



Hydrotech Fire & Mechanical Ltd have developed an innovative, compact and affordable valve set that covers all the requirements of a modern domestic and residential property and offers the following:-

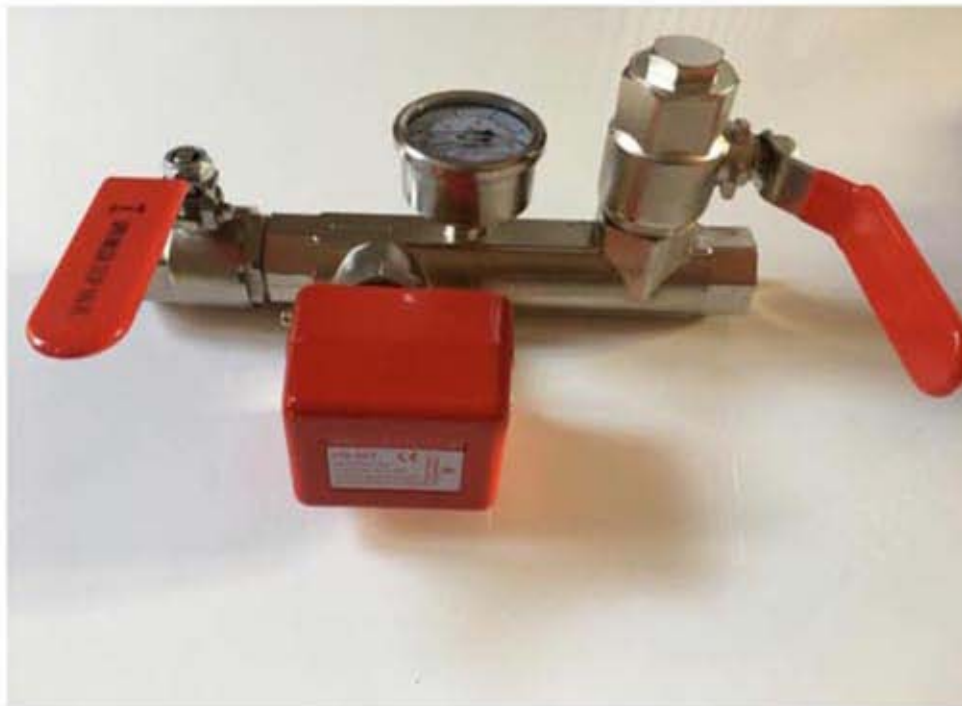
- ✓ *Lockable handles*
- ✓ *1" full bore test valve*
- ✓ *Glycerine filled 12 bar pressure gauge*
- ✓ *Easy access for servicing*
- ✓ *Space saving – 260mm end to end*
- ✓ *Quick & easy installation*
- ✓ *Less joints minimise risk of leaks*
- ✓ *Cost saving due to reduced installation*

<i>Flow M<sup>3</sup>/h</i>	<i>L/Min</i>	<i>Typical pressure drop in Bar</i>
15	250	0.48
12	200	0.42
10.8	180	0.34
9.6	160	0.27
8.4	140	0.21
7.2	120	0.17
6.6	110	0.13
6	100	0.11
5.4	90	0.09
4.8	80	0.07
4.2	70	0.05





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10/23/17



**bafsa**

Atkinsons Way, Foxhills Industrial Estate, Scunthorpe, North Lincolnshire, DN15 8QJ  
Fire Protection Centre Ltd. Registered in England No. 03798539. VAT No. 279 1182 80  
Telephone - 01724 854199 Fax - 0800 65 200 31  
Email - sales@fireprotectioncentre.com Website - www.fpcdatacentre.co.uk



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## HFM Technical Data

### Hydrotech Fire & Mechanical Ltd – System Testing Procedure

1. Ensure that the water to be discharged from the test valve will not cause damage or injury, and that the property owner / occupier is in agreement with the method of discharge.
2. It is recommended that the building occupants and any other interested parties, such as alarm monitoring stations, are notified prior to the alarm test.
3. Connect the test rig, including ideally a calibrated flow meter, onto the test line.
4. Fully open the test valve.
5. Verify the residual (flowing) pressure indicated by the pressure gauge is no less than that originally recorded at the commissioning of the system.
6. Record the litres per minute.
7. Compare the findings with the design criteria of the installed system.
8. If the test fails to achieve the minimum required, trouble shoot as per guidance notes.
9. Ensure a visible or audible alarm (as relevant) is activated.
10. If the test fails to activate the alarm, trouble shoot as per guidance notes.
11. Close the test valve.
12. Remove the test rig.
13. Continue with system specific checks as required.

