

**NTPC LTD  
CC-OS  
EOC NOIDA**

**Sub: Standardisation Criteria for Source Standardisation for Supply of " Micro Processor based smart positioner"**

A)	<b>MEG DETAILS</b>	
	<b>1.0 SSG NO</b>	<b>94SSG-70</b>
	<b>2.0 SSG DESCRIPTION</b>	<b>Micro Processor based smart positioner</b>
	<b>3.0 RESPONSIBILITY CENTRE</b>	<b>CC / OS</b>
B)	<p><b>Standardisation Criteria:</b></p> <p>The applicant should be a manufacturer of the item(s), meeting the reference technical specification provided in the Portal.</p> <p>The applicant has supplied to at least two different clients during last 5 years reckoned as on date of submission of application along with proof of execution of the orders. Certificates from clients in NTPC specified form for completion of satisfactory operation corresponding to the submitted orders copies, for proposed item for one year at any Power Generation Plant / Petroleum Refinery, Steel Plant &amp; Fertiliser plant.</p>	
C)	<p><b>Other Documents to be submitted:</b></p> <p>The following documents are required to be submitted by the applicants applying for enlistment: -</p> <ol style="list-style-type: none"> <li>1. At least two executed Purchase Orders of similar items during previous five years from the date of application received from Power Generation Plant / Petroleum Refinery, Steel Plant &amp; Fertiliser plant. Performance certificate from the concerned buyer/s in support of successful execution of supply against the POs is to be submitted.</li> <li>2. Audited balance sheet including Profit &amp; Loss statement for the previous three completed financial years reckoned from the date of application. In case the audited documents are not ready / available, then certified copy by a registered practicing Chartered accountant may be submitted.</li> <li>3. NSIC / SSI / MSME registration certificate / BIS license / ISO certificate / Certificate of registration from the concerned excise department / any other statutory document as a proof of being manufacturer of the required material.</li> <li>4. Any other documents in addition to the above which the applicant wants to submit.</li> </ol>	
D	<p><b>Technical Specification:</b></p> <p>As per Annexure</p>	

**STANDARD SPECIFICATION OF SMART POSITIONER FOR  
PNEUMATIC CONTROL VALVES/DAMPERS**

1	Electrical	a) Input Demand Signal	4-20 mA
		b) Power Supply	Loop Powered from the output card of Control System.
		c) HART Protocol	Compatibility for Remote Calibration & Diagnostics (Super-imposed HART signal on input Signal (4-20 mA)
		d) Valve position sensing	Position sensing, 4-20 mA output signal to be provided for control system.
2	Environment	a) Operating temp.	(-)30 To 80 Deg. C
		b) Humidity	0-95 %
		c) Protection class	IP-65 Minimum
3	Software for Configuration and Diagnostics	Software	Windows based software. Software shall meet the requirements for Configuration, Diagnostics, Calibration and Testing of the actuator.
		Diagnostic/Test features	Advanced diagnostic features like Stroke counter or Travel counter, Leakage in actuators, Valve Signature analysis, Step Response test, Valve friction /Jamming detection etc. to be provided.
4	Test reports/ Certificates	Test certificates as per Manufacture Standard/Relevant Standard are to be submitted.	
5	Configuration/ Calibration.	Remote & Local Calibration, Auto & Manual Calibration shall be possible.	
6	Operating Range	Full range/ Split range.	
7	Modes	Action	Direct / Reverse Action
		Flow Characterization	Possible to fit Valve/Damper Characteristic Curves- Linear , Equal percentage etc.

8	Fail Safe/Fail Freeze	Fail Safe/Fail Freeze feature is to be provided (Quantity of each type shall be specified by respective site as per process requirement).	
9	Pneumatic	Air capacity	Sufficient to handle the valves & actuators selected/ Boosters to be supplied, if required.
		Air pressure	To suit the air supply pressure/quality available. Maximum Air Supply Pressure : 5.5 KSC
		Process connection	¼" NPT
10	Performance	Characteristic deviation	≤0.5 % of span.
		Ambient temp effect	≤0.05 % /deg C or better.
10	EMC & CE Compliance	Required to International Standard like EN/IEC.	EN50081-2 & EN50082 or equivalent.
11	Accessories	In-built Operator Panel	Display with push buttons for configuration and display on the positioner itself (Password protected/Hardware lock).
		Hand Held Hart Calibrator	Universal Hart Calibrator to be provided for configuration from remote/local (Quantity of Hand Held Universal Hart Calibrator shall be specified by respective site).
		Press Gauge Block	For supply & output pressures, Air Filter Regulator and other accessories shall be provided on as required basis for making system complete.
		Electrical Cable Entry	1/2"NPT, side or bottom entry to avoid water ingress.
		Mounting Assembly	For Sliding Stem/Rotary/Single acting/Double acting actuators on as required basis

**Letter Head of the End User with Full Address**

**Performance Certificate**

Ref. No.

Date:

**To whom it may concerned**

Name of the Item:

Make:

Model:

Order No. & Date:

Date of Delivery:

Date of Installation / Date of start of use:

Exact Application / Service:

Duration of Instrument is in Service from ..... to .....

Name of the Power Plant/ Process Industry, Location & Address:

This is to certify that the ..... (Name of the item), supplied by  
M/S..... is in service for application as detailed above for the last .....years  
and its performance is satisfactory without any major problem.

Signature:

Office Seal:

Name:

Designation:

Official Phone:

Mobile:

Email Address: