



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 08ATEX1073X** Issue: **4**

4 Equipment: **GSX Series Limit Switches**

5 Applicant: **Honeywell International**

6 Address: **West Spring Street  
Freeport  
Illinois 61032  
USA**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2009

EN 60079-1:2007

EN 60079-31:2009

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2 GD  
Ex d IIC T6 Gb  
Ex t IIIC IP6X T85°C Db  
Tamb -40°C to +70°C

Project Number 27774  
C. Index 13

C Ellaby  
Deputy Certification Manager

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 08ATEX1073X  
Issue 4

#### 13 DESCRIPTION OF EQUIPMENT

The equipment is fitted with various limit switches that use varying methods of operation to depress a plunger housed within a bearing through the wall of the enclosure, in turn, the plunger actuates a micro-switch within the enclosure body. The enclosure body of the equipment is rectangular shape with a circular section in the middle. The circular section is fitted with a nitrile O-ring seal and a threaded cover, which is locked in place by a metal strap retained by an M4 torx drive screw. The base of the enclosure provides a cable entry point of various thread forms for use with a suitably certified cable gland. Each model in the series is covered by red, polyester, electrostatic powder and has its own GSX unique type reference e.g. GSX A01A1A-1.

Product code nomenclature: *(abcdef-gh)*

<b>a</b>	<b>Series type</b>	GSX
<b>b</b>	<b>Conduit size code</b>	A - ½" - 14 NPT B - PG 13.5 C - 20 mm D - PF ½"
<b>c</b>	<b>Basic switch code</b>	01 - Snap action, 1NC – 1NO 03 - Slow acting, 1NC – 1NO, break before make 04 - Slow acting, 1NC – 1NO, make before break 05 - Slow acting, 2NO 06 - Slow acting, 2NC 07 - Snap action, 1NC – 1NO, gold 20 - Snap action, 2NC – 2NO 22 - Snap action, 2NC – 2NO, gold 33 - Slow acting, 1NC – 1NO, break before make, gold 34 - Slow acting, 1NC – 1NO, make before break, gold 35 - Slow acting, 2NO, gold 36 - Slow acting, 2NC, gold 40 - Slow action, 4NC, 41 - Slow action, 4NC, gold 42 - Slow acting, 2NC – 1NO, break before make 43 - Slow acting, 2NC – 1NO, break before make, gold 44 - Slow acting, 2NC – 2NO, break before make 45 - Slow acting, 2NC – 2NO, break before make, gold 46 - Slow acting, 3NC – 1NO, break before make 47 - Slow acting, 3NC – 1NO, break before make, gold
<b>d</b>	<b>Head code</b>	A - Side rotary, momentary B - Top pin, plunger C - Top roller, plunger D - Top roller, lever
<b>e</b>	<b>Actuator (options)</b>	1 - Standard fixed length roller 3 - Yoke roller 5 - Offset roller

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 08ATEX1073X  
Issue 4

- f Roller (options)**
- A - 19 x 6.35 ( $\frac{3}{4}$  x  $\frac{1}{4}$ ) Nylon roller
  - C - 25.4 x 12.7 (1 x  $\frac{1}{2}$ ) Nylon roller
  - D - 38.1 x 6.35 (1  $\frac{1}{2}$  x  $\frac{1}{4}$ ) Nylon roller
  - E - 19 x 6.35 ( $\frac{3}{4}$  x  $\frac{1}{4}$ ) Bronze roller
  - W - 40 x 12.7 (1  $\frac{1}{2}$  x  $\frac{1}{2}$ ) Rubber roller
  - Y - 50.9 x 12.7 (2 x  $\frac{1}{2}$ ) Rubber roller
- g Modification/Specials**
- 1 - CW rotation
  - 2 - CCW rotation
  - 3 - Head assembled with actuator to right side
  - 4 - Head assembled with actuator to left side
  - 5 - Head assembled with actuator to mounting surface
  - 6 - Roller perpendicular to mounting surface
  - C - Pre-lead cable
  - Q - Connector

**Variation 1** - This variation introduced the following changes:

- i. The recognition of minor drawing modifications; these changes do not affect the aspects of the product that are relevant to explosion safety and include:
- The data on the nameplate was repositioned.
  - 'M20' was allowed to be stamped adjacent to the conduit entry.
  - The flexible rating plate was moved to the inside of the cover.
  - Minor drawing clarifications were endorsed.

**Variation 2** - This variation introduced the following changes:

- i. The recognition of minor drawing modifications; these changes do not affect the aspects of the product that are relevant to explosion safety and include:
- Additional dimension details added.
  - Imperial dimensions added where only metric dimensions were present.

**Variation 3** - This variation introduced the following changes:

- i. The recognition of minor drawing modifications, with the inclusion of minor PCB component changes; these amendments are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety.

