



Brand : Bellini

Model : BL/DT-4442L(AC/DC)

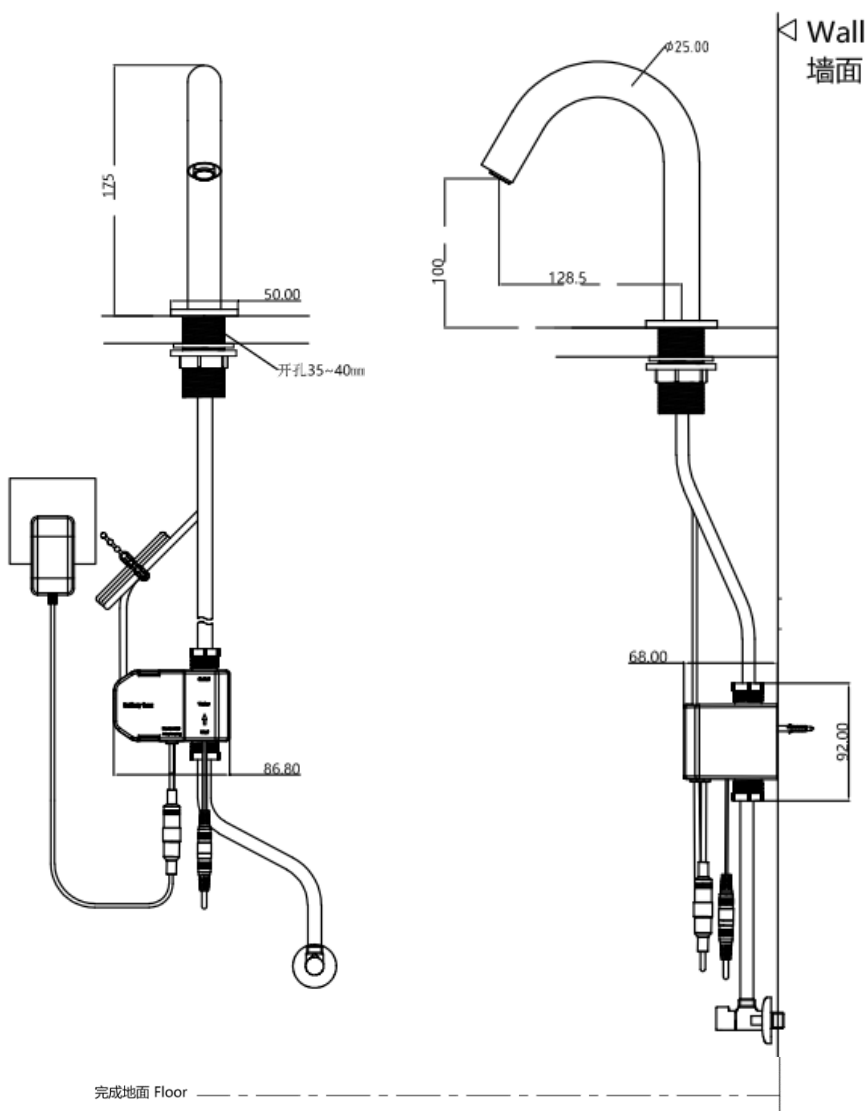
Color : Chrome

Size :

Description : ½" Deck mounted sensor basin tap

Origin : PRC

Remarks : Test report no : REIA085B & REIA085BWr1  
HKWSD Approval no : C20230493 and WELS in Grade 1 (Reg no TN 23-0049 )





水務署  
Water Supplies Department

總部 Headquarters

香港灣仔告士打道七號入境事務大樓 48 樓

48/F, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong

本署檔號 : (4) in WSD 3321/2023 T/J(510/2023)  
Our ref.  
來函檔號 :  
Your ref.

電話 :  
Tel.  
傳真 : 2824 0578  
Fax.

10 July 2023

E&I International Limited  
Room 5-7, 8/F., Block B, Chung Mei Centre,  
15 Hing Yip Street, Kwun Tong,  
Kowloon, Hong Kong

(Attn.: Ms Grace LAM)

Dear Madam,

**Approval of "BELLINI" Sensor Tap  
(General Acceptance No. C20230493)**

Your letters both ref. GL230516B dated 16 May 2023 and 12 June 2023 refer.

Having considered the test report ref. REIA085B issued on 16 May 2023 by Ideal Test Consultants Ltd. and WRAS certificate, this Authority accepts that the fitting described below complies with, and its use when correctly installed does not contravene, the Waterworks Ordinance and Regulations.

