



TEST REPORT

Application No......: S202209064457

Applicant's name.....: Lucas Posada

Applicant's address : Calle 16 No 45 – 72 Medellín, Colombia

Sample description : Shorting Cap

Model: SIGMA-1800VA

Date of receipt of test item.....: 2022.09.07

Test location: Room 02, The 2nd floor No.201, GRG Technological Building, 163 Ping Yun Rd, Tianhe District, Guangzhou, China

Test standard.....: ANSI C136.10-2017
Roadway and Area Lighting Equipment —Locking-Type Photocontrol Devices and Mating Receptacles —Physical and Electrical Interchange ability and Testing

Test date(s): 2022.09.07 to 2022.09.27

Test result: The test results are in compliance with the above mentioned standards.

Date of issue: 2022.10.11

Tested by:

Reviewed by:

Approved by:

Bill Luo

Alvin Zhang

Jinjin Teng

Bill Luo

Alvin Zhang

Jinjin Teng



Other aspects:

According to the requirement of the applicant, clause 4.7 is not evaluated.

Abbreviations: *P = passed; F = failed; N/A = not applicable*

The test result in this test report refers exclusively to the presented test sample. This report shall not be reproduced, except in full, without the written approval of FGTEST. In China, this test report is only used for scientific research, teaching or internal quality control if there is no China Metrology Accreditation (CMA) mark.

Test item description..: Shorting Cap	
Trade mark.....: SIGMA	
Manufacturer CMSA	
Manufacturer's address Calle 16 No 45 – 72 Medellín, Colombia	
Factory CMSA	
Factory's address Calle 16 No 45 – 72 Medellín, Colombia	
Ratings.....: Max. 480V; 1000W; 1800VA; 15A; 50/60Hz, IP66 (details see marking plate)	
Test items particulars:	
Classification of installation and use	N/A
Supply Connection	By means of mating Receptacles

General product information:
See Attachment 1 to 3





ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

4	Mechanical Requirements		P
4.1	Receptacle Type		N/A
	The receptacle shall be of the 3 conductor or multi-conductor locking type.		N/A
	For 3 conductor varieties, its configuration, contacts, and limiting dimensions shall be in accordance with Figure 1.	See appended table 4.1	N/A
	For configuration, contacts, and limiting dimensions of multi-conductor receptacles refer to ANSI C136.41.		N/A
4.2	Receptacle Dimensions		N/A
	The receptacle shall be so designed that, when installed on a luminaire or other equipment, its configuration and limiting dimensions will be in accordance with Figure 2(b).	See appended table 4.2	N/A
4.3	Receptacle Orientation		N/A
	When mounted on a luminaire, the receptacle shall be designed and mounted so that it can be turned 350 degrees, but no more than 360 degrees, and securely positioned at an angular adjustment with ± 15 degrees.		N/A
	The means for adjusting orientation shall be externally accessible.		N/A
	Upward sensing controls do not require rotating receptacles.		N/A
4.4	Receptacle Mounting		N/A
	With the luminaire mounted as intended, the seat between the receptacle and the photocontrol shall be mounted as close to horizontal as possible.		N/A
	Maximum deviation from the horizontal is 45 degrees.		N/A
4.5	Plug Type		P
	The plug used in the photocontrol, shorting cap, or open cap shall be of the 3 conductor or multiconductor, locking type.	See appended table 4.5	P
	For 3 conductor varieties, its configuration, blades, and limiting dimensions shall be in accordance with Figure 3.	See appended table 4.5	P
	Blades shall be within ± 5 degrees from vertical.	See appended table 4.5	P
	For configuration, contacts, and limiting dimensions of multi-conductor receptacles refer to ANSI C136.41.		N/A
4.6	Sealing		P
	A sealing means shall be provided as part of the photocontrol, shorting cap, or open cap to form a rain tight seal on the "required seat" of the receptacle. The "required seat" of the receptacle, shown in Figure 2(b), shall be a smooth flat surface.		P



ANSI C136.10-2017			
Clause	Requirement + Test	Result - Remark	Verdict
	With the photocontrol, shorting cap, or open cap installed in its locking position, the sealing means shall not encroach on the area within the limiting profile of the mounting shown in Figure 2(b).		P
	No obstructions or projections other than the electrical contacts and sealing means shall project below the limiting profile shown in Figure 2(a).		P
	The configuration and limiting dimensions of the device shall be in accordance with Figure 2(a).	See appended table 4.6	P
	A rain tight seal is determined by compliance with test specified in Clause 6.3		P
4.7	Shorting and Open Caps	According to the requirement of the applicant, clause 4.7 is not evaluated.	N/A
	The contour of the shorting or open cap housing shall be as shown in Figure 4. If the overall dimension "A" is equal to or less than 1.0 in. (25.4 mm), then the upper portion of the housing may be eliminated.	See appended table 4.7	N/A
	Thus, dimension "B" will be the overall height.		N/A
4.8	Flammability		P
	A polymeric enclosure of a photocontrol, shorting cap or open cap shall have a minimum flammability rating of UL 94 HB.		P
4.9	Ingress Protection		P
	The enclosure of a photocontrol, shorting cap, or open cap shall have an ingress protection rating of IP 53per ANSI C136.25 that should be maintained for the rated life of the product.		P
4.10	Plug-Receptacle Interface Temperature		P
	The photocontrol, shorting cap, or open cap shall not deform when the maximum plug-receptacle interface temperature is 90°C for four hours.	See appended table 4.10	P
4.11	Low-Temperature Impact		P
	A polymeric enclosure of a photocontrol, shorting cap, or open cap shall be capable of withstanding exposure to low temperature.		P
	This capability is tested by exposing a complete device to the conditioning described in 4.11.1 and the impact test described in 4.11.2.		P
4.11.1	Conditioning		P
	The test sample shall be acclimated to an ambient temperature of -29.0°C ±1.0°C for 24 hours minimum.	-29.0°C, 24 hours	P
	Within 10 seconds of removal from the cold chamber, the device is to be mounted into a receptacle and subjected to the impact test of 4.11.2.		P
4.11.2	Impact Test		P



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
	An impact of a minimum of 1 ft.-lb. (1.36 N-m) shall be applied to external surfaces, excluding the vertically mounted window, by means of a solid, smooth, steel sphere, weighing 1.2 lbs. (0.54 kg), 2 in. (50.8 mm) in diameter, dropped from 10 in. (0.254 m).		P
	The photocontrol, shorting cap, or open cap shall meet all the requirements of this document after being subjected to the impact test.		P
5	Electrical Requirements		P
5.1	Insulation Voltage Classification		P
	Insulating materials of the receptacle and plug shall be rated 600 volts, as defined in ANSI C136.2.		P
5.2	Receptacle Heat-Cycle Test		N/A
5.2.1	Setup		N/A
	The temperature on the line or load receptacle contact shall be measured by means of a thermocouple attached to the outside surface of the inner blade opposite the detent of the receptacle contact.		N/A
	The receptacle shall be securely mounted in a horizontal position on an aluminum plate that has a minimum area of 6 in.2(38.7 cm2), 1/8 in. (0.317 cm) thick.		N/A
	The test shall be performed at an ambient temperature of 25°C ±5°C.		N/A
5.2.2	Conditioning		N/A
	A shorting cap with brass blades shall be inserted, locked, and removed five times before starting the test.		N/A
5.2.3	Procedure		N/A
	The same shorting cap that was used in clause 5.2.2 shall be inserted and locked into the test receptacle.		N/A
	A minimum current of 15 A shall be applied to the line and load contacts of the test receptacle. The current shall be applied for 15 cycles, each consisting of a 20-hour "on" period and a 4-hour "off" period.		N/A
5.2.4	Pass/Fail Criteria		N/A
	The receptacle shall be considered to have failed if the temperature rise on the receptacle contacts at the end of any 20-hour period is greater than 30°C.	See appended table 5.2	N/A
5.3	Dielectric Withstand		P
	Photocontrols, shorting caps, or open caps shall meet the dielectric withstand requirements of C136.2.	See appended table 5.3	P



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
	For multi-conductor photocontrols of the C136.41 variety, all electrical connections shall be considered "current carrying.		N/A
6	Environmental Requirements		P
6.1	Ambient Temperature Range		P
	Photocontrols, shorting caps, or open caps and receptacles shall operate over the ambient temperature range of -40°C to 65°C	-40°C to 70°C	P
6.2	Temperature Test		P
	With receptacle mounted to a test plate as defined in Clause 5.2.1, in a draft free room set at the highest rated ambient temperature.		P
	The photocontrol, shorting cap, or open cap, is to be operated at its rated load, voltage and frequency until steady state temperatures are attained.		P
	The temperature rise of any component shall not alter or render inoperative any material or component part.	See appended table 6.2	P
6.3	Environmental Tests		P
	The photocontrol, shorting cap, or open cap, when properly installed in its receptacle mounting, shall pass the environmental tests as described in clauses 6.3.1, 6.3.2, 6.3.3, and 6.3.4.		P
6.3.1	Humidity Test		P
	The assembly of the photocontrol, shorting cap, or open cap and receptacle shall be exposed to 96% ±2% relative humidity at 50°C ±2°C for 168 hours when operating at rated voltage and load.	50°C/96%/168 hours	P
	The photocontrol shall be cycled on for 12 hours and off for 12 hours for the duration of the test. Within 1 minute of its removal from the humidity chamber, the assembly shall be subjected to the dielectric voltage withstand requirements described in clause 5.3.	See clause 5.3	P
	Within 10 minutes after the removal from the humidity chamber, the photocontrol shall meet the light level requirements of clause 10.1.	See clause 10.1	N/A
6.3.2	Rain Test		P
	The assembly of the photocontrol, shorting cap, or open cap and receptacle shall be subjected to the rain tightness test described in UL 773.		P
	Within 5 minutes after completion of the rain test, the device shall be tested and shall meet the dielectric voltage withstand requirements of clauses 5.3 and the operational requirements of section 10.	See clause 5.3 and 10	P
	Furthermore, the sealing requirements of clause 4.6 shall be validated.		P
6.3.3	Weathering Test		P



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
	All components of the housing assembly of the photocontrol, shorting cap, or open cap shall be subjected to a closed environmental UVB chamber in accordance to ASTM G154-12a.		P
	The test specimens shall be positioned on the platform so that they are exposed directly to the arc tube of the lamp.		P
	The specimens shall be located between 4 inches and 8 inches away from the lamp.		P
	A typical exposure cycle includes 8 hours of UV exposure at 50°C ±2°C followed by a 4 hour condensation period at 40°C ±2°C.	UV exposure: 50°C condensation period: 40°C	P
	Exposure periods shall be 504 hours (21 days) for a standard life photocontrol and 1,008 hours (42 days) for a long life photocontrol. Following exposure, the samples shall meet the requirements of the impact test described in 4.11.2 (at 25°C ±2°C) and the light level requirements of clause 10.1.	Not photocontrol	N/A
6.3.4	Salt Spray (Fog) Test		P
	The assembly of the photocontrol, shorting cap, or open cap and receptacle shall be subjected to a fine mist of salt solution, per ASTM B117-11 standard.		P
	The test chamber shall be held at 35°C for the duration of the test.	35°C	P
	The specimens shall be supported or suspended between 15 and 30 degrees from the vertical and preferable parallel to the principal direction of horizontal flow of fog through the chamber.		P
	Exposure periods are 240 hours (10 days) for a standard life photocontrol and 480 hours (20 days) for a long life photocontrol.	10 days	P
	Following the exposure, external surfaces may be cleaned per ASTM B117-11 and then allowed to dry in a 40% ±5% relative humidity at 25°C ±5°C environment for no more than 2 hours.	40%/25°C	P
	Immediately following the dry time, test specimens shall be tested for operation and shall meet the requirements of clauses 5.3 and 10.1.	See clause 5.3 and 10.1	P
7	Surge Performance Requirements		N/A
7.1	Photocontrol, Shorting Cap, and Open Cap		N/A
	When surge protection is provided, the photocontrol, shorting cap, or open cap shall withstand the combination wave test as outlined in ANSI C136.2 with the clarifications noted in Table 1 of this standard.		N/A
	The device shall be tested according to the design life classification of the device per section 9.2.		N/A



