TEST REPORT

Applicant	:	Nanjing ODES Intelligent Control System Co., Ltd.
Address	:	No.34 Zifeng Road, Pukou District, Nanjing, Jiangsu Province, P.R.China
Manufacturer	:	Nanjing ODES Intelligent Control System Co., Ltd.
Address	:	No.34 Zifeng Road, Pukou District, Nanjing, Jiangsu Province, P.R.China
Product Name	:	Test Plugs
Trade Mark	:	ODES
Model No.	:	FTE-14-R, FTE-14-S
Ratings	:	0-300VAC, 50/60Hz or 0-300Vdc 20A
Standard	:	EN 60998-2-2:2004 for use in conjunction with EN 60998-1:2004
Date of Receiver	:	December 05, 2025
Date of Test	:	December 08, 2025 to December 19, 2025
Date of Issue	:	December 31, 2025
Test Report Form No	:	NTCS-IEC60998-2-2-A1-IEC
Test Result	:	Pass *

This Test Report is Issued Under the Authority of :

Compiled by	Approved by / Authorized Signer
Bettine Liao / Engineer	Kobe Mai / Authorized Signer

*Remarks:
The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of Dongguan Nore Testing Center Co., Ltd. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Revision History of This Test Report

Report Number	Description	Issued Date
NTC2512088SV00	Initial Issue	2025-12-31
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Copy of marking plate:

The artwork below may be only a draft.



0-300VAC, 50/60Hz or 0-300Vdc, 20A

Environmental conditions: -25 °C to +60 °C

Summary of testing:

From the result of our tests on the submitted samples, we conclude they comply with the requirements of the standards.

Test item particulars:	
Number of terminals ..... :	☐ single ☒ multiway
Protection against electric shock ..... :	☐ with ☒ without
Means of fixing ..... :	☒ with ☐ without
Rated temperature ..... :	☐ without T marking ☒ with T marking (°C): 60°C
IP number ..... :	IP2X-
Type of terminals, screwless-type ..... :	☐ universal ☒ non-universal ☐ push wire
Conductor type ..... :	☒ rigid ☐ flexible
Rated connecting capacity ..... :	☐ 0,5 mm² ☐ 0,75 mm² ☐ 1 mm² ☐ 1,5 mm² ☐ 2,0 mm² ☐ 4 mm² ☐ 6 mm² ☐ 10 mm² ☐ 16 mm² ☐ 25 mm² ☐ 35 mm²
Conductor insulation ..... :	Solid Insulation
Rated voltage (V ac / V dc) ..... :	☒ AC 300V ☒ DC 300V
Classification of installation and use ..... :	Class II
Supply Connection ..... :	Solid conductor connection terminals
Possible test case verdicts:	
- test case does not apply to the test object ..... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. **Throughout this report a ☐ comma / ☒ point is used as the decimal separator.**	
Name and address of factory (ies) ..... :	Same as applicant

IEC 60998-2-2			
Clause	Requirement + Test	Result - Remark	Verdict

8	**MARKING**		**P**
8.1	On main part:		P
	a) rated connecting capacity (mm²) ..... :		N/A
	b) rated insulation voltage (V) ..... :	300V	P
	c) T marking (°C) (if > 40 °C or < -5 °C) ..... :	>60°C or -25°C	N/A
	d) type reference ..... :	FTE-14-S	P
	e) manufacturer's or responsible vendor's name, trademark or identification mark ..... :	ODES	P
	f) IP if > IP20 ..... :		N/A
	Small devices: only d) and e) indicated on device		P
	All marks visible on smallest package unit		P
8.101	Type of acceptable conductor "s" "r" or "f"		N/A
8.102	Marking indicating the length of insulation to be removed before insertion of the conductor		N/A
8.2	Multiway terminal devices: at least two adjacent		N/A
8.3	When symbols are used they shall be as follow: V for volts mm² or ☐ for square millimetres T for T-rating		P
8.4	Marking: durable and easily legible; 15 s water; 15 s hexane		P

