EPIL TEST REPORT

Project No.: L13-60018
Equipment Under Test: *Transmitter Enclosure*

S/N	:	*990001*
Built Year	:	*2020*
IP	:	*67*
Model/Type	:	*PEK-001*

Manufactured by: *PARS ELECTRONIC KISH.CO*
Applicant: *PARS ELECTRONIC KISH.CO*
Trade Mark:
Tested According to: *IEC 60529 2013 COR1:2019*
Reception Date of Sample: *24-Jun-2020* **Testing Date:** *11-Jul -2020*
Issue Date: *21-Jul-2020*
Test Result: PASSED
No. of pages: *10*

Prepared and Tested by:
Test Engineer
H. Montazeri

Verified by: Technical Manager
S. M. Mirfallah

Approved by:

Chief Executive Officer
S. M. Mirsadri

Engineering Deputy of Test and Inspection
Prof. B. Vahid

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1. GENERAL INFORMATION

1.1 Product Information

Equipment Under Test	: Transmitter Enclosure
S/N	: 990001
Normative Document	: IEC 60529 2013 COR1:2019

1.2 Client Information

Applicant	: PARS ELECTRONIC KISH.CO
Telephone	: (+98 21) 22987504-05

1.3 Tests Performed

Marking	PASSED
IP6X, Test for Protection Against Dust	PASSED
IP6X, Test for Protection Against Access to Hazardous Parts	PASSED
IPX7, Test for Protection Against Water	PASSED

1.4 Results of Tests

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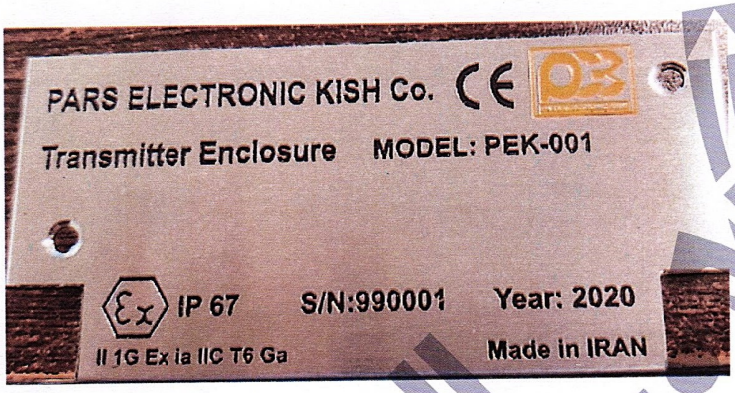
2. PERFORMANCE and RESULTS of TESTS

2.1. Marking:



2.1.1 Test data

Location	: E.P.I.L.
Date	: 11-Jul -2020
Engineer of EPIL	: H. Montazeri
Normative Document	: IEC 60529 2013 COR1:2019

2.1.2 Procedure of test

Compliance with The requirements of sub clause 10, IEC 60529 for marking shall be specified in the relevant product standard.

2.1.3 Acceptance conditions of test

Compliance with the requirements of sub clause 10 of IEC 60529 had checked by inspection.

2.1.4 Result of test

Test was done according to IEC 60529, sub clause 10 and it passed the test.

✓ **PASSED**

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2.2 IP6X, Test for Protection Against Dust

2.2.1 Test data

Location	: E.P.I.L.
Date	: 11-Jul -2020
Engineer of EPIL	: H. Montazeri
Normative Document	: IEC 60529 2013 COR1:2019

2.2.2 Ambient conditions

Ambient Temperature	: 24 °C
Relative Humidity	: 45%
Atmospheric Pressure	: 86.5 kPa

2.2.3 Instrument used for the test

Dust Chamber
Vacuum Pump

2.2.4 Procedure of test

The object test under test is placed in its normal operating position in dust chamber and the powder circulation pump would be in working condition .Talcum powder shall be used.
The pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection made to a hole specially provided for this test. The object of the test is to draw into the enclosure by means of depression. A volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event, shall the depression exceed 2 kPa (20 mbar) .
The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50 µm and the nominal width of a gap between wires is 75 µm (according to IEC 60529).
The duration of the test was 8 h (According to IEC 60529).

2.2.5 Acceptance conditions of test

The protection is satisfactory if no deposit of dust is observed inside the enclosure at the end of the test.

2.2.6 Result of test

The test was done according to IEC 60529 and it passed the test.

✓ **PASSED**

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2.3 IP6X, Test for Protection Against Access to Hazardous Parts

2.3.1 Test data

Location	: E.P.I.L.
Date	: 11-Jul -2020
Engineer of EPIL	: H. Montazeri
Normative Document	: IEC 60529 2013 COR1:2019

2.3.2 Ambient conditions

Ambient Temperature	:24◦C
Relative Humidity	: 45%
Atmospheric Pressure	: 86.5 kPa

2.3.3 Instrument used for the test

Standard wire 1 – 1.05 mm diameter. (table VI - IEC60529).

