

GUANGDONG BE- TECH SECURITY SYSTEMS LIMITED

TEST Report

SCOPE OF WORKs

<Performance test – Electronic lock – [G7MT-AN2 and other 11 models]>

REPORT NUMBER

180111017GZU-001

ISSUE DATE

2018-05-08

[REVISED DATE]

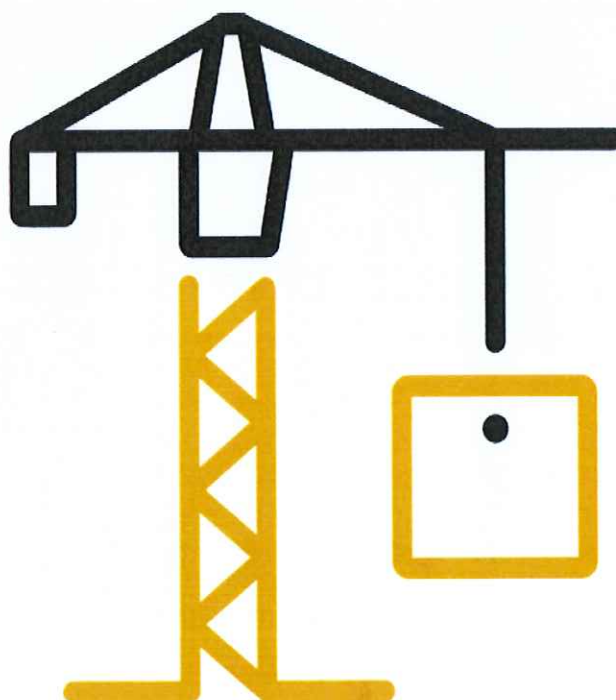
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DOCUMENT CONTROL NUMBER

TTRF_EN 14846:2008_c

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Test Report

Report Number: 180111017GZU-001

Report Date: 2018-05-08

Applicant:

GUANGDONG BE-TECH SECURITY SYSTEMS LIMITED

Applicant Address:

NO.17, Keyuan 3 Road, Ronggui, Shunde High-Tech Zone
Foshan

Sample information

Product:

Electronic lock

Trade Mark:



Model and/or type reference:

G5MT-AN2, G5FK-AN2, G5FM-AN2, G6MT-AN2, G6FK-AN2, G6FM-AN2, G7MT-AN2, G7FT-AN2, G8MT-AN2, G8FT-AN2, G9FT-AN2, G10FT-AN2

Manufacturer:

GUANGDONG BE-TECH SECURITY SYSTEMS LIMITED

Manufacturer Address:

NO.17, Keyuan 3 Road, Ronggui, Shunde High-Tech Zone Foshan

Sample ID:

S180111017-001~027

Date of receipt of test item:

2017-12-29

Situation of receipt samples:

Received in good condition

Date (s) of performance of tests:

2018-01-03~2018-5-2

Testing information

Standard:

EN 14846:2008

Rating(s):

3	S	5	0	0	J	3	1	2
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Testing Laboratory name:

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

Address:

No. 9 Nan Xiang San Road, GETDD, Guangzhou, China

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)

Conclusion:

The submitted samples COMPLIED WITH all applicable mechanical performance requirements of EN 14846:2008 for the ratings.

* When determining the test result, measurement uncertainty has been considered.

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General product information:

This report includes 12 models electrical locks(G5MT-AN2, G5FK-AN2, G5FM-AN2, G6MT-AN2, G6FK-AN2, G6FM-AN2, G7MT-AN2, G7FT-AN2, G8MT-AN2, G8FT-AN2, G9FT-AN2, G10FT-AN2). Model G7MT-AN2 was subjected to full test, Model G5FK-AN2, G6FM-AN2 and G7FT-AN2 were subjected to conduct durability of latch action electrically operated test, Security - electrical function test, Security - electrical manipulation test temperature and humidity test and other models were evaluated based on the test data of G7MT-AN2.