9	**PROTECTION AGAINST ELECTRIC SHOCK**		**P**
	Live parts not accessible		P

10	**CONNECTION OF CONDUCTORS**		**P**
10.1	Connecting devices allow correct connection of conductors		P
10.101	Connection or disconnection: use a general tool or simple insertion		P
	Disconnection operation other than a pull		P
10.102	Terminals accept two or more conductors of same or different nominal cross-sectional areas; see table 101 (as specified by manufacturer): ..... :		—
	Universal terminals shall accept rigid (solid or stranded) and flexible unprepared conductors.		N/A
	Non-universal terminals shall accept the types of conductors declared by the manufacturer.		N/A

IEC 60998-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated connecting capacity (mm²).....:		—
	Suitable for connecting cross-sectional areas (mm²)..:		—
10.103	Terminals accept rigid and flexible conductors (table 101), unless otherwise specified (see 8.1)		**N/A**
	Smallest diameter (mm); largest diameter (mm) .....:		N/A
	During the test: terminals show no damage		N/A
10.104	Terminals clamp the conductor without undue damage:		N/A
10.104.1	Connection/disconnection 5 times: smallest diameter (mm) .....:		N/A
	Connection/disconnection 5 times: largest diameter (mm) .....:		N/A
	After the test, terminal not damaged		N/A
10.104.2	Rated cross-sectional area (mm²) .....:		N/A
	Type.....:		N/A
	After the test, no wire of conductor escaped outside the terminal		N/A
10.105	Secureness test:		N/A
	during the test: the conductor does not slip out, no break near clamping unit and no damage		N/A
10.106	Pull test:		N/A
	- during the test the conductor does not come out		N/A

11	**CONSTRUCTION**		**P**
11.101	Contact pressure not transmitted via insulating material, unless there is sufficient resiliency		N/A
11.102	Insertion and disconnection, in accordance with manufacturer's instructions		P
	Openings clearly distinguishable		P
11.103	Terminals so constructed that:		P
	- each conductor is clamped individually		P
	- conductors can be connected or disconnected at same time or separately		P
	Possible to clamp maximum number of conductors		P
11.104	Inadequate insertion of conductor avoided		P
11.2	Clamping units clamp conductors reliably and between metal surfaces		P
11.3	Connecting devices: insulation of conductors not in contact with live parts of different polarity		P

IEC 60998-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
11.4	Insulating lining: adequate mechanical strength and secured in a reliable manner		P
11.5	Current-carrying parts: adequate mechanical strength, electrical conductivity and resistance to corrosion; type of metal..... :	Brass	P
	Current-carrying parts not made with electroplated coating if subjected to mechanical wear		P
11.6	Terminals: possible to connect number of conductors as specified by the manufacturer:		N/A
	- number of conductors..... :		N/A
	- rigid, cross-sectional area (mm^2)..... :		N/A
	- flexible, cross-sectional area (mm^2) ..... :		N/A
11.7	Fixing means of bases do not serve any other purpose		P
12	**RESISTANCE TO AGEING, TO HUMIDITY CONDITIONS, TO INGRESS OF SOLID OBJECTS AND TO HARMFUL INGRESS OF WATER**		**P**
12.1	Connecting devices resistant to ageing; after the test (168 h): no cracks visible, not sticky or greasy, no damage; test temperature (°C)..... :	☐ 70 °C ☒ T + 30 °C=135°C	P
12.2	After humidity test (91-95%): no damage; test duration (168 h for connecting devices > IPx2, 48 h for all other) ..... :	48h	P
12.3	IP test (IEC 60529)..... :	IP2X	N/A
	After the test, electric strength test as 13.4, and by inspection	IP2X	N/A
	no appreciable entry of water		N/A
13	**INSULATION RESISTANCE AND ELECTRIC STRENGTH**		**P**
13.1	Insulated connecting devices provided with adequate insulation resistance and electric strength		P
13.2	Insulation between the connected conductors and the external surface is adequate for all the combinations of conductors		P
13.3	Insulation resistance measured 1 min after application of 500 V d.c.	See appended table 13.3	P
13.4	Electric strength test	See appended table 13.4	P
14	**MECHANICAL STRENGTH**		**P**