2.3.4 Procedure of test

The standard probe is pushed against any openings of the enclosure with the force 1±10%N.

2.3.5 Acceptance conditions of test

The access probe shall not touch the surface of the protected space.

2.3.6 Result of test

Test was done according to IEC 60529 and it passed the test.

✓ **PASSED**

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2.4 IPX7, Test for Protection Against Water

2.4.1 Test data

Location	: E.P.I.L.
Date	: 12-Jul -2020
Engineer of EPIL	: H. Montazeri
Normative document	: IEC 60529 2013 COR1:2019

2.4.2 Ambient conditions

Ambient Temperature	: 23 °C
Relative Humidity	: 49 %
Atmospheric Pressure	: 86.5 kPa

2.4.3 Instrument used for the test

Immersion Tank

2.4.4 Procedure of test

a) The lowest point of enclosures with a height less than 850 mm is located 1000 mm below the surface of the water
b) The highest point of enclosures with a height equal to or greater than 850 mm is located150 mm below the surface of the water
c) The duration of the test is 30 min
d) The water temperature does not differ from that of the equipment by more than 5K. However, a modified requirement maybe specified in the relevant product standard if the tests are to be made when the equipment is energized and/or its parts in motion.

2.4.5 Acceptance conditions of test

After testing the EUT shall be inspected for ingress of water according to conditions that are specified in IEC 60529.

2.4.6 Result of test

Test was done according to IEC 60529 and it passed the test.

✓ **PASSED**

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3. FIGURES:

