विमान अनुसंधान व अभिकल्प केंद्र
हिन्दुस्तान एरोनाटिक्स लिमिटेड
पोस्ट बैग संख्या 1789, बेंगलूर - 560 037, भारत
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AIRCRAFT RESEARCH & DESIGN CENTRE
HINDUSTAN AERONAUTICS LIMITED
Post Box No. 1789, Bangalore - 560 037, India
Ph. (दूरभाष) : 91 - 80 - 2231 2794

Ref No. : D/DD-ECS/434/6091/21 **09h Dec 2021**

To
M/s ITT Neo-Dyn
105 Commerce Way
Westminster, SC 29693

SUB: Request For Information (RFI) for "Supply of Pressure Switch (Bleed Air)"

Dear Sir / Madam,

Aircraft Research & Design Centre (ARDC) one of the flagship R&D divisions of HAL located at Bengaluru, India is currently engaged in design, development, flight testing and certification of indigenous fighter and trainer aircraft to meet the immediate requirement of Indian Air Force.

2. ARDC is currently looking for procurement of Pressure Switch – Bleed Air with its associated accessories as per the technical specification placed at **Annexure-I.**

3. It is requested that the specification placed at **Annexure-I** may please be studied and the following information provided for our further necessary action.

a. Availability of the Pressure Switch along with technical compliance matrix against the technical specifications placed at **Annexure-I.**

b. Budgetary estimate for supply of Qty. 5 nos for the above item at S. No.2 prototype aircraft with applicable taxes for year 2021-22. Series production requirements will be decided later.

c. Supplies and Services needed from your firm for Integrated Logistics Support (ILS) of these items for full operational life of the aircraft.

4. The Supply of Qty.5 nos for the above item at S. No.2 shall be utilized for prototype testing and certification against firm order. Options for HAL are also required by vendor to undertake supply of units during the series production phase based on the requirements.

5. Vendor shall supply airworthy units in line with the Qualification Test requirements as specified in **Annexure-I** and shall submit all the relevant test reports and certificates to Indian Certification Agency for the final certification and Service Use Clearance.

6. An early response to this RFI will be highly appreciated. RFI Proposals may please be sent to E-Mail Id: hofg.ms-ecs.ardc@hal-india.com. (Office Contact No: +918022324228)

Thanking you.

Yours faithfully,
For Hindustan Aeronautics Ltd

Bhaskar V C
Deputy General Manager (D- ECS & LSS)
ARDC, HAL, Bangalore, India 560037

Annexure-1

Pressure Switch – Bleed Air

Description/function	This switch is used to detect high pressure in the Bleed Air pipeline downstream of Bleed Shut-Off Valve and give an electrical discrete output to ECS Controller
Actuation Pressure	7.55 +/- 0.35 bar g
De-actuation Pressure	6 +/- 0.5 bar g
Normal Operating Pressure	6.35±0.35, bar g
Operating fluid	air
Operating Fluid Temperature	+150°C to +615°C
Ambient Temperature	-55°C to +150°C
Failure Pressure	13.5 bar g
Operating Voltage	28V DC Nominal
Space Envelope	19 DIA x 73 length (mm)
Mechanical Interface	External Thread as per 7/16"-20 UNJF
Weight	0.15 kg (max)
Electrical Interface	As per MIL D38999 Series III

Item to be Qualified as per MIL-STD-810G

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Ref No. : D/DD-ECS/434/6090/21 **09h Dec 2021**

To
M/s ITT Neo-Dyn
105 Commerce Way
Westminster, SC 29693

SUB: **Request For Information (RFI) for "Supply of Pressure Switches (Cabin Sealing)"**

Dear Sir / Madam,

Aircraft Research & Design Centre (ARDC) one of the flagship R&D divisions of HAL located at Bengaluru, India is currently engaged in design, development, flight testing and certification of indigenous fighter and trainer aircraft to meet the immediate requirement of Indian Air Force.

2. ARDC is currently looking for procurement of the following items with their associated accessories as per the technical specifications placed at **Annexure-I.**

a) Pressure Switch – High (Cabin Sealing)
b) Pressure Switch – Low (Cabin Sealing)

3. It is requested that the specifications placed at **Annexure-I** may please be studied and the following information provided for our further necessary action.

a. Availability of the Pressure Switch along with technical compliance matrix against the technical specifications placed at **Annexure-I.**

b. Budgetary estimate for supply of Qty. 5 nos for each of the above items at S. No.2 prototype aircraft with applicable taxes for year 2021-22. Series production requirements will be decided later.

c. Supplies and Services needed from your firm for Integrated Logistics Support (ILS) of these items for full operational life of the aircraft.

4. The Supply of Qty.5 nos for each of the above items at S. No.2 shall be utilized for prototype testing and certification against firm order. Options for HAL are also required by vendor to undertake supply of units during the series production phase based on the requirements.

5. Vendor shall supply airworthy units in line with the Qualification Test requirements as specified in **Annexure-I** and shall submit all the relevant test reports and certificates to Indian Certification Agency for the final certification and Service Use Clearance.

6. An early response to this RFI will be highly appreciated. RFI Proposals may please be sent to E-Mail Id: hofg.ms-ecs.ardc@hal-india.com. (Office Contact No: +918022324228)

Thanking you.

Yours faithfully,
For Hindustan Aeronautics Ltd

Bhaskar V C
Deputy General Manager (D- ECS & LSS)
ARDC, HAL, Bangalore, India 560037

Annexure-1

a) Pressure Switch – High (Cabin Sealing)

Description/function	This switch is used to detect high pressure in the Cabin Sealing pipeline and give an electrical discrete output to ECS Controller
Actuation Pressure	1500 +/- 100 mbar g
De-actuation Pressure	1100 mbar g
Normal Operating Pressure	900 to 1250 mbar g
Operating fluid	air
Operating Fluid Temperature	-55°C to +130°C
Ambient Temperature	-55°C to +80°C
Failure Temperature (Fluid)	200°C
Failure Pressure	6 bar g
Operating Voltage	28V DC Nominal
Space Envelope	40 DIA x 75 length (mm)
Mechanical Interface	External Thread as per M16 x 1.5 ISO
Weight	0.12 kg (max)
Electrical Interface	As per MIL D38999 Series III

Item to be Qualified as per MIL-STD-810G

b) Pressure Switch – Low (Cabin Sealing)

Description/function	This switch is used to detect low pressure in the Cabin Sealing pipeline and give an electrical discrete output to ECS Controller
Actuation Pressure	780 to 890 mbar g
De-actuation Pressure	950 mbar g
Normal Operating Pressure	900 to 1250 mbar g
Operating fluid	air
Operating Fluid Temperature	-55°C to +130°C
Ambient Temperature	-55°C to +80°C
Failure Temperature (Fluid)	200°C
Failure Pressure	6 bar g
Operating Voltage	28V DC Nominal
Space Envelope	40 DIA x 75 length (mm)
Mechanical Interface	External Thread as per M16 x 1.5 ISO
Weight	0.12 kg (max)
Electrical Interface	As per MIL D38999 Series III

Item to be Qualified as per MIL-STD-810G