**Name of Manufacturer:** 中山市佐恩斯電子科技有限公司  
**Country of Origin:** the Mainland of China  
**Brand:** Bellini  
**Details of Fitting:** 1/2" Deck mounted sensor tap with 1 no. of flexible hose approved by UK's WRAS under ref. 2012802  
**Model:** BL/DT-4442L  
**Body Markings:**   
**Expiry Date:** 31 December 2025



This Authority hereby permits the use of the above fitting in fresh water plumbing systems subject to full adherence to Waterworks installation requirements. In particular, you are required to draw your customers' attention to the following requirement-

"A stop cock or gate valve must be installed at the upstream of the fitting for manual isolation of water supply." AND

"The main voltage operated sensor valve should comply with the electricity safety regulation for applications in bathroom, toilet etc."

A condition of this acceptance is that the fitting to be installed shall be replicas of the sample as certified by the testing agent mentioned above and without modifications. This acceptance may be withdrawn at any time if the standard of the fitting installed fails to meet that of the approved sample or if the fitting is found to be unsuitable for use in fresh water plumbing systems.

This acceptance is only applicable to the main body of the fitting, unless otherwise specified.

For the use of the fitting in any project, the General Acceptance Number of this letter must be quoted as a means of identification of acceptance of the fitting by this Authority.

Should you have any enquiries, please contact our Engineer Ms Winnie LO at tel. no. 3583 4086.

Yours faithfully,



(YAU Hau Yin)

for Director of Water Supplies

Encl.

c.c. WSD 3321/1/82 ] - without catalogue  
ME/MC ] - with soft copy only



自願參與用水效益標籤計劃 - 水龍頭  
Voluntary Water Efficiency Labelling Scheme - Water Taps


Certificate of Registration  
註冊證書

茲證明  
This is to certify that

E&I International Limited

將下列水龍頭在本計劃內註冊：  
has registered the following water tap under this scheme :

牌子 / Brand	:	Bellini + Neoperl
型號 / Model	:	BL/DT-4442L + 58.8632.10000
種類 / Type	:	Non-mixing
原產地 / Country or Region Origin	:	China (Tap) Germany (Flow Controller)

在用水效益標籤上展示的標誌 <i>Symbolic Presentation on the Water Efficiency Label</i>	:		滴水點 <i>Water droplet(s)</i>
用水效益級別 <i>Water Efficiency Grade</i>	:	1	with additional merit*
耗水量 <i>Water Consumption</i>	:	1.5	公升/分鐘 <i>litres/minute</i>

\*with additional merit of "Automatic closing mechanism"

簽發日期: 16 August 2023  
Date of Issue:

 水務署  
Water Supplies Department



水務署署長(林麗恒代行)  
for Director of Water Supplies



水務署  
Water Supplies Department

總部 Headquarters

香港灣仔告士打道七號入境事務大樓 48 樓

48/F, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong

本署檔號 : (3) in WSD 3321/5/4/2023 T/J(167/2023)  
Our ref.  
來函檔號 :  
Your ref.

電話 :  
Tel.  
傳真 : 2824 0578  
Fax.

16 August 2023

**The Water Efficiency Labelling Scheme (WELS)  
on Water Taps  
Acceptance of Application for Registration**

With reference to your letters ref. GL20230721A received by us on 24 July 2023 and 28 July 2023 respectively, I am pleased to inform you that your application for the registration of water tap to the captioned scheme has been accepted and the certificate of registration is attached for your retention. The registration information is as follows:

<i>Brand</i>	<i>Model no.</i>	<i>Type</i>	<i>Country/ Region of origin</i>	<i>Registration no.</i>	<i>Water efficiency grade</i>	<i>Nominal flow rate (litre/min.)</i>	<i>Additional merit</i>
Bellini + Neoperl	BL/DT- 4442L + 58.8632. 10000	Non- mixing	China (Tap)  Germany (Flow Controller)	TN 23-0049	1	1.5	Automatic closing mechanism



You are reminded of the following compulsory requirements of the water efficiency label in accordance with Section 7.1 of the Scheme Document:

- i) **to affix the full version water efficiency label to the above registered water tap or its packaging at a prominent location; and**
- ii) **to ensure that the registered water tap shall be displayed for sale with the full version water efficiency label.**

Soft copy of water efficiency label (both simplified version and full version as described in Section 7 of the Scheme Document) will be issued to you separately.

