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ČSN EN ISO/IEC 17025:2018

Strojírenský zkušební ústav, s.p. Zkušební laboratoř
(Engineering Test Institute, Public Enterprise, Testing Laboratory)
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TEST REPORT

32-10798/3/IK

Product: Intercom

Type designation: 2N® IP One

Order No.: 9158101

Customer: 2N TELEKOMUNIKACE a.s.
Modřanská 621/72
143 00 Praha 4
Czech Republic
Company ID: 26183960

Manufacturer: 2N TELEKOMUNIKACE a.s.
Modřanská 621/72
143 00 Praha 4
Czech Republic

Employee responsible: Michal Bauer

Report issue date: 2022-06-21

Distribution list: 1 copy to the Customer
1 copy to the Engineering Test Institute

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I. Description of product tested

Intercom, type designation 2N® IP One, order no. 9158101 was submitted for the test of the enclosure.

The product is intended for installation into a wall and for this installation a flush box is used (order number 9158001).

Mass:	355g the unit 465g unit with flush box
Dimensions of the unit in (mm):	78 (W) x 172 (H) x 45 (D)
Dimensions of the flush box in (mm):	123 (W) x 195 (H) x 83.5 (D)

The purpose of the test is to verify the degree of protection provided by enclosures for electrical equipment against external mechanical impacts IK08 of the sample.

II. Sample tested

SZU reg. no.	Product name	Date of submission
-	Intercom, type designation 2N® IP One, Order No. 9158101	2022-06-01



Fig. 1 Sample in the laboratory during the testing

The visual inspection, tests and verification were carried out by Michal Bauer at the test station 013 of SZU.

The tests were performed using measuring and testing equipment with valid calibration.

III. Measuring and test equipment:

No.	Description	Inventory number
1.	Test equipment for the IK test – vertical impact hammer	IK-a
2.	Tape measure ASSIST	ME 489
3.	Thermometer – hygrometer Comet, type C4130	11-7286

IV. Methods, results of tests and verifications

No.	Test objective	Requirement	Method of test	Documentation	Test evaluation/ verification *
1.	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts IK08	ČSN EN 62262:2004, Art. 6		Page 4 to 6	+
* Evaluation / statement of conformity:					
+ Requirement fulfilled			0..... Not applicable		
- Requirement not fulfilled			x..... Not evaluated		

Note:

The stated extended measurement uncertainties are calculated as a factor of the measurement uncertainty and the extension coefficient $k=2$, corresponding to the coverage certainty of 95% as regards standard classification.

If a statement of conformity is provided, the decision rule pursuant to ILAC-G8:09/2019, Art. 4.2.1 - binary statement for the simple acceptance rule shall apply.

Test objective:	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts IK08
Exact name of the test procedure:	E 017* - Degrees of protection against external mechanical impacts
Test method:	ČSN EN 62262:2004
Sample tested:	Intercom, type designation 2N® IP One, order no. 9158101
Measuring equipment used:	see Chapter III
Date of test:	2022-06-01

Ambient conditions:	26 °C	45%	1014 mbar
	Temperature	Relative humidity	Barometric pressure

The characteristic group of figures indicates that the enclosure:
 - provides protection against impacts

Protection against external mechanical impacts

Test equipment: see Chapter III., items 1 to 3

Position of the sample enclosure during test: The enclosure has to be fixed to rigid pad according to the manufacturer's instructions. The pad is considered rigid enough if it moves due to the direct impact, which energy matches the protection degree, max. only for 0,1 mm.

Used impactor: equiv. mass 1,7 kg (IK-a/9)

Fall height: 300 mm

Test description: The impactor was left to fall on the specified spot on the sample due to the gravitation force.

The enclosure was submitted to a test where five impacts are applied on each accessible outer surface. No more than three impacts are applied in the vicinity of one spot on the cover

Because the product is intended to be installed in such way, that only the front cover is accessible, only the five impacts on the front side of the sample were applied-

Approval conditions: The provided protection is generally satisfactory if the enclosure meets these requirements:
 - no unacceptable damage can be spotted
 - the safety and reliability of the equipment is not lowered
 - no damage that could lower the IP degree can be found

Test results: **After visual inspection no mechanical damage to the enclosure except minor surface scratches and deformations was found (see fig. 2 to fig. 5).
 The safety function of the enclosure was not compromised and the IP degree was not lowered.**



Fig. 2 Sample after the test with marked impact spots



Fig. 3 Detail of the minor deformation of the cover after the impact



Fig. 4 Detail of the minor deformation of the cover after the impact

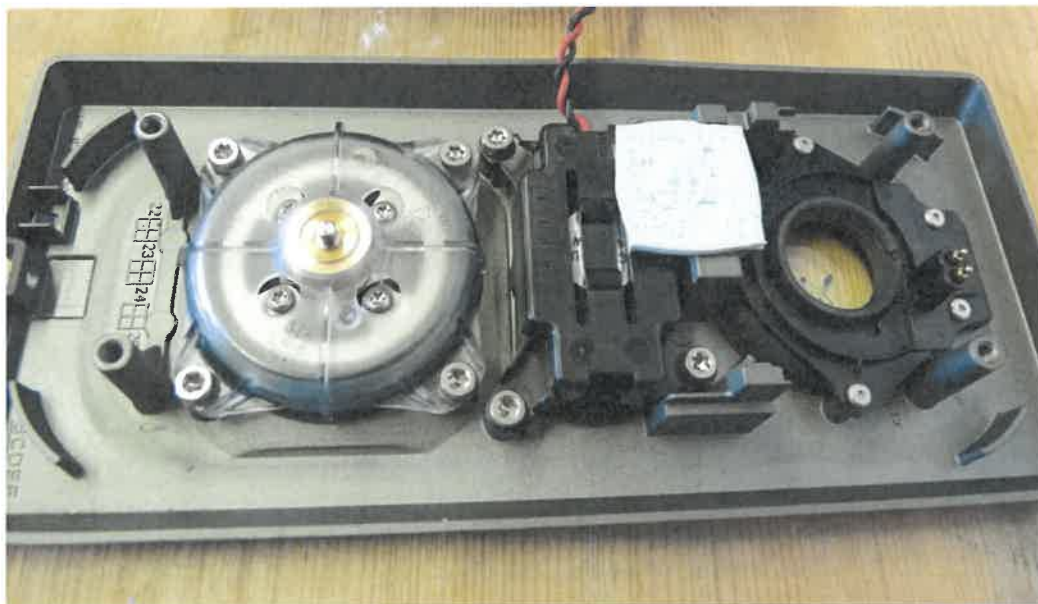


Fig. 5 Inner side of the front cover after the test

The tests results apply only to the submitted test sample.

Tested by: Michal Bauer

Date: 2022-06-21

Signed: 

Reviewed and approved by: Ing. Antonín Heitl

Date: 2022-06-21


Signed: 

V. A list of referenced documents

- Order OPV-0003025 of 2022-05-03 (Order reg. no. B-76333, received on 2022-05-04)
- Contract B-76333/32
- ČSN EN 62262:2004 - Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
- A list of technical documentation:
 - Drawing VILLA PANEL, part number ME 11300033x B, revision B.2 of 2022-05-30
 - Drawing VILLA BACK, part number ME 113000430 B, revision B.2 of 2022-06-13

Test Report compiled by: Michal Bauer



Test Report approved by: 
Ing. Antonín Heitl
Head of Electrical Equipment Test Station

– End of Test Report –