

# European Aviation Safety Agency

## European Technical Standard Order (ETSO)

Subject: DIRECTION INSTRUMENT, MAGNETIC (GYROSCOPICALLY STABILIZED)

### 1 – Applicability

This ETSO gives the requirements which new models of direction instruments, magnetic (gyroscopically stabilized) that are manufactured on or after the date of this ETSO must meet in order to be identified with the applicable ETSO marking.

### 2 - Procedures

#### 2.1. – General

Applicable procedures are detailed in CS-ETSO Subpart A.

#### 2.2 - Specific

None

### 3 - Technical Conditions

#### 3.1 - General

##### 3.1.1 - Minimum Performance Standard

Standards set forth in the SAE Aerospace Standard (AS) document: AS-8013A, "Direction Instrument, Magnetic (Gyroscopically Stabilized)", dated September 1996, as modified by Appendix 1 of this ETSO.

##### 3.1.2 - Environmental Standard

See CS-ETSO Subpart A paragraph 2.1

##### 3.1.3 - Computer Software

See CS-ETSO Subpart A paragraph 2.2

##### 3.1.4 Electronic Hardware Qualification

See CS-ETSO Subpart A paragraph 2.3

#### 3.2 – Specific

##### 3.2.1 Failure Condition Classification

See CS-ETSO Subpart A paragraph 2.4

Failure of the function defined in paragraph 3.1.1 of this ETSO has been determined to be a major failure condition.

### 4 - Marking

#### 4.1 – General

Marking is detailed in CS-ETSO Subpart A, paragraph 1.2

4.2 - Specific

None, Clarification: SAE AS 8013A paragraph 3.15 is not applicable.

**5 - Availability of Referenced Document**

See CS-ETSO Subpart A paragraph 3.

APPENDIX 1

MODIFICATION TO MPS FOR DIRECTION INSTRUMENT, MAGNETIC  
(GYROSCOPICALLY STABILIZED)

Modify AS8013A as follows:

<b><i>SAE AS8013A reference:</i></b>	<b><i>Replace with:</i></b>
Section 3.4: Except for small parts (such as knobs, fasteners, seals, grommets, and small electrical parts) that would not contribute significantly to the propagation of a fire, all materials must be self-extinguishing when tested in accordance with the requirements of Federal Aviation Regulation 25.1359 (d) and Appendix F thereto, with paragraph (b) of Appendix F or may be configured as used.	Except for small parts (knobs, fasteners, seals, grommets, and small electrical parts) that do not contribute significantly to the propagation of a fire, all materials must be self-extinguishing when tested according to EASA CS 25.869(a). See further to Appendix F, Part I (b)(2), <i>Specimen configuration</i> , for current requirements.