IEC 60998-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
14.101	The test conductor, properly inserted into a clamping unit of the connection devices shall be allowed to be bent (deflected) in all 12 directions each of them differing from the adjacent directions by 30° ± 5°		N/A
	Deflection test (principle of test apparatus shown in figure 103a):		N/A
	- requirement: ≤ 2,5 mV		N/A
	max measured voltage drop (mV)		N/A
14.2	Tumbling barrel (for < 50 g): 50 falls; after the test no damage		N/A
14.3	Impact test (for > 50 g): 10 blows:		P
	- height of fall: 7,5 cm		P
	- height of fall: 10 cm		P
	- height of fall: 20 cm		P
	- height of fall: 25 cm		P
	After the test, no damage and live parts shall not become accessible		P
15	**TEMPERATURE RISE**		**P**
	requirement: ≤ 45K		P
	max measured temperature rise (K)	See appended table 15	P
15.101	192 temperature cycles test, each cycle with a duration of 1 h, with the test current as defined in Table 2 of Part I		N/A
	Cabinet temperature (°C)..... :	☐ 40°C ☐ T-marking: ..°C	N/A
	Maximum voltage drop did not exceed 22,5 mV or 1,5 times 24th cycle value	See appended table 15.101	N/A
16	**RESISTANCE TO HEAT**		**P**
16.1	Connecting devices are sufficiently resistant to heat		P
16.2	Heating cabinet test	See appended table 16.2	P
	After the test: no changes impairing further use and markings still legible		P
16.3	Ball-pressure test (IEC 60695-10-2) for parts necessary to retain current-carrying parts and parts of the earthing circuit in position	See appended table 16.3A	P
	Impression diameter not exceed 2 mm	1.23mm	P
	Ball-pressure test (IEC 60695-10-2) for parts not necessary to retain current-carrying parts and parts of the earthing circuit in position	See appended table 16.3B	N/A
	Impression diameter not exceed 2 mm		N/A

IEC 60998-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
17	**CLEARANCES AND CREEPAGE DISTANCES**		**P**
	Creepage distances, clearances and distances through sealing compound	Measured: >5.20mm Required: 4.0mm	P
18	**RESISTANCE OF INSULATING MATERIAL TO ABNORMAL HEAT AND FIRE**		**P**
	Glow-wire test (clauses 4 to 10 of IEC 60695-2-10)	850°C for parts necessary toretain current-carrying parts in position	P
	No visible flames and no sustained glowing or flame and glowing extinguished within 30 s		P
	No ignition of the tissue paper or scorching of the board		P
19	**RESISTANCE OF INSULATING MATERIAL TO TRACKING**		**P**
	Tracking test (IEC 60112): PTI 175 V, 50 drops, solution A	No flashover	P

10.105	**TABLE: Clamping securement and damage to the conductor test**					**N/A**
	Model/type reference ..... :					—
No of sample	Conductor cross-sectional area (mm²)	Conductor type	Mass for conductor (kg)	Height H (mm)	Diameter of bushing hole (mm)	
1						
2						
3						
4						
5						
6						
Supplementary information:						

10.106	**TABLE: Pull-out test**			**N/A**
	Model/type reference ..... :			—
No of sample	Conductor cross-sectional area (mm²)	Conductor type	Pull force (N)	
1				
2				
3				
4				
5				
6				
Supplementary information:				

13.3	**TABLE: Insulation resistance**		**P**
	Model/type reference ..... :	FTE-14-S	—
	Smallest cross-sectional area (mm²) ..... :	--	—
	Largest cross-sectional area (mm²) ..... :	--	—
Test voltage applied between	Measured (MΩ)	Required (MΩ)	
All clamping units together and the body	>5	≥5	
Each clamping unit and all others together	>5	≥5	
Supplementary information:			

13.4	**TABLE: Electric strength test**		**P**
	Model/type reference ..... :	FTE-14-S	—
	Rated insulation voltage (V) ..... :	300V	—

Test voltage applied between	Test voltage (V)	Flashover / breakdown (Yes/No)
All clamping units together and the body	2500	No
Each clamping unit and all others together	2500	No
Supplementary information:		

