 434-003	<h1>ENQUIRY</h1>	<b>Bharat Heavy Electricals Limited</b> (A Government of India undertaking) HIGH PRESSURE BOILER PLANT PURCHASE DEPARTMENT/VALVES TIRUCHIRAPPALLI-620 014.		Phone: 0431-2577746 FAX : 0431-2520383 Email: vramki@bheltry.co.in nagarajank@bheltry.co.in	
		<b>ENQUIRY NO.</b>	<b>DATE</b>	<b>DUE DATE FOR QUOTATION</b>	
		EN:SQN-1359	14.11.2011	30.12.2011	
		Please quote Enquiry No., and due date in correspondences This is only a request for quotation and not an order.			
<b>SL.NO.</b>	<b>MATERAIAL CODE DESCRIPTION</b> <b>DRAWING NO</b> <b>TDC NO.</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>DELIVERY SCHEDULE</b> <b>QUANTITY</b> <b>DATE</b>	
Supply of LIMIT SWITCHES ,PROXIMITY SENSORS & POSITION TRANSMITTER As per the purchase specification enclosed.  <u>Date , Time &amp; Venue of tender</u> A) Technical Bid opening : 30.12.2011 at 14.30 IST at Valves Purchase Conference Hall , Building No 24,BHEL Tiruchirappalli-620 014,Tamil Nadu State,India. B) Price Bid will be opened for vendors those who's offers are technically suitable alone. The intimation regarding price bid opening will be informed later.		<b>AS PER ENCLOSED ANNEXURE-1</b>  <u>Annexure:</u> 1. General terms & Conditions of Enquiry. 2. Special Conditions of contract. 3. Copy of Technical Delivery Condition. 4. Terms & Conditions for Indigenous/Import 5. Required Delivery: As mentioned in our annexure-1			
The rate of Excise Duty and Sales Tax, Prevalent on the date of quotation, should be clearly indicated in the quotation itself. If these particulars are not provided, the quotation is liable for rejection. Please, submit your lowest quotation in duplicate subject to our terms and conditions overleaf, for the above materials, so as to reach us on or before the due date by 2 P.M. Quotation will be opened at 2.30 p.m. on the due date in the presence of tenderers who may like to present . Last tenders are liable to be rejected.				Yours faithfully,  For Bharat Heavy Electricals Ltd Manager (Valves Purchase)	



365 - 148

**PRODUCT ENGINEERING / V&SB  
TECHNICAL SPECIFICATION FOR  
PROXIMITY LIMIT SWITCHES  
(SOOT BLOWER APPLICATION)**

**SPEC:SB:0015  
PAGE 01 OF 01**

**REV:01  
Dt. 15.06.04**

PART NUMBER: 96 465 169 0000 – PROXIMITY SENSOR NJ6-F-N  
96 353 562 0000 – PROXIMITY SENSOR NJ20+U1+N

Sensing type	:	Inductive
Sensing distance	:	20mm for LR, 6mm for RB.
Degree of protection	:	IP 67/ 68
Operating temperature	:	Up to 100°C
Embedded / Non-embedded	:	Embedded / Non embedded
Cylindrical / rectangular type	:	Rectangular type
Cable entry size	:	M20 x 1.5
Input voltage	:	230 VAC $\pm$ 6% For Soot Blowers and 12 to 24V DC for valves for suitable selection of amplifier.
Output	:	Potential free contacts (1 NO + 1 NC) suitable for 230VAC, 1A (min)
Explosion Proof Enclosure	:	IEC Zone 2 Gr IIA, IIB & IIC or Div II as per NEC.

DESIGN STANDARDS: As per Namur DIN 1934.

RESPONSE TIME: High.

1. Distance from proximity switch and Isolation amplifier / load located inside panel will be minimum one kilometre using 1.5 sq.mm screened cable. Proximity switch output shall be suitable to be taken to 1000m distance to panel.
2. Certificate for degree of protection to be provided by the vendor.
3. Proximity Switch consists of three functional groups : (i) Oscillator (ii) Trigger circuit (iii) Output switching device. (Scope is limited to sensor only)
4. Target is made up of any metal is positioned near active face with a minimum of 20mm for LR blower and 6mm for Rotary blower. Output shall be changed over ie. NO $\nrightarrow$ NC & NC $\nrightarrow$ NO whenever the metal surface is brought within the sensing distance specified.
5. In case of usage of isolator, the same shall accommodate dual input and dual output.
6. Experience certificate (where it is installed and successfully working for min. of two years in power plants)
7. Type of mounting – Bolting type on mounting plate.
8. Environment – Polluted, dusty. Offered equipment shall work satisfactorily in such an environment.
9. Pepperl&Fuchs make model number NJ20+U1+N or equivalent for LR blowers and model number NJ6-F-N or equivalent for Rotary blowers to be used.
10. NJ6 sensor with 2m cable and with ½” BSPT cable glands 2 Nos. per sensor.

REV 01. REVISED FOR INCLUSION OF PART NUMBER 15/06/2004.

PREPARED:  
DATE:

CKD & APPD :  
DATE:



**PRODUCT ENGINEERING / V & SB  
TECHNICAL DELIVERY CONDITIONS FOR  
SUBDELIVERY COMPONENTS OF SOOT BLOWERS**

TSB : 018

Rev. 05

SHEET No. 01 of 02

**LIMITS SWITCHES (MICRO)**

- 1.0 Component : Limit Switches (Micro)
- 1.1. Material Code :
- 1.1.1. 963720640000 – Limit Switch (1NO+1NC): OTHER APPROVED MAKE  
963720640001 – Limit Switch (1NO+1NC): B.C.H.
- 1.1.2. 963720630000 – Limit Switch (2NO+2NC): OTHER APPROVED MAKE  
963720630001 – Limit Switch (2NO+2NC): B.C.H.
- 1.1.3. 973536800000 – Limit Switch (1NO+1NC):SQ-D Make, AB 23
- 1.1.4. 973530390000 – Limit Switch (2NO+2NC): SQ-D Make, CB 33
- 1.2. Application
- 1.2.1 Item 1.1.1 OR 1.1.3 is used for the control of wall deslagers and rotary blowers.
- 1.2.2 Item 1.1.2 OR 1.1.4 is used for the control of wall deslagers.
- 2.0 Specification
- 2.0.1. For item 1.1.1-Precision Switch with roller lever 600V, 15A, 1NO + 1NC Contacts, Break 5A, Make 8A PSRL of Cutler Hammer with improved features. (PSRL-R)
- 2.0.2. For item 1.1.2 Precision Switch roller lever 600V, 15A, 2NO+2NC Contacts, Break 0.8A, Make 6A PSRL-2 of Cutler Hammer with improved features. (PSRL-R2)
- 2.0.3. For item 1.1.4 Precision Snap Switch with rigid roller lever 600V, 10A, 2NO+2NC Contacts, Break 345VA, Make 3450VA. Type CB-33 of SQ-‘D’
- 2.0.4 For item 1.1.3 Precision Snap Switch with rigid roller lever 600V, 15A, 1NO+1NC Contacts, Break 5A, Make 8A. Type AB-23 OF SQ-‘D’
- 2.1 General specification
- 2.1.1. Operation : Roller lever (With 10mm Roller Width)
- 2.1.2. Operating force : Max. 0.595 Kg. Min. 0.387 Kg.
- 2.1.3 Terminal Capacity ( Solid or stranded conductor ) : 2.5 mm<sup>2</sup>
- 2.1.4 Action : Quick make and break.
- 2.1.5 Limit Switch dimensional detail for mounting, roller dimensions and operating data should accompany the offer.
- 2.1.6 LIMIT SWITCH Mounting Dimensions shall be as per Drg.No.4-20-201-01344
- 2.1.7 Frequency of operation : Should be suitable for 2500 operation/hr.

