

CUSTOMER	OPTRONICS S.A DE C.V. Parque Tecnológico Innovación Querétaro Carretera Estatal 431, km 2+200, Interior 28 C.P. 76246, El Marqués, Qro.
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ELEMENT UNDER TEST: METALIC CONTINUITY CONNECTOR

TRADEMARK	SAMPLE CUSTOMER IDENTIFICATION	SAMPLES	SPECIFICATION
OPTRONICS	OPHACOCONT CONTINUITY CONNECTOR	10	OPTRONICS OPHACOCONT REV. 1

TEST REQUESTED: SALT SPRAY TEST FOR 300 HOURS

SAMPLES	STANDARD OR PROCEDURE	RESULTS
21MA0034-1 to 21MA0034-10	ISO 9227:2017 Corrosion tests in artificial atmospheres — Salt spray tests	SEE DESCRIPTION

CONFORMITY ASSESSMENT

CONFORM <input checked="" type="checkbox"/>	PARTIALLY CONFORM <input type="checkbox"/>	NO CONFORM <input type="checkbox"/>
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TESTING LABORATORY	FIBERLAB S. DE R.L. DE C.V. Parque Tecnológico Innovación Querétaro Carretera Estatal 431, km 2+200, Interior 28 El Marqués, Qro. C.P. 76246
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The results of the tests apply only to the identified element.

Samples reception date: January 26, 2021

Testing date: January 28 to February 10, 2021

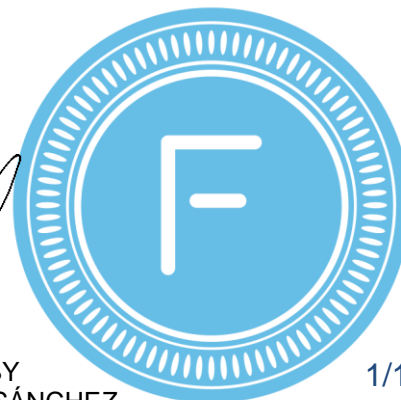
Report issue date: February 12, 2021




APPROVED
DR. JUAN CARLOS BERMÚDEZ



TEST BY
ING. JESSICA SÁNCHEZ



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The results in this report are derived from the samples provided by **OPTRONICS S.A DE C.V.**, as well as the data used for conformity assessment, expressed in the Optronics technical sheet "OPTRONICS OPHACOCONT REV. 1"

TEST DESCRIPTION AND COMMENTS

Test was carry out under following conditions:

Exposure time: 300 hours

Water used: Type IV in accordance ASTM D 1193-06

(Reap. 2011) Salt used: NaCl analytical grade 99.7%

*Test temperature: 36.1°C

*pH solution: 6.74

*Specific gravity solution: 1.035 (25°C)

*Collected volume (1): 39.5 mL per 24h

*Collected volume (2): 39.9 mL per 24h

Cleaning method after the test: Rinsed with water and air dried.

**Average measure during test*

The analysis was performed at CIDETEQ facilities.

EVALUATION CODES

10	No defects	0	50 < A
9	$0 < A \leq 0.1$	C	Corrosion products from anodic coatings
8	$0.1 < A \leq 0.25$	x	Excessive amount
7	$0.25 < A \leq 0.5$	m	Moderate amount
6	$0.5 < A \leq 1$	s	Slight amount
5	$1 < A \leq 2.5$	vs	Very slight amount
4	$2.5 < A \leq 5$	A = área (%)	
3	$5 < A \leq 10$		
2	$10 < A \leq 25$		
1	$25 < A \leq 50$		

SPECIFICATIONS

RED CORROSION $\leq 1\%$ in 300 hours

WHITE CORROSION $\leq 1\%$ in 300 hours

Test in accordance to ISO 9227:2017, Corrosion tests in artificial atmospheres — Salt spray tests
 Reagent water: Type IV in accordance to ASTM D 1193-06.

Specification data sheet: OPTRONICS OPHACOCONT REV. 1

RESULTS

The results obtained at the end of the test are shown below.
 See the Figures 1 to 13 for better reference.