Power supply: 6.0 V.D.C

Card type: RF card

Item	Model	把手弹簧	电路图编号	锁体总成	前面板结构
1	G5MT-AN2	I1F-1-05A	G6MT-Z01A	AN2-00D	BZ-G5FM-1-00
2	G5FK-AN2	I1F-1-05A	G6MT-Z01A	AN2-00D	BZ-G5FK-1-00
3	G5FM-AN2	I1F-1-05A	G6MT-Z01A	AN2-00D	BZ-G5FM-1-00
4	G6MT-AN2	I1F-1-05A	G6MT-Z01A	AN2-00D	BZ-G6MT-1-00
5	G6FK-AN2	I1F-1-05A	G6MT-Z01A	AN2-00D	BZ-G6FK-1-00
6	G6FM-AN2	I1F-1-05A	G6MT-Z01A	AN2-00D	BZ-G6FM-1-00
7	G7MT-AN2	I1F-1-05A	G6MT-Z01A	AN2-00D	BZ-G7MT-1-00
8	G7FT-AN3	I1F-1-06A	G6MT-Z01A	AN2-01D	BZ-G7FT-1-00
9	G8MT-AN2	I1F-1-05A	G6MT-Z01A	AN2-00D	BZ-G8MT-1-00
10	G8FT-AN2	I1F-1-06A	G6MT-Z01A	AN2-01D	BZ-G8FT-1-00
11	G9FT-AN2	I1F-1-07A	G6MT-Z01A	AN2-02D	BZ-G9FT-1-00
12	G10FT-AN2	I1F-1-08A	G6MT-Z01A	AN2-03D	BZ-G10FT-1-00

Detail "Ratings" information listed as following:

First digit (Category of use): Grade 3– For use by the public where there is little incentive to exercise care and where there is a high chance of misuse, e.g. doors in public buildings.

Second digit (Durability and load on latchbolt): Grade S – 200 000 test cycles; 50 N load on latch bolt.

Third digit (Door mass and closing force): Grade 5– Up to 200kg door mass 25N maximum closing force.

Fourth digit (Suitability for use on fire/smoke doors): Grade 0– Not intended for use on smoke/fire door assemblies

Fifth digit (Safety): Grade 0– no safety requirement.

Sixth digit (Corrosion resistance, temperature and humidity) Grade J – Very High resistance, -10°C to +55°C temperature resistance, Level 1 Humidity resistance.

Seventh digit (Security resistance): Grade 3 – Medium security and no drill resistance.

Eighth digit (Security–electrical function): Grade 1 – no requirement;

Ninth digit (Security-electrical manipulation): Grade 2 – See Table 7.

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Building hardware – Locks and latches – Electromechanically operated locks and striking plates – Requirements and test methods

Clause	Requirement - Test	Result - Remark	Verdict																																				
4	Classification																																						
4.1	General																																						
4.2	The product shall be classified according to the following nine digit coding system:																																						
4.3	Category of use (1 st) :	3	—																																				
4.4	Durability and load on latchbolt (2 nd) :	5	—																																				
4.5	Door mass and closing force (3 rd)	5	—																																				
4.6	Suitability for use on fire/smoke doors (4 th)	0	—																																				
4.7	Safety (5 th)	0	—																																				
4.8	Corrosion resistance, temperature and humidity (6 th)	J	—																																				
4.9	Security (7 th)	3	—																																				
4.10	Security-electrical function (8 th)	1	—																																				
4.11	Security-electrical manipulation (9 th)	2	—																																				
5	REQUIREMENT																																						
5.1	General																																						
5.1.1	Compatibility between cooperating parts The manufacturer shall state which cooperating parts have been designed to be used in combination.	All cooperating parts were provided	P																																				
5.1.2	Dangerous substance Materials in products shall not contain or release any dangerous substances in excess of the maximum levels specified in existing European material standards or any national regulations in the country of intended use	Informative	P																																				
5.1.3	Operation time for locking and unlocking Operation time in both directions between the end positions shall not exceed 3 s	< 1s	P																																				
5.2	Category of use <table><tr><th colspan="6">Table 5 - Category of use</th></tr><tr><th>Requirement</th><th>Parameter</th><th>Grade 1</th><th>Grade 2</th><th>Grade 3</th><th>Unit</th></tr><tr><td>Resistance to side load on latch</td><td>F1</td><td>2</td><td>3</td><td>3</td><td>kN</td></tr><tr><td>Torque to operate deadbolt</td><td>M3</td><td>1,5</td><td>1</td><td>0,8</td><td>Nm</td></tr><tr><td>Strength of normal latch action and stops</td><td>M5</td><td>40</td><td>40</td><td>60</td><td>Nm</td></tr><tr><td>Torque resistance of lockable follower</td><td>M10</td><td>60</td><td>60</td><td>80</td><td>Nm</td></tr></table>			Table 5 - Category of use						Requirement	Parameter	Grade 1	Grade 2	Grade 3	Unit	Resistance to side load on latch	F1	2	3	3	kN	Torque to operate deadbolt	M3	1,5	1	0,8	Nm	Strength of normal latch action and stops	M5	40	40	60	Nm	Torque resistance of lockable follower	M10	60	60	80	Nm
Table 5 - Category of use																																							
Requirement	Parameter	Grade 1	Grade 2	Grade 3	Unit																																		
Resistance to side load on latch	F1	2	3	3	kN																																		
Torque to operate deadbolt	M3	1,5	1	0,8	Nm																																		
Strength of normal latch action and stops	M5	40	40	60	Nm																																		
Torque resistance of lockable follower	M10	60	60	80	Nm																																		
5.2.1	Resistance to side load on latch The lock shall resist a side load of 3 kN.	Grade 3 3 kN	P																																				

