



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

Ref No. :BHEL:PSER:SGD:AC :PUR: NIT : 05

Date : 06-09-2025

NOTICE INVITING TENDER

NIT for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Issue/ forwarding intimation regarding tender to any bidder shall not construe that the bidder is considered to be qualified. Following points relevant to the tender may please be noted and complied with.

1.0 Salient Features of NIT

SL NO	ISSUE	DESCRIPTION
1.0	TENDER NO	Ref: BHEL: PSER: SGD: BOP: AC: PUR: ADM-05 dt 02.09.2025
2.0	NAME OF JOB	Manufacturing/Procurement, Supply and door delivery of Gravity Louvers/NRD & Mixing Valve Actuators for HVAC SYSTEM at 1x660MW, WBPDC, Sagardighi, West Bengal,IN.
3.0	DETAILS OF TENDER DOCUMENT	
3.1	Volume-I	No Deviation Certificate in Annexure-I, Special terms & condition mentioned in Annexure-II, the Price bid format/ offer format in Annexure-III, Technical Specs, Data sheet Annexure-IV
4.0	ISSUE OF TENDER DOCUMENTS	This is a LIMITED tender to be floated by tender committee. Start date of the tender: 06.09.2025
5.0	DUE DATE & TIME OF OFFER SUBMISSION	Date: 12.09.2025, Time: 15-30 Hrs. IST The bidder should respond to BHEL Sagardighi site office only.
6.0	OPENING OF TENDER	Date: 12.09.2025. time: 16-30 hours Notes: (1) In case the due date of opening of tender becomes a non-working day, tenders shall be opened on next working day at the same time. (2) Bidder may depute representative to witness the opening of tender. (3) Venue : BHEL Site office, 1X660MW, SgTPP Extn Project, Ph-III, Manigram, Sagardighi, Murshidabad, West Bengal,India.
7.0	EMD AMOUNT	NIL
8.0	COST OF TENDER	Free
9.0	LAST DATE FOR SEEKING CLARIFICATION	Date: Due date. 12.09.25, 12:00 hours Along with soft version also, addressing to undersigned & to others
10.0	SCHEDULE OF Pre-Bid Discussion (PBD)	Not - applicable
11.0	INTEGRITY PACT	As per BHEL standard rule
12.0	LATEST UPDATE	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be informed vide mail only. Bidders to keep themselves updated with all such information.



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13.0	EVALUATION CURRENCY	Indian Rupees (INR)
14.0	REMARK	Tender can be cancelled at any point of time without justification to bidders if found liable.
15.0	TENDER ENQUIRY	For any query regarding T&C of this tender you may call following persons: 1. Mr. Deepsankar Maji Mob: 8170032111 or 2. Mr. Ranjan Pal Mob: 9609501453
16.0	PROCESS OF SUBMISSION	A) FILLED UP SIGNED SCAN COPY OF THIS WHOLE NIT DOCUMENTS (UNPRICED) COPY SHALL BE ATTACHED ALONG WITH B) ANNEXURE-III (OFFER PRICE BID DULY SIGNED & STAMPED BY COMPANY AUTHORIZED REPRESENTATIVE IN THEIR COMPANY LETTERHEAD SHALL BE ATTACHED AS A SEPARATE ATTACHMENT IN THE SAME EMAIL.) C) ANNEX-I (NO DEVIATION SHALL BE FURNISHED AS SEPARATE ATTACHMENT IN SAME EMAIL WITH COMPANY LETTERHEAD DULY SIGNED & STAMPED BY AUTHORIZED COMPANY REPRESENTATIVE)
17.0	COMMUNICATION	All types of Email communication regarding this tender shall be given to following email ID: 1) Mr. Ranjan Pal : r.pal@bhel.in (Mob: 9609501453) 2) Mr. K. C. Das : kcdas@bhel.in

SEEKING CLARIFICATION

JOB	Manufacturing/Procurement, Supply and door delivery of Gravity Louvers/NRD & Mixing Valve Actuators for HVAC SYSTEM at 1x660MW, WBPDC, Sagardighi, West Bengal, IN.
TENDER NO	Tender no Ref: BHEL: PSER: SGD: BOP: AC: PUR: ADM-05 dt 02.09.2025

SI no	Reference clause of tender document	Existing provision	Bidder's query	BHEL's clarification

Ranjan Pal
06-09-2025

RANJAN PAL

For and on behalf of Bharat Heavy Electricals Limited

Bharat Heavy Electricals Ltd.

PSER Sagardighi Site, 1X660 MW

Murshidabad (W.B.)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)
POWER SECTOR - EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691/ 23398236

NO DEVIATION CERTIFICATE

ANNEXURE - I

POWER SECTOR- EASTERN REGION
WBPDC, Sagardighi Thermal Power Project
STAGE III (1x660 MW, Unit. 5)
P.O.: Monigram, Dist; Murshidabad, W.B.PIN: 742237

Sub	No Deviation Certificate.	
Job	Manufacturing/Procurement, Supply and door delivery of Gravity Louvers/NRD & Mixing Valve Actuators for HVAC SYSTEM at 1x660MW, WBPDC, Sagardighi, West Bengal,IN.	
Ref	1.0	Tender no Ref: BHEL: PSER: SGD: BOP: AC: PUR: ADM-05 dt 02.09.2025
	2.0	BHEL's NIT, Ref: BHEL: PSER: SGD:AC :PUR: NIT : 05 dt 06.09.2025
	3.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

I/we hereby confirm(s) that I/we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

I/We confirm to have submitted/uploaded offer/documents in accordance with tender instructions with acceptance of the terms & conditions of the tender by us and as per aforesaid references.