**TABLE 1. Evaluation of samples according to ASTM 10289
 (Exposure time: 300 hours)**

Sample	R _P Protection rating Red corrosion (RC)	R _A Protection rating White corrosion (WC)	Performance rating R _P / R _A	Time of occurrence of corrosion	
				WC	RC
21MA0034-1 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 1))	9 vs	6 m C	9 vs / 6 m C	WC	24
				RC	264
21MA0034-2 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 2))	9 vs	6 m C	9 vs / 6 m C	WC	24
				RC	264
21MA0034-3 (OPHACOCONT CONECTOR DE CONTINUIDAD (SAMPLE 3))	9 vs	6 m C	9 vs / 6 m C	WC	24
				RC	168
21MA0034-4 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 4))	9 vs	6 m C	9 vs / 6 m C	WC	24
				RC	288
21MA0034-5 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 5))	9 vs	6 m C	9 vs / 6 m C	WC	24
				RC	288

21MA0034-6 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 6))	9 vs	7 m C	9 vs / 7 m C	WC	24
				RC	300
21MA0034-7 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 7))	9 vs	6 m C	9 vs / 6 m C	WC	24
				RC	264
21MA0034-8 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 8))	9 vs	7 m C	9 vs / 7 m C	WC	24
				RC	300
21MA0034-9 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 9))	9 vs	7 m C	9 vs / 6 m C	WC	24
				RC	264
21MA0034-10 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 10))	9 vs	7 m C	9 vs / 6 m C	WC	24
				RC	300

TABLE 2. Weight loss of exposed samples for a time of 300 hours

Sample	Initial mass (g)	Final mass (g)	Mass loss (g)
21MA0034-1 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 1))	101.1112	94.8196	6.2916
21MA0034-2 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 2))	99.7783	95.3924	4.3859
21MA0034-3 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 3))	100.9275	97.5750	3.3525
21MA0034-4 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 4))	100.4217	98.5000	1.9217
21MA0034-5 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 5))	101.5343	99.2201	2.3142
21MA0034-6 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 6))	100.9078	99.4781	1.4297
21MA0034-7 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 7))	100.6894	98.4336	2.2558
21MA0034-8 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 8))	100.3872	99.1582	1.2290
21MA0034-9 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 9))	101.0409	98.8105	2.2304
21MA0034-10 (OPHACOCONT CONTINUITY CONNECTOR (SAMPLE 10))	101.3407	99.5995	1.7412

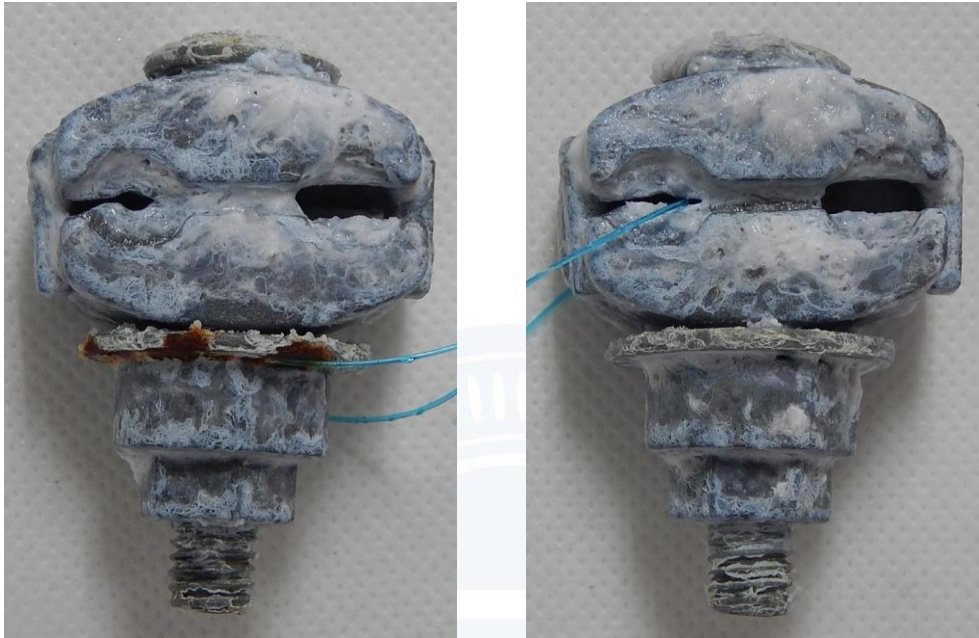


Figure 1 y 2. Visual appearance of sample **21MA0034-3** and **21MA0034-5** at 150 hours of test



