



# Test Report



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Report No	288/7362574	This Report consists of 4 pages
Client	Sign Gear Systems Limited Unit 15 Dunlop Road Hunt End Industrial Estate Redditch Worcestershire B97 5XP	
Authority & date	Purchase Order Number 7603 dated 19 March 2009	
Item tested	Ballast Housing	
Specification	BS EN 60529:1992 degrees of protection provided by enclosures (IP code)	
Results	See Summary of Results on page 2	
Prepared by	B Pond 	Engineer
Authorized by	T Wicksey 	Team Leader
Issue Date	01 May 2009	
Conditions of issue	<p>This Test Report is issued subject to the conditions stated in current issue of PS082 'General conditions relating to acceptance of testing'. The results contained herein apply only to the particular sample/s tested and to the specific tests carried out, as detailed in this Test Report. The issuing of this Test Report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of the Managing Director, BSI Testing Services, who reserves the absolute right to agree or reject all or any of the details of any items or publicity for which consent may be sought.</p>	



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## **TESTING, EXAMINATION AND ASSESSMENT OF BALLAST HOUSING SUBMITTED AS AN INDEPENDENT TEST SAMPLE**

### **INTRODUCTION**

At the request of Sign Gear Systems Limited the Ballast Housing received on 14 April 2009 and detailed below, was tested and assessed against the requirements of BS EN 60529:1992 sub clauses 13.1, 13.2, 13.3, 13.4, 13.6, 14.1, 14.2, 14.2.7 and 14.3 from 20 April 2009 as indicated on the following pages of this Report. This request was made in the clients Purchase Order number 7603 dated 19 March 2009. It is emphasized that assessments were not made against the other clauses of the specification.

This Report only relates to the actual sample which has been tested and assessed. The results obtained do not necessarily relate to samples from the production line and in no way imply the performance or quality of the continuing production will be maintained.

The tests and assessments contained in this Report were undertaken by BSI Environmental Laboratory.

### **TEST ITEM**

Ballast Housing

### **SUMMARY OF RESULTS**

IP6X Category 2	No ingress of dust	Complied
IPX7	No ingress of water (1 metre depth duration 30 minutes)	Complied

1. GENERAL

Photographs



General view of the enclosure



Base plate removed to show potted enclosure

**1. GENERAL (continued)****1.1 Test specification**

BS EN 60529:1992 Degrees of protection provided by enclosures (IP code)

**1.2 Tests requested**

Protection against access to hazardous parts and against solid foreign objects (dust tight) IP6X Category 2\*

Protection against the ingress of water with harmful effects (temporary immersion) IPX7  
After the conditioning a functional test shall be performed followed by a 4kV high voltage flash test

**1.3 Tests conducted**

As requested in 1.2 above

**2. RESULTS****2.1 Protection against access to hazardous parts and against solid foreign objects**

(dust tight) IP6X Category 2\* Complied

Protection against the ingress of water with harmful effects (temporary immersion)

IPX7 (1 metre depth duration 30 minutes) Complied

**3. COMMENTS****3.1 Protection against access to hazardous parts and against solid foreign objects (dust tight) IP6X Category 2\***

The tests were performed to Category 2, i.e. enclosures where reductions in pressure below the surrounding atmospheric pressure are not present.

Upon completion of the test, inspection revealed a very small quantity of dust had deposited on the surface of the potting compound inside the Ballast Housing via the cable entry points. The dust had not accumulated in a quantity or location such that with any other kind of dust, it could not interfere with the correct operation of the Ballast or impair safety.

**3.2 Protection against the ingress of water with harmful effects (temporary immersion) IPX7**

Upon completion of the conditioning, a functional test was performed followed by 4kV high voltage flash test live/neutral to foil around the enclosure for 1 minute. No breakdown or flashover occurred and inspection revealed no evidence of water ingress into the Ballast Housing via the potted compound.

**3.3 \*Note: The client agreed that due to the potted construction of the Ballast Housing the dust test described in 3.1 could only be performed to Category 2 where reductions in pressure below the surrounding atmospheric pressure are not present.**