NATO STANDARD

AASSEP-06

LOW PRESSURE AIR AND ASSOCIATED ELECTRICAL CONNECTIONS FOR AIRCRAFT ENGINE STARTING

Edition A Version 1

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NATO LETTER OF PROMULGATION

5 November 2014

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Edvardas MAŽEIKIS
Major General, LTUAF
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS

Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
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CHAPTER 1 INTRODUCTION

1.1. RELATED DOCUMENTS

1.1.1. NATO Documents

Nil.

1.1.2. Non-NATO Documents

ISO 2026 - AIRCRAFT CONNECTIONS FOR STARTING ENGINES BY AIR.

1.2. AIM

The aim of this standard is to define the essential dimensions, functional configuration and minimum clearances for electrical connectors associated with low pressure air engine starting.

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CHAPTER 2 REQUIREMENTS

2.1. PHYSICAL CONFIGURATION

2.1.1. Form and Dimensions

1. Where electrical control from the aircraft to the ground equipment is a requirement, the airborne connector shall conform to the dimensions shown in Annex A.

2. The air and electrical connectors used on ground equipment for starting aircraft engines using air at low pressure shall be compatible with the aircraft half connectors.

3. The ground cable connector shall be of the quick disconnect type and shall mate with an aircraft connector conforming to the dimensions shown in Annex A.

2.1.2. Clearance Space

1. Minimum clearance space around the aircraft electrical connector, to permit connection and disconnection shall be provided in accordance with Annex B.

2.2. CIRCUIT CONFIGURATION

2.2.1. Pin arrangement

1. The circuit arrangements shall be as follows:

   a. Pin contact on aircraft electrical connector (the four pins are shown in Annex A):

      A Spare.

      B Spare on UK aircraft. On US aircraft, Pin “B” for positive 28 volt DC supply from trolley to starter switch. No connection made to Pin “B” if aircraft positive 28 volt DC supply is utilized.

      C Positive 28 volt DC signal from starter out switch via Pin “C” to shut-off valve in air trolley.

      D To the aircraft ground (earth).

   b. Socket contact on ground cable connector:

      A Spare.

B To positive terminal of 28 volt battery on trolley.

C To air supply control on trolley.

D To negative terminal of trolley (earth).

2.2.2. Electrical Specification

1. The millivolt drop along each current carrying connection measured between cable terminations shall not exceed 20 millivolts when carrying full rated current.

2. The temperature rise of any contact shall not exceed 40ºC.

3. The aircraft electrical connector is to be situated not less than 4.250 inches (107.95mm) nor more than 24.000 inches (609.60mm) from the centre line of the connection detailed in ISO 2026.