As part of the conditions of our acceptance, your attention is drawn to Sections 9.10, 10 and 11 of the Scheme Document respectively for the requirements of the participant's obligations, legal provisions as well as compliance monitoring and inspection. The Scheme Document can be downloaded from our website:

[https://www.wsd.gov.hk/filemanager/en/content\\_1511/scheme\\_document\\_water\\_taps.pdf](https://www.wsd.gov.hk/filemanager/en/content_1511/scheme_document_water_taps.pdf)

Should you have any queries on the above, please contact our Engineer Ms. Winnie LO at telephone no. 2294 2656.

Yours sincerely,



(Mable LH LAM)

for Director of Water Supplies


Encl.



**IDEAL Test Consultants Ltd.**  
亞典測試顧問有限公司

Unit 18, 8/F., World-Wide Industrial Ctn,  
43 - 47 Shan Mei Street,  
Fo Tan, N.T. H.K..  
Tel: 3702 1986 Fax: 3702 1987  
Email: sunny@idealtest.com.hk

## TEST REPORT

REPORT REFERENCE NO. : REIA085B  
TITLE : Testing of sensor tap  
METHOD OF TEST : BSEN15091: 2013  
PERIOD OF TESTS : 10<sup>th</sup> Mar., 2023 to 11<sup>th</sup> Apr., 2023  
SAMPLE SUBMITTED BY : E & I International Limited  
(Information below provided by client) RM 5-7, 8/F., Blk B, Chung Mei Centre,  
15 Hing Yip St., Kwun Tong, Kowloon, H.K..  
DESCRIPTION OF SAMPLE : 1/2" Sensor tap  
(With flexible hose approved by UK's WRAS under ref. 2012802 refer to Appendix A)  
BRAND : Bellini  
MODEL : BL/DT-4442L  
BODY MARKING :   
MANUFACTURER : 中山市佐恩斯电子科技有限公司  
COUNTRY OF ORIGIN : PRC

### SUMMARY OF RESULTS :

(Definition of 'C'- Conformance, '/'- No requirement, 'NC'- Non-Conformance & 'R'- Remainder)

Tested item/s	Overall results
1. DIMENSIONS	C
2. LEAKTIGHTNESS CHARACTERISTICS	
2.1 Leaktightness of the obturator and tapware upstream of the obturator(s)	C
2.2 Leaktightness of tapware downstream of the obturator	C
3. PRESSURE RESISTANCE CHARACTERISTICS	C
4. HYDRAULIC CHARACTERISTICS	/
5. ENDURANCE	C
5.1 Leaktightness of the obturator and tapware upstream of the obturator(s).	C
5.2 Leaktightness of tapware downstream of the obturator	C
6. METAL EXTRACTION TEST FOR NON-METALLIC MATERIALS	
6.1 Plastic valve	C
6.2 Plastic outlet	C

Date : 16 May 2023

Authorized signature :



**Sunny K.S. Wong**  
(Director)



RESULTS: - (apply only to the sample tested)

### 1. DIMENSIONS

(BSEN15091: 2013 Cl. 5.2)

ID	Variable	Unit	Measured	Required	Remark
1	Normal size	in	1/2	1/2	C
	Vertical distance from lowest point of the outlet orifice to the mounting surface	mm	100	$\geq 25$	C
<b>Overall result</b>					<b>C</b>

### 2. LEAKTIGHTNESS CHARACTERISTICS

#### 2.1. Leaktightness of the obturator and tapware upstream of the obturator(s)

(BSEN15091: 2013 Cl.4.6.4)

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	16	$16 \pm 0.5$	C
	Duration	s	60	$60 \pm 5$	C
	Sign of Leakage	--	No	No	C
<b>Overall result</b>					<b>C</b>

#### 2.2. Leaktightness of the tapware downstream of the obturator

(BSEN15091: 2013 Cl.4.6.5)

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	4	$4 \pm 0.2$	C
	Duration	s	60	$60 \pm 5$	C
	Sign of Leakage	--	No	No	C
2	Static pressure	bar	0.2	$0.2 \pm 0.05$	C
	Duration	s	60	$60 \pm 5$	C
	Sign of Leakage	--	No	No	C
<b>Overall result</b>					<b>C</b>

### 3. PRESSURE RESISTANCE CHARACTERISTICS

(BSEN15091: 2013 Cl.4.7)

ID	Variable	Unit	Measured	Required	Remark
High pressure	Static pressure	bar	25	$25 \pm 0.5$	C
	Duration	s	60	$60 \pm 5$	C
	Sign of Leakage	--	No	No	C
<b>Overall result</b>					<b>C</b>



