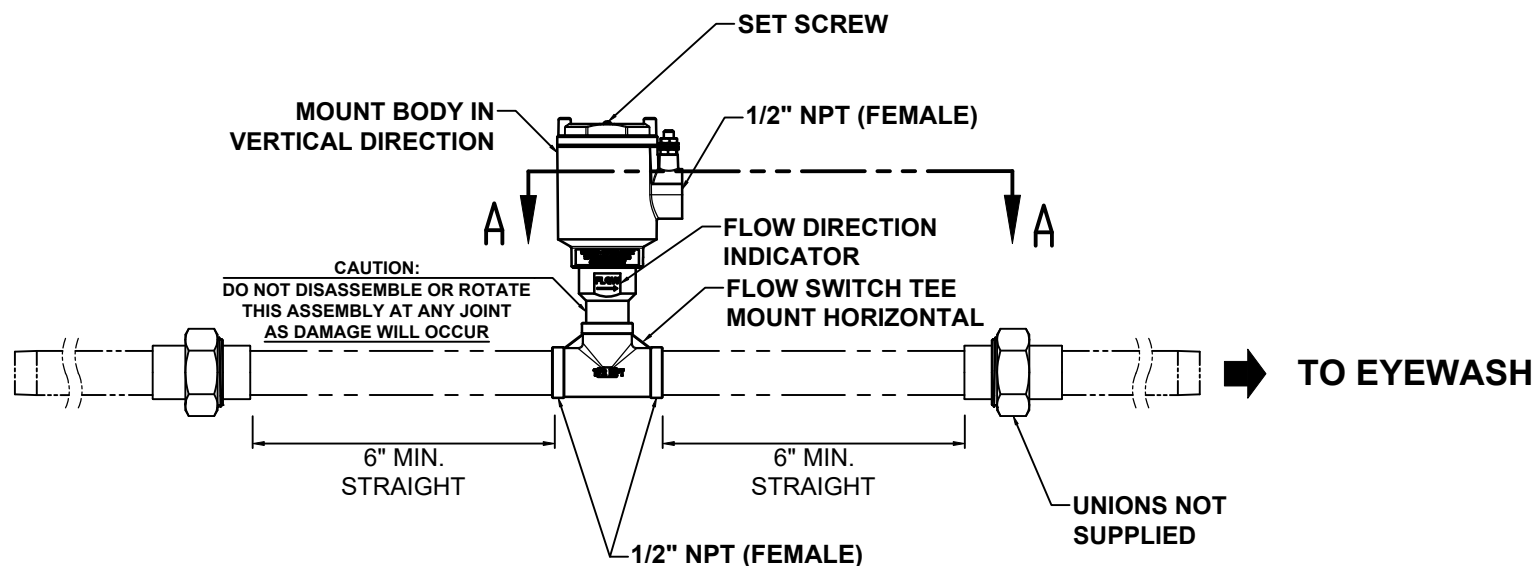
**EXPLOSION PROOF INSTALLATION:** This switch must be installed with properly rated connectors/glands, junction box and conduit according to electrical code procedure for explosion proof installation. A supplementary 7A fuse is required for every incoming electrical supply line. Explosion / flame proof conduit seal is NOT required (factory sealed).

TROUBLESHOOTING	
PROBLEM	REPAIR CHECKLIST
1. Switch actuates at wrong times due to water hammer.	1. Install check valve and water hammer arrestor upstream from valve.
2. Switch does not actuate.	2. a. Check installation to insure 6" minimum straight run of pipe on both sides of switch, horizontal tee, and vertical switch body. b. Is switch installed properly? (See installation drawing) c. Check electrical contacts with multimeter. d. Check flow direction arrow on side of switch body. Is switch oriented in proper direction? e. If used with a low current circuit, try switch with a 1 AMP load (100 WATT light bulb) to burn oxidation off switch contacts. f. Debris inside switch housing tee may cause malfunction. Insure no debris in switch assembly housing tee.

1. DASHED LINES DENOTE FIELD PIPING (NOT SUPPLIED).
2. ELECTRICAL INSTALLATION SHOULD BE PERFORMED BY A QUALIFIED ELECTRICIAN.
3. TIGHTEN ENCLOSURE LID TO 177 IN-LBS (20Nm) AND TIGHTEN SET SCREW AFTER WIRING IS COMPLETE.
4. A SUPPLEMENTARY 7A FUSE IS REQUIRED FOR EACH INCOMING ELECTRICAL SUPPLY LINE WHEN INSTALLED IN A HAZARDOUS LOCATION.



SECTION A-A  
SCALE 2:1



## FIGURE 1



1455 KLEPPE LANE  
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ECN NO.		REVISED PER		BY:	MODEL(S)	PART NUMBER			
		ECN: 6111		DN		0510002286.L			
DRAWN:	DN	DATE:	02/03/25	CHKD.		SP153DPDT			
				JU					
APPROVED:	DN	DATE:	03/31/05		SCALE: 1:1	DRAWING TYPE:	INSTALLATION	SIZE: A	SHEET 1 OF 1