**Kindly Note: Only the pressure gauge or flow switch component can be replaced once fitted. If any other problems are encountered, it is recommended that the entire valve set assembly is replaced.**

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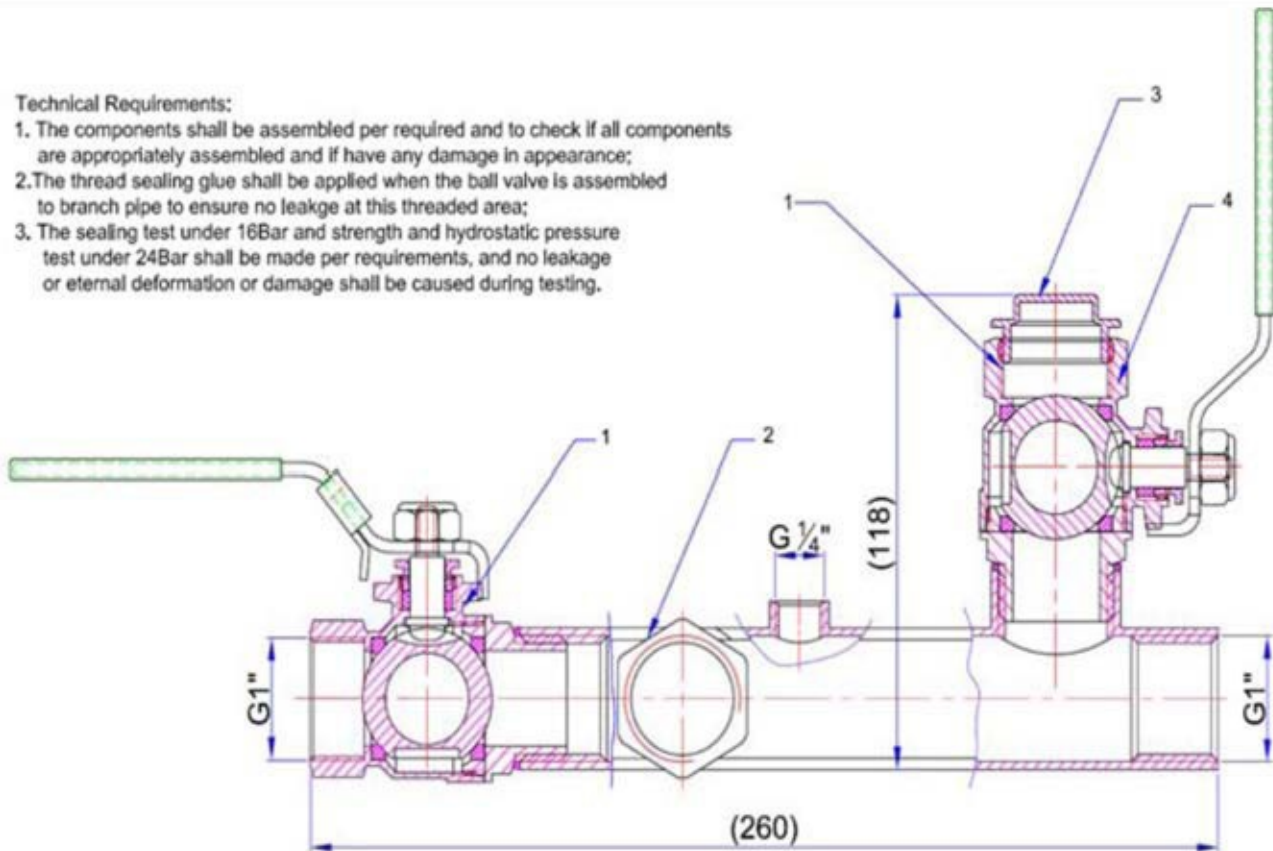


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**Technical Requirements:**

1. The components shall be assembled per required and to check if all components are appropriately assembled and if have any damage in appearance;
2. The thread sealing glue shall be applied when the ball valve is assembled to branch pipe to ensure no leakage at this threaded area;
3. The sealing test under 16Bar and strength and hydrostatic pressure test under 24Bar shall be made per requirements, and no leakage or external deformation or damage shall be caused during testing.



