

APPLICATION FOR TEST REPORT

On Behalf of

Prepared For : MY LUMENS Technology Limited
Rm1407, University-town Business Park, Lishan Road, Nanshan
Area, Shenzhen, China (518052)

Product Name : Waterproof Tube

Model : MY-T81250715222L

Prepared By : **SHENZHEN POCE TECHNOLOGY CO., LTD.**
H Building, Hongfa Science And Technology Park, Tangtou, Shiyan,
Bao'an District, Shenzhen, China



Test Date : Sep. 17, 2015- Sep. 23, 2015

Date of Report : Sep. 23, 2015

Report No. : POCE15091662HRP

TEST REPORT EN 60529 Degrees of protection provided by enclosures (IP Code)	
Reference No.	POCE15091662HRP
Date of issue.....	Sep. 23, 2015
Contents	13 pages including attachment
Testing laboratory	
Name	SHENZHEN POCE TECHNOLOGY CO., LTD.
Address.....	H Building, HongFa Science and Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, China
Testing location	Same as above
Client	
Name	MY LUMENS Technology Limited
Address.....	Rm1407, University-town Business Park, Lishan Road, Nanshan Area, Shenzhen, China(518052)
Test specification	
Standard	Compliance with EN 60529: 1991+A1: 2000
Test procedure	CE-conformity
Procedure deviation	N.A.
Non-standard test method	N.A.
Test item	
Description	Waterproof Tube
Trade Name	N/A
Manufacturer	MY LUMENS Technology Limited
Address	Rm1407, University-town Business Park, Lishan Road, Nanshan Area, Shenzhen, China(518052)
IP Code.....	IP65 Enclosure



<p>Particulars: test item vs. test requirements</p> <p>Equipment mobility: Mobile equipment</p> <p>Protection against ingress of water: IP65</p>
<p>Test case verdicts</p> <p>Test case does not apply to the test object: N(.A.)</p> <p>Test item does meet the requirement.....: P(ass)</p> <p>Test item does not meet the requirement: F(ail)</p>
<p>Testing</p> <p>Date of receipt of test item: Sep. 17, 2015</p> <p>Date(s) of performance of test: From Sep. 17, 2015 to Sep. 23, 2015</p>
<p>General remarks</p> <p>This test report shall not be reproduced except in full without the written approval of the testing laboratory.</p> <p>The test results presented in this report relate only to the item tested.</p> <p>"(see remark #)" refers to a remark appended to the report.</p> <p>"(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator.</p> <p>Remark :</p> <p>- The product enclosure complies with the degree of protection IP65.</p>

Name and address of the testing laboratory : **SHENZHEN POCE TECHNOLOGY CO.,LTD**
H Building, Hongfa Science and Technology Park,
Tangtou, Shiyan, Bao'an District, Shenzhen, China

Date of Test: Sep. 17, 2015 to Sep. 23, 2015

Prepared by(Engineer) : *Snowy Yang*

Reviewer(Quality Manager) : *Stanya m*

Approved&Authorized Signer(Manager) : *Michael MS*



EN 60529			
Clause	Requirement – Test	Result - Remark	Verdict
5	Degrees of protection against access to hazardous parts and against solid foreign objects indicated by the first characteristic numeral		P
5.1	Protection against access to hazardous parts		P
	First characteristic numeral is 3: -Protected against access to hazardous parts with a tool, The access probe of 2,5 mm Φ shall not penetrate		N
	First characteristic numeral is 6: -Protected against access to hazardous parts with a wire, The access probe of 1,0 mm Φ shall not penetrate	IP6X, no hazardous parts, compliant with the requirement.	P
5.2	Protection against access solid foreign objects		P
	First characteristic numeral is 3 : -Protected against solid foreign objects of 2,5 mm Φ and greater		N
	First characteristic numeral is 6 : The protection against the penetration of solid foreign objects including dust	Against the penetration of solid	P
	Dust-tight No ingress of dust	No ingress of dust detected	P
	Dust-protected, ingress of dust is not penetrate in a quantity to interfere with satisfactory operation of the apparatus or to impair safety	Compliant with the requirement	P

6	Degrees of protection against ingress of water indicated by the second characteristic numeral		P
	Second characteristic numeral is 3 -Protected against spraying water: Water sprayed at an angle up to 60° on either side of the vertical shall have no harmful effects		N
	Second characteristic numeral is 4 -Protected against splashing water, Water splashed against the enclosure from any direction shall have no harmful effects		N
	Second characteristic numeral is 5 -Protected against water jets: Water projected in jets against the enclosure from any direction shall have no harmful effects	After test of continuous immersion in water, no penetration of water detected	P
	Second characteristic numeral is 8 Protected against the effects of continuous immersion in water: Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water under conditions which shall be agreed between manufacturer and user but which are		N