Rev:05 Dt.27/08/2004.

CONVERTED AS SOFT COPY.

Prepared (K.SRIDHARAN)

Date:  
27/08/2004.

Approved (S.NATARAJAN)



**PRODUCT ENGINEERING / V & SB  
TECHNICAL DELIVERY CONDITIONS FOR  
SUBDELIVERY COMPONENTS OF SOOT BLOWERS**

TSB : 018

Rev. 05

SHEET No. 02 of 02

3.0 Inspection and Certificate

3.1 Inspection will be conducted by BHEL Inspector at supplier's work or at BHEL on receipt of the material (A)

3.2 Supplier to give guarantee certificate for 12/18 months trouble free operation.

4.0 Packaging : To be packed in weather proof card board boxes and dispatched.

5.0 Quantity : Item 1.1.1 or 1.1.3 – 1 No. / Wall deslagger and 1 No. / Rotary blower  
Item 1.1.2 or 1.1.4 – 1 No. / Wall blower.

6.0 Approximate weight : 0.2 kg/ piece

7.0 Spares requirement : Spares vary respect to No of blowers.

8.0 Storage : To be protected from sun & rain. Exposing to atmosphere damage the material.

For internal use only (A)

- i. The type numbers are to be checked as specified.
- ii. Visual inspection to check for damages, operation and also to ensure whether the switches are supplied in accordance with the specification shown in the purchase order like dimensional details and number of contacts.

Rev:05 Dt.27/08/2004.

CONVERTED AS SOFT COPY.

Prepared (K.SRIDHARAN)

Date:  
27/08/2004.

Approved (S.NATARAJAN)

**TECHNICAL DELIVERY CONDITION FOR  
LIMIT SWITCH FOR QCNRV (HARDWAR TYPE)  
(HARDWAR TYPE)**

**VL/STDC/QN/024/Rev.01  
PAGE 01 OF 02**

**TECHNICAL REQUIREMENTS:-**

1. SEALING RINGS FOR PREVENTING THE FOREIGN MATTER FROM ENTERING
2. THE CASING SHALL BE OF VITON.
3. CONTACT TYPE : SNAP ACTION
4. CONTACTS : GOLD
5. NUMBER OF CONTACTS : 2NO + 2NC CONNECTED AND TERMINATED AS SHOWN IN THE CONTACT ARRANGEMENT DIAGRAM – REFER ANNEXURE .
6. CONTACT TERMINALS SHALL BE SUITABLY NUMBERED AND SHALL BE SUITABLE FOR 0.5 mm<sup>2</sup> CABLE CROSS SECTION.
7. THE TERMINAL OF LIMIT SWITCH WILL BE CONNECTED TO A PLUG/SOCKET CONNECTOR MOUNTED ON THE LIMIT SWITCH. THE PLUG SOCKET CONNETOR WILL CONSIST OF COMPONENTS OF FIRM M/s WELHELM HARTING POST BOX 104,4992 ESPEIKAMF, WEST GERMANY. (REFER ANNEXURE-SHALL BE SUITABLE FOR 2NO+2NC)
8. INTERNAL WIRING SHALL BE DONE WITH TEFLON INSULATED WIRES. / THE WIRES WILL BE SCREWED WITH CABLE LUGS AT SWITCH TERMINAL AND AVOID LOOSENING DUE TO VIBRATION.
9. LIFE OF SWITCH AND CONTACT : ≥ 5000000 switching cycles.
10. CONTACT RATING : a. 5 AMPs AT 240 V AC  
b. 0.25 AMP AT 220 V DC
11. TYPE OF PROTECTION : IP 55
12. OPERATING TEMPERATURE : MAX 120 °C
13. THE RESISTOR R (REFER CONTACT ARRANGEMENT DIAGRAM) SHALL BE AS UNDER  
RESISTANCE AT 20 °C : 47 K OHMS ± 2%  
TEMPERATURE COEFFICIENT : 250 X 10<sup>-6</sup>/M  
MAXIMUM VOLTAGE : 50 VOLTS  
PEAK TO PEAK VOLTAGE DURING 10µs : 200 volts  
AMBIENT TEMPERATURE / RELATIVE HUMIDITY : UPTO 125 °C / 95%  
CONNECTION TO THE LIMIT SWITCH TERMINALS – - COPPER CONDUCTOR CABLE  
PREFERRABLY THROUGH CABLE LUG.
14. OPERATING FORCE : MAX 13.3 NEWTONS (1.30 kg)
15. PRE TRAVEL : MAX. 20 DEGREES
16. OVER TRAVEL : MIN. 30 DEGREES.
17. DIFFERENTIAL TRAVEL : MAX 12 DEGREES.
18. ROLLER CAN BE FITTED ON EITHER SIDE AS SHOWN IN THE ANNEXURE.
19. OPERATION SHALL BE POSSIBLE ON BOTH SIDES OF NEUTRAL POSITION.
20. LIVER POSITION SHALL BE POSSIBLE /ADJUSTABLE THROUGH 360 DEGREES IN STEPS OF 90 DEGREES.
21. THE ROLLER LEVER SHALL BE SUITABLE FOR STEPLESS ADJUSTMENT ON THE ACTUATING AXIS.

**TEST CERTIFICATES FOR THE FOLLOWING SHALL BE ATTACHED:**

1. OPERATION CHECK
2. HV AND IR MEASUREMENT
3. TYPE TEST CERTIFICATE FOR LIFE CYCLE TEST

**For reference purpose only:**

22. **TYPE** : HONEY WELL TYPE OR EQUIVALANT WITH ROLLER LEVER
23. **CONNECTOR** : HARTING CONNECTOR HAN 7D

**RECOMMENDED SUPPLIERS:** YAMATAKE HONEYWELL, JAPAN.; HONEY WELL, U.K.  
HONEY WELL, U.S.A.; WELHILM HARTING, WEST GERMANY.