Figure 1: EUT

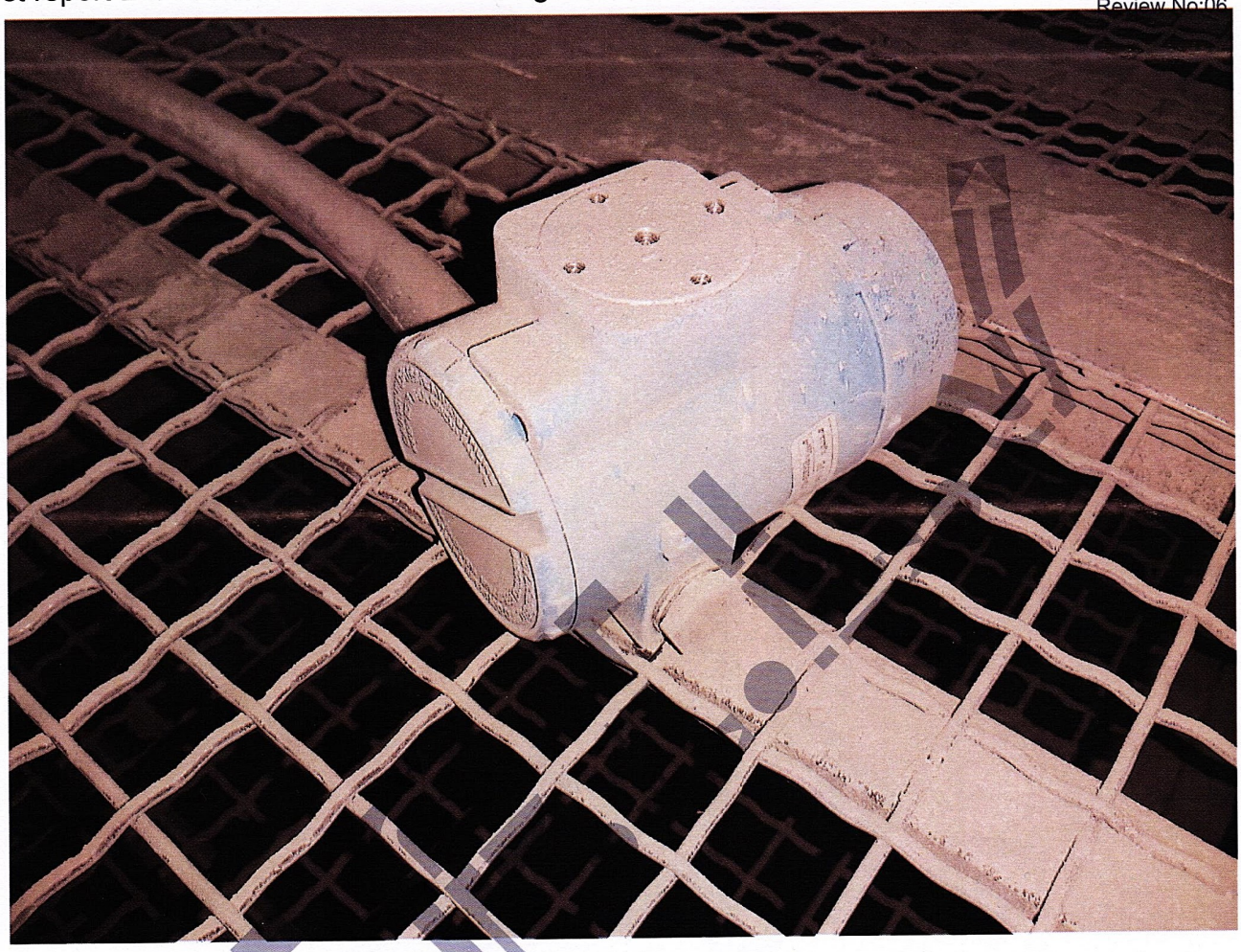
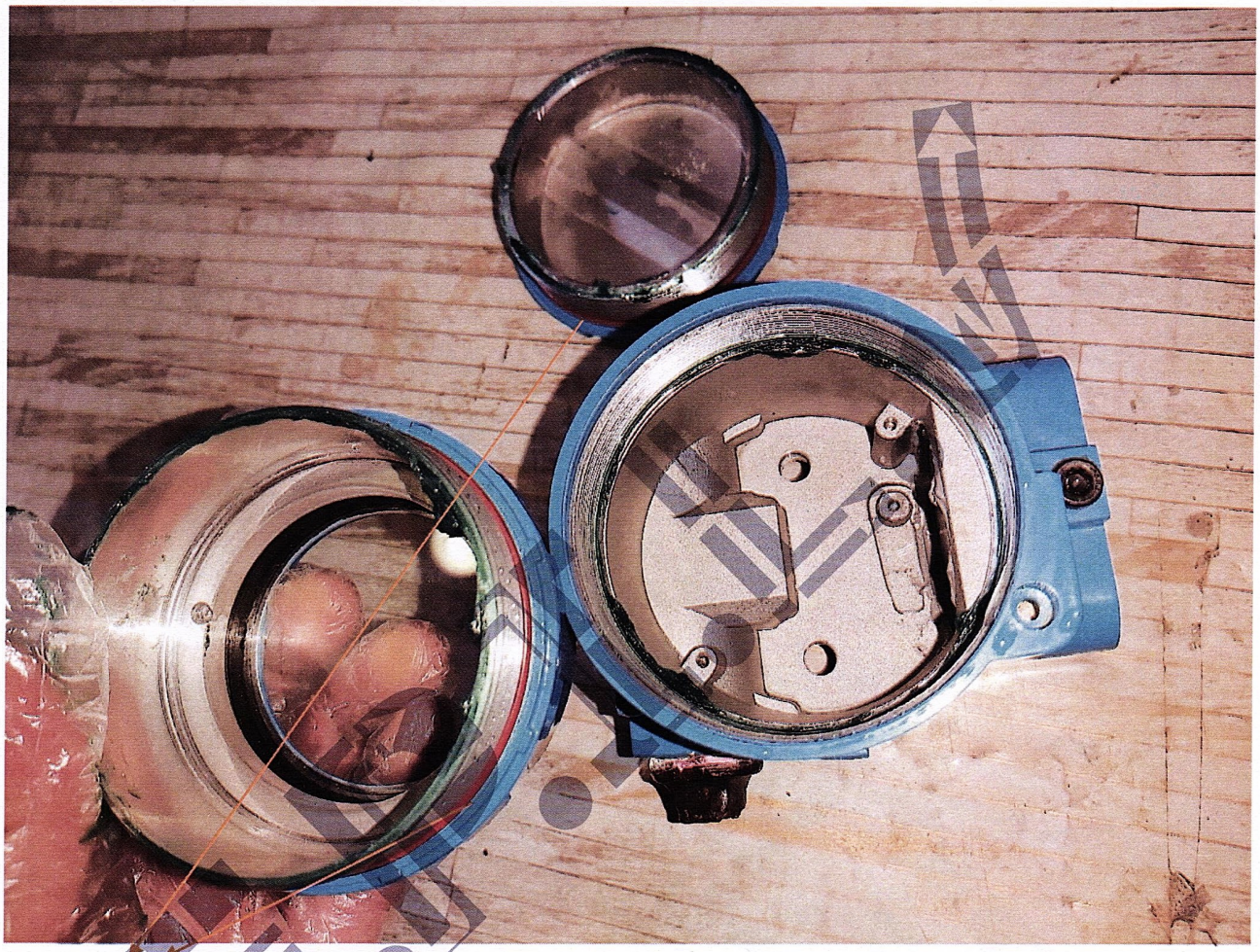


Figure 2: EUT after IP6X



NOTE : Washer was used in the EUT for sealing

Figure 3: EUT after IPX7