ANNEX A STANDARD DIMENSIONS OF 28 VOLT DC, 4 PIN CONNECTOR FOR ATTACHMENT TO THE AIRCRAFT STRUCTURE

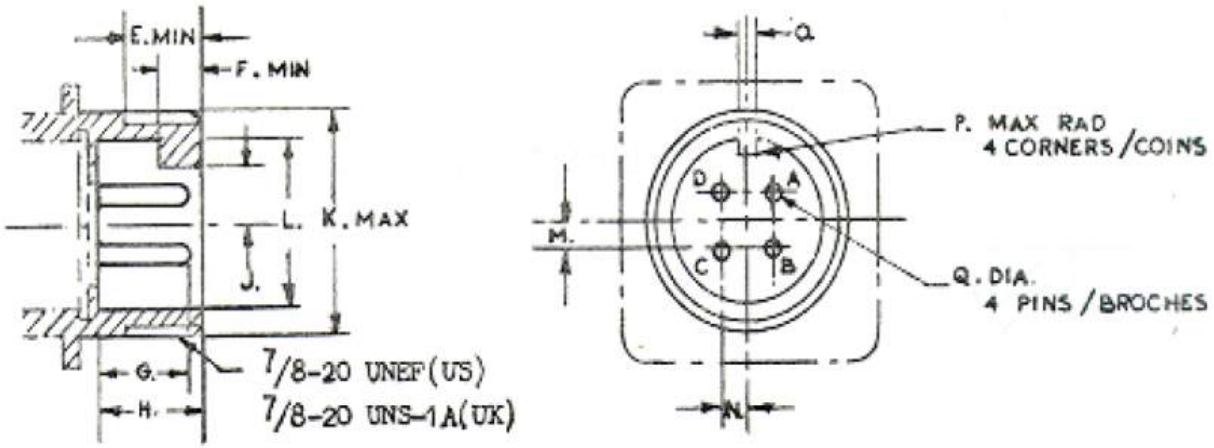

Figure 1 – 4 Pin Connector Schematic

Table 1 – 4 Pin Connector Dimensions

DIMENSION	MINIMUM		MAXIMUM		REMARKS
	(in)	(mm)	(in)	(mm)	
E	0.375	9,53	OPTIONAL	OPTIONAL	
F	0.219	5,56	OPTIONAL	OPTIONAL	
G	0.469	11,91	0.500	12,7	
H	0.562	14,27	0.593	15,06	
J	0.263	6,68	0.278	7,06	
K	OPTIONAL	OPTIONAL	0.906	23,01	
L	0.682	17,32	0.697	17,70	
M	0.088	2,24	0.092	2,34	
N	0.088	2,24	0.092	2,34	
O	0.055	1,40	0.065	1,65	
P	OPTIONAL	OPTIONAL	0.016	0,41	
Q	0.0615	1,56	0.0635	1,61	

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ANNEX B MINIMUM CLEARANCE SPACE FOR AIRCRAFT ELECTRICAL CONNECTORS

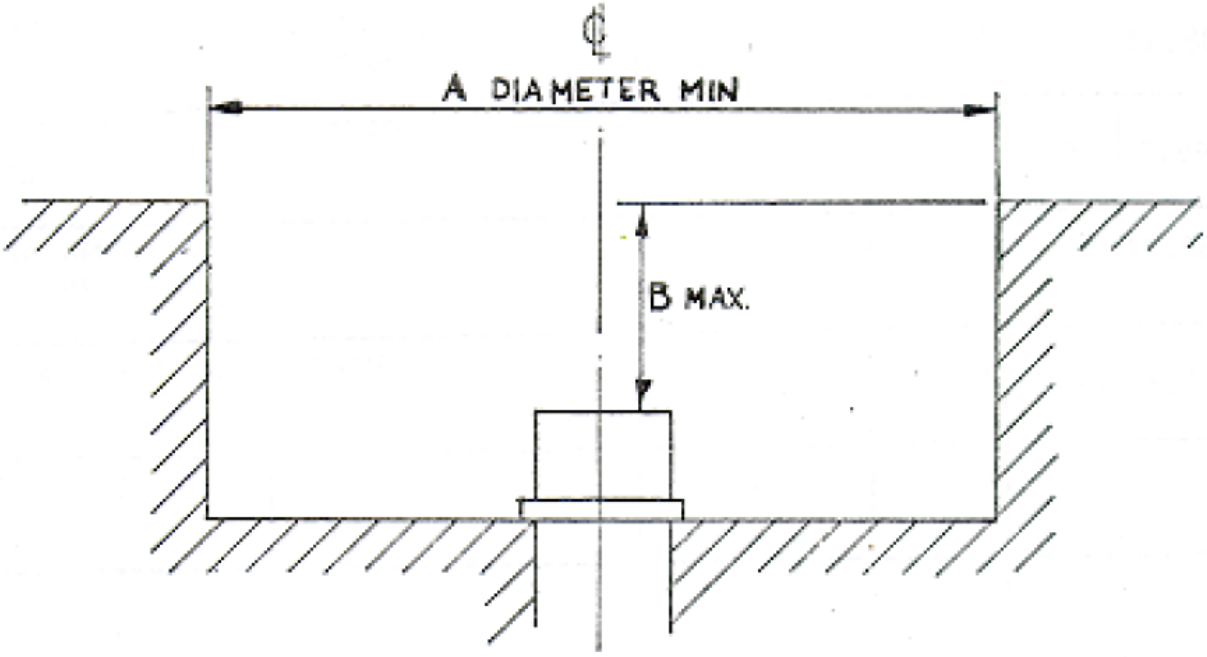

Figure 2 – Clearance Space Schematic

Table 2 – Clearance Space Dimensions

DIMENSION	MINIMUM		MAXIMUM		REMARKS
	(in)	(mm)	(in)	(mm)	
A	5.000	127,00	OPTIONAL	OPTIONAL	
B	OPTIONAL	OPTIONAL	1.500	38,10	

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