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Clause	Requirement - Test	Result - Remark	Verdict		
5.2.2	Torque to operate deadbolt The torque on the key to operate the deadbolt shall not exceed M3 = 0,8 Nm.	Grade 3 By key: 0,20 Nm	P		
5.2.3	Strength of normal latch action and stops The latch components and travel limit stops shall resist a torque of 60 Nm.	Grade 3 60 Nm.	P		
TTRF_EN 14846:2008_c	Torque resistance of lockable follower The lockable follower shall resist a torque of 80 Nm :	Grade 3 80 Nm.	P		
5.3	Durability				
	Table 6 – Durability requirement				
	Grade	Latch action	Deadbolt manually operated	Deadbolt automatically operated	Deadbolt electrically operated
	A, F	50 000	10 000	50 000	50 000
	B, G, L, R, W	100 000	25 000	100 000	100 000
	C, H, M, S, X, Y	200 000	50 000	200 000	200 000
5.3.2	Durability of latch action				
5.3.2.1	Durability of latch action mechanically operated The latch action shall function correctly fulfilling the requirements after the minimum number of cycles specified in Table 6 according to the grade selected :	Grade S 200 000 cycles Combined test with electrical operation 5.3.2.2	P		

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Building hardware – Locks and latches – Electromechanically operated locks and striking plates – Requirements and test methods																								
Clause	Requirement - Test	Result - Remark	Verdict																					
5.3.2.2	Durability of latch action electrically operated The latch action shall complete the minimum number of cycles specified in Table 6 according to the grade selected. The latch action shall function correctly after this test fulfilling the requirements in EN 12209:2003 5.4.2 (closing force) and 5.11.1 (torque to withdraw the latch bolt(s)).	Grade S 200 000 cycles with 50 N load on latch bolt, latch action function correctly For model G7MT-AN2 The torque to withdraw the latch bolt on handle: 2,5 Nm The closing force: 12,7 N For model G5FK-AN2 The torque to withdraw the latch bolt on handle: 2,3 Nm ; The closing force: 12,9 N For model G6FM-AN2 The torque to withdraw the latch bolt on handle: 2,5 Nm ; The closing force: 14,1 N For model G7FT-AN2 The torque to withdraw the latch bolt on handle: 2,4 Nm ; The closing force: 12,7 N	P																					
5.3.3	Durability of deadbolt mechanism																							
5.3.3.1	Durability of deadbolt mechanism mechanically operated The deadbolt mechanism shall complete the minimum number of cycles according to the grade given in Table 6. The deadbolt mechanism shall function correctly after this test fulfilling the requirements in EN 12209:2003, 5.2.2. :	Grade S, manually operated; The deadbolt mechanism functions correctly after 50 000 cycles. The torque on key: 0,40 Nm (< 0,8 Nm) The torque on follower: 2,1 Nm	P																					
5.3.2.2	Durability of deadbolt mechanism electrically operated:	Operated deadbolt manually only	N/A																					
5.4	Door mass and closing force <table><tr><th>Grade</th><th>Door mass</th><th>Closing force (F10)</th></tr><tr><td>0</td><td colspan="2">Locks without a latch bolt</td></tr><tr><td>1</td><td>Up to 100kg</td><td>50 N</td></tr><tr><td>2</td><td>Up to 200kg</td><td>50 N</td></tr><tr><td>3</td><td>Above 200kg</td><td>50 N</td></tr><tr><td>4</td><td>Up to 100kg</td><td>25 N</td></tr><tr><td>5</td><td>Up to 200kg</td><td>25 N</td></tr></table>	Grade	Door mass	Closing force (F10)	0	Locks without a latch bolt		1	Up to 100kg	50 N	2	Up to 200kg	50 N	3	Above 200kg	50 N	4	Up to 100kg	25 N	5	Up to 200kg	25 N	Manufacturer specified door mass: 200 kg Measured closing force: 12,7 N	P
Grade	Door mass	Closing force (F10)																						
0	Locks without a latch bolt																							
1	Up to 100kg	50 N																						
2	Up to 200kg	50 N																						
3	Above 200kg	50 N																						
4	Up to 100kg	25 N																						
5	Up to 200kg	25 N																						