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Clause	Requirement – Test	Result - Remark	Verdict
	more severe than for numeral 7		
10	Marking		P
	The requirements for marking shall be specified in the relevant product standard.	IP65 marked	P
	Where appropriate, such a standard should also specify the method of marking which is to be used when:		P
	- one part of an enclosure has a different degree of protection to that of another part of the same enclosure;		N
	- the mounting position has an influence on the degree of protection;		P
	-the maximum immersion depth and time are indicated.	Effective	P
11	General requirements for tests		P
11.1	Atmospheric conditions for water or dust Tests:		P
	-Relative humidity: 25% to 75%	73%	P
	-Temperature range: 15°C to 35°C	At 20°C	P
	-Air pressure: 86 kPa to 106 kPa (860 mbar to 1060 mbar).	88 kPa	P
11.2	Test samples		P
	The tests specified in this standard are type tests.		P
	The relevant product standard shall specify details such as:		P
	- the number of samples to be tested	Test according to IP68	P
	-conditions for mounting, assembling and positioning use of an artificial surface(ceiling, floor of wall)	Mounting on the channel port	P
	-the pre-conditioning, if any, which is to be used		N
	-whether to be tested energized or not	Safe voltage	P
	-whether to be tested with its parts in motion or not.	No hazardous motion	P
11.3	Application of the general requirements and interpretation of test results		P
	The application of the general requirements for tests and the acceptance conditions for equipment containing drain-holes or	Water-resistant device, protected against water penetration	P
	ventilation openings is the responsibility of the relevant technical committee		N
11.4	Combination of test conditions for the first characteristic numeral	Complied	P
11.5	Empty enclosures		N

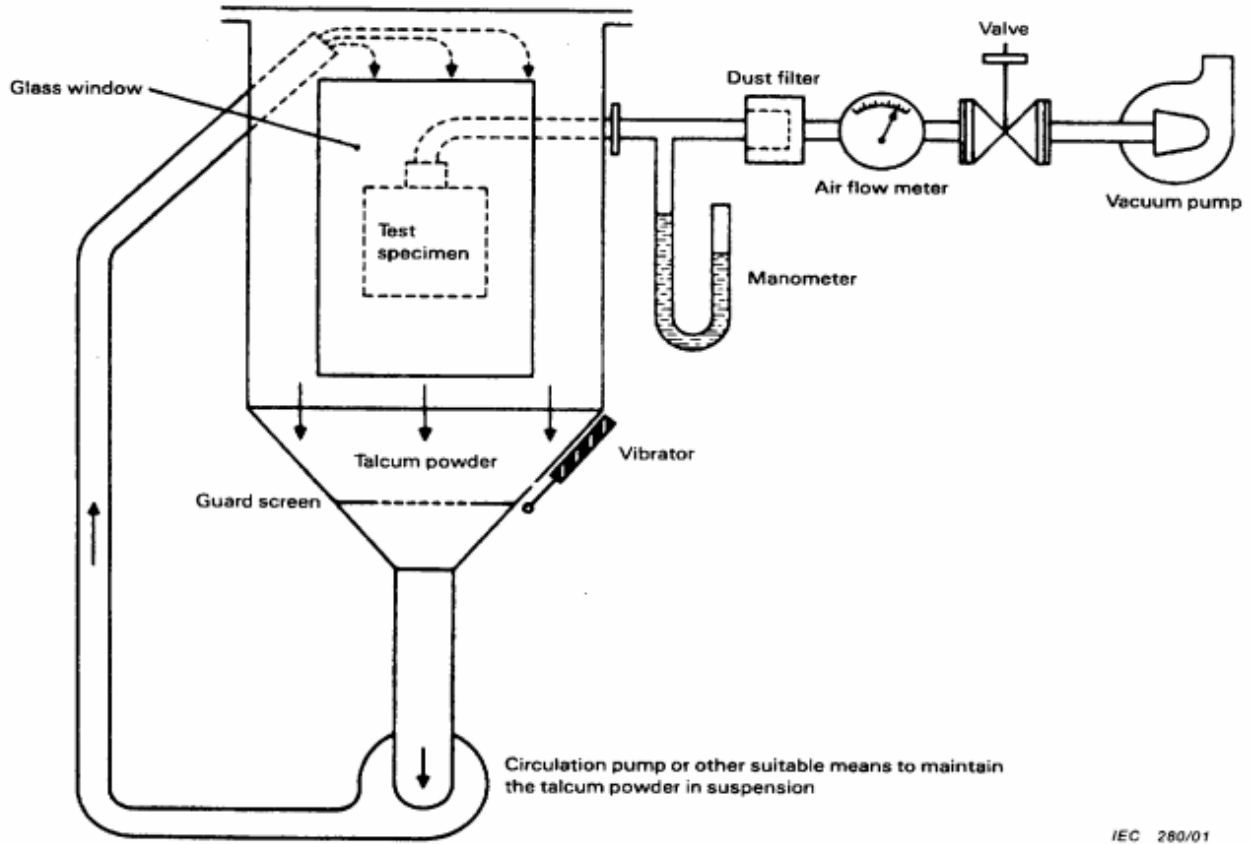
EN 60529			
Clause	Requirement – Test	Result - Remark	Verdict
	If the enclosure is tested without equipment inside, detailed requirements shall be indicated by the enclosure manufacturer in instructions		N
12	Tests for protection against access to hazardous parts indicated by the first characteristic numeral		P
12.1	Access probes		P
	First number is 3: The test wire of 2,5 mm Φ shall not penetrate and adequate clearance shall be kept (see tabel 6)		N
	First number is 4,5,6: The test wire of 1,0 mm Φ , 100mm long shall not penetrate and adequate clearance shall be kept (see tabel 6)	Test with 1N force, cannot touch live parts, No hazards,	P
12.2	Test conditions		P
	For tests on low-voltage equipment, a low-voltage supply (of not less than 40 V and not more than 50 V) in series with a suitable lamp should be connected between the probe and the hazardous parts inside the enclosure.	No hazards	P
	Hazardous live parts covered only with varnish or paint, or protected by oxidation or by a similar process, are covered by a metal foil electrically connected to those parts which are normally live in operation. The signal-circuit method should also be applied to the hazardous moving parts of high-voltage equipment. Internal moving parts may be operated slowly, where this is possible.	Can not touch the live parts	P
12.3	Acceptance conditions:		P
	The protection is satisfactory if adequate clearance is kept between the access probe and hazardous parts.	Satisfactory	P
12.3.1	For low-voltage equipment (rated voltage not exceeding 1000Va.c and 1500Vd.c.)		P
12.3.2	For hight-voltage equipment (rated voltage exceeding 1000Va.c and 1500Vd.c.)		N
12.3.3	For equipment with hazardous mechanical parts	No hazardous mechanical parts	N
	The access probe shall not touch hazardous mechanical parts		N
13	Tests for protection against solid foreign objects indicated by the first characteristic numeral		P
13.1	Test means		P

EN 60529			
Clause	Requirement – Test	Result - Remark	Verdict
13.2	Test conditions for first characteristic numerals 1,2,3,4 Test means and the main test conditions are given in Table VII		N
13.3	Acceptance conditions for first characteristic numerals 1,2,3,4		N
	The protection is satisfactory if the full diameter of the probe specified in Table VII does not pass through any opening.		N
13.4	Dust test for first characteristic numerals 5 and 6	IP6X	P
13.4.1	The test using a dust chamber incorporating the basic principles shown in figure 2,	Complied	P
13.4.2	Enclosure are of necessity in one of two categories		P
	Category 1: Where the normal working cycle of the equipment causes reductions in air pressure within the enclosure below that of the surrounding air		P
	Category 2: where no pressure difference relative to the surrounding air is present		N
	Category 1 enclosure		P
	Category 2 enclosure		N
	Category 1 and Category 2 enclosure		N
13.5	Special conditions for first characteristic number 5		N
13.6	Special conditions for first characteristic number 6		P
13.6.1	Test conditions for first characteristic number 6		P
	The enclosure shall be deemed category 1, the whether reductions for atmospheric pressure are present or not	Complied	P
13.6.2	Acceptance conditions for first characteristic number 6		P
	The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test	No dust detected inside of the enclosure	P
14	Tests for protection against water indicated by the second characteristic numeral		P
14.1	Test means & Test conditions		P
	Test means and the main test conditions are given in Table VIII	Compliance with the table VIII	P
14.2.3	Test for second characteristic number 3 with oscillating tube or spray nozzle	IPX8	N