I/we, also hereby declare(s) that I/we must not link any other projects or any other contract non- payment of a pre-requisite of the supply of the materials.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)

Ranjana Pal
06-09-2025



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BHARAT HEAVY ELECTRICALS LIMITED

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ANNEXURE – II

Special Terms & Conditions

1. NAME OF JOB:

Manufacturing/Procurement, Supply and door delivery of Gravity Louvers/NRD & Mixing Valve Actuators for HVAC SYSTEM at 1x660MW, WBPDC, Sagardighi, West Bengal, IN.

2. SCOPE OF WORK:

Manufacturing /Procurement, Supply & Door delivery of following materials at site address 1X660 MW BHEL SgTPP Site.

SL N O	Specific Description	MODEL NO.	Duct Dimensions and spec	UOM	QTY
1	GRAVITY LOUVER/NRD FOR 24 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 1270 X 1270 X3 Make Systemair	Sqm	4.838 7
2	GRAVITY LOUVER/NRD FOR 8.5 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 850 X 750 X 3; Make Systemair	Sqm	1.912 5
3	GRAVITY LOUVER/NRD FOR AC PLANT 0.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 404 X 404 X 2; make Systemair	Sqm	0.326 4
4	GRAVITY LOUVER/NRD FOR SWAS 0.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 404 X 404 X 2; make Systemair	Sqm	0.326 4
5	GRAVITY LOUVER/NRD FOR VFD 28.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 452 X 452 X 2; make Systemair	Sqm	0.408 6
6	GRAVITY LOUVER/NRD FOR PAC, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 1510 X 820 X 6; make Systemair	Sqm	7.429 2

Ranjana Patel
06-09-2025

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR - EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691/ 23398236



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7	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 125 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981S 2A	NA	Nos.	3
8	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 80 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981S A	NA	Nos.	3
9	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 40 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981J A	NA	Nos.	6
10	Additional 4-20mA feedback circuit for linear motion electric actuator	98LMA	NA	Nos.	12

3. DELIVERY PERIOD:

Within 01 month from the date of placement of PO or LOA date whichever is earlier.

4. TERMS OF PAYMENT:

- No advance payment shall be admissible to the bidder.
- Payment will be made within one month after submission of following documents:
- Original GST Invoice (1 Original + 2 Copies)
- Store receipt clearance duly certified by BHEL MM.
- Copy of LR/RR/Delivery Challan.
- Test Certificates.

However, GST payment shall be made on confirmation of GST Payment to Govt.

5. GUARANTEE / WARRANTEE:

12 months from the date of delivery at Site.

6. CONSIGNEE ADDRESS:

GM & Project Director,
Bharat Heavy Electrical Limited
1X660 MW, Sagardighi Thermal Power Project, PO. Manigram,
Dist. Murshidabad, West Bengal, Pin - 742237

7. PAYING AUTHORITY:

GM & Project Director,
Bharat Heavy Electrical Limited
1X660 MW, Sagardighi Thermal Power Project, PO. Manigram,
Dist. Murshidabad, West Bengal, Pin - 742237

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR - EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बॉर्डर/EPABX : 23211691/ 23398236



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8. INSURANCE :

Transit insurance shall be in BHEL's scope. Successful bidder shall intimate dispatch details to the underwriter:

Name of the underwriter : THE ORIENTAL INSURANCE COMPANY LTD.

Marine Insurance Policy No. : 212800/21/2022/1

Email : KANCHAN.THAKUR@ORIENTALINSURANCE.CO.IN; KIRTISARAN@ORIENTALINSURANCE.CO.IN

9. GST:

GST shall be paid to the successful bidder after receipt of all documentary proofs of GST payment to the Govt. Until & unless BHEL is satisfied GST portion shall be withheld from RA Bill.

10. RESPONSIBILITIES OF THE BIDDER IN RESPECT OF SUPPLIED GOODS

The successful bidder shall ensure the supplied materials are free from any manufacturing defects and brand-new condition. Any deviation / non -conformity / discrepancy / doubt about the materials in respect of specification given by ANNEXURE- IV shall be rectified /replace in FOC basis by the contractor.

11. DEPUTATION OF REPRESENTATIVE:

Successful bidder shall be responsible for cleaning doubt or applicability or any type of assistance post delivery period in case site is asked the bidder to clear doubt about its erection, if any, shall be done by vendor if possible by Video call or any such means or by physically present at site.

12. LIQUIDATED DAMAGE(LD):

Subject to force majeure, If vendor fails to complete the job as per aforesaid completion/delivery period, BHEL shall have the right to recover as liquidated damages (LD) a sum equivalent to 0.5 % of the order value for delay of each week or part thereof. The liability for delay shall not in any case exceed 5 % (ten percent) of the order value. For this purpose, the period of delay shall be the delay attributable to vendor for completion of job as per contract.

13. LINKING WITH OTHER PROJECT /CONTRACTS OF BHEL :

After awarding successful bidder should haggle BHEL on the pretext of other contract non-payment and linking this supply as a perquisite of such payment by BHEL prior to its dispatch and in this regard they has to declare that in no deviation certificate.

14. MATERIAL ENTRY

After arrival of ordered materials at the outside of plant gate its entry with the vehicle is solely dependent on production of following documents at the Plant Gate: 1) Vehicle Road Tax 2) Vehicle Insurance (3rd party must) 3)PUC & 4)Drivers valid driving license.

