



Test Report

Report No.: DN20260911-GEM21-UKCA-CPR
Applicant: GeMei Precision Hardware Co., Ltd.
Product: Door Closers
Standard(s): BS EN 1154:1997+A1:2003+C1:2003+C2:2006

Ningbo Dano Youxin Testing Service Co., Ltd.

TEST REPORT BS EN 1154 Buiding hardware Controlled door closing devices Requirements and test methods	
Report Number.....:	DN20260911-GEM21-UKCA-CPR
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Approved by (+ signature).....:	David Zhang 
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Test specification:	
Standard.....:	BS EN 1154:1997+A1:2003+C1:2003+C2:2006
Test procedure.....:	UKCA
Non-standard test method.....:	-
Test item description.....:	Door Closers
Trade Mark.....:	-
Model/Type reference.....:	801, 800, 802, 803, 1000, 1100, 1200, 1300, 2000, 2100, 3000, 071, 072, G68, G89, 061, 062

Summary of testing:

Tests performed (name of test and test clause):

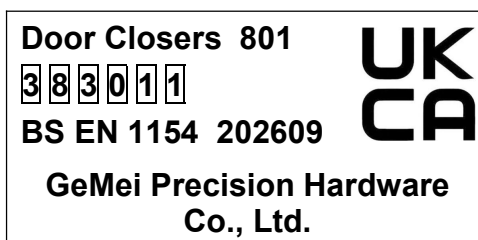
Full tests of the following standard:

•.....BS EN 1154:1997+A1:2003+C1:2003 +C2:2006.

Unless otherwise specified, model 801 was chosen as representative model for all relevant tests.

The submitted samples were found to comply with the requirements of above standard.

Copy of marking plate:



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)

Testing..... :**Date of receipt of test item..... :** 2026-09-04**Date (s) of performance of tests..... :** 2026-09-04 to 2026-09-11**General remarks:**

Throughout this report a ☒ comma / ☐ point is used as the decimal separator.

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the Laboratory, responsible for this Test Report.

The related testing projects have not been qualified by CMA and in China can only be used for scientific research, teaching or internal quality control.

General product information:

1. The product is intended to be used as a Door Closers.
2. The models are identical except for the dimensions.

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
4	Classification		P
4.1	Coding System		P
4.2	Category of use (first digit)		P
	For all internal and external doors for use by the public, and others with little incentive to take care, i.e. where there is some chance of misuse of the door:	383011	P
	•.....grade 3: For closing doors from at least 105° open;	3	N/A
	•.....grade 4: For closing doors from 180° open.		P
4.3	Durability (second digit)		P
	Only one test duration is identified for door closers manufactured to this standard:		P
	•.....grade 8: 500 000 test cycles	8	P
4.4	Door Closer power size (third digit)		P
	Seven door closer power sizes are identified according to Table 1 of this European Standard.	3	P
	Where a door closer provides a range of power sizes both the minimum and the maximum sizes shall be identified.		N/A
4.5	Suitability for use on fire/smoke doors (fourth character)		P
	Two grades of suitability for use on fire/smoke doors (fourth character) are identified for door closing devices manufactured to this standard:		P
	•.....grade 0: Not suitable for use on fire/smoke door assemblies;	0	P
	•.....grade 1: Suitable for use on fire/smoke door assemblies, subject to satisfactory assessment of the contribution of the door closer to the fire resistance of specified fire/smoke door assemblies.		N/A
	Additional requirements for door closers manufactured to grade 1.		N/A
4.6	Safety (fifth digit)		P
	All door closers are required to satisfy the Essential Requirement of safety in use.	1	P
	Therefore only grade 1 is identified.		P
4.7	Corrosion resistance (sixth digit)		P
	Five grades of corrosion resistance are identified according to EN 1670:		P
	•.....grade 0: No defined corrosion resistance;		N/A

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
	•..... grade 1: Mild resistance;	1	P
	•..... grade 2: Moderate resistance;		N/A
	•..... grade 3: High resistance;		N/A
	•..... grade 4: Very high resistance.		N/A