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Clause	Requirement - Test				Result - Remark	Verdict															
	6	Above 200kg	25 N																		
	7	Up to 100kg	15 N																		
	8	Up to 200kg	15 N																		
	9	Above 200kg	15 N																		
5.5	Suitability for use on fire resistance and / or smoke control doorset.				Grade 0– Not intended for use on smoke/fire door assemblies	N/A															
5.6	Safety				No safety requirement	N/A															
5.7	Corrosion resistance and temperature																				
5.7.1	<div>Corrosion resistance</div> <div>The grade of corrosion resistance achieved shall be included in the classification coding as specified in Table 4.</div> <table><tr><th>Corrosion resistance</th><th>Exposure</th><th>Grade per EN 1670</th></tr><tr><td>Low resistance</td><td>24 h ± 1 h</td><td>Grade 1</td></tr><tr><td>Moderate resistance</td><td>48 h ± 1 h</td><td>Grade 2</td></tr><tr><td>High resistance</td><td>96 h ± 1 h</td><td>Grade 3</td></tr><tr><td>Very high resistance</td><td>240 h ± 1 h</td><td>Grade 4</td></tr></table> <div>The energy required to operate the deadbolt or latch bolt for the last three shall not exceed the operation energy for normal operations by more than 20 % . :</div>				Corrosion resistance	Exposure	Grade per EN 1670	Low resistance	24 h ± 1 h	Grade 1	Moderate resistance	48 h ± 1 h	Grade 2	High resistance	96 h ± 1 h	Grade 3	Very high resistance	240 h ± 1 h	Grade 4	<div>Grade J</div> <div>EN 1670:2007 Grade 4: 240 hours</div> <div>For Model G7MT-AN2</div> <div>Torque to operate deadbolt on key: 0,18 Nm</div> <div>Torque to operate deadbolt on follower: 2,9 Nm</div> <div>Torque to withdraw latch bolt with handle: 2,4 Nm</div> <div>For Model G5FK-AN2</div> <div>Torque to operate deadbolt on key: 0,22 Nm</div> <div>Torque to operate deadbolt on follower: 2,7 Nm</div> <div>Torque to withdraw latch bolt with handle: 2,5Nm</div> <div>For Model G6FM-AN2</div> <div>Torque to operate deadbolt on key: 0,20 Nm</div> <div>Torque to operate deadbolt on follower: 2,8 Nm</div> <div>Torque to withdraw latch bolt with handle: 2, 6Nm</div> <div>For Model G7FT-AN2</div> <div>Torque to operate deadbolt on key: 0,20 Nm</div> <div>Torque to operate deadbolt on follower: 2,7 Nm</div> <div>Torque to withdraw latch bolt with handle: 2, 5Nm</div>	P
Corrosion resistance	Exposure	Grade per EN 1670																			
Low resistance	24 h ± 1 h	Grade 1																			
Moderate resistance	48 h ± 1 h	Grade 2																			
High resistance	96 h ± 1 h	Grade 3																			
Very high resistance	240 h ± 1 h	Grade 4																			

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Clause	Requirement - Test	Result - Remark	Verdict
5.7.2(a)	<p>Resistance to a range of temperatures</p> <p>The product shall operate at the temperatures specified in Table 4.</p> <p>The product shall continue to operate as declared during and after the test. During any individual test, performance shall not drop by more than 25 % below the level achievable at the start of the test.</p> <p>After the test the product shall operate as declared:</p>	<p>Grade J:</p> <p>For Model G7MT-AN2 ,</p> <p>Initial test at normal temperature:</p> <p>Torque to operate deadbolt on key: 0,18 Nm</p> <p>Torque to operate deadbolt on follower: 2,7Nm</p> <p>Torque to withdraw latch bolt with handle: 2,2Nm</p> <p>At -10°C:</p> <p>Torque to operate deadbolt on key: 0,19 Nm</p> <p>Torque to operate deadbolt on follower: 2,7 Nm</p> <p>Torque to withdraw latch bolt with handle: 2,2 Nm</p> <p>At +55°C:</p> <p>Torque to operate deadbolt on key: 0,18 Nm</p> <p>Torque to operate deadbolt on follower: 2,7 Nm</p> <p>Torque to withdraw latch bolt with handle: 2,2 Nm</p> <p>After temperature test, the product functions correctly.</p>	P