Figure 3. Visual appearance of sample **21MA0034-9** at 150 hours of test

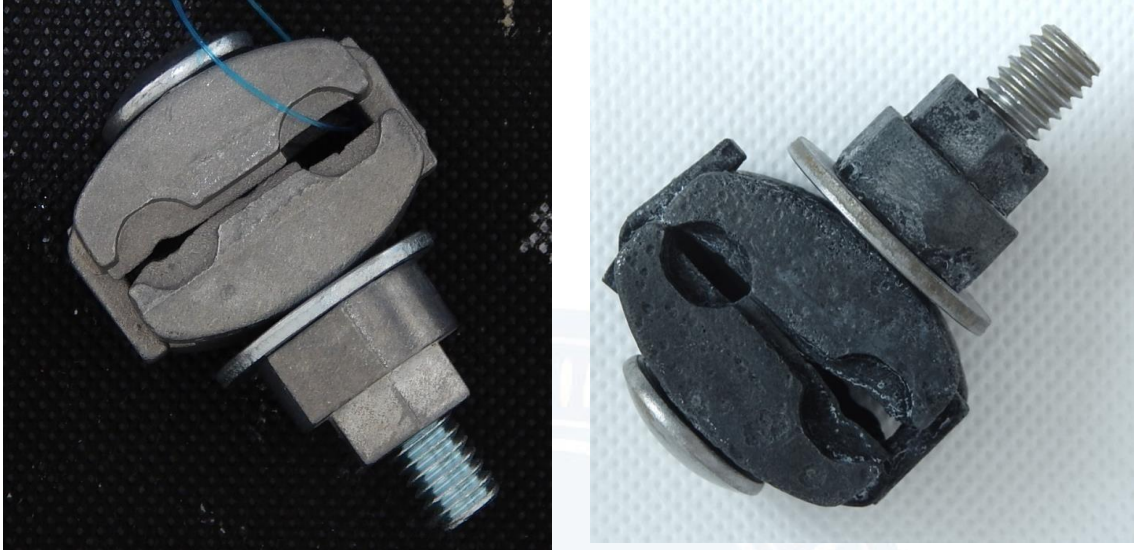


Figure 4. Visual appearance of sample **21MA0034-1**. Initial (left) and final (right) appearance.

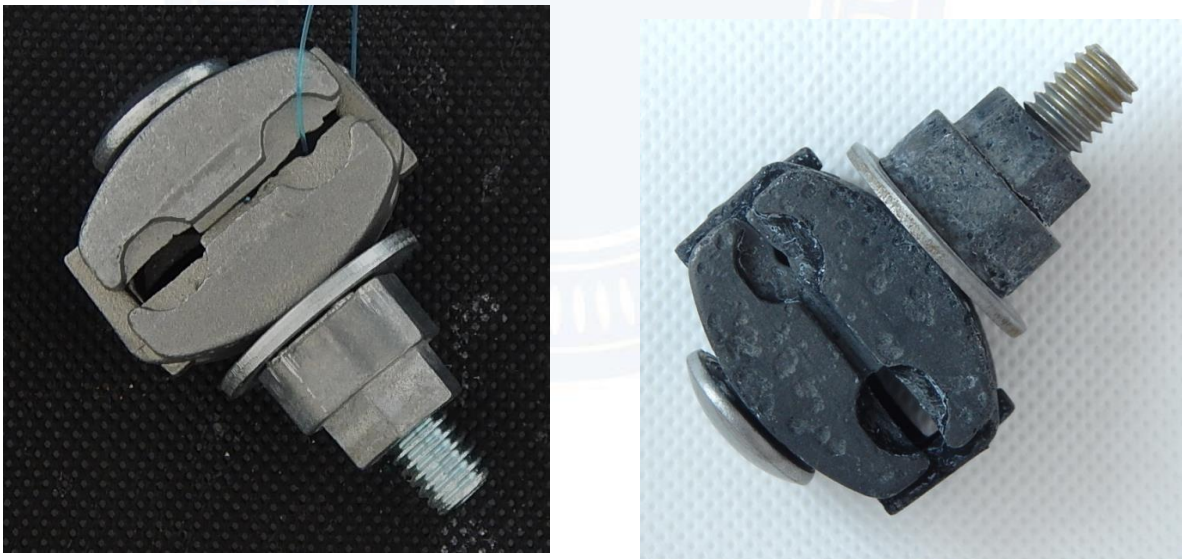


Figure 5. Visual appearance of sample **21MA0034-2**. Initial (left) and final (right) appearance.