Table 1								
1	2	3	4	5	6	7	8	9
Door closer power size	Recommended door leaf width 							

5	Requirements		P
5.1	Product information		P
5.1.1	A door closer manufactured to this standard shall be supplied with clear, detailed instructions for its installation, regulation and maintenance, which shall include any limitations of opening angle.		P
5.1.2	Where a door closer is recommended for fitting in other than a standard application, these instructions shall clearly define the door closer power size for each application of fitting position stated.		P
5.2	Performance		P
5.2.1	When tested in accordance with Clauses 6 and 7, the door closer shall satisfy the relevant performance requirements of 5.2.2 to 5.2.11, and 5.2.12 to 5.2.18 as appropriate.		P
5.2.2	Durability		P
	The door closer shall be able to close a test door conforming to 6.1.1 and 6.2 from an opening angle of 90°, for a minimum of 500 000 test cycles.	500 000 cycles.	P

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
	Double-action door closers shall be able to close a test door conforming to 6.1.2 and 6.2 from opening angles of 90° for a minimum of 250 000 test cycles in each direction.		N/A
5.2.3	Closing moment		P
	After 5 000 test cycles and after 500 000 test cycles the measured closing moments shall be not less than the values stated in Table 1, for the particular power size of closer being tested.		P
5.2.4	Opening moment	< 32 Nm	P
	After 5 000 test cycles the maximum measured opening moment shall be not more than the value stated in Table 1 for the particular power size of closer being tested.		P
5.2.5	Efficiency	> 73%	P
	After 5 000 test cycles and after 500 000 test cycles the measured efficiency shall be not less than the values stated in Table 1, for the particular power size of the door closer being tested.		P
5.2.6	Closing time		P
	After 5 000 test cycles and after 500 000 test cycles, the closing time, from a door opening angle of 90°, shall be capable of adjustment to 3 s or less, and 20 s or more.		P
	After 500 000 test cycles, the closing time set at 5 000 test cycles shall not have increased by more than 100 %, or decreased by more than 30 %.		P
5.2.7	Angles of operation		P
	The door closer, when installed according to the manufacturer's standard installation instructions, shall permit the test door to open according to its grade under 4.2, and on closing, shall control the door from a minimum angle of 70° down to the closed position.		P
5.2.8	Overload performance		P
	The door closer shall be capable of withstanding the closing overload tests of 7.3.4.4 and 7.3.6.4 and where relevant 7.3.4.5.		P
5.2.9	Temperature dependence		P
	A set closing time (from a 90° open position) of 5 s at an ambient temperature of 20 °C shall not increase to more than 25 s or decrease to less than 3 s when tested at -15 °C and 40 °C.		P
5.2.10	Fluid leakage		N/A
	Throughout the test programme there shall be no leakage of fluid from the door closer.		N/A

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
5.2.11	Damage		P
	Throughout the test programme there shall be no damage to the door closer or its arms that would adversely affect its performance to this standard.		P
5.2.12	Latch control (optional)		N/A
	A door closer manufactured to this standard can include a separate control during the final stage of door closing, e.g. to enable accelerated closing to overcome the resistance of a latch bolt.		N/A
	If incorporated, it shall be effective over a maximum range of 15° from the closed position, and shall be adjustable.		N/A
5.2.13	Backcheck (optional)		N/A
	If provided with a backcheck function, the door closer shall be capable of arresting the test door before the 90° open position, when tested in accordance with 7.3.5.2.		N/A
5.2.14	Delayed closing		P
5.2.14.1	Delayed closing (optional)		N/A
	If provided with a delayed closing function the door closer shall be capable of adjustment, by means of a separate regulator, such that the closing time from 90° to the end of the delay zone, at an ambient temperature of 20 °C, is not less than 20 s.		N/A
	The delay zone shall not extend below the 65° open position.		N/A
	The moment required to override manually the delay action shall not exceed 150 N·m when tested in accordance with 7.3.4.5.		N/A
5.2.14.2	Durability of delayed closing		P
	When tested in accordance with 7.3.4.5, the delay time at the conclusion of 500 test cycles shall be between 10 s and 30 s.	22 s	P
5.2.15	Adjustable closing force (optional)		N/A
	If provided with an adjustable closing force function, the door closer shall comply with the performance requirements of Clause 5, at both the minimum and maximum power settings claimed by the manufacturer.		N/A
5.2.16	Zero position (for double action door closers only)	Single action door closer	N/A
	The amount of free play at the zero position of a new door closer shall not exceed 3 mm, and after 500 000 test cycles shall not exceed 6 mm, when tested in accordance with 7.2.3 and 7.3.6.6.		N/A