15. PERFORMANCE REQUIREMENT:

Supplied equipment must conforms and exhibit performance for which it is ordered within Warranty/Guarantee period. Any servicing assistance for any defects shall be attended or in case of inoperability found due to manufacturing defects, IT WILL BE REPLACED without any financial implication on the Customer.

For and on behalf of Bharat Heavy Electricals Limited

Ranjan Pal
06-09-2025

RANJAN PAL

Sr. Manager (Elect.)

Bharat Heavy Electricals Ltd.

POWER SECTOR - EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700091

23398236ad (W.B.)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR - EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691/ 23398236

ANNEXURE - III

PREAMBLE

- This preamble forms part of the tender document and schedule of items. The supply shall be carried out as per specifications, descriptions of the items in the schedule.
- The rates shall be quoted in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility, the interpretation of BHEL engineer shall be final. All entries shall be in English. GST will be paid extra.
- The tenderer shall be deemed to have studied detailed specifications and terms & conditions of the tender.
- BHEL Engineer's decision shall be final & binding on the contractor regarding clarification of items in the schedule with respect to other terms & conditions of the contract.
- **Offers price shall separately be quoted in bidders letter head duly signed & stamped by the company authorized person attaching in email clearly mentioning the subject job with OFFER PRICE EMAIL in BOLD Capital letter**

Rate/Price Schedule

SR NO	ITEM DESCRIPTION	Model No.	UNIT	QTY	Unit Rate (Rs.)	Amount (Rs.)
1.0	GRAVITY LOUVER/NRD FOR 24 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION (ALL TYPE MOUNTING)	NA	SQM	4.8387		
2.0	GRAVITY LOUVER/NRD FOR 8.5 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION (ALL TYPE MOUNTING)	NA	SQM	1.9125		
3.0	GRAVITY LOUVER/NRD FOR AC PLANT 0.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION (ALL TYPE MOUNTING)	NA	SQM	0.3264		
4.0	GRAVITY LOUVER/NRD FOR SWAS 0.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION (ALL TYPE MOUNTING)	NA	SQM	0.3264		
5.0	GRAVITY LOUVER/NRD FOR VFD 28.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION (ALL TYPE MOUNTING)	NA	SQM	0.4086		
6.0	GRAVITY LOUVER/NRD FOR PAC, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION (ALL TYPE MOUNTING)	NA	SQM	7.4292		
7.0	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 125 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981S2A	NOS	3		
8.0	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 80 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981SA	NOS	3		
9.0	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 40 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981JA	NOS	6		
10.0	Additional 4-20mA feedback circuit for linear motion electric actuator	98LMA	NOS	12		
TOTAL						
IN WORDS:						

- GST 18% EXTRA ON ABOVE PRICE



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(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

ANNEXURE – IV

TECHNICAL SPECIFICATION

As per attachment WITH THIS DOC

CONFIDENTIAL

For and on behalf of Bharat Heavy Electricals Limited

Ranjan Pal
06-09-2025
RANJAN PAL
Sr. Manager (Elect.)
Bharat Heavy Electricals Ltd.
PSER Sagardighi Site, 1X660 MW
Murshidabad (W.B.)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR - EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691/ 23398236

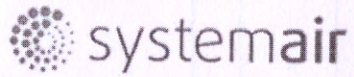
PROCUREMENT OF NRD AND MIXING VALVE ACTUATOR

Format for Budgetary Quotation

SL No	Specific Description	MODEL NO.	Duct Dimensions and spec	UOM	QTY	Rate in Rs.	Total Amount (Rs.)
1	GRAVITY LOUVER/NRD FOR 24 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 1270 X 1270 X3 Make Systemair	Sqm	4.8387		
2	GRAVITY LOUVER/NRD FOR 8.5 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 850 X 750 X 3; Make Systemair	Sqm	1.9125		
3	GRAVITY LOUVER/NRD FOR AC PLANT 0.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 404 X 404 X 2; make Systemair	Sqm	0.3264		
4	GRAVITY LOUVER/NRD FOR SWAS 0.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 404 X 404 X 2; make Systemair	Sqm	0.3264		
5	GRAVITY LOUVER/NRD FOR VFD 28.0 MTR, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 452 X 452 X 2; make Systemair	Sqm	0.4086		
6	GRAVITY LOUVER/NRD FOR PAC, DUCT MOUNTING GRAVITY TYPE WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION	NA	Duct dimension 1510 X 820 X 6; make Systemair	Sqm	7.4292		
7	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 125 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981S2A	NA	Nos.	3		
8	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 80 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981SA	NA	Nos.	3		
9	Mixing Valve Electric Actuator, Supply 24V AC/DC, Signal 4-20mA WITH ALL ACCESSORIES & HARDWARES REQUIRED FOR COMPLETE INSTALLATION/MOUNTING ON THE 40 NB SIZE GLOBE VALVE OF RAPID CONTROL MAKE	RC981JA	NA	Nos.	6		
10	Additional 4-20mA feedback circuit for linear motion electric actuator	98LMA	NA	Nos.	12		

[NOTE : FREIGHT & GST WILL BE EXTRA]

Romjan Pcl
06-09-2025



TECHNICAL DATA SHEET

GRAVITY LOUVER /NRD

S.No.	DESCRIPTION	DETAILS
1	MAKE	SYSTEMAIR
2	SIZE	NECK- AS PER SITE REQUIREMENT
3	MODEL	GRAVITY LOUVER/NRD
4	MATERIAL	GI SHEET
5	MAKE OF SHEET	TATA/JINDAL/ BHUSHAN
5	THICKNESS OF MATERIAL	FRAME 16G , BLADE 16G, 120 MM WIDE
6	MOUNTING	DUCT MOUNTED GRAVITY TYPE
7	WIDE	MINIMUM SIZE 100 X 100 MM (NECK)
		MAXIMUM SIZE 800 X 800 MM (NECK)
		SIZE ABOVE THAN MAX WILL BE IN TWO MODULES.