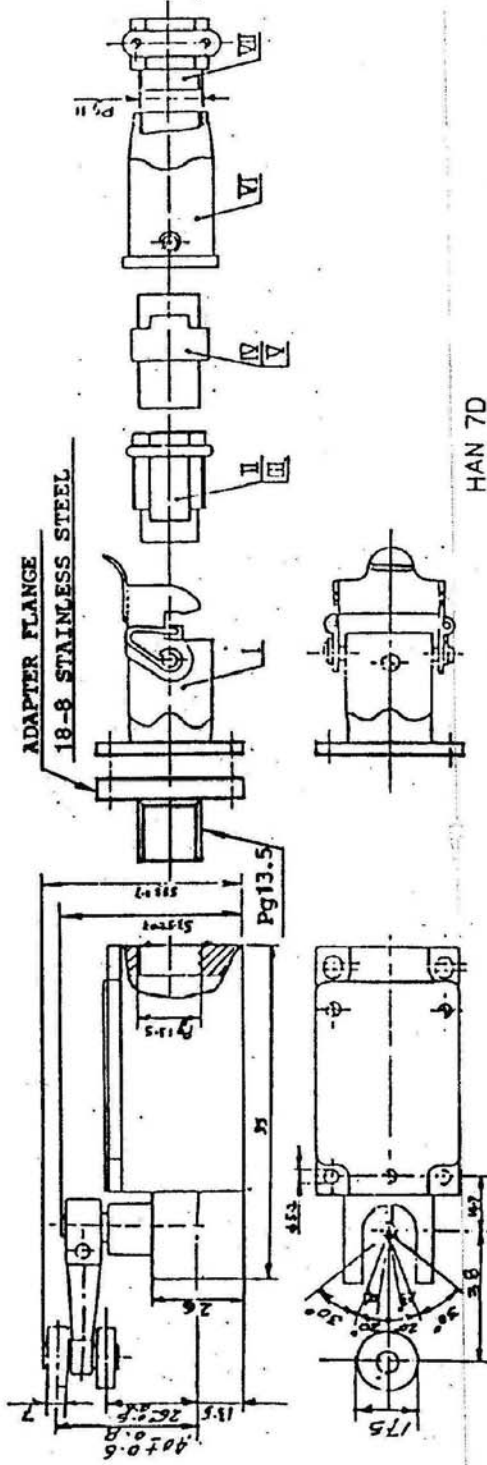
PREPARED BY:  
V.ARUMUGAM

CHECKED BY:  
P.RAMANIKARAN.

APPROVED BY:  
S.N.NATARAJAN.

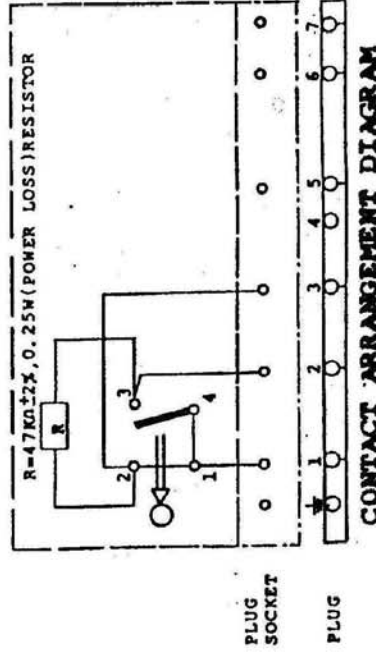
DATE:  
10-04-09

LIMIT SWITCH MOUNTING DIMENSIONS



HAN 7D

No.	Q'TY	COMPONENTS
I	1	HOUSING
II	1	CRIMP TERMINAL FEMALE INSERT
III	8	CRIMP TYPE SOCKET CONTACT GOLD PLATED
IV	1	CRIMP TERMINAL MALE INSERT
V	8	CRIMP TYPE PIN CONTACT GOLD PLATED
VI	1	HOOD
VII	1	CABLE CLAMP (METALLIC)



CONTACT ARRANGEMENT DIAGRAM

**BHARAT HEAVY ELECTRICALS LIMITED**  
TIRUCHIRAPALLI - 620 014. INDIA

TECHNICAL DELIVERY TRANSMITTER VL/STDC/QN/004 REV 03  
CONDITION FOR FOR QCNRV PAGE 01 OF 02

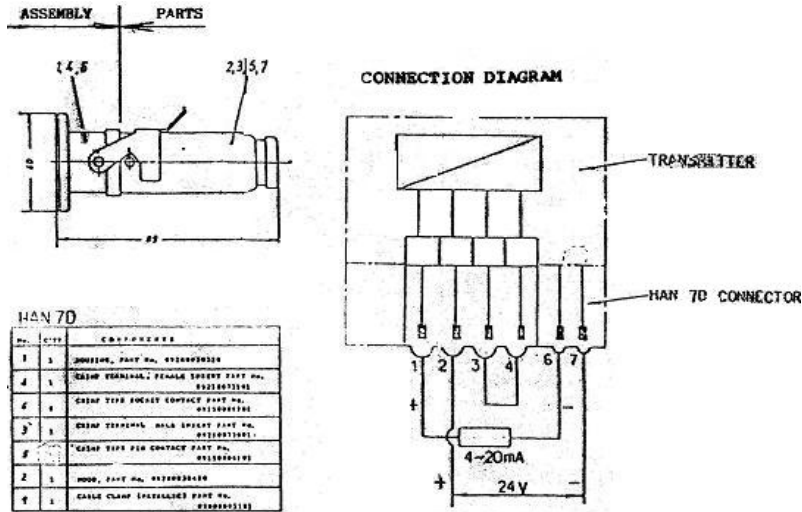
**Scope** Position transmitter is used to measure the angle of opening of the flap, in a Non Return Valve  
Angle of rotation required : 0° to 40° ( corresponding to 4 to 20 mA)

**Input** Supply voltage : 24 V DC (20V to 24V including residual ripple)

**Output** Output current = 4 to 20 mA DC  
Permissible burden = 500 ohms  
Ripple content in output with 13% ripple content in input voltage ≤ 1%  
Adjustment : Separate & independent adjustment 4 mA and 20mA  
Max. Linearity error ± 0.5%  
Accuracy (reproducibility) = 0.2% or better  
Effect of input supply Voltage ≤ 0.1% / 10 volts  
Temperature effect ≤ 0.5% / 10K  
Burden effect ≤ 0.1% / 500 ohms

**Connection:** Input & output connection will be provided through a HAN 7D in STAFF -6 HARTING connector with 8 pins. If necessary a 90 degree bent connector shall be used to provide easy access to the connection.

**CONNECTION DIAGRAM**



- Protection Class : IP 55
- Test Voltage to earth : 500 V rms, 50 Hz
- Permissible ambient temp. : Up to 80°C
- Permissible relative humidity : Up to 90 %
- Life expectancy of the Position transmitter shall be at least 5000 operating hours.
- Type test report for guaranteed cyclic operation.
- Time constant of the transmitter along with mechanical linkages shall be so small that even a force closing thrust is applied on disc, the transmitter output shall represent the disc position within the limits of error specified above.
- Factory setting : Position transmitter has to be supplied with 0° to 35° corresponding 4 to 20mA. Further adjustment will be done by the purchaser

BHARAT HEAVY ELECTRICALS LIMITED  
TIRUCHIRAPALLI - 620 014. INDIA

---

TECHNICAL DELIVERY CONDITION FOR	TRANSMITTER FOR QCNRV	VL/STDC/QN/004 REV 03 PAGE 01 OF 02
-------------------------------------	--------------------------	--

---

**Test Certificates required :**

**Routine test:**

- I. Check on linearity accuracy on minimum 5 points.
- II. Voltage withstand test (high voltage test)
- III. Insulation resistance measurement
- IV. Dimensional report.
- V. Functional test for 4 to 20 mA output corresponding to 0° to 35° rotation.