**Variation 4** - This variation introduced the following changes:

- i. The replacement of raw stock 37-50009 with 37-51528.
- ii. Minor administrative drawing changes were recognised.
- iii. The removal of the 'Key Op' and 'Cable Pull' actuator styles, the Description of Equipment was modified to reflect this change.
- iv. Following appropriate re-assessment to demonstrate compliance with the requirements of the later standards, the following documents previously listed in section 9, EN 60079-0:2006, IEC 60079-0:2007-10, Ed 5 (used for guidance in respect of marking), EN 61241-0:2006 and EN 61241-1:2004 were replaced by those currently listed.



**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

Sira 08ATEX1073X  
Issue 4

v. 14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	24 July 2008	R51L17253B	The release of the prime certificate (Note: the report number was changed in Issue 3 to correct a typographical error).
1	10 March 2009	R51L19709A	The introduction of Variation 1.
2	25 January 2010	R21516A	The introduction of Variation 2.
3	02 February 2011	R24076A/00	This Issue covers the following changes: <ul style="list-style-type: none"><li>• The introduction of Variation 3.</li><li>• Reference to IEC 60079-0:2007-10, Ed 5 was added to section 9, this is in line with previous report no. R51L17253B</li></ul>
4	19 September 2012	R27774A/00	The introduction of Variation 4.

15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)

15.1 The maximum constructional gap ( $i_c$ ) is less than that required by Table 2 of EN 60079-1:2007 clause 5.2.2 as detailed below:

Flamepath	Maximum Gap (mm)	Comment
Push rod and bearing	0.076	Cylindrical spigot joint

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)**

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF CERTIFICATION**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

# Certificate Annexe

Certificate Number: Sira 08ATEX1073X  
Equipment: GSX Series Limit Switches  
Applicant: Honeywell International



## Issue 0

Drawing No.	Sheets	Iss.	Rev.	Date (Sira stamp)	Description
GSX Series Chart 2	1 of 1	-	A	30 Jun 08	Switch – Enclosed
LS-22057	1 of 1	4	C	30 Jun 08	Cover Drawing
LS-20756-S	1 of 1	12	D	30 Jun 08	Cover Casting Drawing
50029794	1 of 1	-	A	30 Jun 08	Housing Drawing
GL-20500-S	1 of 1	-	A	30 Jun 08	Housing Casting Drawing
GL-20502	1 of 1	-	A	30 Jun 08	Plunger, Actuator (Long)
GL-20503	1 of 1	-	A	30 Jun 08	Plunger, Actuator (Short)
LS-20883	1 of 1	8	C	30 Jun 08	Bearing
GL-20506	1 of 1	-	9	30 Jun 08	Product Nameplate, Rigid
GL-20508	1 of 1	-	A	30 Jun 08	Example Electrical Ratings Nameplate, Flexible
GL-48086	1 of 1	2	A	30 Jun 08	Label, Stock (Blank)
LS-22168	1 of 1	-	1	30 Jun 08	Example Conduit Entry Nameplate, Flexible
GL-48196	1 of 1	1	-	30 Jun 08	Label, Stock (Blank)
GSX Series Chart 1	1 of 6	-	A	30 Jun 08	Product Nomenclature Codes, Electrical Ratings and Actuator Variants
LS-20759	1 of 1	6	B	30 Jun 08	Seal

## Issue 1

Drawing No.	Sheets	Rev.	Date	Description
50029794	1 of 1	B	21 Aug 08	Housing Drawing
GL-20502	1 of 1	B	21 Aug 08	Plunger, Actuator (long)
GL-20503	1 of 1	B	21 Aug 08	Plunger, Actuator (short)
GL-20506	1 of 1	C	10 Sep 08	Product Nameplate, Rigid
GL-20508	1 of 1	B	21 Aug 08	Electrical Rating Nameplate, Flexible
GSX Series Chart 1	1 to 6	B	04 Feb 09	Product Nomenclature Codes, Electrical Ratings and Actuator Variants

## Issue 2

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
GSX Series Chart 1	1 to 6	C	15 Jan 10	Product Nomenclature Codes, Electrical Ratings and Actuator Variants

## Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
50029794	1 of 1	D	02 Feb 11	Housing Drawing
LS-20756-S	1 of 1	14	02 Feb 11	Cover Casting Drawing
LS-22057	1 of 1	5	02 Feb 11	Cover Drawing

## Issue 4

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
LS-20883	1 of 1	9	12 Jul 12	Bearing, Plain
GL-48086	1 of 1	3	12 Jul 12	Nameplate, Flexible
GL-48196	1 of 1	2	12 Jul 12	Label, Stock
GSX Series Chart 1	1 of 3	D	12 Jul 12	Assembly, Limit Switch

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