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
5.2.17	Corrosion resistance		P
5.2.17.1	The requirements of 5.6 of EN 1670 shall be met, according to its classification.	In accordance with EN 1670.	P
5.2.17.2	After being subjected to the relevant salt spray test, the closing moment of the door closer shall be not less than 80 % of the closing moment measured prior to the test.		P
5.2.17.3	The acceptance conditions defined in 5.7 of EN 1670 shall be met for all surfaces of the door closer which are visible when the door closer is fitted in service.		P
5.2.18	Fire/smoke door suitability		N/A
	A door closer for use on a fire/smoke door assembly shall meet the necessary requirements of Annex A.		N/A

6	Test apparatus		P
6.1	General		P
6.1.1	Single action door closers		P
	The test apparatus shall consist of a test door mounted in a frame, capable of manual opening to 180° and with automatic actuating means to enable the required opening angle in accordance with 7.3.3.1 and 7.3.5.2.		P
6.1.2	Double action door closers	Single action door closer	N/A
	The test apparatus shall consist of a test door mounted in a frame, capable of manual opening to at least 120° in each direction and with automatic actuating means to enable the required opening angle in alternate directions, according to 7.3.3.2.		N/A
6.2	Test door	60 kg	P
6.2.1	The test door shall be 2 000 mm high, and of any width between 750 mm and 1 200 mm, except that, for door closers which do not carry the mass of the door or act as a door pivot, the test door may be between 400 mm and 2 000 mm high.		P
	It shall have means of attaching weights so that the door mass can be adjusted to suit the power size of door closer under test in accordance with Table 2.		P
	The test door and frame shall be of sufficient rigidity such that no visible distortion takes place during the test sequence.		P
6.2.2	The position of the centre of gravity shall be nominally at the mid-height position of the test door leaf, and 500 mm from the vertical axis of the hinges or pivots.		P

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
6.2.3	The test door shall be mounted vertically, on hinges or bearings, or, in the case of door closers that pivot the door, on the unit under test.		P
	Supporting hinges or bearings forming a part of the test apparatus shall be such that the moment to overcome friction shall not exceed the values stated in Table 2.	< 0,2 Nm	P
	The moment shall be determined by measuring the maximum force in newtons required to slowly (not faster than 1°/s) open and close the test door fully, the force being applied perpendicular to the door face.		P
	The frictional moment is expressed as the product of the measured force and its distance in metres from the vertical axis of rotation.		P
6.2.4	Means shall be provided for recording the number of operating cycles of the test door.		P
6.3	Force measurement		P
	A force gauge or comparable device, with an accuracy of 1,5 % of reading, or better shall be provided for determining the opening and closing moments in accordance with this test method.		P
6.4	Actuating means		P
	The actuating means shall not impede the return of the test door to the fully closed position, under the action of the door closer being tested.		P
	The automatic actuating means shall apply the opening force at a distance of between 500 mm and 700 mm from the vertical axis of rotation of the door.		P
6.5	Closing overload performance test apparatus		P
	The apparatus shall comprise a cable/pulley/mass system as illustrated in Figure D.1, weighted in accordance with Table 2 for the particular power size of closer under test.	21 kg	P
	The cable shall be of steel, shall have a diameter of between 4 mm and 6 mm, and shall be attached as shown in Figure D.2.		P
	The pulleys shall have a minimum diameter of 150 mm and shall be fitted with free-spinning ball or needle roller bearings.		P
	The angle between the cable and the face of the test door when it is opened at $90^\circ \pm 5^\circ$ shall be $30^\circ \pm 5^\circ$, and when the door is in the closed position, shall be $90^\circ \pm 5^\circ$.		P