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Clause	Requirement - Test	Result - Remark	Verdict
5.7.2(b)	<p>Resistance to a range of temperatures The product shall operate at the temperatures specified in Table 4. The product shall continue to operate as declared during and after the test. During any individual test, performance shall not drop by more than 25 % below the level achievable at the start of the test. After the test the product shall operate as declared:</p>	<p>Grade J: For Model G5FK-AN2 Initial test at normal temperature: Torque to operate deadbolt on key: 0,30 Nm Torque to operate deadbolt on follower: 1,6 Nm Torque to withdraw latch bolt with handle: 2,0 Nm At -10°C: Torque to operate deadbolt on key: 0,32 Nm Torque to operate deadbolt on follower: 1,8 Nm Torque to withdraw latch bolt with handle: 2,2 Nm At +55°C: Torque to operate deadbolt on key: 0,32 Nm Torque to operate deadbolt on follower: 1,8 Nm Torque to withdraw latch bolt with handle: 2,1 Nm After temperature test, the product functions correctly.</p>	P

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Clause	Requirement - Test	Result - Remark	Verdict
5.7.2(c)	Resistance to a range of temperatures The product shall operate at the temperatures specified in Table 4. The product shall continue to operate as declared during and after the test. During any individual test, performance shall not drop by more than 25 % below the level achievable at the start of the test. After the test the product shall operate as declared:	Grade J: For Model G6FM-AN2 Initial test at normal temperature: Torque to operate deadbolt on key: 0,20 Nm Torque to operate deadbolt on follower: 2,6 Nm Torque to withdraw latch bolt with handle: 2,3 Nm At -10°C: Torque to operate deadbolt on key: 0,20 Nm Torque to operate deadbolt on follower: 2,6 Nm Torque to withdraw latch bolt with handle: 2,4 Nm At +55°C: Torque to operate deadbolt on key: 0,20 Nm Torque to operate deadbolt on follower: 2,6 Nm Torque to withdraw latch bolt with handle: 2,4 Nm After temperature test, the product functions correctly.	P

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Clause	Requirement - Test	Result - Remark	Verdict									
5.7.2(d)	<p>Resistance to a range of temperatures</p> <p>The product shall operate at the temperatures specified in Table 4.</p> <p>The product shall continue to operate as declared during and after the test. During any individual test, performance shall not drop by more that 25 % below the level achievable at the start of the test.</p> <p>After the test the product shall operate as declared:</p>	<p>Grade J:</p> <p>For Model G7FT-AN2</p> <p>Initial test at normal temperature:</p> <p>Torque to operate deadbolt on key: 0,20 Nm</p> <p>Torque to operate deadbolt on follower: 2,6 Nm</p> <p>Torque to withdraw latch bolt with handle:2,4 Nm</p> <p>At -10°C:</p> <p>Torque to operate deadbolt on key: 0,20 Nm</p> <p>Torque to operate deadbolt on follower: 2,7 Nm</p> <p>Torque to withdraw latch bolt with handle: 2,5 Nm</p> <p>At +55°C:</p> <p>Torque to operate deadbolt on key: 0,20 Nm</p> <p>Torque to operate deadbolt on follower: 2,6 Nm</p> <p>Torque to withdraw latch bolt with handle: 2,5 Nm</p> <p>After temperature test, the product functions correctly.</p>	P									
5.7.3	<p>Resistance to cyclic humidity</p> <p>The product shall endure humidity at elevated temperatures with requirement specified in Table 4.</p> <table border="1"> <thead> <tr> <th>Level</th> <th>Temperature</th> <th>Humidity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>+ 40 °C</td> <td>95%</td> </tr> <tr> <td>2</td> <td>+ 55 °C</td> <td>95%</td> </tr> </tbody> </table>	Level	Temperature	Humidity	1	+ 40 °C	95%	2	+ 55 °C	95%	<p>Grade J</p> <p>Level 1: +40°C with initial relative humidity of 95%.</p> <p>The product functions correctly during and after the test.</p>	P
Level	Temperature	Humidity										
1	+ 40 °C	95%										
2	+ 55 °C	95%										

5.8	Security								
Table 5 of EN 12209 — Security requirements									
Requirement	Test param.	Grade of security							Unit
		1	2	3	4	5	6	7	
Torque resistance of knob on bored lock and latch sets	M9	10	15	-	-	-	-	-	Nm
Torque resistance of lever handle on bored lock and latch sets		20	30	-	-	-	-	-	Nm