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
	Unless otherwise specified, surge protection for shorting and open caps shall be designed to operate at 120V, 208V, 240V, 277V, and 480V line voltages.		N/A
7.2	Pass/Fail Criteria		N/A
	Damage that results in a photocontrol, shorting cap, or open cap not meeting the test requirements specified in clauses 5.3 and 6.3.2 shall indicate a failure of the device.	See clause 5.3 and 6.3.2	N/A
	Additionally, damage that results in a photocontrol not meeting the operating requirements specified in clause 10 shall indicate a failure of the device.	See clause 10	N/A
8	Marking and Color Coding		P
8.1	Marking		N/A
	The photocontrol enclosure should be color coded in accordance with clause 8.3 and shall be clearly and permanently marked with its voltage rating, load ratings, north orientation, rotation of installation and removal, the name of the manufacturer, and the model number.		N/A
	The color coding of the photocontrol enclosure shall be permanent for the life of the control.		N/A
	North orientation marking is not required on upward sensing type photocontrols.		N/A
8.2	Receptacle Marking		N/A
	The rotatable receptacle or adjustment assembly shall be permanently marked with a north reference mark indicated by an arrow and "N" or "NORTH" in the position as shown in Figure 2.		N/A
8.3	Photocontrol Color Coding		N/A
	Table 2 includes photocontrol color coding by voltage rating and operating voltage and represents recommended color coding designations.		N/A
	This table is supplied for historic reference.		N/A
	Alternate photocontrol cover colors may be specified by the end user		N/A
8.4	Shorting and Open Cap Color coding		P
	Shorting caps shall be color coded black.		P
	Open caps shall be color coded red.		N/A
9	Ratings		P
9.1	Load Ratings		N/A
	The photocontrol shall have a minimum load rating of both 1,000 watts incandescent lamp load and 1,800 VA magnetic ballasted load.		N/A



ANSI C136.10-2017			
Clause	Requirement + Test	Result - Remark	Verdict

	Photocontrols rated for electronic loads do not have a minimum required electronic load rating but shall be tested according to the procedure described in section 11.7 to validate the claimed rating (in Amperes).		N/A
9.2	Design Life Classification		P
	Photocontrols, shorting caps, or open caps shall be classified based on their ability to pass the performance requirements of this document.		P
	Literature shall include the design life classification "Standard Life" or "Long Life."	Standard Life	P
	Long Life photocontrols, shorting caps, and open caps shall meet the Long Life requirements specified in clauses 6.3.3, 6.3.4, and 7.1.		N/A
	Long life photocontrols shall also meet the Long Life requirements in clauses 11.4, 11.5, 11.6.		N/A
	For electronic load rated devices, clause 11.7 applies.	See clause 11.7	N/A
9.3	Luminaire System Protection	not designated for luminaire system protection	N/A
	Photocontrols, shorting caps, or open caps designated for luminaire system protection shall limit the maximum surge voltage to $3000 V_{PEAK}$ when tested at the rated surge level.		N/A
10	Operating Requirements		N/A
10.1	Photocontrol Calibration		N/A
	The photocontrol shall turn on within the limits of +100% (twice) and -50% (half) of its calibrated light level setting at rated voltage and frequency:		N/A
	Over a range of input voltages as indicated in clause 8.3 and an ambient temperature of $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$.		N/A
	Photocontrols designed to operate over several voltages shall operate within the above limits when operated at the upper voltage rating.		N/A
	a. Over a range of ambient temperatures from -40°C to 65°C with relative humidity up through 96% when operated at nominal voltage. Photocontrols designed to operate at 120/240 V, 208/240/277 V, or 120/208/240/277V shall operate within the above limits when operated at the upper voltage rating.		N/A
10.2	Light Levels		N/A
	Measurements and calibration for operating light levels shall be in accordance with the following clauses.		N/A
10.2.1	Mounting		N/A
	All measurements of operating light levels shall be based on the performance of photocontrols mounted fully exposed to the sky to within 5° of true horizon and shielded from artificial light.		N/A



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
	Photocontrols requiring north orientation shall be oriented to within 15° of true north.		N/A
	Operating light levels are defined in foot-candles of daylight illuminations as determined by measurements with a conventional color corrected photometer held in a vertical plane, facing within 15° of true north and within 5° of true horizon, and located within 1 ft. (0.305 m) vertically and 15 ft. (4.572 m) laterally of the photocontrol under test.		N/A
	All measurements shall be made to a precision of ±15%. Instrument accuracy shall be maintained by proper calibration against filament lamp candlepower standards, traceable to the National Institute of Standards and Technology (NIST).		N/A
10.2.2	Measurements		N/A
	The nominal or rated operating light levels shall be determined by the average of measurements taken in accordance with 10.2.1 on at least three clear, cloudless days.		N/A
	The photocontrol shall be operated at rated voltage and frequency.		N/A
10.2.3	Illumination		N/A
	Measurement and/or adjustment of the photocontrol operating light levels under illumination shall be correlated to average performance under daylight illumination in accordance with 10.2.1 and 10.2.2.		N/A
10.3	Specifications		N/A
	Light levels shall be measured according to the procedure outlined in clause 10.2.1. Standard light levels commonly used are the following:		N/A
	The photocontrol is to be adjusted to turn on at 1.5 fc ±0.5 fc (16.1 lux ±5.4 lux) and a maximum turn-off at 6 fc (65 lux), as measured in accordance with clause 10.2.3; or	See appended table 10	N/A
	For areas with average night pavement illumination greater than 1.0 fc (10.8 lux), a north facing photocontrol should turn on at 1.6 times the average design pavement illumination with the turn-off not to exceed three times the turn-on light level; or		N/A
	As specified by the user.		N/A
11	Load Test Procedures		N/A
11.1	Load Test Supply		N/A
	The load test supply shall be capable of providing an instantaneous inrush current per Table 3.		N/A
	If the electronic load test of clause 11.7 is required, the source shall also provide minimum inrush currents per Table 5.		N/A