**Type Test:**

1. Life expectancy of the Position transmitter for at least 5000 operating hours.
2. Certificate on Effect of input supply Voltage
3. Certificate on Temperature effect
4. Certificate on Burden effect

The above requirement is for replacement to the Transmitter from Hartmann & Braun/ABB (TGM 5 with lever)

---

PREPARED BY	CHECKED BY	APPROVED BY	Date:
(P.Ramanikaran.)	(P.Ramanikaran.)	(D.Dinakaran)	28.08.2009

---

**BHARAT HEAVY ELECTRICAL LIMITED**

**TIRUCHIRAPALLI – 620014 – INDIA**

---

**TECHNICAL DELIVERY**

**LIMITE SWITCH**

**VL/STDC/QN/001/REV03**

**CONDITION FOR**

**FOR QCNRV**

**PAGE 01 OF 03**

**(HYDRABAD TYPE)**

---

**TECHNICAL REQUIREMENT:-**

**A) WETHER PROOF ENCLOSURE :**

IP 65 inclosure, snap action type. The contacts shall be made of silver alloy. The breaking capacity of the contact shall be 30 amps at 500 volts, 50 Hz AC supply, 0.62 amps (non inductive load) at 220 volts DC supply and 0.28 amps (inductive load ) at 220 volts DC supply.

**B) TEST CERTIFICATES FOR THE FOLLOWING SHALL BE ATTACHED:**

- i) Operating check
- ii) HV & IR Measurement
- iii) Type test certificate for the life cycle test.

**C) Component code details**

Comonant Code	Contacts Details
974600710000	1 NO+ 1 NC
964608690000	1 NO+ 1 NC
974604510000	2 NO+ 2 NC
964608670000	2 NO+ 2 NC

**Reference purpose only. :** Micro switch Type BZ-2R244-A2 with roller lever  
YAMATAKE HONEYWELL TYPE AD 5721R-J

**RECOMMEDED SUPPLIER:** Yamatake Honeywel. Japan.

Honeywell, UK.