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Clause	Requirement - Test	Result - Remark								Verdict	
	Torque resistance of knob or lever handle on Rim nighth latches	M10	-	-	1	1	1	1	1	kN	
	- side load on deadbolt	F4	1	3	5	7	7	10	10	kN	
	- net drilling time for sideload test	t	-	-	-	-	3	-	5	min	
	- total drilling time for sideload test		-	-	-	-	5	-	10		
	Deadbolt projection	L1	10	12	14	20	20	20	20	mm	
	- end load	F5	1	2	4	5	5	6	6	kN	
	- resulting projection	L2	8	10	11	17	17	17	17	mm	
	- net drilling time for endload test	t	-	-	-	-	3	-	5	min	
	- total drilling time for endload test		-	-	-	-	5	-	10		
	Resistance to pulling of hook/claw bolt	F6	1	3	5	7	7	10	10	kN	
	Resistance to disengaging of hook/claw bolt	F7	1	2	4	5	5	6	6	kN	
	Resistance to forcing of locating devices in sliding door lock	F8	1	3	4	5	5	6	6	kN	
	Resistance to pulling off of knob on bored lock and latch sets	F9	1	1.5	-	-	-	-	-	kN	
	Resistance to end load on box protected locking plates	F5	-	-	4	5	5	6	6	kN	
		L3	-	-	13	19	19	19	19	mm	
	Resistance to side load on locking plate	F4	1	3	5	7	7	10	10	kN	
	Resistance to pulling on locking plate	F6	1	3	5	7	7	10	10	kN	
	Resistance to lifting force on locking plate	F8	1	3	4	5	5	6	6	kN	
5.8.1	Torque resistance of knob										
5.8.1.1	Torque resistance of knob or lever handle on bored lock and latch sets		Not applicable for mortice lock						N/A		
5.8.1.2	Torque resistance of knob or lever handle on rim night latch:		Not applicable for mortice lock						N/A		
5.8.2	Requirements for side load										
5.8.2.1	Resistance to side load on deadbolt The dead bolt shall resist a side load F4 (see Table 5 of EN 12209):		Grade 3 F4: 5 kN						P		
5.8.2.2	Resistance to drilling and side load on deadbolt The deadbolt shall resist a drilling for time 't' and side load F4 (see Table 5 of EN 12209) :		Grade 3 For Grade 5 and 7 only						N/A		

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Clause	Requirement - Test	Result - Remark	Verdict
5.8.3	Deadbolt projection The deadbolt when fully thrown in the locking direction and detained, shall have a minimum projection L1 (see Table 5 of EN 12209) :	Grade 3 L1: 15,41 mm	P
5.8.4	Requirements for end load on deadbolt		
5.8.4.1	Resistance to end load The product shall resist an end load of F5. At no time during or after the test shall the bolt projection be less than L2 (see Table 5 of EN 12209) :	Grade 3 F5: 4 kN L2: 14,19 mm	P
5.8.4.2	Resistance to endload with drilling The product shall be subjected to drilling for a time "t", and afterwards resist an end load of F5. At no time during or after the test shall the bolt projection be less than L2 (see Table 5 of EN 12209). :	Grade 3 For Grade 5 and 7 only	N/A
5.8.5	Resistance to pulling of hook/claw bolt The bolt shall resist a direct pull of F6 (requirement see Table 5 of EN 12209) :	No hook/claw bolt	N/A
5.8.6	Resistance to disengaging of hook/claw bolt The bolt shall not force the lock open with a disengaging force of F7 (see Table 5 of EN 12209). :	No hook/claw bolt	N/A
5.8.7	Resistance to forcing of locating device in sliding door lock:	Applicable for sliding door lock only.	N/A
5.8.8	Resistance to pulling off of knob on bored lock and latch set :	Applicable for bored knob door lock only.	N/A
5.8.9	Security requirements of the component locking plate		
5.8.9.1	Resistance to end load on box protected locking plate :	No protecting box	N/A
5.8.9.2	Resistance to side load on locking plate The locking plate shall resist a side load of F4 (see Table 5 of EN 12209).	Grade 3 F4: 5 kN	P
5.8.9.3	Resistance to pulling on locking plate	Applicable for lock with hook bolt only.	N/A
5.8.9.4	Resistance to lifting force on locking plate:	Applicable for sliding door lock only.	N/A

