



उत्पाद मैनुअल

भारतीय मानक 19461: 2025 के अनुसार
सुरक्षा उपकरणों के लिए इलेक्ट्रॉनिक लाक

दस्तावेज संख्या - पी एम/आई एस 19461/1/ मई 2026

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिश्रिता की सुसंगतता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसी द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/ प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज का उपयोग किया जा सकता है।

PRODUCT MANUAL FOR ELECTRONIC LOCKS FOR SECURITY EQUIPMENT ACCORDING to IS 19461:2025

Document No.- PM/IS 19461/1/May 2026

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

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1.	Product	:	IS 19461: 2025
	Title	:	Electronic Locks for Security Equipment
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	As per Clause 7 of IS 19461: 2025 <i>Materials for mechanical components used in manufacturing shall be declared along with their critical quality parameters.</i>
b)	Grouping guidelines	:	Please refer ANNEX – <u>A</u>
c)	Sample Size	:	5 Nos.
3.	List of Test Equipment	:	Please refer ANNEX – <u>B</u>
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – <u>C</u>
5.	Possible tests in a day	:	Construction and Operation Test (Cl. 6), Bolt Forcing Test (Cl. 9.3)
6.	Scope of the Licence:		
	Licence is granted to use Standard Mark as per IS 19461 :2025 with the following scope:		
	Name of Product	Electronic Locks for Security Equipment	
	Designation (As per Cl.5.)	Eg.- HSEL-Type 1-L3, EL-Type2-L2, etc.	
	Power source	Battery operated/ac supply	
	Input device	Keypad with capacitive sense or feather touch keys, biometric reader like fingerprint sensor etc.	
	Wireless features, if incorporated	Bluetooth and/ or Wi-fi and or 3G/4G/5G <i>Note: Manufacturer shall declare that the integrated wireless module is certified in accordance with the applicable regulatory (for example WPC certificate from DoT) and industry Standards</i>	
	Models covered, with designations of each model		

ANNEX A
Grouping Guidelines

1. Electronic Locks for Security Equipment as per IS 19461:2025 are categorized into different varieties based on following parameters:

a) **Based on type:**

Type 1(Fail Secure) / Type 2 (Fail Safe)

b) **Based on Category Security Features:**

EL-L1/ EL-L2/ HSEL-L3/ HSEL-L4

c) Input device: Keypad with capacitive sense or feather touch keys, biometric reader like fingerprint sensor etc

d) Power source: Battery operated/ac supply

e) Wireless features, if incorporated: Bluetooth and/ or Wi-fi and or 3G/4G/5G

2. Locks can be categorized in following two groups, based on category security features :

Group 1	EL-L1, EL-L2,
Group-2	HSEL-L3, HSEL-L4

3. Considering the above, following guidelines shall be followed for the purpose of GoL/CSoL:

a) Manufacturer shall declare all the models along with the above parameters, which are intended to be covered in scope of licence. Design of locks and technical documentation as per Cl. 11 of IS 19461 shall also be submitted. A list of the models covered by the same design shall also be submitted along with their designations.

b) Sample of each type of Lock (type 1/2) shall be tested separately.

c) Separate sample from each group (*based on Category Security Features*) shall be tested as per sampling plan given below.

For grades grouped in Group1, if EL-L2 is tested, EL-L1 may be covered in the scope based on the manufacturing capability. Similarly, in Group 2, if HSEL-L4 is tested, HSEL-L3 may be covered in the scope.

d) Sample of each type of input device shall be tested separately.

e) Sample of each type of power source shall be tested separately

f) Separate sample of locks with each wireless feature shall be tested.

4. In case of change in material of part of Electronic Lock, separate samples as per the above sampling plan shall be drawn.

5. The Firm shall declare the varieties of Electronic locks intended to be covered in the Licence. The Scope of Licence shall be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

6. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation, to the extent possible.

ANNEX B**List of Test Equipment***Indicative list of major test equipment required to test as per the Indian Standard*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Construction & Operation Requirement as per Cl. 5	Vernier Caliper
2.	Criteria for conformity as per Cl. 8	Test set up as required for testing as per IEC 61000-6-4, IEC 61000-6-2, IEC 61000-4-3, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-4-34- IEC 61000-4-29, as applicable
3.	Endurance Test as per Cl. 9.1	Endurance testing machine capable of Carrying out intended number of operation of locking cycles as specified in 9.1
4.	Temperature Resistance tests as per Cl.9.2	Deep Freezer with Temperature Indicator Hot Air oven with Temperature Indicator
5.	Bolt forcing Test as per Cl. 9.3	Weights from 5kg to 50 kg Stop Watch Test Bench with screws for bolt forcing test
6.	Salt Spray Corrosion Test as per Cl. 9.4	Test solution pH paper/pH meter Salt spray Chamber Wall Clock/stop watch
7.	Vibration Test as per Cl.9.5	Vibration testing equipment

The above list is indicative only and may not be treated as exhaustive.