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
	Means shall be provided by which the test door can be suddenly released from an open position of 90°.		P
	Means shall be provided for arresting the falling weights when the test door reaches 15° from the closed position in such a manner that further closing of the test door is not impeded by the weight or the pulling cable.		P
	An energy absorbing stop may be fitted to the test apparatus at 5° open position to arrest the test door at the closed position.		P

Table 2			
Door closer power size	Test door mass kg	Overload test weight kg	Test door friction N·m max.
1	20	15	0,1
2	40	18	0,2
3	60	21	0,3
4	80	24	0,4
5	100	27	0,5
6	120	30	0,6
7	160	33	0,8

7	Test methods		P
7.1	General		P
7.1.1	Tolerances		P
	Throughout this test method the following tolerances shall apply, unless otherwise stated:		P
	•..... mass expressed in kilograms (kg)..... : ±2 %		P
	•..... length expressed in millimetres (mm)..... : ±2 %		P
	•..... angular position expressed in degrees (°)..... : ±2°		P
	•..... force expressed in newtons (N)..... : ±2 %		P
	•..... time expressed in seconds (s)..... : ±5 %		P
	•..... temperature expressed in degrees Celsius (°C): ±2 °C		P
	•..... moment expressed in Newtons-metres (Nm).. : ±2 %		P
	The ambient temperature of the test environment shall be controlled throughout the tests to between 15 °C and 30 °C.	25 °C ± 5 °C	P
7.1.2	Sampling		P
	Three test samples shall be used for performance verification to this European Standard:	3pcs samples	P

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
	•..... test sample A for general requirements and operation at extremes of temperature;		P
	•..... test sample B for mechanical performance and durability;		P
	•..... test sample C for corrosion resistance.		P
	For door closers incorporating an adjustable closing force facility, samples A and B shall each consist of two units, one adjusted to the minimum, and the other adjusted to the maximum power size claimed by the manufacturer.	Not incorporating an adjustable closing force facility.	N/A
	Sample C shall be adjusted to its minimum power size.		P
	In each case, the door closer shall be adjusted so that its minimum closing moment between 0° and 4° are as near as possible to the values specified in Table 1.		P
	On door closers with a “hold-open” facility, render that facility inoperable.		N/A
	If this is not possible, an equivalent model without a “hold-open” facility shall be tested.		N/A
7.2	Test procedure — Sample A — General requirements and operation at extremes of temperature		P
	The tests shall be carried out in the order as detailed in 7.2.1 to 7.2.3.		P
7.2.1	Verify that the requirements of 5.1 and Clause 8, and where relevant, 5.2.12 and 5.2.18 are met.		P
	The door closer shall be mounted on a test door according to 6.2 in accordance with the manufacturer's standard installation instructions.		P
7.2.2	Test of temperature dependence		P
	Before setting and before each measurement at the temperature extremes the door closer shall be conditioned in the temperature controlled chamber for a minimum of 8 h at the relevant temperature.		P
	With the door closer temperature stabilized at 20 °C ± 1 °C, adjust the closer to provide a smooth closing action from 90°C open to fully closed, in a time of 5 s.	Take the average of three readings.	P
	Stabilize the door closer temperature at -15 °C ± 1 °C, open the door slowly to 90 open in a time of not less than 4 s and measure the time taken to return to the fully closed position.	Take the average of three readings.	P
	Without readjusting the regulator(s), stabilize the door closer temperature at 40 °C ± 1 °C and again, measure the closing time from the 90° open position.	Take the average of three readings.	P