#### 4. HYDRAULIC CHARACTERISTICS

(BSEN15091: 2013 Cl.5.3)

ID	Variable	Unit	Measured	Required	Remark
1	Dynamic pressure	bar	3	3 ±0.2	C
	Flow rate	l/min	1.6	/	/
<b>Overall result</b>					/

Note: WSD has waived the minimum flow rate requirement per WSD Circular letter no. 1/2010

#### 5. ENDURANCE

(BSEN15091: 2013 Cl.5.5)

ID	Variable	Unit	Measured	Required	Remark
1	Cold water temperature	° C	24	< 25	C
	Static pressure	bar	4.0	4.0 ±0.5	C
	Test cycles completed	cycles	200000	≥ 200000	C
<b>Overall result</b>					C

##### 5.1. Leaktightness of the obturator and tapware upstream of the obturator(s)

(BSEN15091: 2013 Cl. 5.5.5)

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	16	16 ±0.5	C
	Duration	s	60	60 ±5	C
	Sign of Leakage	--	No	No	C
<b>Overall result</b>					C

##### 5.2 Leaktightness of tapware downstream of the obturator

(BSEN15091: 2013 Cl.5.5.5)

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	4	4 ±0.2	C
	Duration	s	60	60 ±5	C
	Sign of Leakage	--	No	No	C
2	Static pressure	bar	0.2	0.2 ±0.05	C
	Duration	s	60	60 ±5	C
	Sign of Leakage	--	No	No	C
<b>Overall result</b>					C



## 6. METAL EXTRACTION TEST FOR NON-METALLIC MATERIALS –

The non-metallic material was immersed in boiling de-ionized water for 5±1 minutes in accordance with Clause 7.3 in BS 6920-3:2000.

The concentration of arsenic, lead, cadmium, chromium, selenium, nickel and antimony of extract were determined by the method specified in BS 6920-2.6:2000+A2:2014 against the maximum allowable values in WHO's Guidelines for Drinking Water Quality – Fourth Edition 2011.

### 6.1 Plastic valve

ID	Variable	Unit	Measured	Required	Remark
Plastic valve	As - Arsenic	µg/l	<1	≤ 10	C
	Pb - Lead	µg/l	<3	≤ 10	C
	Cd - Cadmium	µg/l	<1	≤ 3	C
	Cr - Chromium	µg/l	<10	≤ 50	C
	Se - Selenium	µg/l	<5	≤ 40	C
	Ni - Nickel	µg/l	<10	≤ 70	C
	Sb - Antimony	µg/l	<1	≤ 20	C
<b>Overall result</b>					<b>C</b>

Notes: -Requirements are based on WHO Guidelines for Drinking Water Quality Fourth Edition: 2011.

### 6.2 Plastic outlet

ID	Variable	Unit	Measured	Required	Remark
Plastic outlet	As - Arsenic	µg/l	<1	≤ 10	C
	Pb - Lead	µg/l	<3	≤ 10	C
	Cd - Cadmium	µg/l	<1	≤ 3	C
	Cr - Chromium	µg/l	<10	≤ 50	C
	Se - Selenium	µg/l	<5	≤ 40	C
	Ni - Nickel	µg/l	<10	≤ 70	C
	Sb - Antimony	µg/l	<1	≤ 20	C
<b>Overall result</b>					<b>C</b>

Notes: -Requirements are based on WHO Guidelines for Drinking Water Quality Fourth Edition: 2011.



Figure 1- Sample

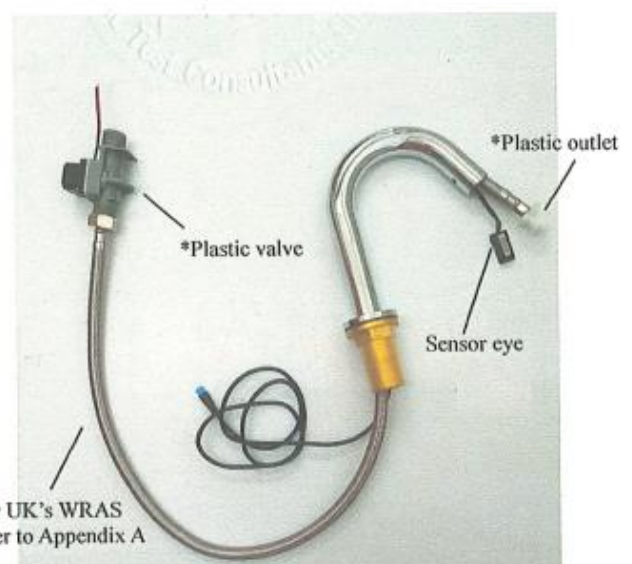


Figure 2- Sample disassembled  
(\* - Part /s which contact with water)



Report reference no.: REIA085B



No electroplating materials were observed on the internal water passage surfaces of the sample under a non-destructive and unaided visual inspection

Figure 3 - Surface of internal water passage



Figure 4 - Body marking

### Appendix A



*This certifies that*

TUCAI, S.A.