14.101	**TABLE: Mechanical strength**				**N/A**
	0,1 times the test current (A)..... :				—
	smallest cross-sectional area (mm2) 10.103 ..... :				—
	force (N) (table 104) ..... :				—
	Distance (mm) (table 104) ..... :				—
	screwless terminal number	1	2	3	
	voltage drop 1st deflection (mV)				
	voltage drop 2nd deflection (mV)				
	voltage drop 3rd deflection (mV)				
	voltage drop 4th deflection (mV)				
	voltage drop 5th deflection (mV)				
	voltage drop 6th deflection (mV)				
	voltage drop 7th deflection (mV)				
	voltage drop 8th deflection (mV)				
	voltage drop 9th deflection (mV)				
	voltage drop 10th deflection (mV)				
	voltage drop 11th deflection (mV)				
	voltage drop 12th deflection (mV)				
	requirement: ≤ 2,5 mV				
	0,1 times the test current (A)..... :				—
	Largest cross-sectional area (mm^2) 10.103 ..... :				—
	force (N) (table 104) ..... :				—
	Distance (mm) (table 104) ..... :				—
	screwless terminal number	1	2	3	
	voltage drop 1st deflection (mV)				
	voltage drop 2nd deflection (mV)				
	voltage drop 3rd deflection (mV)				
	voltage drop 4th deflection (mV)				
	voltage drop 5th deflection (mV)				
	voltage drop 6th deflection (mV)				
	voltage drop 7th deflection (mV)				
	voltage drop 8th deflection (mV)				

	voltage drop 9th deflection (mV)				
	voltage drop 10th deflection (mV)				
	voltage drop 11th deflection (mV)				
	voltage drop 12th deflection (mV)				
	requirement: ≤ 2,5 mV				
Supplementary information:					

15	**TABLE: Temperature rise**		**P**
	Model/type reference……..:	FTE-14-S	—
	Terminal .....:	☐ single ☒ multiway	—
	T marking (°C).....:	☒ Yes (°C): 105°C	—
	Largest cross-sectional area (mm²) .....:	--	—
	Conductors.....:	Solid	—
	Rated connecting capacity (mm²) .....:	--	—
	Test current (A).....:	--	—

Thermocouple Locations	max. temperature measured, (K)	max. temperature limit, (k)
On conductor in the terminal T1	26.4	45
On conductor in the terminal T2	30.6	45
On conductor in the terminal T3	25.6	45
Supplementary information:		

15.101	**TABLE: Temperature-cycling test**				N/A
	Model/type reference.....:				—
	Smallest cross-sectional area (mm²).....:				—
	Test current (Table 2) (A).....:				—
Measured voltage drop of:		Measured voltage drop (mV)			
		Sample 1	Sample 2	Sample 3	
Solid conductors (after 24 cycles)					
Stranded conductors (after 24 cycles)					
Flexible conductors (after 24 cycles)					
Solid conductors (1,5 times 24th cycle value)					
Stranded conductors (1,5 times 24th cycle value)					
Flexible conductors (1,5 times 24th cycle value)					
Solid conductors (after 192 cycles)					
Stranded conductors (after 192 cycles)					
Flexible conductors (after 192 cycles)					

	Largest cross-sectional area (mm^2)..... :		—
	Test current (Table 2) (A)..... :		—

Measured voltage drop of:	Measured voltage drop (mV)			
	Sample 1	Sample 2	Sample 3	
Solid conductors (after 24 cycles)				
Stranded conductors (after 24 cycles)				
Flexible conductors (after 24 cycles)				
Solid conductors (1,5 times 24th cycle value)				
Stranded conductors (1,5 times 24th cycle value)				
Flexible conductors (1,5 times 24th cycle value)				
Solid conductors (after 192 cycles)				
Stranded conductors (after 192 cycles)				
Flexible conductors (after 192 cycles)				
Supplementary information:				

16.2	**TABLE: Heating cabinet test**			**P**
	Test temperature (°C) ..... :	☐ 85°C ☒ T + 45 = 150°C		—
Model/type reference	Sample 1	Sample 2	Sample 3	--
FTE-14-S	P	P	P	--
Supplementary information:				