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
	Verify that the averaged closing time from 90°, at each temperature extreme, does not decrease to less than 3 s or increase to more than 25 s.		P
7.2.3	For double action door closers only	Single action door closer.	N/A
	Allow the closer to stabilize to ambient temperature and attach an indicator strap to the door closer spindle carrying a pointer 300 mm long measured from its tip to the spindle centre.		N/A
	Apply a moment of 5 N·m to the spindle in each direction and measure the deflection of the pointer from the zero position.		N/A
	The closer shall be rejected if the total measured free play exceeds 3 mm.		N/A
7.3	Test procedure — Sample B — Mechanical performance and durability		P
	The tests shall be carried out in the order as detailed in 7.3.1 to 7.3.6.		P
7.3.1	Apply weights to the test door so that its total mass and centre of gravity are in accordance with Table 2 and 6.2.2, for the particular power size of closer being tested.		P
	Mount the door closer on the test apparatus according to the manufacturer's standard installation instructions.		P
	Open the test door to the maximum angle permitted by the closer under test and verify that the door closer complies with 5.2.7.		P
7.3.2	Door closer adjustment		N/A
	Adjust the door closer regulator(s) such that the test door closes smoothly from 90° to fully closed within a time of between 3 s to 7 s.		N/A
	If the closer has an additional regulator for the latch control, adjust this to provide a smooth transition from closing to latching speed and to provide a positive, but not slamming, action.		N/A
	Backcheck or delayed action closers shall have that feature set to its minimum effect or rendered inoperable.		N/A
7.3.3	Test apparatus adjustment		P
7.3.3.1	Single action door closers		P
	Adjust the test door actuating mechanism to open the test door smoothly to 90°, in a time of between 2 s and 3 s, allowing the test door to close under the control of the door closer under test.		P

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
	Ensure that the test door has returned fully to the closed position before initiating the next opening operation.	Continue cycling for a total of 5 000 test cycles.	P
7.3.3.2	Double action door closers		N/A
	Adjust the test door actuating mechanism to open the test door smoothly to 90° in one direction, in a time of between 2 s and 3 s, allowing the test door to close under the control of the door closer under test.		N/A
	Ensure that the test door has returned fully to the closed position before initiating the next opening operation in the other direction.		N/A
7.3.4	Tests at 5 000 test cycles		P
7.3.4.1	Calculation of opening/closing moments		P
	Record the ambient temperature.		P
	Allow the door closer body surface to cool to within 2 °C of ambient temperature.		P
	Adjust the closing time regulator(s) to a fully open position and measure both the opening and closing forces of the door closer.		P
	The forces are measured by slowly (not faster than 1°/s) opening and closing the test door using the force gauge positioned perpendicular to the door face when the door is in an open position from 0° to 4° and from 88° to 92°.	In each case the maximum value is to be noted. Take the average of three readings.	P
	Use the same method to open the door to a 60° opening.	Note the maximum opening force obtained during this procedure. Take the average of three readings.	P
	Allow the door to close from its maximum opening angle permitted by the door closer under test to 2° and note the minimum closing force obtained during its travel.	Take the average of three readings.	P
	In the case of double action door closers this procedure shall be carried out in each direction.		P
	Calculate the opening and closing moments in each case as the product of these average gauge readings and the distance of the force gauge in metres from the vertical axis of the hinges or pivots.		P
	Verify that the values of the opening/closing moments are in accordance with Table 1 for the particular power size of the closer being tested.		P