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
	Note: The supply voltage may dip during the inrush current pulse provided that the minimum inrush levels are still met.		N/A
11.2	Test Cycle		N/A
	The photocontrol shall be cycled at a rate no faster than 1 cycle in 4 minutes, as described, with the following time period: dark for 1.5 min., then maintained at 20 fc (215 lux) minimum for 2.5 min.		N/A
11.3	Continuous Current Load Test		N/A
	The photocontrol shall be tested for 4 hours with a continuous current load of 15 amps for devices rated from 120–277 volts and 5 amps for devices rated from 347–480 volts.		N/A
	The photocontrol shall be tested at an ambient temperature of 25°C ±5°C and a plug-receptacle interface temperature of 90°C ±5°C.		N/A
	This test shall be performed in a draft free environment.		N/A
	After the test, the control shall meet the requirements of clauses 6.3.1, 6.3.2, 7.1, 10.3, 11.4, 11.5, 11.6, and for electronic load rated devices, 11.7.	See the clauses 6.3.1, 6.3.2, 7.1, 10.3, 11.4, 11.5, 11.6 and 11.7	N/A
11.4	Incandescent Lamp Load Test		N/A
	The photocontrol shall be connected to a supply as described in clause 11.1.		N/A
	The lamp load shall be a single 1,000 watt, 120 volt tungsten filament lamp for photocontrols rated at 120 volts.		N/A
	For photocontrols rated at 208 volts, 240 volts, 277 volts, 347 volts, and/or 480 volts, a suitable series/parallel combination of tungsten filament lamps shall be used that provide a 1,000 watt load. Photocontrols rated for multiple voltages need only to be tested at the lowest and highest voltage rating.		N/A
	The photocontrol shall complete a minimum of 3,650 cycles as per clause 11.2 with no failure to transfer the load.		N/A
	Photocontrols classified as Long Life shall complete a minimum of 7,300 cycles as per clause 11.2 with no failure to transfer the load.		N/A
11.5	AC Capacitor Load		N/A
	The photocontrol shall be connected to a supply as described in clause 11.1.		N/A
	The AC capacitor load shall be in accordance with Table 4.		N/A
	The load capacitor shall be an oil-filled, film type with a parallel bleeding resistor sufficient to fully discharge the capacitor during the off cycle described in 11.2.		N/A



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
	Photocontrols rated for multiple voltages need only to be tested at the lowest and highest voltage rating.		N/A
	The photocontrol shall complete a minimum of 3,650 cycles as per clause 11.2 with no failure to transfer the load.		N/A
	Photocontrols classified as Long Life shall complete a minimum of 7,300 cycles as per clause 11.2 with no failure to transfer the load.		N/A
11.6	Inductive Load		N/A
	The photocontrol shall be connected to a supply as described in clause 11.1.		N/A
	The inductive load shall be configured to provide a power factor of 0.4 to 0.6 and current sufficient to create the VA rating of the control at the rated voltage. Photocontrols rated for multiple voltages need only be tested at the lowest and highest voltage rating.		N/A
	The photocontrol shall complete a minimum of 3,650 cycles as per clause 11.2 with no failure to transfer the load.		N/A
	Photocontrols classified as Long Life shall complete a minimum of 7,300 cycles as per clause 11.2 with no failure to transfer the load.		N/A
11.7	Electronic Load		N/A
	The following load test is only required for photocontrols rated for electronic loads. The electronic load test circuit (see Figure 5 as a reference circuit) shall produce the peak current levels and pulse width in Table 5 as illustrated in Figure 6. Impedance, Z, is used in conjunction with capacitance, C, to create the required peak inrush current and current pulse width in Table 5 when the photocontrol is switched at peak line voltage. Resistance, R, should be sized to fully discharge capacitor C during the off cycle. Switch S1 can optionally be replaced with a short circuit. Otherwise, it is closed when the photocontrol is electrically open. A steady state load is not required by the test.		N/A
	Photocontrols classified as Standard Life shall complete a minimum of 3,650 cycles as per clause 11.2 with no failure to transfer the load.		N/A
	Photocontrols classified as Long Life shall complete a minimum of 7,300 cycles as per clause 11.2 with no failure to transfer the load.		N/A
	The cycle rate defined in section 11.2 may be increased to no faster than one every ten seconds while maintaining minimum inrush current and capacitor discharge requirements.		N/A
	Photocontrols rated at multiple voltages need only to be tested at the highest rated voltage and specified current rating.		N/A