16.3A	**TABLE: Ball pressure test of insulating materials**		**P**
	Test temperature (°C) ..... :	☐ 125 ☒ T + 45 =150°C	—
Part under test	Material designation / manufacturer	Impression diameter (mm)	--
Plastic enclosure	Nanjing ODES Intelligent Control System Co., Ltd.	1.23	--
Supplementary information:			

Photo documentation

Photo 1

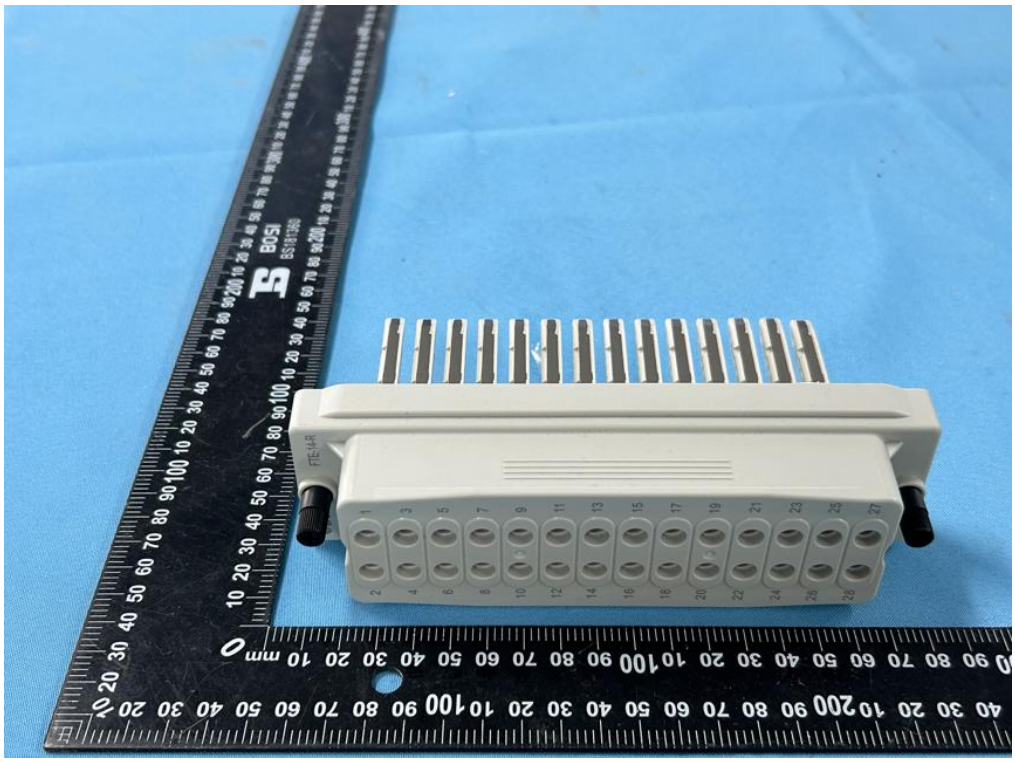


Photo 2



Photo 3

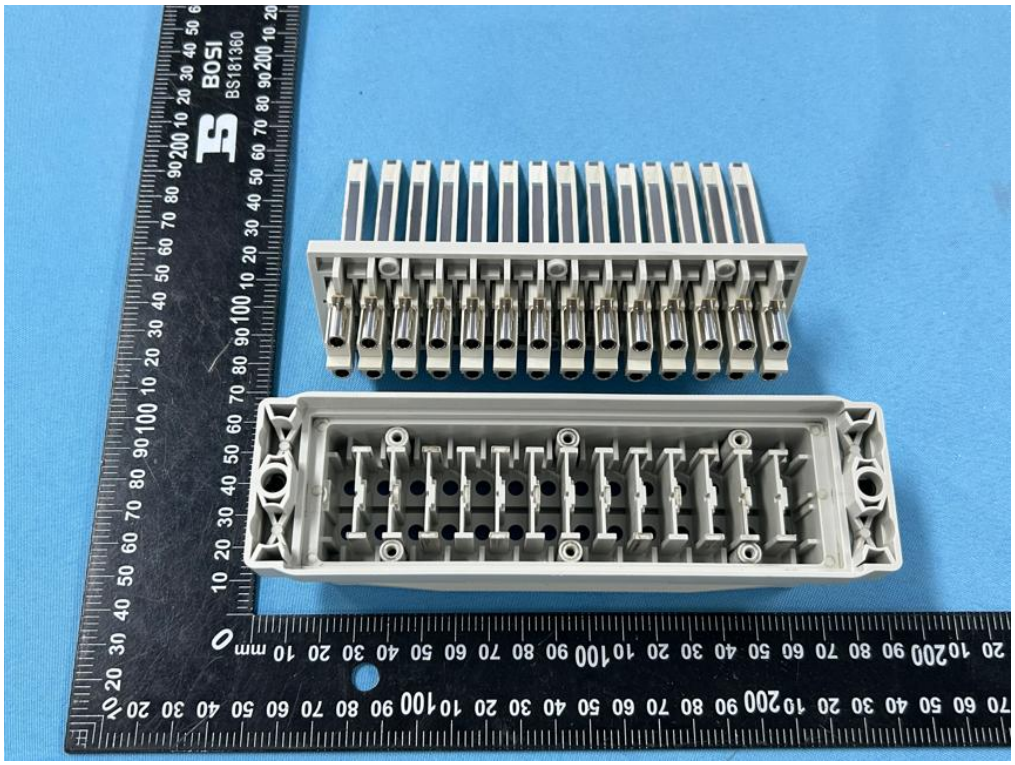
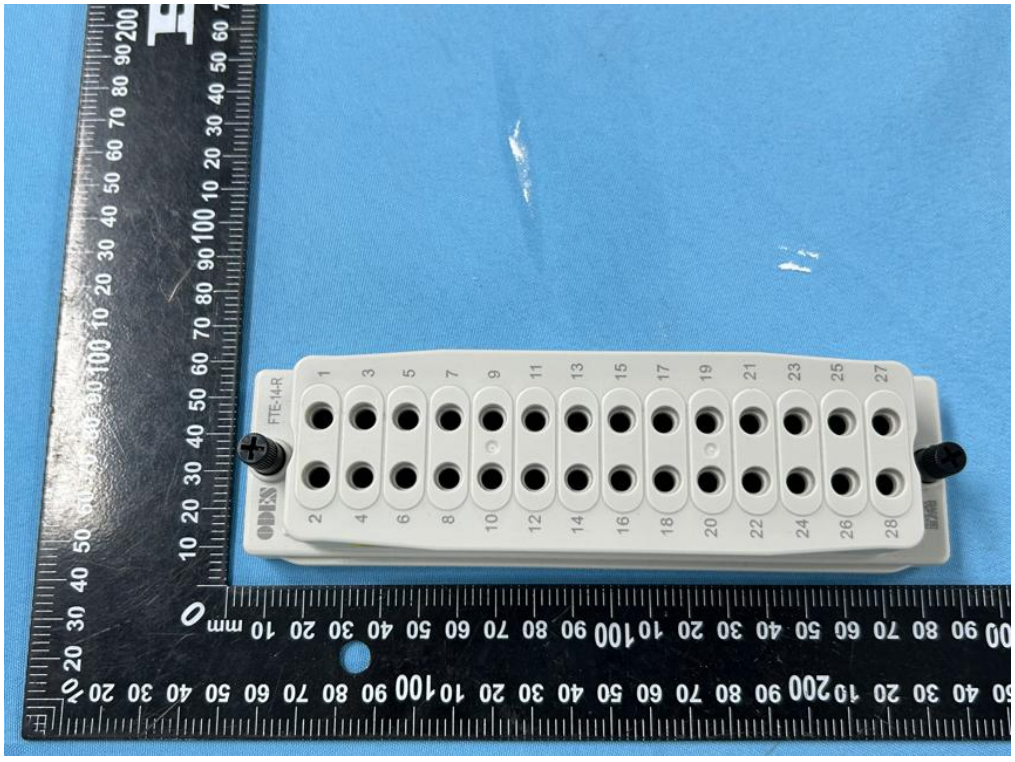


Photo 4



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