Prepared By



Forign PC1
06-09-2025

Response to WBPDCCL Comments on TDS AND GA OF FOR 3-WAY MIXING VALVE FOR AIR CONDITIONING SYSTEM		
PE-V0-445-553-A027		
Sr No	WBPDCCL Comments	BHEL Reply
1	Shall be From WBPDCCL Approved Vendor List	Noted. Make Shall be as per Approved WBPDCCL vendor List.

for signature
 06-09-2025



RAPID CONTROLS PVT.LTD.

B-47, Mayapuri, Indl. Area, Phase-1, New Delhi-64 (India)

Phone - 28117185, 28113873, 28115349, 45128360

E-mail : rapidcontrols@gmail.com, rapidcontrols47@gmail.com

Website : www.rapidcontrols.co.in

**TDS FOR 3 WAY MOTORIZED GLOBE VALVE-MIXING TYPE
FOR VALVE SIZE UPTO 50mm**

S.No.	DISCRIPTION	DETAILS
	VALVE DETAILS	
1	MAKE	RAPID COOL
2	BODY MATERIAL	CAST IRON IS:210 FG:260
3	BONNET MATERIAL	CAST IRON IS:210 FG:260
4	NO. OF PORT	3 CONNECTION PORTS, 2 INLET and 1 OUTLET
5	SPINDLE	S.S.304
6	PLUG	BRASS IS:1264, GRADE DCB-I
7	SEAT	BRASS IS:1264, GRADE DCB-I
8	GLAND PACKAGING	SPRING LOADED WITH PTFE RINGS AND RUBBER SEALS
9	GLAND NUT	BRASS IS:319
10	END CONNECTION	FEMALE SCREWED END CONNECTION
11	MEDIA TEMPRANGE RANGE	3°C to 80°C
12	WORKING PRESSURE	7 Kg cm ²
13	BODY TEST PRESSURE	21 kg cm ²
14	PAINTING	RED OXIDE COATED AND ENAMEL SPRAY PAINTED
15	VALVE WEIGHT	Connection size: - 15mm - 3 Kg Connection size: - 20mm - 3 Kg Connection size: - 25mm - 3.3 Kg Connection size: - 32mm - 3.5 Kg Connection size: - 40mm - 4.6 Kg Connection size: - 50mm - 6.7 Kg
	ACTUATOR DETAILS	
16	BODY	ALUMINIUM (PRESSURE DIE CASTED)
17	TOP COVER	ABS
18	MOTOR	MICRO DC MOTOR
19	TYPE OF OPERATION	LINEAR MOTION
20	MOTOR PROTECTION	SOLID STATE INBUILT
21	OPERATING TEMPURATURE LIMIT	5°C to 80°C
22	STORAGE TEMPURATURE LIMIT	20°C to 50°C
23	NOISE RATING	UPTO 10 Db, WITHIN 1 METER DISTANCE
24	OPERATION TIME	45 SECONDS
25	MOUNTING	FIRM FIT WITH THERMAL BREAK
26	INPUT VOLTAGE	24V AC/DC, 50Hz
27	POWER CONSUMPTION	18 WATTS MAX
28	WIRING	SCREW TERMINALS

Remijan Pal
06-09-2025





RAPID CONTROLS PVT.LTD.

B-47, Mayapuri, Indl. Area, Phase-1, New Delhi-64 (India)
Phone - 28117185, 28113873, 28115349, 45128360
E-mail : rapidcontrols@gmail.com, rapidcontrols47@gmail.com
Website : www.rapidcontrols.co.in

29	STROKE	19mm or less
30	CLOSING FORCE	510 Nm
31	BREAK AWAY FORCE	510 Nm
32	CONTROL SIGNAL (not selectable type, conform at the time of order)	MODULATING 0-10V DC INPUT ANALOG SIGNAL MODULATING 4-20mA INPUT ANALOG SIGNAL ON/OFF TYPE, (COM,NO,NC/2 Position floating)
33	FEEDBACK	4-20mA analog control signal (Optional) Note:- work with 4-20mA input signal
34	FAIL SAFE	STAY PUT
35	MANUAL OVERRIDE	NO
36	CONFIGERABLE JUMPERS	FIELD CONFIGERABLES JUMPERS FOR FORWARD REVERSE/REVERSE ACTION.
37	DEGREE OF PROTECTION	IP 64
38	ACTUATOR WEIGHT	1.6 Kg