4	DLV05-058A-00	G1 female and male threaded test pipe	1	Assembly		Nickel plated																
3	DLS01-116-01	Dust Cap	1	HPb59-1		Nickel plated																
2	DLR02-063	Branch Pipe	1	HPb59-1		Nickel plated																
1	DLV05-058-00	G1 female and male threaded test valve	1	Assembly		Nickel plated																
													Zone		Revision note		Date		Signature		Code No.	
																					H5001	
													Drawn		Asst						W.T. 1451g Scale 1:1.5	
													Checked		Approval						<b>Hydrotech</b>	
																					Assembly	

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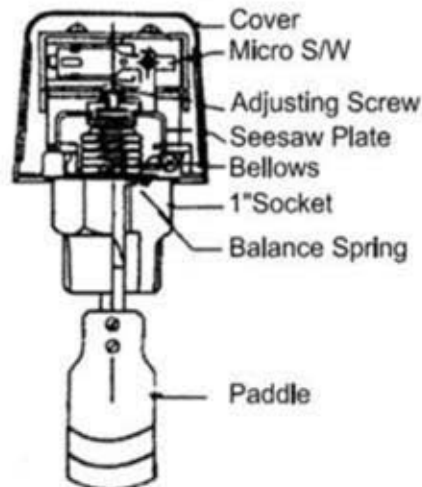


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## OPERATING INSTRUCTIONS

### WATER FLOW SWITCH MODEL: HS-003



FLOW SWITCH



### APPLICATION:

Connection Size: 1" (HS003)  
Flow Switch used in liquid flow lines carrying water or any liquid not harmful to brass.

### SPECIFICATIONS:

Control Type:	Paddle
Maximum Static Pressure:	15 Bar
Ambient Temperature Range:	0°C – 60°C
Liquid Temperature Range:	1°C – 100°C
(Under the condition of liquid not frozen)	
Micro Switch:	SPDT
Electrical Parameters of Micro Switch:	Per rating plate
Material:	Brass Housing, stainless steel paddle, plastic cover



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### **MOUNTING & ADJUSTMENT:**

1. Remove switch cover
2. Switch is factory pre-set at 22.5 LPM for activation and 17.5 LPM for reset/de-activation. Turn range adjusting screw counter clockwise for higher flow rate and turn clockwise for lower flow rate.
3. Press paddle to check the normal operation of micro switch. Too much rotation of the adjusting screws clockwise may cause the invalidation of the flow switch.
4. After assembly check switch mechanism to ensure plate returns to position. Turn the adjusting screw counter clockwise until "clicks" are heard.
5. Painted adjusting screw shows the factory pre-set status of the flow switch.
6. Three working cycles should be observed to ensure the normal operation of the flow switch and its connectivity to the system and that the switch cover closes within the time scale.

### **ATTENTION:**

1. Carefully check flow switch before assembly. This should be well packed and without any damage and deformation. If there are any problems, please contact your vendor immediately.
2. Flow switch should be mounted in a horizontal or vertical pipeline with up flow direction of liquid. If mounted in a pipeline of up liquid flow direction, gravity effects should be considered.
3. Flow switch must be mounted in a section of pipe where there is a straight run or at least 5 pipe diameters. Please note, that the liquid flow direction in the pipeline should be the same as the arrow direction on the switch housing. The connection terminals should be in an easy connecting position.
4. When installing the wiring, the following attention should be noted:-
  - a) Absolute prohibition of wrench touching base plate of switch which may cause the deformation and invalidation of switch.
  - b) During wiring or adjustment, the power should be cut off to avoid electric shock and equipment damage.
  - c) During wiring, adjustment of other screws except micro switch connection terminals and earth screws should be prohibited. Do not use too much force during wiring of micro switch, this may cause movement to its original position which would cause invalidation of the flow switch.
  - d) Special earthing screws should be used during wiring, dismantling of adjusting screws randomly may cause the invalidation of the controller.
  - e) Paddle of flow switch cannot touch other restrictors inside pipe and pipeline inner wall, otherwise this could cause the normal reset of the switch.

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