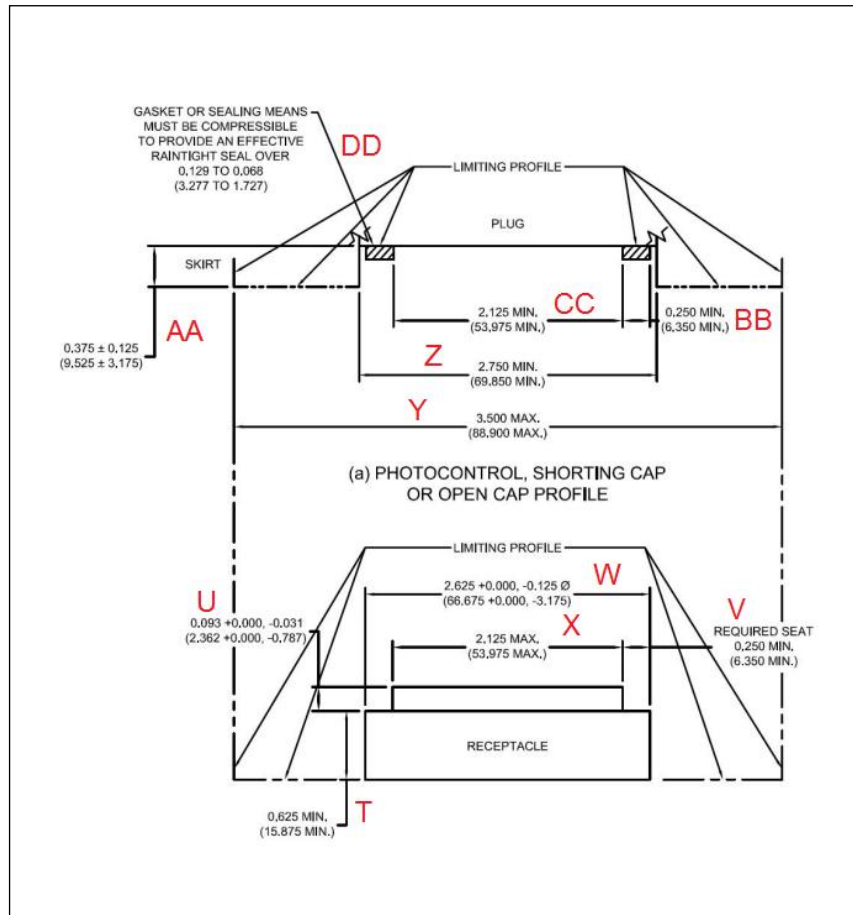
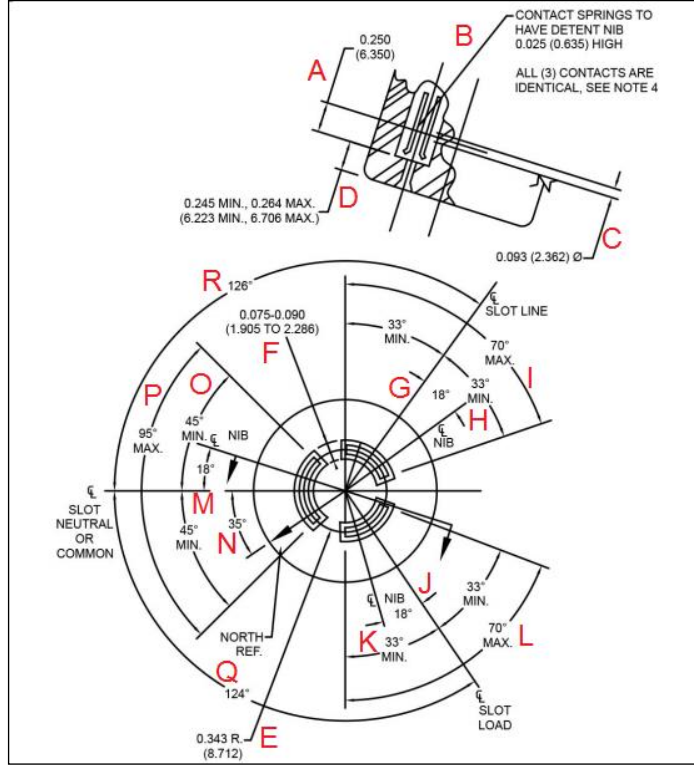
ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

4.1&4.2& 4.6&5.6	TABLE: Receptacle and Sealing Dimensions				P
Location	1 st Sample	2 nd Sample	3 rd sample	Limit (mm)	
A	—	—	—	6.350 ± 0.127	
B	—	—	—	0.635 ± 0.127	
C	—	—	—	Ø2.362 ± 0.127	
D	—	—	—	6.223MIN., 6.706MAX.	
E	—	—	—	8.712 ± 0.127	
F	—	—	—	1.905 TO 2.286	
G	—	—	—	18°± 0.5°	
H	—	—	—	33°MIN	
I	—	—	—	70°MAX	
J	—	—	—	18°± 0.5°	
K	—	—	—	33°MIN.	
L	—	—	—	70°MAX.	
M	—	—	—	18°± 0.5°	
N	—	—	—	35°± 0.5°	
O	—	—	—	45°MIN.	
P	—	—	—	95°MAX.	
Q	—	—	—	124°± 0.5°	
R	—	—	—	126°± 0.5°	
T	—	—	—	15.875	
U	—	—	—	2.362(+0.000,-0.787)	
V	—	—	—	6.350 MIN	
W	—	—	—	66.675(+0.000,-3.175)	
X	—	—	—	53.975 MAX.	
Y	—	—	—	88.900 MAX.	
Z	71.085	71.091	71.081	69.850 MIN.	
AA	8.554	8.545	8.512	9.525 ± 3.175	
BB	7.795	7.803	7.801	6.350 MIN.	
CC	54.625	54.632	54.587	53.975 MIN.	
DD	2.615	2.623	2.682	3.277 TO 1.727	

ANSI C136.10-2017

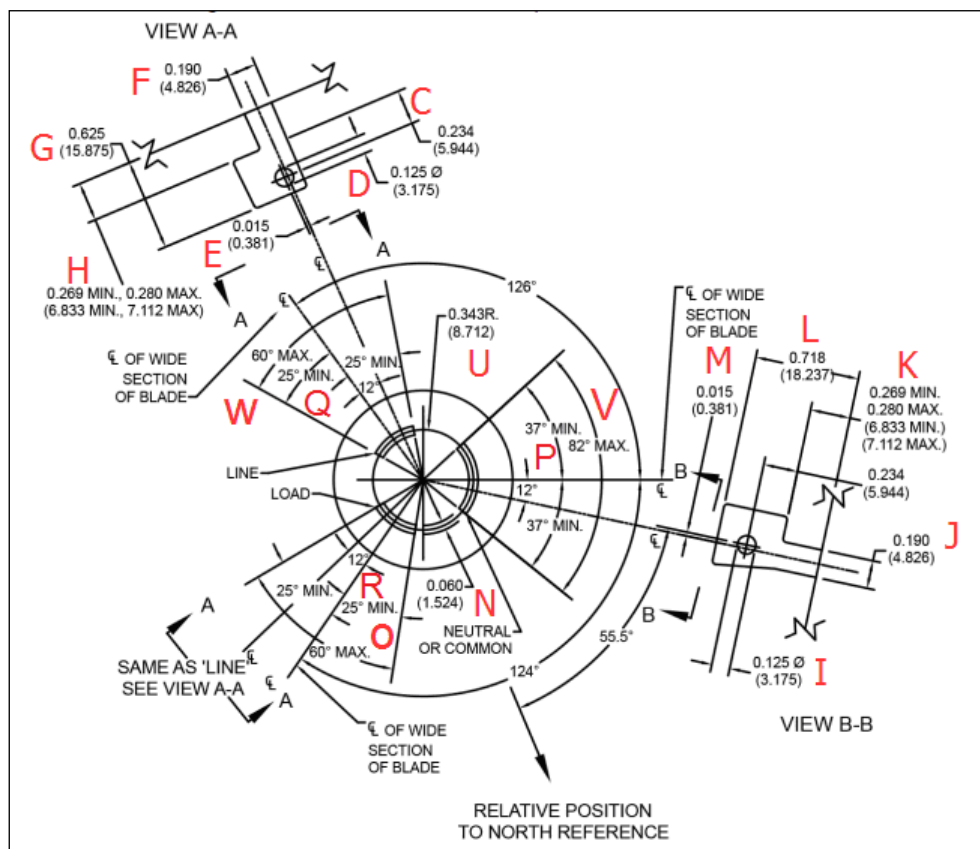
Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