TDS FOR 3 WAY MOTORIZED GLOBE VALVE-MIXING TYPE FOR VALVE SIZE 65mm & 80mm

S.No.	DISCRIPTION	DETAILS
	VALVE DETAILS	
1	MAKE	"RC"
2	BODY MATERIAL	CAST IRON IS:210 FG:260
3	BONNET MATERIAL	CAST IRON IS:210 FG:260
4	NO. OF PORT	3 CONNECTION PORTS, 2 INLET and 1 OUTLET
5	SPINDLE	S.S.304
6	PLUG	BRASS IS:1264, GRADE DCB-I
7	SEAT	BRASS IS:1264, GRADE DCB-I
8	GLAND PACKAGING	SPRING LOADED WITH PTFE RINGS AND RUBBER SEALS
9	GLAND NUT	BRASS IS:319
10	END CONNECTION	FLANGE END AS PER IS 6418 TABLE 5
11	TEMPRANGE RANGE LIMIT	3°C to 80°C
12	WORKING PRESSURE	7 Kg cm ²
13	BODY TEST PRESSURE	21 kg cm ²
14	PAINTING	RED OXIDE COATED AND ENAMEL SPRAY PAINTED
15		CONNECTION SIZE: - 65mm - 21 Kg
	VALVE WEIGHT	CONNECTION SIZE: - 80mm - 27 Kg
	ACTUATOR DETAILS	

For more info
06-09-2025



2000-10-20



RAPID CONTROLS PVT.LTD.

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16	BODY	ALUMINIUM (PRESSURE DIE CASTED)
17	TOP COVER	ABS
18	MOTOR	MICRO DC MOTOR
19	TYPE OF OPERATION	LINEAR MOTION
20	MOTOR PROTECTION	SOLID STATE INBUILT
21	OPERATING TEMPERATURE LIMIT	5°C to 80°C
22	STORAGE TEMPERATURE LIMIT	20°C to 50°C
23	NOISE RATING	UPTO 12 Db, WITHIN 1 METER DISTANCE
24	OPERATION TIME	60 SECONDS
25	MOUNTING	FIRM FIT WITH THERMAL BREAK
26	INPUT VOLTAGE	24V AC/DC, 50Hz
27	POWER CONSUMPTION	25 WATTS MAX
28	WIRING	SCREW TERMINALS
29	STROKE	21mm or less
30	CLOSING FORCE	690 Nm
31	BREAK AWAY FORCE	690 Nm
32	CONTROL SIGNAL (not selectable type, conform at the time of order)	MODULATING 0-10V DC INPUT ANALOG SIGNAL MODULATING 4-20mA INPUT ANALOG SIGNAL ON/OFF TYPE, (COM,NO,NC/2 Position floating)
33	FEEDBACK	4-20mA analog control signal (Optional) Note:- work with 4-20mA input signal
34	FAIL SAFE	STAY PUT
35	MANUAL OVERRIDE	NO
36	CONFIGERABLE JUMPERS	FIELD CONFIGERABLES JUMPERS FOR FORWARD REVERSE/REVERSE ACTION.
37	DEGREE OF PROTECTION	IP 64
38	ACTUATOR WEIGHT	4.4 Kg

TDS FOR 3 WAY MOTORIZED GLOBE VALVE-MIXING TYPE FOR VALVE SIZE 100mm

S.No.	DISCRIPTION	DETAILS
VALVE DETAILS		
1	MAKE	"RC"
2	BODY MATERIAL	CAST IRON IS:210 FG:260
3	BONNET MATERIAL	CAST IRON IS:210 FG:260
4	NO. OF PORT	3 CONNECTION PORTS, 2 INLET and 1 OUTLET
5	SPINDLE	S.S.304
6	PLUG	BRASS IS:319
7	SEAT	BRASS IS:1264, GRADE DCB-I

Romjan Pal
06-09-2025



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2005/09/25



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8	GLAND PACKAGING	SPRING LOADED WITH PTFE RINGS AND RUBBER SEALS
9	GLAND NUT	BRASS IS:1264, GRADE DCB-I
10	END CONNECTION	FLANGE END AS PER IS 6418 TABLE 5
11	TEMPRANGE RANGE LIMIT	3°C to 80°C
12	WORKING PRESSURE	7 Kg cm ²
13	BODY TEST PRESSURE	21 kg cm ²
14	PAINTING	RED OXIDE COATED AND ENAMEL SPRAY PAINTED
15	VALVE WEIGHT	40 Kg
	ACTUATOR DETAILS	
16	BODY	ALUMINIUM (PRESSURE DIE CASTED)
17	TOP COVER	ABS
18	MOTOR	MICRO DC MOTOR
19	TYPE OF OPERATION	LINEAR MOTION
20	MOTOR PROTECTION	SOLID STATE INBUILT
21	OPERATING TEMPURATURE LIMIT	5°C to 80°C
22	STORAGE TEMPURATURE LIMIT	20°C to 50°C
23	NOISE RATING	UPTO 12 Db, WITHIN 1 METER DISTANCE
24	OPERATION TIME	80 SECONDS
25	MOUNTING	FIRM FIT WITH THERMAL BREAK
26	INPUT VOLTAGE	24V AC/DC, 50Hz
27	POWER CONSUMPTION	25 WATTS MAX
28	WIRING	SCREW TERMINALS
29	STROKE	28mm or less
30	CLOSING FORCE	690 Nm
31	BREAK AWAY FORCE	690 Nm
32	CONTROL SIGNAL (not selectable type, conform at the time of order)	MODULATING 0-10V DC INPUT ANALOG SIGNAL MODULATING 4-20mA INPUT ANALOG SIGNAL ON/OFF TYPE, (COM,NO,NC/2 Position floating)
33	FEEDBACK	4-20mA analog control signal (Optional) Note:- work with 4-20mA input signal
34	FAIL SAFE	STAY PUT
35	MANUAL OVERRIDE	NO
36	CONFIGERABLE JUMPERS	FIELD CONFIGERABLES JUMPERS FOR FORWARD REVERSE/REVERSE ACTION.
37	DEGREE OF PROTECTION	IP 64
38	ACTUATOR WEIGHT	4.9 Kg