*has had the undermentioned product(s) examined, tested and certified as being of an appropriate quality and standard as required in the Water Supply (Water Fittings) Regulations and Scottish Water Byelaws, subject to scheme requirements being met when installed.*

*Model Numbers*


**'TAQ PEX' RANGE OF FLEXIBLE HOSE ASSEMBLIES**

The certificate by itself is not evidence of a valid WRAS Approval. Confirmation of the current status of an approval must be obtained from the WRAS Approvals Directory ([www.wras.co.uk/directory](http://www.wras.co.uk/directory))

*The product so mentioned will be valid until the end of:*

December 2025

Certificate No.  
**2012802**



Ian Hughes,  
WRAS Approvals Manager

- End of report -



**IDEAL Test Consultants Ltd.**  
亞典測試顧問有限公司

Unit 18, 8/F., World-Wide Industrial Ctn,  
43 - 47 Shan Mei Street,  
Fo Tan, N.T. H.K..  
Tel: 3702 1986 Fax: 3702 1987  
Email: sunny@idealtest.com.hk

- 5 JUL 2023 Jenny



## TEST REPORT

REPORT REFERENCE NO. : REIA085BW1  
(This report is issued to supersede the report with reference no.: REIA085BW)


TITLE : Testing of Non-Mixing type Water Tap  
METHOD OF TEST : The Hong Kong Water Efficiency Labelling Scheme for Water Taps  
(December 2018)  
PERIOD OF TESTS : 10<sup>th</sup> Mar., 2023 to 14<sup>th</sup> Mar., 2023  
SAMPLE SUBMITTED BY : E & I International Limited  
(Information below provided by client) RM 5-7, 8/F., Blk B, Chung Mei Centre,  
15 Hing Yip St., Kwun Tong, Kowloon, H.K..

DESCRIPTION OF SAMPLE : 1/2" Sensor tap

Sample	Water tap	Flow controller
Brand	Bellini	Neoperl
Model no.	BL/DT-4442L	58.8632.10000
Body marking		
Manufacturer	中山市佐恩斯电子科技有限公司	Neoperl GmbH
Country of origin	PRC	Germany

SUMMARY OF RESULTS :  
(Definition of 'C'- Conformance, '/'- No requirement & 'NC'- Non-Conformance)

Tested item/s	Overall results
1. Nominal Flow Rate	C
2. Endurance of the Flow Controller	C

Date : 5 Jul 2023 Authorized signature :   
Sunny K.S. Wong  
( Director )



Report reference no.: REIA085BWr1

- 5 JUL 2023 Jenny



## 1. Nominal Flow rate

The Voluntary WELS on Non-Mixing Type Water Tap, Dec.2018 , Section A4

ID	Dynamic Flow Pressure (kPa)	Reading	Unit	Measured	Average
Initial Flow Rate with flow controller	50	1st	l/min	0.9	0.9
		2nd		0.9	
	150	1st		1.3	1.3
		2nd		1.3	
	250	1st		1.5	1.5
		2nd		1.5	
	350	1st		1.6	1.6
		2nd		1.5	
	500	1st		1.6	1.6
		2nd		1.6	

ID	Unit	Measured	Required	Remark
Nominal Flow Rate	l/min	1.5	Grade 1 ( $\leq 2.0$ )	C
The highest difference between the 150,250 and 350 kPa average flow rates	l/min	0.3	$\leq 2.0$	C
Water Efficiency Grade				Grade 1 ( $\leq 2.0$ )
Overall result				C

(Manufacturer requirement)