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Clause	Requirement - Test	Result - Remark	Verdict	
5.9	Security – Electrical function – status indication There shall be an audio or visual signal from the lock that can be used as an indication that the bolt is fully thrown and deadlocked or, in the case of electric strikes, that movement of the electric strike is blocked. The security of the electrical function shall be tested according to 6.9.	Grade 1 For Model G7MT-AN2, G5FK-AN2, G6FM-AN2 and G7FT-AN2 A visual signal with different color and beep voice were used to indicate the status. Before and after the test 200 000 cycles, the electrical function was still correct.	P	
5.10	Security – Electrical manipulation			
	Table 7 – Security – Electrical manipulation requirements			
		Test Method	Grade of security	
			0123	
	5.10.2	Voltage drop protection	6.10.1	- - Yes Yes
	5.10.3	Protection against the effects of cutting cables	6.10.2	- - Yes Yes
	5.10.4	Protection against the effects of wire manipulation	6.10.3	- - - Yes
5.10.5	Resistance to electromagnetic manipulation	6.10.4	- - Yes Yes	
5.10.6	Resistance to electrostatic discharge EN 61000-4-2	6.10.5	- Level 2 Level 4 Level 4	
5.10.7	Resistance to electrostatic manipulation EN 61000-4-2	6.10.6	- - Level 4 Level 4	
5.10.1	General			
5.10.2	Voltage drop protection When tested in accordance with 6.10.1 with supply voltage dips and short interruptions, the locking mechanism and its operational parts shall maintain its status.	Not applicable for power supplied by internal D.C Networks.	N/A	
5.10.3	Protection against the effects of cutting cables When tested in accordance with 6.10.2 by cutting or short-circuiting of all the wires of one cable linking the electromechanical lock or strike to other units, the locking mechanism and its operational parts shall maintain its status. This requirement applies to any cable linking the electromechanical lock or strike to other units.	Not applicable for power supplied by internal D.C Networks.	N/A	

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Clause	Requirement - Test	Result - Remark	Verdict
5.10.4	Protection against the effects of wire manipulation When tested in accordance with 6.10.3 by manipulating in the form of an electrical or magnetic pulse (or sequence of pulses) applied to any wires linking the electromechanical lock or strike to other units, the locking mechanism and its operational parts shall maintain its status :	Not applicable for Grade 2	N/A
5.10.5	Resistance to electromagnetic manipulation When tested in accordance with 6.10.4, by strong electromagnetic fields, the locking mechanism and its operational parts shall maintain its status :	Grade 2 For Model G7MT-AN2, G5FK-AN2, G6FM-AN2 and G7FT-AN2 Level 3 and Level 4 Frequency range 80 to 1000 MHz Exposed side: Front, Rear, Left and Right. Field strength: 10V/m; 30V/m The lock deadlocked correctly during the test.	P
5.10.6	Resistance to electrostatic discharge When tested in accordance with 6.10.5, with electrostatic discharges the locking mechanism and its operational parts shall maintain its status:	Grade 3 For Model G7MT-AN2, G5FK-AN2, G6FM-AN2 and G7FT-AN2 After test, the lock was operable after the test.	P
5.10.7	Resistance to electrostatic manipulation When tested in accordance with 6.10.6, with a minimum of 200 electrostatic discharges at the energy levels specified in EN 61000-4-2:1995, level 4, except that the discharge frequency shall not exceed 10 Hz, the locking mechanics and its operational parts shall maintain its status:	Grade 2 For Model G7MT-AN2, G5FK-AN2, G6FM-AN2 and G7FT-AN2 Applied ± 8 kV voltage 200 times of Direct Contact Discharge, ± 15 kV voltage 200 times of Direct Air Discharge, ± 8 kV voltage 200 times of Indirect discharge (HCP), ± 8 kV voltage 200 times of Indirect discharge (VCP), The lock deadlocked correctly during the test.	P
6	Test Methods		
7	Marking		

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Clause	Requirement - Test	Result - Remark	Verdict
	<p>The following information shall be quoted in the labeling, packaging or literature.</p> <p>a) manufacturer's name or trademark or other means of positive identification;</p> <p>b) clear product identification</p> <p>c) classification according to clause 4 of this European Standard;</p> <p>d) number and date of this European Standard.</p>	Not marking was provided	—
8	Evaluation of conformity		
8.1	<p>Initial type test</p> <p>Samples, representative of the series, selected in accordance with annex C, shall be subjected to the full sequence of tests described in clause 6, and where relevant, to annex A. :</p>	Refer to Clause 5	P
8.2	<p>Factory production control</p> <p>The manufacturer shall document, operate and maintain an adequate factory production control system. The factory production control system shall achieve an appropriate level of confidence in the conformity of the product :</p>	Not required.	N/A
8.3	<p>Further testing of samples</p> <p>At intervals of not more than six months, sample taken from finished product stock, selected in accordance with annex C, and representative of the series, shall be subjected to the full sequence of tests described in clause 6 :</p>	Not required.	N/A

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Appendix A: Product Documents