EN 60529			
Clause	Requirement – Test	Result - Remark	Verdict
	The test is made using one of the two test devices described in figure 4 and in figure 5		N
	a) conditions when using the test device as in figure 4, the oscillating tube is provided with spray holes over an arc of 60° either side of the centre point, the enclosure to be tested is placed at the centre point of the semicircle. And the test duration being 5 mins		N
14.2.5	Test for second characteristic numeral 5:	IPX5	P
	The test is made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle as shown in figure 6		P
	The conditions to be observed as follows:		P
	- internal diameter of the nozzle: 6,3mm		P
	- delivery rate:12.5 l/min ± 5%		P
	- water pressure: to be adjusted to achieve the specified delivery rate;		P
	- core of the substantial stream: circle of approximately 40 mm diameter at 2,5m distance from nozzle		P
	- test duration per square meter of enclosure surface area likely to be sprayed: 1 mm		P
	- minmum test duration 3 min		P
	- distance from nozzle to enclosure surface: between 2.5 m and 3 m		P
14.2.7	Test for second characteristic numeral 7: temporary immersion between 0,15m and 1 m		N
	The test made by completely immersing the enclosure in water		N
	a) with height less than 850 mm is located 1000 mm below the surface of the water		N
	b) the highest point of enclosure with a height equal to or greater than 850 mm is located 150 mm below the surface of the water		N
	c) the duration of the test is 30 mins		N
	d) the water temperature does not differ from that of the equipment by more than 5K		N
14.2.8	Test for second characteristic numeral 8: continuous immersion subject to agreement	Complied with requirement	N
	The test conditions more severe than IPX7, and they shall take account of the condition that the enclosure will be continuously immersed in actual use		N
	On the basis of the IP67, water depth reach		N

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Clause	Requirement – Test	Result - Remark	Verdict
	above 1.5 m from the instrument top. And keep the instrument stay in the water a week.		
14.3	Acceptance conditions		P
14.3.1	After testing in accordance with the appropriate requirements of 14.2.1 to 14.2.8 the enclosure shall be inspected for ingress of water.	No water detected inside of the enclosure	P
14.3.2	It is the responsibility of the relevant Technical Committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any. In general, if any water has entered, it shall not:		P
	-be sufficient to interfere with the correct operation of the equipment or impair safety;		P
	- deposit on insulation parts where it could lead to tracking along the creepage distances;		P
	- reach live parts or windings not designed to operate when wet;		P
	- accumulate near the cable end or enter the cable if any.		P
14.3.3	If the enclosure is provided with drain-holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing any harm to the equipment. For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.		P
15	Tests for protection against access to hazardous parts indicated by the additional letter		N
15.1	Access probes	No such letter	N
15.2	Test conditions		N
15.3	Acceptance conditions		N

EN 60529			
Clause	Requirement – Test	Result - Remark	Verdict



IEC 280/01

NOTE See IEC 60068-2-68, figure 2 valid for La2 only.

Figure 2 – Test device to verify protection against dust (dust chamber)

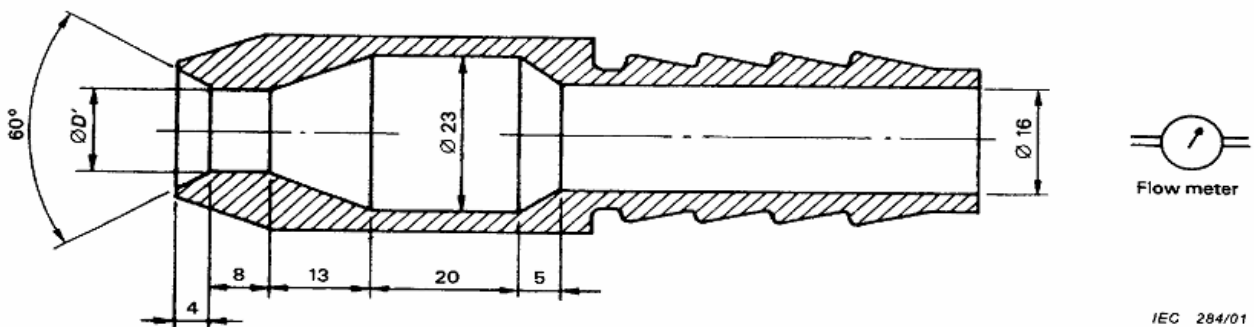
EN 60529			
Clause	Requirement – Test	Result - Remark	Verdict



Dimensions in millimetres

- 121 holes of $\varnothing 0,5$;
- 1 hole at the centre
- 1 inner circles of 12 holes at 30° pitch
- 4 outer circles of 24 holes at 15° pitch
- Moving shield – Aluminium
- Spray nozzle – Brass

Figure 5 – Hand-held device to verify protection against spraying and splashing water; second characteristic numerals 3 and 4 (spray nozzle)



Dimensions in millimetres

- $D' = 6,3$ for the test of 14.2.5 (second characteristic numeral 5)
- $D' = 12,5$ for the test of 14.2.6 (second characteristic numeral 6)

Figure 6 – Test device to verify protection against water jets (hose nozzle)

Attachment : The photos of EUT:



Photo

*** End of the report ***