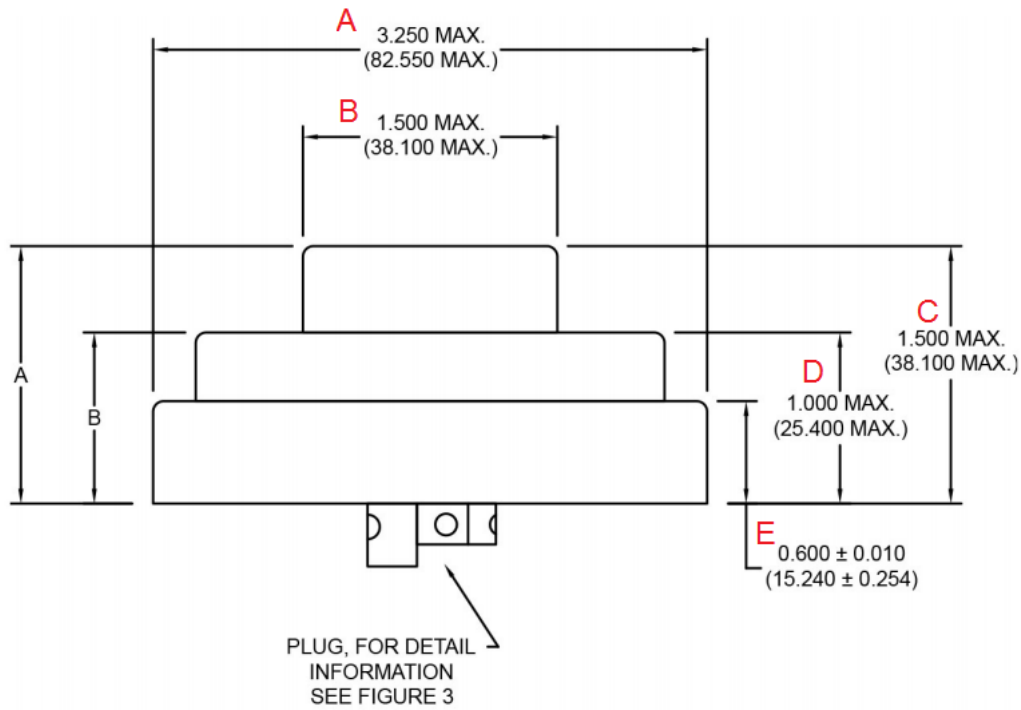
4.5	TABLE: Plug Dimensions			P
Location	1 st Sample	2 nd Sample	Limit (mm)	
C	5.884	5.891	5.944 ± 0.127	
D	∅ 3.086	∅ 3.087	∅ 3.175 ± 0.127	
E	0.391	0.388	0.381 ± 0.127	
F	4.902	4.905	4.826 ± 0.127	
G	16.821	16.830	15.875 ± 0.127	
H	7.003	7.010	6.833MIN., 7.112MAX.	
I	∅ 3.083	∅ 3.088	∅ 3.175 ± 0.127	
J	4.785	4.789	4.825 ± 0.127	
K	6.928	6.934	6.833MIN., 7.112MAX.	
L	18.147	18.156	18.237 ± 0.127	
M	0.389	0.384	0.381 ± 0.127	
N	1.526	1.534	1.524 ± 0.127	
U	8.724	8.731	8.712 ± 0.127	
V	80.4°	80.6°	82°MAX.	
W	58.2°	58.4°	60°MAX.	
O	58.3°	58.2°	60°MAX.	
P	38.3°	38.4°	37°MIN.	
Q	26.4°	26.4°	25°MIN.	
R	26.8°	26.6°	25°MIN.	



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

4.7	TABLE: Shorting and Open Caps Dimensions	N/A	
Location	1 st Sample	2 nd Sample	Limit (mm)
A	/	/	82.550 MAX.
B	/	/	38.100 MAX.
C	/	/	38.100 MAX.
D	/	/	25.400 MAX.
E	/	/	15.240 ± 0.254





ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

5.2	TABLE: Receptacle temperature rise measurements (current of 15 A)		N/A
	Test current	—	—
	Test voltage	—	—
	Maximum temperature T of part / at	Max. measured temperature (°C)	Limit temperature(K)
	receptacle contacts / L	—	—
	receptacle contacts / N	—	—
	receptacle contacts / Load	—	—
	ambient	—	—

5.3	TABLE: Dielectric withstand		P
	Test voltage applied between:	Test voltage unit (Va.c)	Flashover / breakdown (Yes / No)
	current-carrying component and metallic portion	1960V	No

4.10 & 6.2	TABLE: temperature rise measurements (rated voltage max.480V and ambient 70 °C)		P
	Test power	incandescent lamp:1000W, high-intensity discharge:1,800VA	—
	Test voltage	480V 60Hz	—
	Model:	SIGMA-1800VA	—
	Maximum temperature T of part / at	Max. measured temperature (°C)	Limit temperature(°C)
		incandescent lamp	high-intensity discharge
	ambient	70.0	70.0
	Enclosure	70.7	70.6
	Plug-receptacle interface	70.7	70.8

10	TABLE: lighting levels measurements (ambient 25 °C)		N/A
	Ambient lux value		
	Test voltage	Turn-on	Turn-off
	120	/	/
	208	/	/
	240	/	/
	277	/	/
Supplementary information: When turn-on mode, ambient luminance shall between 16.1Lux±5.4 Lux, turn-off mode ambient luminance shall <65Lux.			