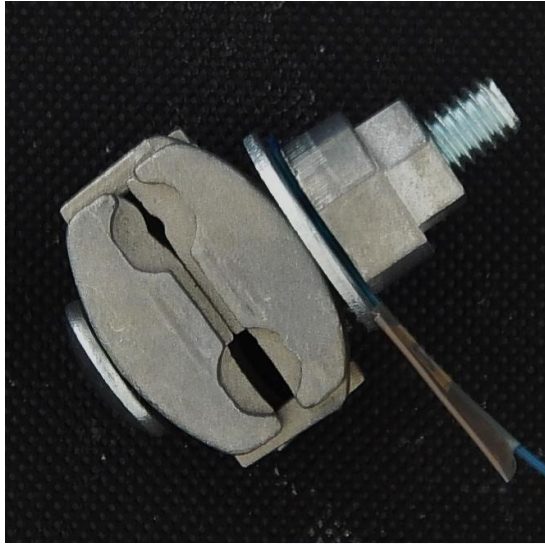


Figure 6. Visual appearance of sample **21MA0034-3**. Initial (left) and final (right) appearance.

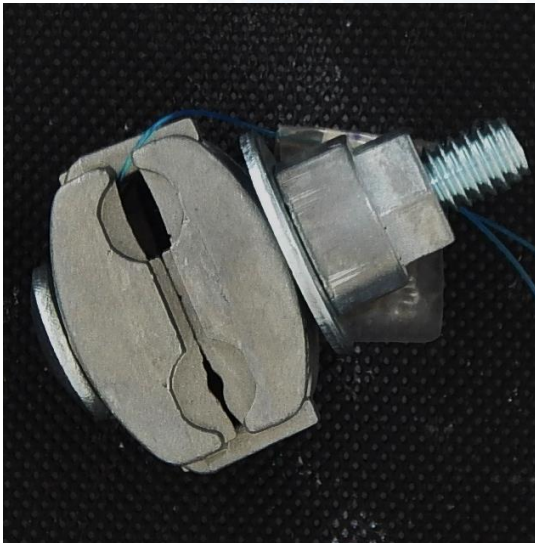


Figure 7. Visual appearance of sample **21MA0034-4**. Initial (left) and final (right) appearance.

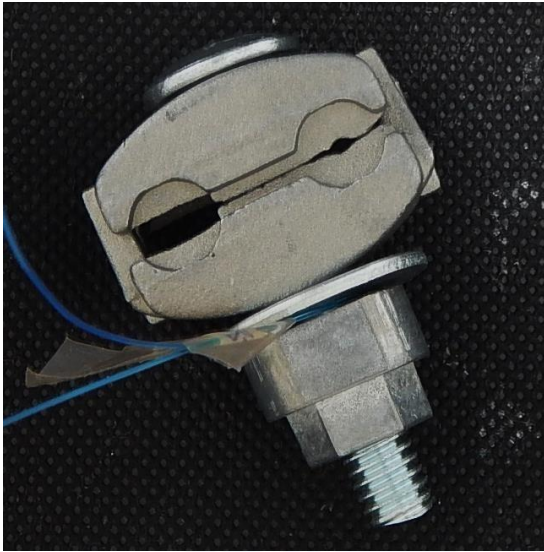


Figure 8. Visual appearance of sample 21MA0034-5. Initial (left) and final (right) appearance.

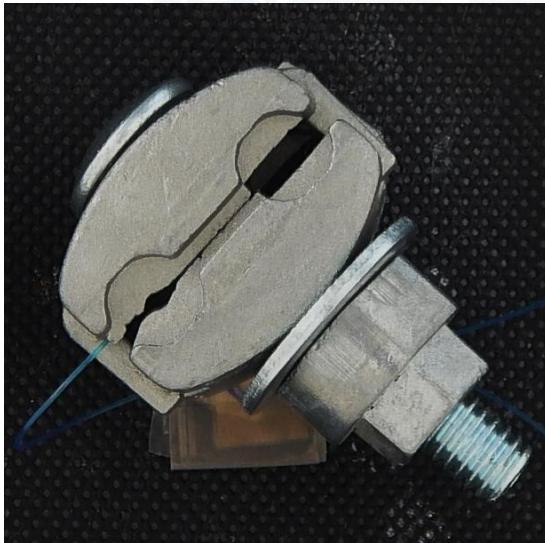


Figure 9. Visual appearance of sample 21MA0034-6. Initial (left) and final (right) appearance.