Honeywell, USA

---

PREPARED BY

CHECKED BY

APPROVED BY

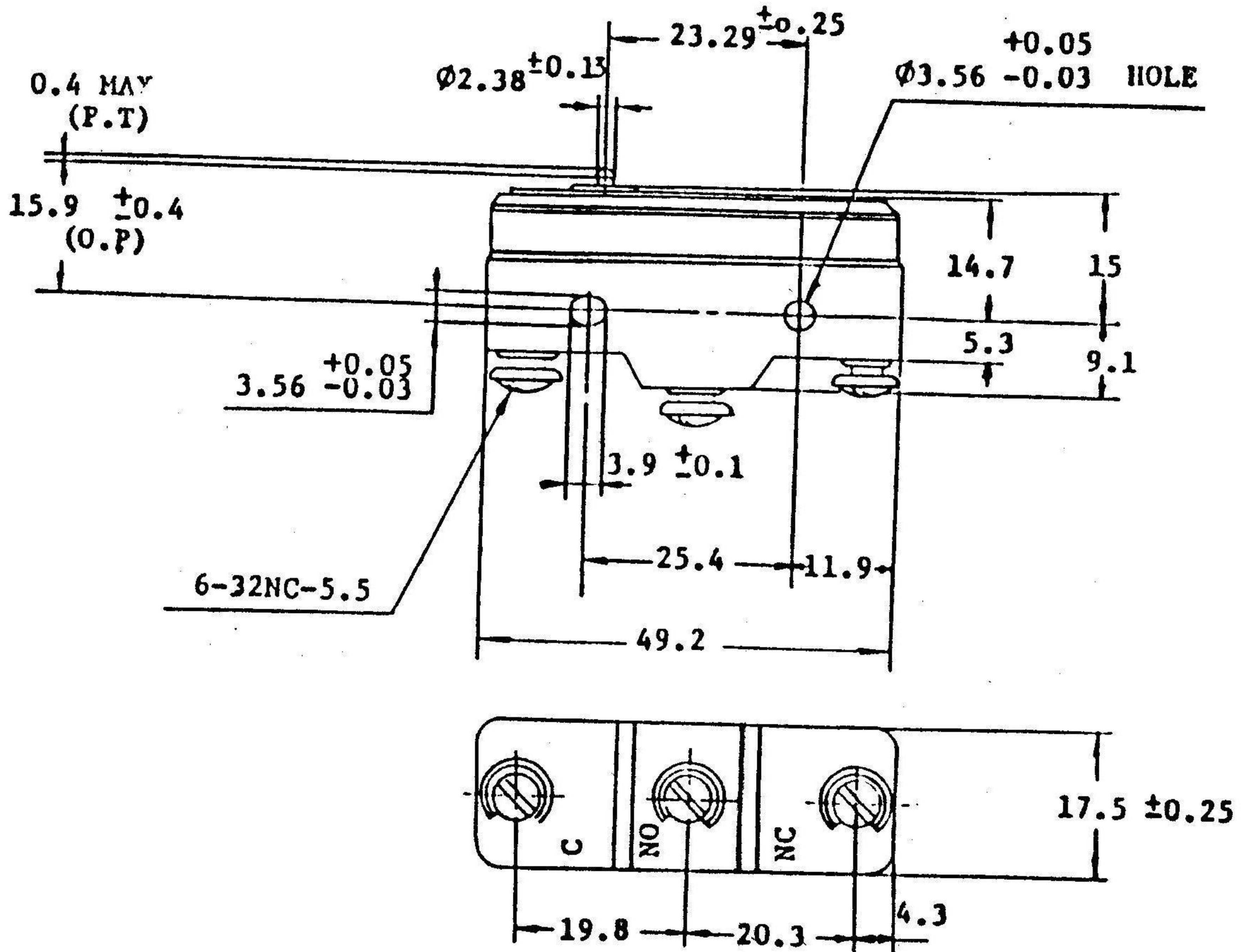
V.ARUMUGAM

PRAMANIKARAN

S.NATARAJAN

Date:02.04.2009

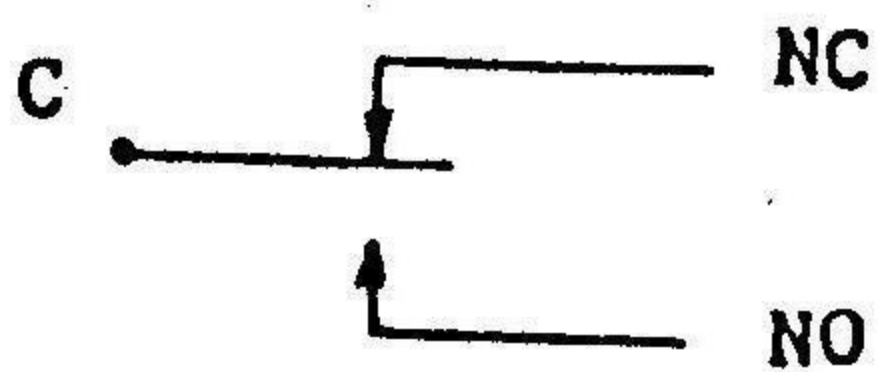
---

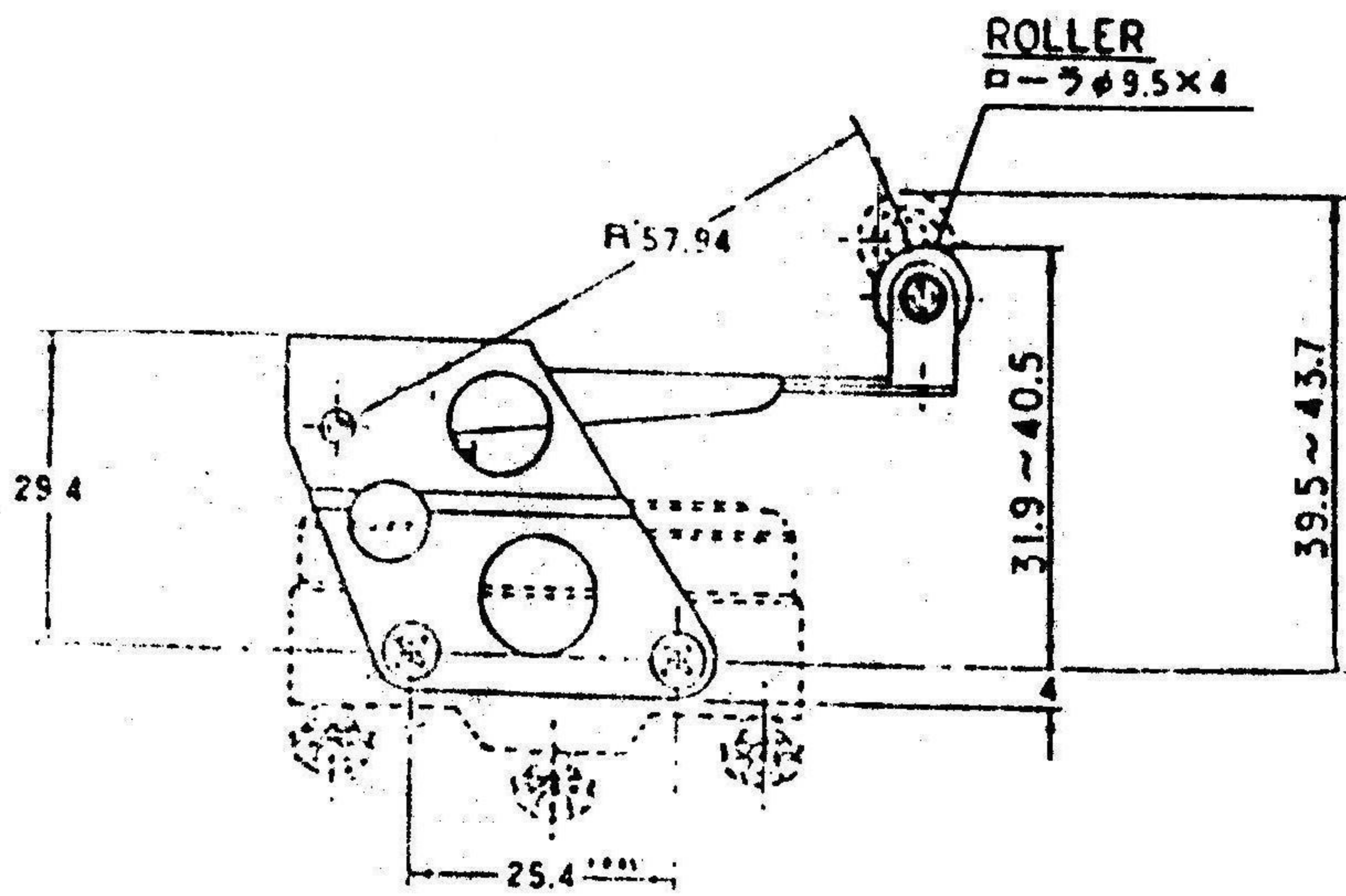
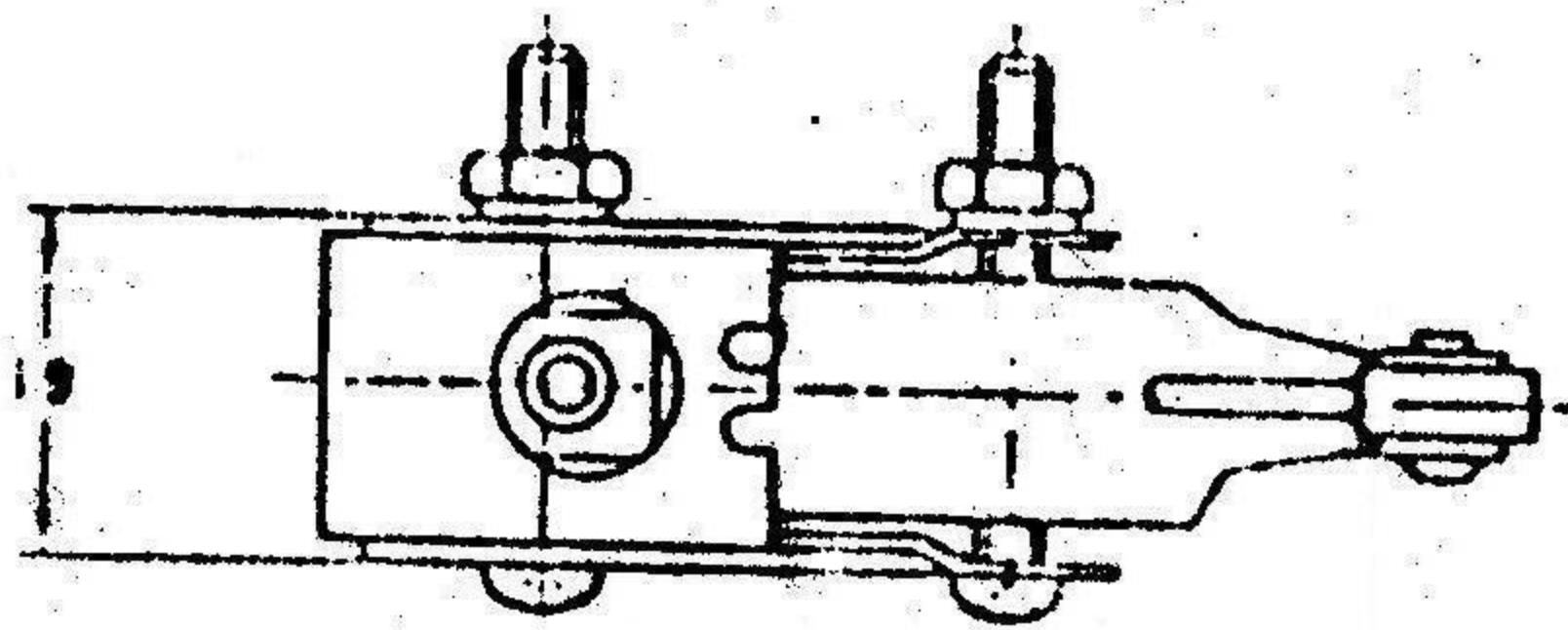
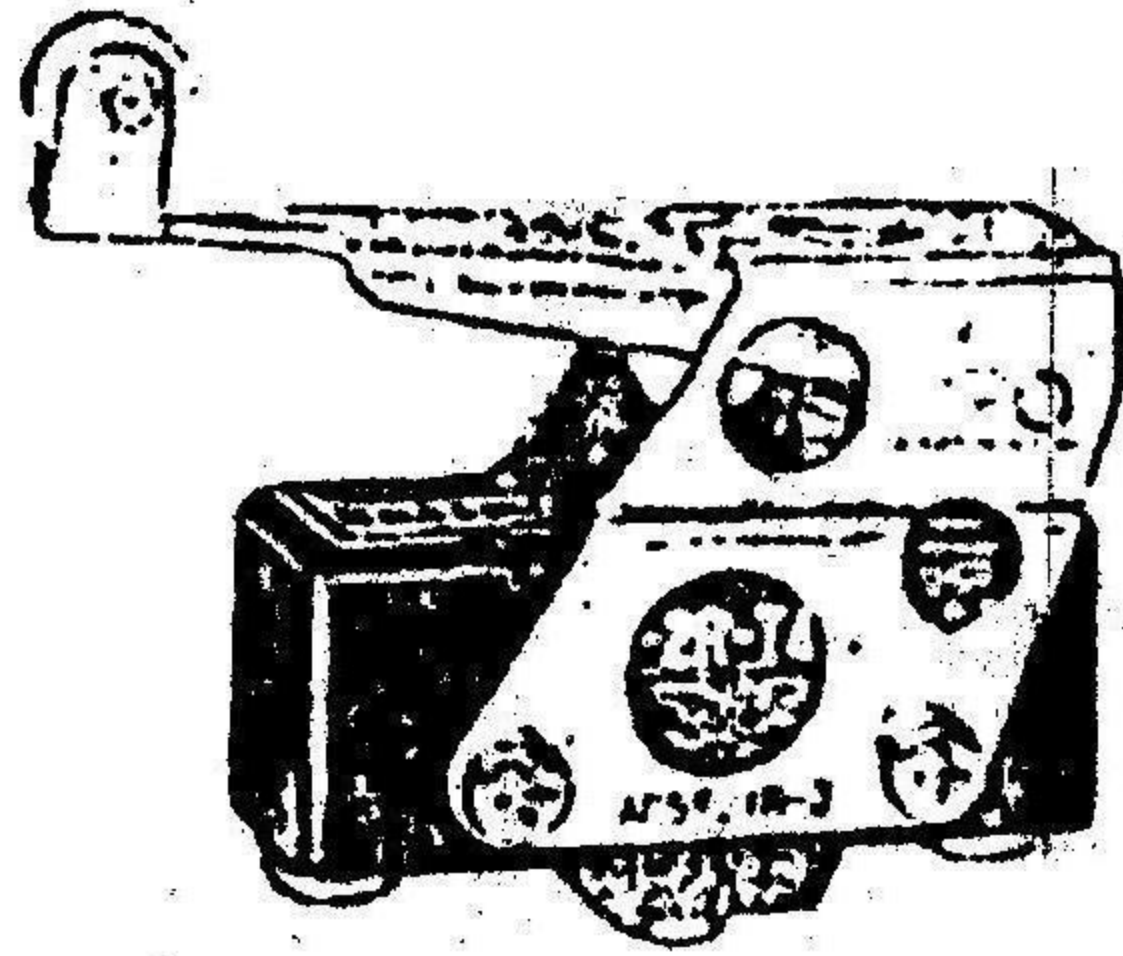