ANNEX C

Scheme of Inspection and Testing

1. QUALITY ASSURANCE PLAN

1.1 It is expected that during operation of BIS licence, manufacturers will implement a Quality Assurance Plan (QAP) i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

1.3.2 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan.

2. ENSURING COMPLIANCE THROUGH TESTING- Manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

- i) Shared testing resources like common facility,
- ii) Cluster based testing facility,
- iii) Sub-contracting to outside laboratories which may either be:
 - a) BIS recognised/empanelled laboratories, or
 - b) Any accredited laboratory as per ISO/IEC 17025

2.1 TEST RECORDS- The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories or test facilities, shall be made available for inspection by BIS.

3. LABELLING AND MARKING - Labelling and Marking shall be done as per IS 19461: 2025. The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on each lock, provided always that the product so marked conforms to each requirement of the specification.

3.1 Additional Marking requirements: Additionally, the following shall also be marked on lock or its package :

- a) "For BIS certification details please visit www.bis.gov.in"

4. REJECTION - The production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act,2016.

TABLE 1 (Recommended levels of control- For guidance only)

(1)				(2)		
Test Details				Levels of Control		
Cl.	Requirement	Test Method		No. of Sample	Frequency	Remarks
		Clause	Reference			
6	Construction & Operation Requirement	6	IS 19461	Manufacturer shall exercise adequate levels of control to ensure that entire production should conform to the Standard. Appropriate records of testing indicating conformity shall be maintained		
7	Materials	7	IS 19461	1	No testing is required if the material is ISI Marked or accompanied with a test certificate. The critical quality parameters of the materials used for the components shall be declared by the manufacturer at the time of type approval and records of details of material shall be maintained for conformity during routine production.	
8	Criteria for Conformity for battery operated locks:- a) Radiated emissions test as per IEC 61000-6-4/CISPR 32; b) Electrostatic discharge immunity test as per IEC 61000-6-2/IEC 61000-4-2; c) Radio-frequency electromagnetic field immunity test as per IEC 61000-6-2/IEC 61000-4-3; and d) Power-frequency magnetic field (PFMF) immunity test as per IEC 61000-6-2/IEC 61000-4-8.	8.1-a 8.1-b 8.1-c 8.1-d	IS 19461	These are Type approval tests. These tests shall be carried out at the time of initial grant of licence or Change in scope of licence as required as per the Grouping Guidelines (<i>please refer Annex- A of this manual</i>).		

	Criteria for Conformity for single phase power supply operated locks- a) Conducted emissions test as per IEC 61000-6-4/CISPR 32; b) Radiated emissions test as per IEC 61000-6-4/CISPR 32; c) Electrostatic discharge immunity test as per IEC 61000-6-2/IEC 61000-4-2; d) Radio-frequency electromagnetic field immunity (radiated susceptibility) test as per IEC 61000-6-2/IEC 61000-4-3; e) Fast transients' immunity test as per IEC 61000-6-2/IEC 61000-4-4; f) Surge immunity test as per IEC 61000-6-2/IEC 61000-4-5; g) Radio-frequency common mode (conducted susceptibility) test as per IEC 61000-6-2/IEC 61000-4-6; h) Power-frequency magnetic field (PFMF) j) Voltage Dips and Interruptions test as per IEC 61000-6-2/IEC 61000-4-11/IEC 61000-4-34/IEC 61000-4-29 whichever is applicable.	8.2-a 8.2-b 8.2-c 8.2-d 8.2-e 8.2-f 8.2-g 8.2-h 8.2-i	IS 19461	These are Type approval tests. These tests shall be carried out at the time of initial grant of licence or Change in scope of licence as required as per the Grouping Guidelines (<i>please refer Annex- A of this manual</i>).
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9	<i>PERFORMANCE TESTS</i>					
9.1	Endurance Test	9.1	IS 19461	1	Once in a year	These tests shall be carried out in such a manner that each category of lock, which has been manufactured in the year under the scope of licence, is tested at least once in a year. These tests shall also be carried out whenever any change in the design of the lock is made.
9.2	Temperature Resistance Tests	9.2.1 ,9.2.2	IS19461	1	Once in a year	
9.3	Bolt Forcing Test	9.3	IS 19461	1	Once in a year	These tests shall be carried out in such a manner that each category of lock, which has been manufactured in the year under the scope of licence, is tested at least once in a year. These tests shall also be carried out whenever any change in the design of the lock is made.
9.4	Salt Spray Corrosion Test	9.4	IS 19461	1		
9.5	Vibration Test	9.5	IS19461	1	Once in a year	These tests shall be carried out in such a manner that each category of lock, which has been manufactured in the year under the scope of licence, is tested at least once in a year. These tests shall also be carried out whenever any change in the design of the lock is made.