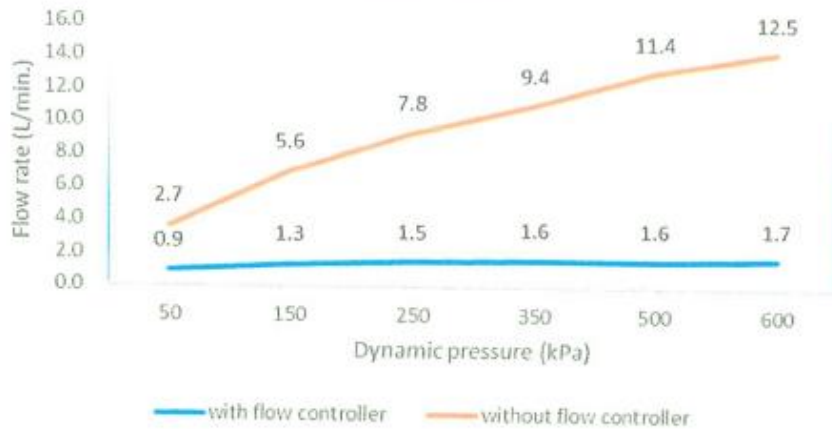
ID	Dynamic Flow Pressure (kPa)	Reading	Unit	Measured	Average
Flow rate without flow controller	50	1st	l/min	2.6	2.7
		2nd		2.7	
	150	1st		5.6	5.6
		2nd		5.6	
	250	1st		7.8	7.8
		2nd		7.7	
	350	1st		9.4	9.4
		2nd		9.3	
	500	1st		11.4	11.4
		2nd		11.3	



Report reference no.: REIA085BWr1

- 5 JUL 2023 Terry  
 IDEAL Test Consultants Ltd.  
 CERTIFIED  
 TRUE COPY  
 Signed by: Ms Jenny Zhao

### Flowchart



## 2. Endurance of the Flow Controller

The Voluntary WELS on Non-Mixing Type Water Tap, Dec.2018 , Section A4,B5 & B6

ID	Unit	Measured	Required	Remark
Cold Water Temperature	° C	24	Ambient temperature	C
Hot Water Temperature	° C	80	80 ±3 ° C	C
Cycle Speed	Cycle/ min	12	12 ±1	C
Alternating between ambient and heated water		55	Every 55 ±5 cycles	C
Number of endurance cycles completed		10000	10000±100	C

ID	Dynamic Flow Pressure (kPa)	Reading	Unit	Measured	Average
Final flow rate with flow controller	50	1st	l/min	0.9	0.9
		2nd		0.8	
	150	1st		1.3	1.3
		2nd		1.3	
	250	1st		1.5	1.5
		2nd		1.5	
	350	1st		1.6	1.6
		2nd		1.6	
	500	1st		1.6	1.6
		2nd		1.6	



Report reference no.: REIA085BWr1

- 5 JUL 2023 Jenny

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TRUE COPY  
Signed by: Ms Jenny Zhao

ID	Unit	Measured	Required	Remark
Initial nominal flow rate	l / min	1.5	Grade 1 ( $\leq 2.0$ )	C
Final nominal flow rate		1.5	Grade 1 ( $\leq 2.0$ )	C
Difference in nominal flow rate before and after endurance		0	$\pm 1.0$	C
<b>Overall result</b>				<b>C</b>

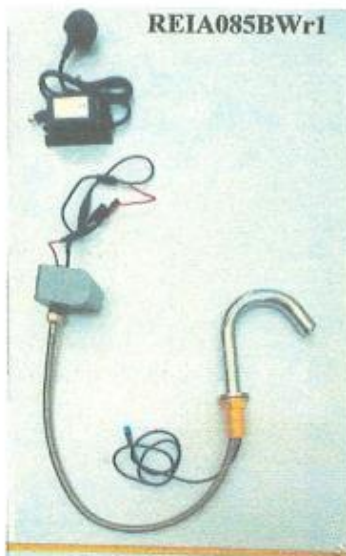


Figure 1 - Side view of the Sample

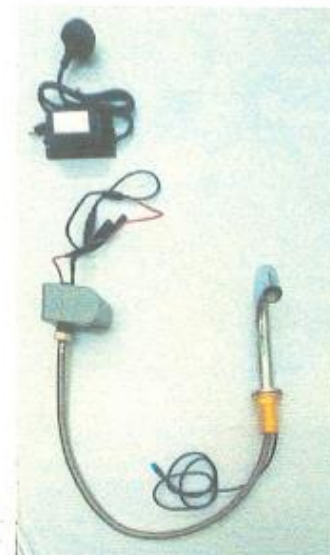


Figure 2 - Front view of the Sample



Figure 3 - Flow controller (Front & Back)

- End of report -