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
7.3.4.2	Efficiency	Verify that the value of the efficiency is in accordance with the values stated in Table 1 for the particular power size of door closer being tested.	P
7.3.4.3	Closing time		P
	Adjust the closing time regulator(s) as necessary and verify that the closing time from 90° is capable of adjustment to between 3 s and 20 s, according to 5.2.6.		P
7.3.4.4	Closing overload test		P
	Adjust the closing time from 90° open to 10 s. Hold the test door open at 90° with the cable and weights attached, according to 6.5 and Annex D, Figure D.2, and then release the door, allowing the weights to fall.	This test was carried out 10 times.	P
7.3.4.5	For delayed closing door closers only		N/A
	Adjust the door closer to the maximum delay time and open the test door to 90°.		N/A
	With a force gauge positioned perpendicular to the door face, measure the force and calculate the moment required to move the test door out of the delay zone in a time of between 2 s and 5 s.		N/A
	The closer shall be rejected if the required moment is greater than 150 Nm, or less than twice the 90° closing moment stated in Table 1 for the particular power size of closer being tested.		N/A
	Restabilize the door closer to a temperature of 20 °C, and open the test door to 95°.		N/A
	Verify that the closing time from 90° to the end of the delay zone can be adjusted to at least 20 s in accordance with 5.2.1.		N/A
	Adjust the test door actuating mechanism to open the test door smoothly to 95° in a time of between 2 s and 4 s, allowing the test door to close under the control of the door closer under test.		N/A
	Adjust the door closer to a delay time of 20 s from 90° to the end of the delay zone.		N/A
	Ensure that the test door returns fully to the closed position, and after a waiting period of 270 s start the next opening operation.		N/A
	Continue cycling to a total of 500 test cycles.		N/A
	During the last 5 cycles of the test, measure the delay time from 90° to the end of the delay zone and verify that each measurement is between 10 s and 30 s.		N/A
7.3.5	Continuation of cycling tests		P

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
7.3.5.1	All door closers except those incorporating backcheck function		P
	Reset the closing time regulator(s) in accordance with 7.3.2 and record the time.		P
	The regulator(s) shall remain unaltered until completion of 7.3.6.1.		P
	Resume the cycling test to a total of 500 000 test cycles.	500 000 cycles.	P
7.3.5.2	For door closers incorporating backcheck function		N/A
7.3.5.2.1	Reset the closing time regulator(s) in accordance with 7.3.2.		N/A
	The backcheck function is tested by setting up the actuating means of the test apparatus in such a way that it can accelerate the door to an opening angle of 50° at such a rate that it will:		N/A
	•..... achieve an opening angle of 110° without backcheck effect in operation (for door closers with adjustable backcheck); or		N/A
	•..... have an angular velocity of one radian per second (1 rad/s) $\pm$ 10 %, at an opening angle of 60° (for door closers with fixed backcheck and for door closers with an opening angle of less than 110°).		N/A
7.3.5.2.2	For door closers incorporating an adjustable backcheck function		N/A
	With the same setting of the test apparatus as obtained in 7.3.5.2.1 adjust the backcheck action of adjustable backcheck closers to arrest the test door at the 80° open position and continue the cycling test for a total of 100 000 test cycles.		N/A
	Allow the door closer body surface to cool to within 2 °C of the original ambient temperature recorded in 7.3.4.1 and verify that the test door is arrested before the 90° open position.		N/A
	The adjustable backcheck shall not be readjusted prior to this test.		N/A
	Upon completion remove the backcheck action and reset the test apparatus in accordance with 7.3.3.		N/A
	Continue cycling for a further 400 000 test cycles.		N/A
7.3.5.2.3	For door closers incorporating a fixed backcheck function		N/A
	With the same setting of the test apparatus as obtained in 7.3.5.2.1 the test door shall be arrested by the backcheck at the 90° open position or less.		N/A
	Continue the cycling test for a total of 100 000 test cycles.		N/A

