

एफ.सी.आर.आई.



**COMMERCIAL - IN - CONFIDENCE**  
**FLUID CONTROL RESEARCH INSTITUTE, PALGHAT**

An ISO 9001 Establishment

(A Govt. of India Project with UNDP Assistance)

Under Ministry of Heavy Industries & Public Enterprises

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**CERTIFICATE OF TESTING**

**PRODUCT: INGRESS PROTECTION (IP 68) TEST OF WATER METER**

**CUSTOMER: M/s V A VALVES - UDYOG NAGAR- JALANDHAR- 144 004**

Report No.: FCRI/EQL/ENV/15-16/013

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Date of Receipt	Date of Testing	Date of Issue
06/08/2015	10/08/2015	14/08/2015

**P. Surendran**  
Chief Research Engineer  
APPROVED SIGNATORY

**SUMMARY**

Ingress protection (IP 68) test was conducted on Water Meter for **M/s V A VALVES - UDYOG NAGAR, JALANDHAR-144 004**, as per IEC 60529 Edition 2.2 2013-08 at the test facility of Fluid Control Research Institute, Palakkad.

***Tested by***

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All the instruments used are traceable to national standards through reference standards and their calibration are valid. Satisfactory test/calibration in no way implies that the product so tested or equipment calibrated is approved by NABL. Results presented in this report relate only to the items mentioned & tested at FCRI. This certificate shall not be reproduced except in full without written approval of FCRI. The uncertainties are for a confidence probability not less than 95%, unless specified otherwise.



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### 1. OBJECTIVE

To subject Water meter to Ingress protection (IP 68) test as per IEC 60529 Ed-2.2 2013-08.

### 2. SPECIFICATION OF DUT

#### Sample 1

Product Name : Water Meter  
Sl. No. : 15 A 00178  
Size : 15 mm  
Make : FEDREL  
Tested for : IP 6X

#### Sample 2

Product Name : Water Meter  
Sl. No. : 14 I 00474  
Size : 15 mm  
Make : FEDREL  
Tested for : IP X8

### 3. DETAILS OF ENVIRONMENTAL CHAMBER

#### Dust Test Chamber

Make : WEISS TECHNIK  
Model : ST 1000 U  
Sl.No. : 22600939

### 4. TEST PROCEDURE

#### a) Ingress Protection Test -IP 6X

The IP 6X test was conducted on the first sample as per the test procedure specified in the standard IEC 60529 Ed-2.2 2013-08 (section 13.4), for a period of 8 hrs.

#### b) Ingress Protection Test -IP X8

The IP X8 test was conducted on the second sample as per the test procedure specified in the standard IEC 60529 Ed-2.2 2013-08 (section 14.2.8).The meter was immersed in water at a depth of 1.5m for a period of 4 hrs.

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**5. OBSERVATIONS**

The Ingress protection tests were conducted as per section 4. The observed conditions are as below.

- Ingress Protection Test – (IP 6X): There was no deposit of dust particle observed inside the registration box.
- Ingress Protection Test – (IP X8): There was no ingress of water droplet observed inside the registration box.

**6. RESULTS**

Registration box of the water meter conforms to IP68 standards.



PLATE A: WATER METER AFTER COMPLETION OF IP 6X TEST



PLATE B: WATER METER AFTER COMPLETION OF IP 6X TEST



PLATE C: WATER METER AFTER COMPLETION OF IP X8 TESTS