- (2) CHARACTERISTICS
- |                     |                          |
|---------------------|--------------------------|
| OPERATING FORCE     | (O.F.) = 255 ~ 369 g     |
| RELEASE FORCE       | (R.F.) = 113 g approx.   |
| DIFFERENTIAL TRAVEL | (D.T.) = 0.01 ~ 0.051 mm |
| OVER TRAVEL         | (O.T.) = 0.12 mm MIN.    |

- (3) ELECTRICAL RATING AND CIRCUITRY  
5A-125, 250 and 480V AC

SINGLE POLE DOUBLE THROW (S.P.D.T)







# ***Bharat Heavy Electricals Ltd***

**(A.Govt.of India Undertaking)**

**Valves Purchase,Tiruchirappalli- 620 014. INDIA**

Phone : 91- 0431-2577746

e-mail : nagarajank@bheltry.co.in

: 91- 0431-2577025/2577715

vramki@bheltry.co.in

Fax No: 91-0431-2520383

## **Scope of supply & SPECIAL CONDITIONS OF ENQUIRY**

**EN: SQN-1359**

**Date:14.11.2011**

We require the Limit switches. Proximity sensors & Position transmitter as per the technical delivery conditions indicated against annexure I for our production. Kindly send your competitive offer immediately for our consideration. The tender will be opened positively **on 30.12.2011 at 14.30 IST.**

1. Kindly quote your rates on firm price basis with the offer validity of minimum 120 days from the date of tender opening. The same shall be per unit basis for each item and on FOR, BHEL, Trichy. In case of foreign vendors, the offer shall be on FOB basis only.
2. Kindly quote for enclosed specification or equivalent that meets Technical Delivery Conditions (copy attached).
3. The quantity indicated are approximate only for our annual requirement.
4. Our delivery requirement is indicated in the annexure for each item. Offers not meeting this delivery will not be considered.
5. Prices shall be firm till entire execution of the Purchase Order. Price variation clause is not acceptable.
6. Lowest prices received against BHEL enquiries need not be the technically acceptable one and in that case, BHEL reserves the right not to consider the same.
7. Supplier's has to submit test reports for each sl nos as per our TDC conditions and packing also to be done for each item separately
8. **For indigenous vendors:-**  
100% payment will be made after 45 days on acceptance of material at BHEL Stores. No other Payment term is acceptable to BHEL.  
**For Foreign vendors:-**  
100% Payment against this contract will be made to the seller on collection basis. You have to send the documents to our banker M/S. State Bank of India, Kailasapuram, Tiruchirappalli-620014.  
The original clean HAWB( in case of Air)/Original Bill of Lading( In case of Ship) issued by our forwarding agency ,original invoice, Packing list with your signature, Certificate of origin, Test certificates as per respective TDC Etc are to be sent in triplicate to our bankers.
9. One copy of Test certificates/non negotiable documents shall accompany the dispatches.