BS EN 1154			
Clause	Requirement + Test	Result - Remark	Verdict
	Allow the door closer body surface to cool to within 2 °C of the original ambient temperature recorded in 7.3.4.1 and verify that the test door is arrested before the 90° open position.		N/A
	Continue cycling for a further 400 000 test cycles with the test apparatus set to open the test door to an opening angle of between 70° and 75°.		N/A
7.3.6	Tests at 500 000 test cycles		P
7.3.6.1	Closing time		P
	Allow the door closer body surface to cool to within 2 °C of the original ambient temperature recorded in 7.3.4.1 and measure the time taken for the test door to close from 90° to the fully closed position.		P
	The door closer shall be rejected if this time is more than 2 times, or less than 0,7 times the original value set in 7.3.5.1 or 7.3.5.2.		P
7.3.6.2	Calculation of closing moments and efficiency		P
	Repeat the tests of closing moments and efficiency specified in 7.3.4.1 and 7.3.4.2.		P
	Verify that the values of minimum closing moments and efficiency are not less than the values stated in Table 1.		P
	Door closers with adjustable closing force are considered acceptable if, after adjustment, they can achieve at least the values stated in Table 1.		P
7.3.6.3	Closing time		P
	Adjust the door closer regulator(s) to give the minimum closing speed and verify that the closing time from 90° open to fully closed is not less than 20 s.	< 10 s	P
7.3.6.4	Closing overload tests		P
	Carry out a further ten closing overload tests according to 7.3.4.4.		P
7.3.6.5	For delayed closing door closers only	Not delayed closing door closer.	N/A
	Restabilize the door closer to a temperature of 20 °C, and open the test door to 95°.		N/A
	Verify that the closing time from 90° to the end of the delay zone can be adjusted to at least 20 s in accordance with 5.2.14.		N/A
7.3.6.6	For double action door closers only	Single action door closer	N/A
	Remove the door closer from the test door and carry out the test of 7.2.3.		N/A
	The closer shall be rejected if the total measured free play exceeds 6 mm.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
7.4	Test procedure — Sample C — Corrosion resistance		P
	The tests shall be carried out in the order as detailed in 7.4.1 to 7.4.4.		P
7.4.1	Apply weights to the test door so that its total mass and centre of gravity are in accordance with Table 2 and 6.2.2, for the particular power size of closer being tested.		P
	Mount the door closer on the test apparatus according to the manufacturer's standard installation instructions.		P
7.4.2	Calculation of closing moments		P
	Adjust the closing time regulator(s) to a fully open position, open the door to at least 95° and measure the closing forces of the door closer.		P
	The forces are measured by slowly (not faster than 1°/s) allowing the door to close using the force gauge positioned perpendicular to the door face when the door is in an open position from 92° to 88° and from 4° to 0°.		P
	In each case the maximum value is to be noted.	Take the average of three readings.	P
	Allow the door to close from its maximum opening angle permitted by the closer under test and note the minimum closing force obtained during its travel.		P
	Calculate the closing moments in each case as the product of these average gauge readings and the distance of the force gauge in metres from the vertical axis of the hinges or pivots.		P
7.4.3	Salt spray test		P
	Remove the door closer from the test apparatus and carry out a salt spray test according to EN 1670 for the grade of corrosion resistance claimed.		P
7.4.4	Verification of closing moments		P
	After completion of the salt spray test and within a maximum time of 24 h reinstall the door closer on the test apparatus and repeat the procedure described in 7.4.2.	Verify that the door closer meets the requirements of 5.2.17.	P
8	Marking		P
	Each door closer and separately supplied accessory manufactured to this standard shall be marked with the following:		P
	a).... the manufacturer's name or trademark, or other means of identification;	GeMei Precision Hardware Co., Ltd.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	b).... product model identification;	801	P
	the classification according to Clause 4;	383011	P
	the number of this European Standard;	BS EN 1154	P
	the year and week of manufacture.	202116	P
	In the case of concealed door closers, the above information shall be readily visible after removal of the cover plate.		P
	For accessories (where there may be insufficient space to provide the information given in the clause), only item a) is mandatory.		N/A
	Accessories claiming compliance with Annex A, shall be marked with the information a) to e) above.		N/A
	In preferential order the information shall be placed:		P
	•..... on the product itself; or		N/A
	•..... on a label attached to it; or		P
	•..... on the installation instructions; or		N/A
	•..... on its packaging.		P
	CE marking and labelling		P
9	Evaluation of conformity		P
9.1	Initial type test		P
9.2	Factory production control		P
Annex A	Additional requirements for door closing devices intended for use on fire/smoke door assemblies		N/A

Photo document



Fig. 1 Overview



Fig. 2 Overview

Photo document



Fig. 3 Overview

--- End of report ---

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