TDS FOR 3 WAY MOTORIZED GLOBE VALVE-MIXING TYPE FOR VALVE SIZE 125mm



Ranjana P.1
06-09-2025

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12/09/2025



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S.No.	DISCRIPTION	DETAILS
VALVE DETAILS		
1	MAKE	"RC"
2	BODY MATERIAL	CAST IRON IS:210 FG:260
3	BONNET MATERIAL	CAST IRON IS:210 FG:260
4	NO. OF PORT	3 CONNECTION PORTS, 2 INLET and 1 OUTLET
5	SPINDLE	S.S.304
6	PLUG	BRASS IS:1264, GRADE DCB-I
7	SEAT	BRASS IS:1264, GRADE DCB-I
8	GLAND PACKAGING	SPRING LOADED WITH PTFE RINGS AND RUBBER SEALS
9	GLAND NUT	BRASS IS:319
10	END CONNECTION	FLANGE END AS PER BS-10 TABLE-E
11	TEMPRANGE RANGE LIMIT	3°C to 80°C
12	WORKING PRESSURE	7 Kg cm ²
13	BODY TEST PRESSURE	21 kg cm ²
14	PAINTING	RED OXIDE COATED AND ENAMEL SPRAY PAINTED
15	VALVE WEIGHT	53 KG
ACTUATOR DETAILS		
16	BODY	ALUMINIUM (PRESSURE DIE CASTED)
17	TOP COVER	ABS
18	MOTOR	MICRO DC MOTOR
19	TYPE OF OPERATION	LINEAR MOTION
20	MOTOR PROTECTION	SOLID STATE INBUILT
21	OPERATING TEMPURATURE LIMIT	5°C to 80°C
22	STORAGE TEMPURATURE LIMIT	20°C to 50°C
23	NOISE RATING	UPTO 12 Db, WITHIN 1 METER DISTANCE
24	OPERATION TIME	120 SECONDS
25	MOUNTING	FIRM FIT WITH THERMAL BREAK
26	INPUT VOLTAGE	24V AC/DC, 50Hz
27	POWER CONSUMPTION	25 WATTS MAX
28	WIRING	SCREW TERMINALS
29	STROKE	35mm or less
30	CLOSING FORCE	780 Nm
31	BREAK AWAY FORCE	780 Nm
32	CONTROL SIGNAL (not selectable type, conform at the time of order)	MODULATING 0-10V DC INPUT ANALOG SIGNAL MODULATING 4-20mA INPUT ANALOG SIGNAL ON/OFF TYPE, (COM,NO,NC/2 Position floating)
33	FEEDBACK	4-20mA analog control signal (Optional) Note:- work with 4-20mA input signal

Ranjana K
06-09-2025



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34	FAIL SAFE	STAY PUT
35	MANUAL OVERRIDE	NO
36	CONFIGERABLE JUMPERS	FIELD CONFIGERABLES JUMPERS FOR FORWARD REVERSE/REVERSEACTION.
37	DEGREE OF PROTECTION	IP 64
38	ACTUATOR WEIGHT	5.5 Kg

TDS FOR 3 WAY MOTORIZED GLOBE VALVE-MIXING TYPE FOR VALVE SIZE 150mm

S.No.	DISCRIPTION	DETAILS
VALVE DETAILS		
1	MAKE	"RC"
2	BODY MATERIAL	CAST IRON IS:210 FG:260
3	BONNET MATERIAL	CAST IRON IS:210 FG:260
4	NO. OF PORT	3 CONNECTION PORTS, 2 INLET and 1 OUTLET
5	SPINDLE	S.S.304
6	PLUG	BRASS IS:1264, GRADE DCB-I
7	SEAT	BRASS IS:1264, GRADE DCB-I
8	GLAND PACKAGING	SPRING LOADED WITH PTFE RINGS AND RUBBER SEALS
9	GLAND NUT	BRASS IS:319
10	END CONNECTION	FLANGE END AS PER BS-10 TABLE-E
11	TEMPRANGE RANGE LIMIT	3°C to 80°C
12	WORKING PRESSURE	7 Kg cm ²
13	BODY TEST PRESSURE	21 kg cm ²
14	PAINTING	RED OXIDE COATED AND ENAMEL SPRAY PAINTED
15	VALVE WEIGHT	88 KG
ACTUATOR DETAILS		
16	BODY	ALUMINIUM (PRESSURE DIE CASTED)
17	TOP COVER	ABS
18	MOTOR	MICRO DC MOTOR
19	TYPE OF OPERATION	LINEAR MOTION
20	MOTOR PROTECTION	SOLID STATE INBUILT
21	OPERATING TEMPURATURE LIMIT	5°C to 80°C
22	STORAGE TEMPURATURE LIMIT	20°C to 50°C
23	NOISE RATING	UPTO 12 Db, WITHIN 1 METER DISTANCE
24	OPERATION TIME	160 SECONDS
25	MOUNTING	FIRM FIT WITH THERMAL BREAK
26	INPUT VOLTAGE	24V AC/DC, 50Hz
27	POWER CONSUMPTION	25 WATTS MAX