Contd...2...

10. Delivery schedule shall be strictly as per BHEL requirements only which is indicated in the Enquiry / Purchase Order sheet that will be issued. In case of delay in delivery, beyond the end delivery dates given in the Purchase Order sheet, Liquidated Damage clause will be applicable at the rate of 0.5 % per week and subject to a maximum of 15% of undelivered portion of the item value.
11. The delivery of the item shall be strictly as per BHEL's enquiry/ Purchase orders. In case of urgency, the delivery period have to be altered to meet BHEL's production plan.
12. Confirmation for compliance is to be given in the offer for all the conditions specified in the respective Technical Delivery Conditions.
13. BHEL reserves the right to increase / decrease the enquired quantities or to delete the enquired quantities for any of the items. Also BHEL reserves the right to split the enquired quantity among more than one tenderer and place orders accordingly in any proportion, based on BHEL's requirements and supplier's Capability in terms of delivery and quality.
14. Every dispatch of material shall accompany the packing list, detailing the Numbers of items. An advance Copy of dispatch details shall be furnished to purchase/Valves/BHEL/Tiruchy-14.
15. The materials are to be dispatched with proper packing and binding.
16. BHEL reserves the right to finalize the tender either through **price bid open** or **through Reverse Auction route**. A typical copy of "Business Rules and Conditions" of Reverse Auction is enclosed herewith for information and reference.
17. The offers are invited in two parts.
  - a) Techno commercial bid covering Technical Conditions, Delivery conditions, acceptance of all our commercial conditions and a copy of unpriced price bid. **(Please submit a separate envelope super scribing the enquiry no for techno commercial bid).**
  - b) Price bid covering only unit price each case. **(Please submit a separate envelope super scribing the enquiry no for price bid.)**
18. Techno Commercial bid will be opened first. Price bid of technically suitable vendors only will be opened with prior intimation.
19. If the supply is short the extra cost to BHEL in replenishing the short fall will be debited to the vendor.
20. In addition to all the above conditions, BHEL standard terms & conditions given as a separate annexure shall also be applicable to the extent they are not superseded by the above conditions.
21. **Non-adherence to these special conditions of enquiry and BHEL's standard terms and conditions will lead to disqualification of offer.**

EN: SQN-1359

Date: 14.11.2011

**GENERAL TERMS AND CONDITIONS OF Reverse Auction:-**

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING ON INTERNET.

- a. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- b. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
- c. BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.
- d. Business rules like event date, time, and Start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
- e. Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event.
- f. BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
- g. Reverse auction will be conducted on scheduled date & time.
- h. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
- i. The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
- j. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.

**Along with the offer (Technical/Commercial bid and price bid in two separate sealed covers) you are requested to indicate from whom you are going to source the components also send a typical type Test Certificate for the components from that maker. Without the type Test Certificate, your offer may not be considered for further processing's.**

**V.RAMAKRISHNAN  
Senior Manager / Purchase/Valves**

**ANNEXURE-1 TO ENQUIRY PROPOSAL EN-SQN-1359**

S.No.	Matl Group	Material	Matl. Description	Purch Specification	Qty Reqd	Unit Price	Total Value	Delv. Req.
1	42LMS	964608700000	Limit Switch LS-1LS244-4PG-F1-B1 , 2NO+2NC+con. HAN7D Connector	VL/STDC/QN/024/ Rev:01	500	17,000.00	85,00,000.00	50 Nos per month from April-2012 onwards
2	42LMS	974600710000	LIMIT SWITCH (HYD) 1NO + 1NC	VL/STDC/QN/001/ Rev:03	50	2,000.00	1,00,000.00	10 Nos per month from April-2012 onwards
3	PTQCN	974601070000	POS. TRANSMITTER	VL:STDC:QN:004/ 03	500	70,000.00	3,50,00,000.00	50 Nos per month from April-2012 onwards
4	42LMS	963535620000	PROX. SENSOR (NAMUR)- NJ20+U1+N OR EQUI.	SPEC:SB:0015/01	200	5,000.00	10,00,000.00	50 Nos per month from April-2012 onwards
5	42LMS	963720630000	LIMSWITCH2NO+2NC	TSB018/05	4500	500.00	22,50,000.00	400 Nos per month from April- 2012 onwards
6	42LMS	963720640000	LIMSWITCH1NO+1NC	TSB018/05	4500	500.00	22,50,000.00	400 Nos per month from April- 2012 onwards
7	42LMS	963720640100	LIM.SWITCH1NO+1NC	TSB018/05	50	300.00	15,000.00	10 Nos per month from April-2012 onwards
				<b>Total Value</b>			<b>4,91,15,000.00</b>	



# Bharat Heavy Electricals Ltd.

( A Govt. of India Undertaking )

Valves purchase,  
Tiruchirappalli - 620 014. India

PHONE: 91-0431-257 7746, 2520 112  
FAX: 91-0431-2520 383

EMAIL: [yramki@bheltry.co.in](mailto:yramki@bheltry.co.in)

## IMPORT ENQUIRY TERMS AND CONDITIONS

### 1 OFFER

Offer in ENGLISH LANGUAGE and in TRIPLICATE in a SEALED COVER SUPERSCRIBING the Enquiry Number and the due date shall be submitted addressed to

THE SR. MANAGER  
PURCHASE VALVES  
BHARAT HEAVY ELECTRICALS LIMITED  
HIGH PRESSURE BOILER PLANT  
TIRUCHIRAPPALLI - 620 014  
TAMIL NADU, INDIA

Offers should be firm for net FOB Nearest AIR / SEA Port price and C & F Madras Port price, indicating the shipping specifications and the earliest delivery in respect of offers from overseas suppliers. Offers from indigenous sources shall be firm for FOR / TIRUCHIRAPPALLI.

### 11: DOCUMENTS

- (i) Offers should be accompanied by detailed technical literature, Catalogue and detailed dimensional drawings in ENGLISH and in TRIPLICATE, or otherwise, the offers will not be considered.
- (ii) In case overseas suppliers route their offer through their accredited selling agents, a letter of authority should be furnished mentioning the name and address of their selling agents who are authorised to bid, negotiate and conclude a Contract on their behalf.

### III AGENCY COMMISSION:

- (i) In respect of offers from overseas suppliers, agency commission, if any, payable to their agents in India, shall invariably be shown separately in the proforma invoice and this will be paid by us in India, in Indian Rupees, on satisfactory completion of the Contract.
- (ii) If Overseas Principal has any tie up with any third party in respect of Agency Commission it should be declared while submitting the offers.
- (iii) Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished along with order, if not made available earlier.
- (iv) For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of order will be taken.