Model No.	Document Ref.	Document Title	Issue	Date
G5MT-AN2, G5FK-AN2, G5FM-AN2	AN2-00D 锁舌总成 爆炸图	AN2-00D	10/2017	11/2017
	BZ-G5FK-1-00前面板 组件	BZ-G536FK-1-00	10/2017	11/2017
	BZ-G5FM-1-00前面 板组件)	BZ-G536FM-1-00	10/2017	11/2017
	BZ-G5MT-1-00前面 板组件	BZ-G536MT-1-00	10/2017	11/2017
	BZ-G5MT-2-00后面 板组件 (干电池版 防钩结构)	BZ-G536MT-2-00	10/2017	11/2017
	BA6289(161010)	BA6289(161010).SCH	10/2017	11/2017
	G6MT-Z01A(E150121)	G6MT-Z01A(E141115) .SCH	10/2017	11/2017
	G6MT-Z01A(E150825)	6MT-Z01A(E150825)	10/2017	11/2017
G6MT-AN2, G6FK-AN2, G6FM-AN2	AN2-00D 锁舌总成 爆炸图	AN2-00D	10/2017	11/2017
	BZ-G6FK-1-00前面板 组件	BZ-G636FK-1-00	10/2017	11/2017
	BZ-G6FM-1-00前面 板组件	BZ-G636FM-1-00	10/2017	11/2017
	BZ-G6MT-1-00前面 板组件	BZ-G636MT-1-00	10/2017	11/2017
	BA6289(161010)	BA6289(161010).SCH	10/2017	11/2017
	G6MT-Z01A(E150121)	G6MT-Z01A(E141115) .SCH	10/2017	11/2017
	G6MT-Z01A(E150825)	6MT-Z01A(E150825)	10/2017	11/2017

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G7MT-AN2, G8MT-AN2	AN2-00D 锁舌总成 爆炸图	AN2-00D	10/2017	11/2017
	BZ-G7MT-1-00(G7前 面板组件) 2017.10.11-Model	BZ-G736MT-1-00	10/2017	11/2017
	BZ-G8MT-1-00(前面 板组件) 2017.10.11- Model	BZ-G836MT-1-00	10/2017	11/2017
	BA6289(161010)	BA6289(161010).SCH	10/2017	11/2017
	G6MT-Z01A(E150121)	G6MT-Z01A(E141115) .SCH	10/2017	11/2017
	G6MT-Z01A(E150825)	6MT-Z01A(E150825)	10/2017	11/2017
G7FT-AN2, G8FT-AN2, G9FT-AN2, G10FT-AN2	AN2-00D 锁舌总成 爆炸图	AN2-00D	10/2017	11/2017
	BZ-G7FT-1-00(G7前 面板组件) 2017.10.11-Model	BZ-G736FT-1-00	10/2017	11/2017
	BZ-G8FT-1-00(前面 板组件) 2017.10.11- Model	BZ-G836FT-1-00	10/2017	11/2017
	BZ-G9FT-1-00 (前面 板总成) 爆炸图 2017.10.11-Model	BZ-G936FT-1-01	10/2017	11/2017
	BZ-G10FT-1-00 (前 面板总成) 爆炸图 2017.10.11-Model	BZ-G1036FT-1-02	10/2017	11/2017
	BA6289(161010)	BA6289(161010).SCH	10/2017	11/2017
	G6MT-Z01A(E150121)	G6MT-Z01A(E141115) .SCH	10/2017	11/2017
	G6MT-Z01A(E150825)	6MT-Z01A(E150825)	10/2017	11/2017

Note:

It is a mandatory requirement that Intertek is informed of any modifications or changes to the following:

- Product submitted for approval or that has been approved
- Manufacturing process
- Manufacturing address
- Materials
- Materials supplier
- Documents recorded within this register

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Appendix B: Product Photos



G5FM-AN2



G5FK-AN2



G6FM-AN2



G6MT-AN2

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G5MT-AN2



G6FK-AN2



G7MT-AN2



G8MT-AN2



G9FT-AN2



G10FT-AN2

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G7FT-AN2



G8FT-AN2

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Appendix B: Sample received photo



G7MT-AN2

Reviewed by:

Prepared by:

Jordan Lin

Nelson Zhu

Name: Jordan Lin

Name: Nelson Zhu

Title: Project Engineer

Title: Engineer

Revision:

Revision No.	Date	Changes	Author	Reviewer
Original	2018-04-19	First issue	Nelson Zhu	Jordan Lin
1	2018-05-08	Add models of G7FT-AN2, G8FT-AN2, G9FT-AN2, G10FT-AN2	Nelson Zhu	Jordan Lin

The End of Report