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28	WIRING	SCREW TERMINALS
29	STROKE	42mm or less
30	CLOSING FORCE	780 Nm
31	BREAK AWAY FORCE	780 Nm
32	CONTROL SIGNAL (not selectable type, conform at the time of order)	MODULATING 0-10V DC INPUT ANALOG SIGNAL MODULATING 4-20mA INPUT ANALOG SIGNAL ON/OFF TYPE, (COM,NO,NC/2 Position floating) 4-20mA analog control signal (Optional) Note:- work with 4-20mA input signal
33	FEEDBACK	STAY PUT
34	FAIL SAFE	NO
35	MANUAL OVERRIDE	FIELD CONFIGURABLES JUMPERS FOR FORWARD REVERSE/REVERSE ACTION.
36	CONFIGURABLE JUMPERS	IP 64
37	DEGREE OF PROTECTION	5.7 Kg
38	ACTUATOR WEIGHT	

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3 WAY MOTORIZED GLOBE VALVE-MIXING TYPE

RAPID CONTROLS

APPLICATION - Used for 2 position, or floating control of liquids for mixing service or in systems requiring that the flow be directed from either of two inlets to a common outlet.

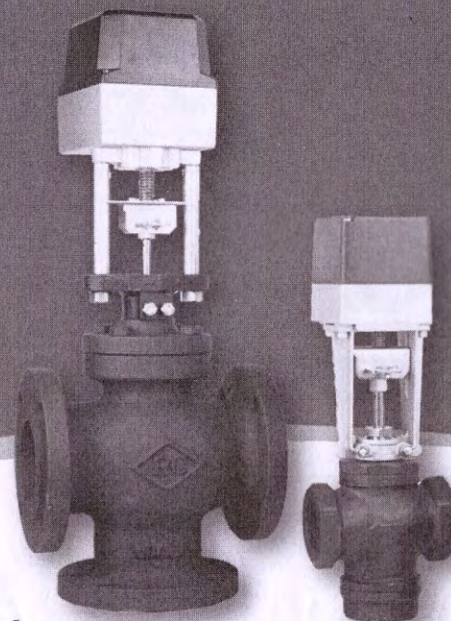
CONSTRUCTION - 3 way motorized globe valve mixing type with Metal to metal seating/soft seating and spring loaded packing. Constant total flow throughout full plug travel. Linkage provides with strain relief mechanism assuring tightest possible close-off without putting excessive strain on the motor. Linkage has easy to read valve position indicator. Actuator positions valve stem.

SPECIFICATION

BODY & BONNET	: Cast iron
SEAT & PLUG	: Brass
SPINDLE	: S.S.304
GLAND PACKAGING	: Spring loaded PTFE rings with rubber seals
BODY TEST PRESSURE	: 21 Kg/cm ²
WORKING PRESSURE	: 7 Kg/cm ²
WORKING TYPE	: Mixing (2 inlet & 1 outlet)
VOLTAGE	: 24V AC/DC
CONTROL SIGNAL	: Modulating 0-10V DC
	: Modulating 4-20 mA
	: ON/OFF Type (NO, NC)
FEEDBACK	: 4-20mA feedback (O)
(Works with 4-20mA control signal)	

VALVE RATING

VALVE SIZE MM	CV	RECOMMENDED MAXIMUM PRESSURE DIFFERENTIAL	MAXIMUM TEMPERATURE OF FLUID	MAXIMUM PRESSURE OF FLUID	NORML LIMITING FACTOR
15	4.0	20 P.S.I.G.	115 °C	150 P.S.I.G SCREWED	MAXIMUM PRESSURE DIFFERENTIAL
20	6.3				
25	10.0				
32	16.0				
40	25.0				
50	40.0			125 P.S.I.G FLANGED	
65	63.0				
80	100.0				
100	160.0				
125	250.0				
150	360.0				
200	600.0				



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06-07-2025



ELECTRIC ACTUATOR **MODEL:-RC981S2 / RC981S2A / RC981S2NF**

RAPID CONTROLS

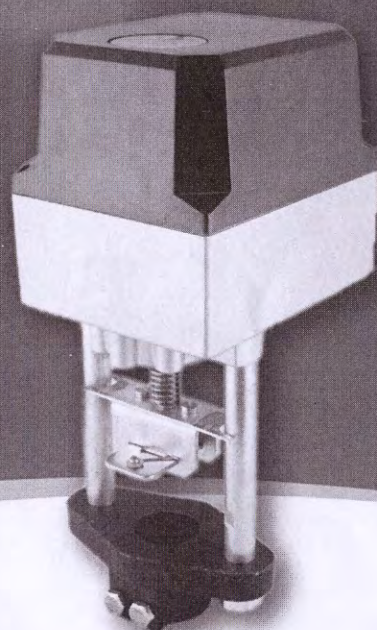
"RC" make electric actuator RC981-S2 series is a linear movement equal percentage, direct mounting electric actuator. The electric actuator model:-RC981-S2 series is ideally used for control valves with linear movement or any other application, which requires a linear movement. The actuator comes with a range of inputs. Its basic features cover include a very intelligent circuit, which can sense any hindrance in the movement of the valve and stop till the hindrance is removed. It also have field replaceable jumpers for forward/reverse motion.

Basic Features

- Intelligent circuit that senses any hindrance in movement of the valve.
- Electronic current sensing provides internal protection and positive full closing force.
- Low noise level.
- Field configurable jumpers for forward/reverse action.
- screw terminals connections.
- Self contained valve linkage.