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

10	TABLE: lighting levels measurements (ambient -40 °C)		N/A
Ambient lux value			
Test voltage	Turn-on	Turn-off	
120	/	/	
208	/	/	
240	/	/	
277	/	/	
Supplementary information: When turn-on mode, ambient luminance shall between 16.1Lux±5.4 Lux, turn-off mode ambient luminance shall <65Lux.			

10	TABLE: lighting levels measurements (ambient 65 °C)		N/A
Ambient lux value			
Test voltage	Turn-on	Turn-off	
120	/	/	
208	/	/	
240	/	/	
277	/	/	
Supplementary information: When turn-on mode, ambient luminance shall between 16.1Lux±5.4 Lux, turn-off mode ambient luminance shall <65Lux.			

10	TABLE: lighting levels measurements(After the Humidity)		N/A
Ambient lux value			
Test voltage	Turn-on	Turn-off	
120	/	/	
208	/	/	
240	/	/	
277	/	/	
Supplementary information: When turn-on mode, ambient luminance shall between 16.1Lux±5.4 Lux, turn-off mode ambient luminance shall <65Lux.			

10	TABLE: lighting levels measurements(After the Rain)		N/A
Ambient lux value			
Test voltage	Turn-on	Turn-off	
120	/	/	
208	/	/	
240	/	/	
277	/	/	
Supplementary information: When turn-on mode, ambient luminance shall between 16.1Lux±5.4 Lux,			



ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

turn-off mode ambient luminance shall <65Lux.

10	TABLE: lighting levels measurements(After the Weathering)		N/A
		Ambient lux value	
Test voltage	Turn on	Turn off	
120	/	/	
208	/	/	
240	/	/	
277	/	/	

Supplementary information: When turn-on mode, ambient luminance shall between 16.1Lux±5.4 Lux, turn-off mode ambient luminance shall <65Lux.

10	TABLE: lighting levels measurements(After the Salt Spray (Fog))		N/A
		Ambient lux value	
Test voltage	Turn-on	Turn-off	
120	/	/	
208	/	/	
240	/	/	
277	/	/	

Supplementary information: When turn-on mode, ambient luminance shall between 16.1Lux±5.4 Lux, turn-off mode ambient luminance shall <65Lux.



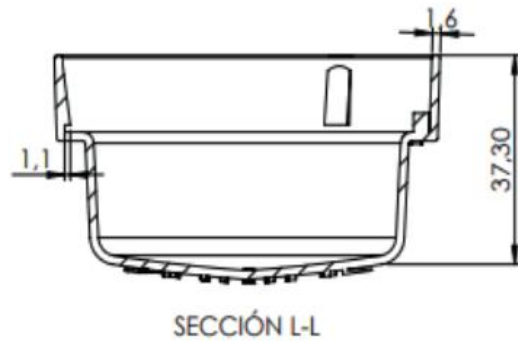
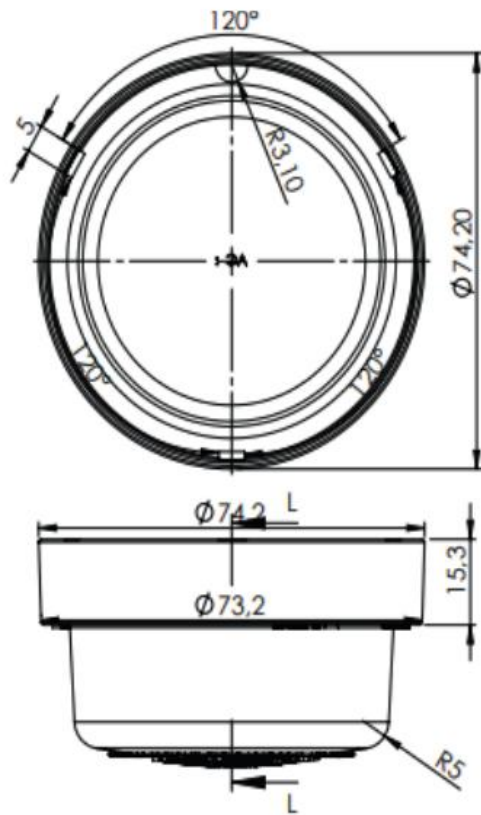
ANSI C136.10-2017