Continued... 2

IV **SPARES:**

The tenderer should quote separately for spares that are required for two years trouble free operation. The spares offer should accompany the offer of main equipment; otherwise the quotation will be overlooked.

V **VALIDITY:**

The offers for main equipment and spares shall be kept open for acceptance for 120 days (one hundred and twenty days) from the date of opening of the tender.

VI **TEST CERTIFICATES, OPERATING AND MAINTENANCE MANUALS:**

The tenderer shall clearly mention in their offer, that the Test Certificate and Operating and Maintenance Manuals, etc., as called for in the technical specification, in the required number of copies will be provided at no extra cost. If any amount is payable as extra, the same shall be indicated separately in the offer.

VII **TERMS OF PAYMENT:**

In the event of an order, the purchaser will arrange for 100% payment against presentation of documents through Bank.

VIII **GENERAL:**

- (i) Preference will be given to suitable indigenous or ex-stock imported offers failing which imported offers from incoming consignment against the indigenous supplies "Stock and sale licence" will be accepted. If "stock and sale licence" is not available with the indigenous suppliers, the same shall be indicated in their offer.
- (ii) **Bank Guarantee:** The supplier in the event of an order should furnish a Bank Guarantee from an approved Bank at no extra cost in a proforma which will be Supplied to the Supplier, along with the order, for an amount equivalent to 10% of the value of the contract. The Bank Guarantee should remain in full force and effect during the period that would be taken for successful completion of the contract and shall continue to be enforceable till 12 months from the date of receipt of consignment at purchaser's site or 18months from the date of last shipment at the Port of Delivery whichever is earlier.

IX **LD / PENALTY AND INTEREST ON ADVANCES FOR DELAY IN DELIVERY:**

"If the supplier fails to deliver the Raw Materials / equipment / components within the period specified in the contract the Purchaser shall deduct Liquidated Damages a sum equivalent to 0.5% of the price for each week of delay upto a maximum of 15% of the price of the delayed / undelivered goods, in addition to the recovery of interest at normal cash credit rate plus 2% for the unadjusted portion of the advances. If the delay in delivery of a part contributes to delay in execution of total system, LD and interest on advances will be recovered on the total contract price / total advance paid"



**Bharat Heavy Electricals Ltd.**  
( A Govt. of India Undertaking )

VALVES PURCHASE,  
TIRUCHIRAPPALLI- 620 014. INDIA



PHONE: 91-0431-257 7746, 2520 112

EMAIL: [vramki@bheltry.co.in](mailto:vramki@bheltry.co.in)

FAX: 91-0431-2520 383

**INDIGENOUS ENQUIRY**

**TERMS AND CONDITIONS**

**1. QUOTATIONS :**

- a. Each tender should be sent in double cover, should be sealed and super scribed with correct Tender No., item of supply and due date of opening. The outer cover should only bear the address of this office and should not have any indication that a tender is within. Two or more quotations should not be sent in one cover but the quotation against each tender should be sent separately to avoid confusion. Tender should not be addressed to any individual's name but only by designation.
- b. Tenders should be free from CORRECTION AND ERASURES. Corrections if any must be attested. All amounts shall be Indicated both in words as well as figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
- c. Price should be F.O.R. dispatching station inclusive of risk in transit and remain valid for 120 days from. The due date.
- d. If any Sales Tax is payable as extra to the quoted price, it should be specifically stated in quotation along with CST & T.N.G.S.T No. failing which the purchaser will not be liable for payment of Sales Tax. Our T.N.G.S.T No. 3550005 Dated 01-04-1995 C.S.T. No. 259383 Dt. 11.06.1991.
- e. No revision of prices will be entertained after tenders are opened.
- f. Manufacturer's name, Trade Mark or Patent No. if any should be specified. Illustrative leaflets giving technical particulars are required along with quotation wherever necessary.
- g. Products with I.S.I. certification marks will be preferred.
- h. The purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reason whatsoever.

**2 SAMPLES :**

Wherever possible samples should be submitted separately whether specifically requested or not so as to reach the purchaser on or before its due date of the enquiry. They should be clearly marked with the enquiry No. and the date on the outside cover to facilitate identification.

**3 PACKING AND MARKING:**

The supplier shall arrange for securely protecting and packing the stores to avoid lose or damages during transit.

**4 TERMS OF PAYMENT :**

100% Payment will be made after 45 days on acceptance & satisfactory receipt of materials. Where required by the purchaser, the successful tenderer must send the operation and maintenance manuals, test certificates, drawings, etc., for the materials should be sent immediately after dispatch of the materials and a statement to that effect should be made in the Invoice. Failure to comply with this provision will result in delay in payment of the bills. Goods dispatched either by V.P.P. or by thro' document presented through bank will not be accepted unless agreed to by the Purchaser.

The Original Excise Duty Gate Pass or certified extract form Excise Duty Ledger should accompany the material. A Photostat copy of the above gate pass for each delivery challan should be submitted along with the original bills submitted directly to BHEL Department.

**5 SECURITY DEPOSIT:**

For purchase over Rs.5000/- the successful tender/s may be requested to furnish a Bank Guarantee/Security Deposit for an appropriate value as may be determined by BHEL.

**6 LIQUIDATED DAMAGES:**

It is clearly understood among the parties to the contract that 'Time is the essence of the Contract. Therefore, the delivery of the goods specified in the purchase order should be made within the time prescribed. Where the seller supplies or despatches the goods beyond the delivery period specified the purchaser will have no obligation to accept the goods. If accepted liquidated damages at the rate of ½ % of the value of goods delayed for each week of delay to the maximum of 15% or part thereof will be levied without prejudice to any other relief of compensation due to the purchaser under any other condition of this contract.

**7 RISK PURCHASE:**

Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefore. The supplier shall be liable for any loss, which the purchaser may sustain by reason for such risk purchases in addition to penalty at the rate mentioned in clause 6 above.

**8 PREFERENTIAL DELIVERY :**

It should be noted if a contract is placed on a higher tender as a result of this invitation to tender in preference to the lowest acceptable offer in consideration of the earlier delivery, the seller will be liable to pay to the purchaser the difference between the contract rate and that of the lowest acceptable tender on the basis of final price F.O.R. destination, including all elements of freights, sales tax, duties and other incidents, incidental in case of failure to complete supplies in terms of such contract within the date of delivery specified in the tender and incorporated in the contract.

**9 MODVAT / CREDIT:**

If any Excise Duty is payable, the chapter head/sub-head reference and the rate of the duty should be quoted. If the tender is availing MODVAT credit for his input materials, the effect of proforma invoice should be passed on to the purchaser; Tenderer under MODVAT shall be preferred.

**10 GENERAL :**

The Purchaser reserves the right to split up the tender and place order for individual items with different tenders and also increase or decrease the quantity.

Any other conditions which might have been quoted by the seller and are in contravention to the terms prescribed in the order and which have not been specifically accepted in by Purchaser will not be applicable to the contract.

File : Anx-enq-ind-txt