Specifications

Power supply	- 24V AC/DC
Model Wise Control Signal Type	-
	- Modulating 0-10 V DC
	- Modulating 4-20 MA
	- ON/OFF Type (COM/NO/NC)
Mounting	- Firm fit with thermal break
Wiring	- Screw terminals
Operation time	- 120 Seconds
Power consumption	- 25 Watts (Max)
Stroke	- 35mm or less
Closing force	- 750 Nm
Break away force	- 750 Nm
Degree of protection	- I.P.-64



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Roshan Patel
06-09-2025



ELECTRIC ACTUATOR

MODEL:-RC981S / RC981SA / RC981SNF

RAPID CONTROLS

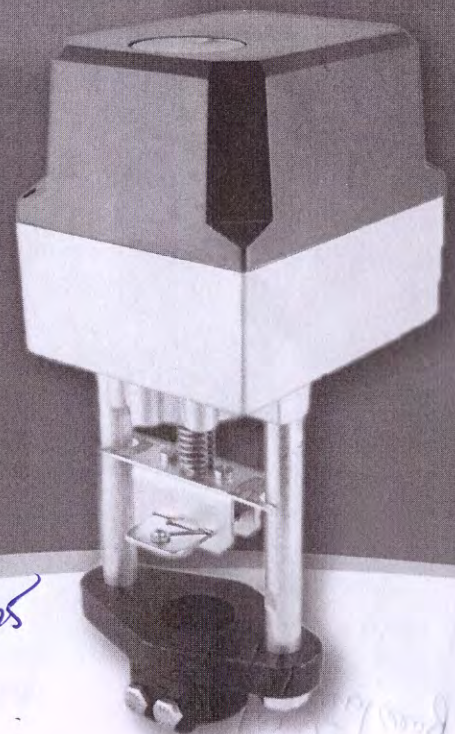
"RC" make electric actuator RC981-S series is a linear movement equal percentage, direct mounting electric actuator. The electric actuator model:-RC981-S series is ideally used for control valves with linear movement or any other application, which requires a linear movement. The actuator comes with a range of inputs. Its basic features cover include a very intelligent circuit, which can sense any hindrance in the movement of the valve and stop till the hindrance is removed. It also have field replaceable jumpers for forward/reverse motion.

Basic Features

- Intelligent circuit that senses any hindrance in movement of the valve.
- Electronic current sensing provides internal protection and positive full closing force.
- Low noise level.
- Field configurable jumpers for forward/reverse action.
- screw terminals connections.
- Self contained valve linkage.

Specifications

Power supply	- 24V AC/DC
Model Wise Control Signal Type	-
	- Modulating 0-10 V DC
	- Modulating 4-20 MA
	- ON/OFF Type (COM/NO/NC)
Mounting	- Firm fit with thermal break
Wiring	- Screw terminals
Operation time	- 60 Seconds
Power consumption	- 25 Watts max
Stroke	- 210mm or less
Closing force	- 690 Nm
Break away force	- 690 Nm
Degree of protection	- I.P.-64



Ranjana Patel
06-09-2025



ELECTRIC ACTUATOR

MODEL:-RC981J / RC981JA / RC981JNF

RAPID CONTROLS

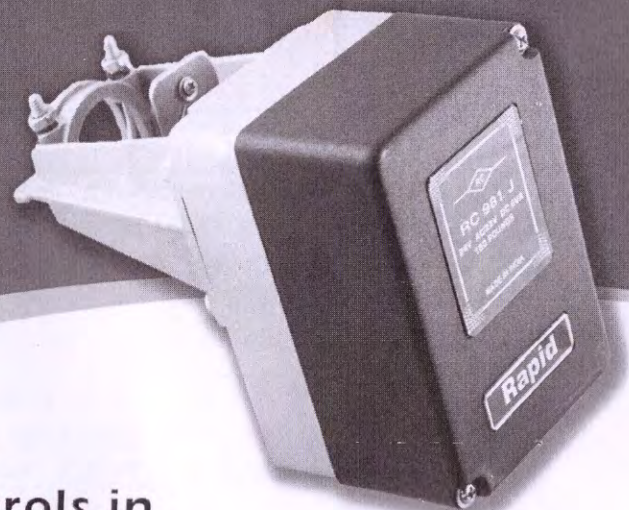
"RC" make electric actuator RC981-J series is a linear movement equal percentage, direct mounting electric actuator. The electric actuator model:-RC981-J series is ideally used for control valves with linear movement or any other application, which requires a linear movement. The actuator comes with a range of inputs. Its basic features cover include a very intelligent circuit, which can sense any hindrance in the movement of the valve and stop till the hindrance is removed. It also have field replaceable jumpers for forward/reverse motion.

Basic Features

- Intelligent circuit that senses any hindrance in movement of the valve.
- Electronic current sensing provides internal protection and positive full closing force.
- Low noise level.
- Field configurable jumpers for forward/reverse action.
- Wide input signal selection
- screw terminals connections.
- Compact size for easy installation in confined areas.
- B.M.S. compatible
- Self contained valve linkage.

Specifications

Power supply	- 24V AC/DC
Model wise control	
Signal Type	- Modulating 0-10 V DC - Modulating 4-20 MA - ON/OFF TYPE (COM/NO/NC)
Wiring	- Screw terminals
Operation time	- 45 Seconds
Power consumption	- 18 watts max
Stroke	- 19mm or less
Closing force	- 510 Nm
Break away force	- 510 Nm
Degree of protection	- I.P.-64



Benjamin Pd
06-09-2025