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

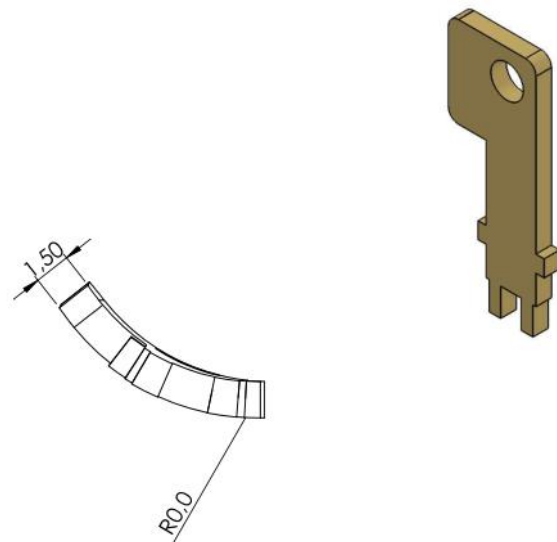
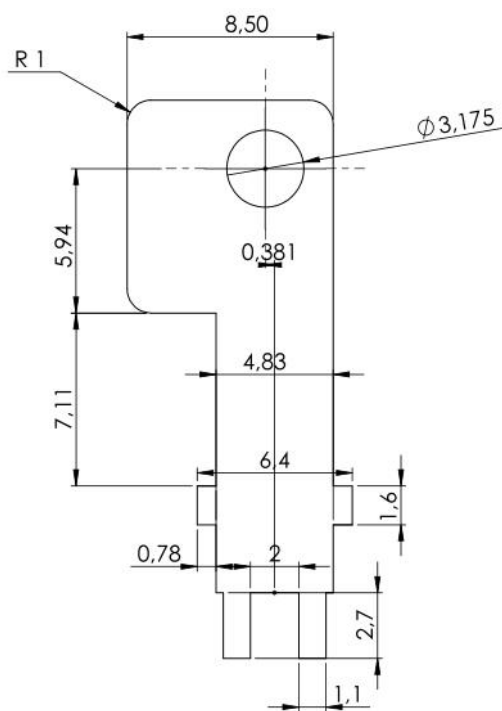
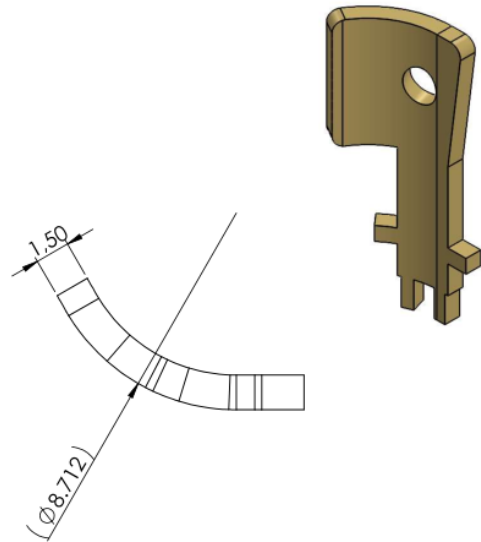
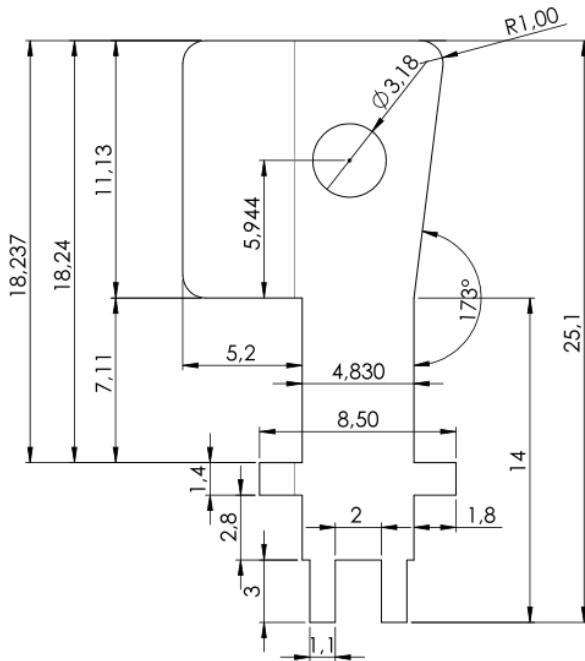
	Critical components	P
--	----------------------------	----------

Object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Plastic enclosure-black	WANHUA CHEMICAL (NINGBO) CO LTD	FR2827(##)(f1)	Polycarbonate (PC), min. V-2, 80°C, 600V	ANSI C136.10, UL94	Tested with appliance UL E513123
Gasket	HERNOL	EPDM	NITRILE BUTADIENE BK 710, 100°C	ANSI C136.10	Tested with appliance
Line/Load/ Neutral/ pins	IUSA	221483	1.5mm thick, Brass	ANSI C136.10	Tested with appliance

Attachment 1 Dimension of product



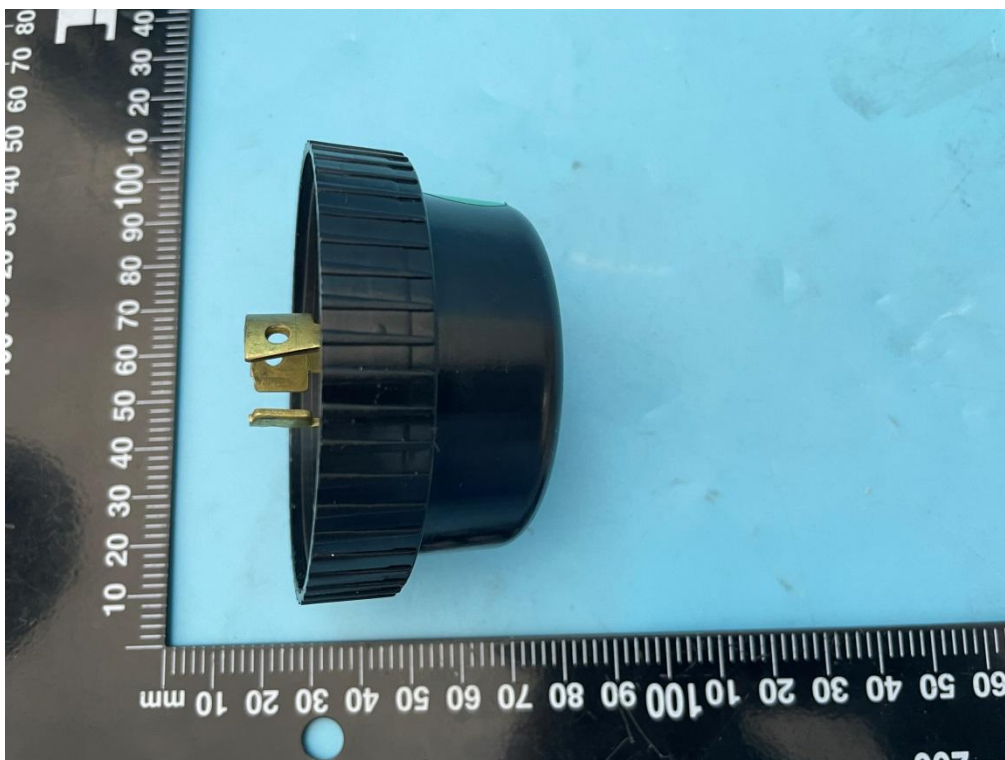
Attachment 2 Dimension figure of pin



Attachment 3 Photos of product



Overall view of product



Overall view of product



Overall view of product



Internal view of product

--End--