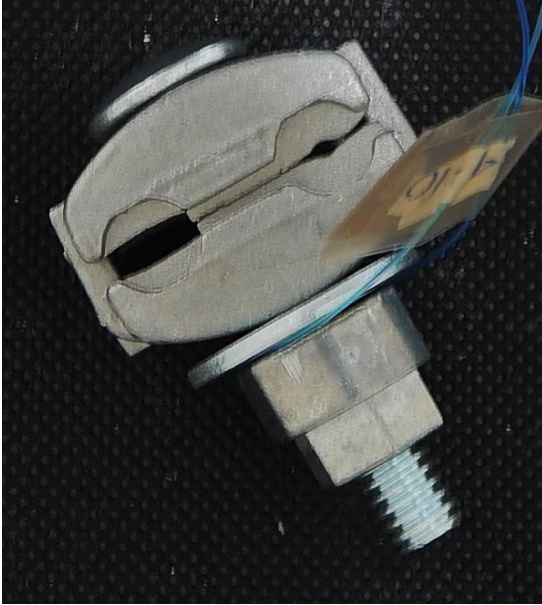


Figure 10. Visual appearance of sample **21MA0034-7**. Initial (left) and final (right) appearance.

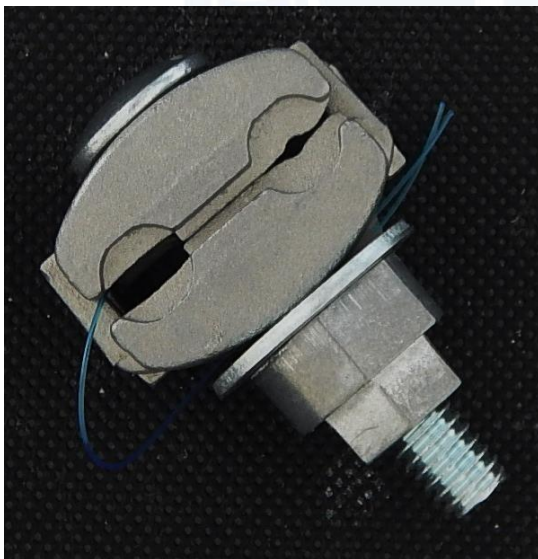


Figure 11. Visual appearance of sample **21MA0034-8**. Initial (left) and final (right) appearance.

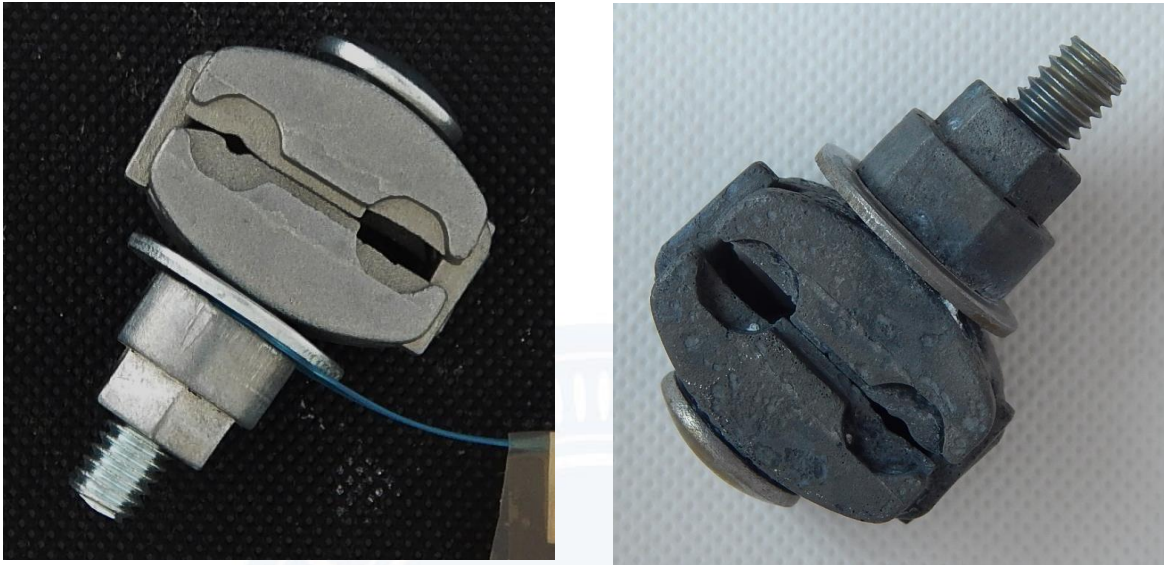


Figure 12. Visual appearance of sample **21MA0034-9**. Initial (left) and final (right) appearance.



Figure 13. Visual appearance of sample **21MA0034-10**. Initial (left) and final (right) appearance.