



Electronics Corporation of India Limited

A Government of India Enterprise

CONTROL & AUTOMATION DIVISION-PURCHASE

ECIL Post, Hyderabad - 500 062.

Ph:

e-mail:

OFFICE COPY

ENQUIRY No. EC/PUR/CAD/

1964/931005

DATE : 2017.01.04

DUE DATE : 2017.01.16

Contact: D.P. RAO, DGM

Dear Sir(s),

Kindly submit you quotation in a Sealed Envelope Superscribing Enquiry No. and Due Date for the supply of the Following items as per terms and conditions overleaf to PURCHASE MANAGER - CONTROL & AUTOMATION DIVISION ECIL, HYDERABAD-62. QUOTATIONS AGAINST EACH TENDER SHALL BE SENT IN SEPARATE ENVELOPE QUOTATIONS RECEIVED AFTER THE DUE DATE AND TENDERS SENT IN OPEN/UNSUPERSCRIBED ENVELOPE WILL BE REJECTED. PLEASE SEND REGRET LETTER, IF YOU ARE NOT ABLE TO QUOTE TO CONTINUE TO KEEP YOUR NAME IN OUR MAILING LIST.

IMPORTANT INSTRUCTIONS

Parties must give the following information otherwise offer may be rejected.

1. Unit Rate and Terms of price
2. Quantity discount if any
3. Rate of Excise Duty, Sales Tax if any
4. Firm Delivery schedule
5. Mode of despatch
6. Estimated Packing and Forwarding Charges
7. Validity of quotation
8. Terms of Payment
9. Sales Tax Registration Number/VAT and Service Tax Regn. No.
10. SSI/NSI Regn. No.

| Sl.No. | Material Description and Specification | Estimated Requirement | |
|---|---|-----------------------|----------|
| | | Unit Code | Quantity |
| 1 | SUPPLY OF DYNASEN MAKE INSTRUMENT & POWER SUPPLY MODULES AS BELOW PIN MIXER, MODEL NO: CS2-50-300, MAKE: DYNASEN AS PER DELIVERABLE DETAILS AND SPECIFICATIONS GIVEN IN THE ANNEXURE ENCLOSED. | Nos. | 5 |
| 2 | PIEZORESISTIVE PULSE POWER SUPPLY, MODEL NO: CK2-50/0.050-300, MAKE: DYNASEN AS PER DELIVERY DETAILS AND SPECIFICATIONS GIVEN IN THE ANNEXURE ENCLOSED. | Nos. | 3 |
| Special Notes. 1. Data sheet/Catalogues shall be enclosed to your offer. 2. A Certificate of Compliance shall be submitted along with the consignment. 3. Our Terms of Payment : 90% payment will be made within 60 days of receipt of material at ECIL, Balance 10% payment will be made within 30 days of acceptance. 4. If you are unable to quote, send regret letter positively by mail. Our Mail ID sheetal@ecil.co.in enable us to keep | | | |

NOTE: 1. CERTIFICATE OF COMPLIANCE/BATCH CERTIFICATE/CCOF/CMRI/ATX/ WARRANTY TEST CERTIFICATE SHALL BE FURNISHED. PLEASE CONFIRM.
2. DATA SHEETS (CATALOGUES) SHALL BE SUPPLIED WITH THE QUOTATION.
3. IF THE MATERIAL IS COVERED UNDER DGS & D RATE CONTRACT. PLEASE QUOTE THE RATES ACCORDINGLY.
4. IF THE MATERIAL IS COVERED UNDER EXCISE, FURNISH EXCISE TARIFF NUMBER AND CLASSIFICATION.

Yours faithfully,

For Electronics Corporation of India Limited

डी.पी. राव
उप महाप्रबंधक / Dy. Gen. Mgr.
अव. एमएमएस, सीएम
Purchase, MMS, CAD
इंजीनियरिंग, हैदराबाद / ECIL HYD-62

Phone : +91-40-2718 6619, 27182395 & 2718 2242, 2712 1013
 Fax : +91-40-2712 1013 / 2712 3762
 E-mail : gvr Rao@ecil.co.in, dprao@ecil.co.in, yhemaiatha@ecil.co.in



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7. Validity of quotation
8. Terms of Payment
9. Sales Tax Registration Number/VAT and Service Tax Regn. No.
10. SSI/NSI Regn. No.

| Sl.No. | Material Description and Specification | Estimated Requirement | |
|--------|---|-----------------------|----------|
| | | Unit Code | Quantity |
| | <p>you in mailing list.</p> <p>5. Please quote Terms of Price as Free Delivery to our Stores.</p> <p>6. You can quote in rupees only.</p> <p>7. Customs duty exemption certificate and Excise duty exemption certificate (whichever applicable) will be provided. Hence you consider the same during quotation.</p> <p>8. Special notes specified in annexure.</p> <p>9. You shall be a authorised distributor of M/s Dynasen and a copy of the same shall be attached to offer, otherwise the offer will be rejected.</p> <p>10. This is a Two PART BID MECHANISM. a) TECHNICAL BID & b) PRICE BID.</p> | | |

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Yours faithfully,

For **Electronics Corporation of India Limited**

উপ মহাপরিচালক / Dy. Genl. Mgr.
 কন্ট্রোল, অটোমেশন
 Purchase, MMS, C.A.
 ইলেকট্রনিক্স কর্পোরেশন, হায়দ্রাবাদ / ECIL, HYD-62

ANNEXURE

Indent. No: 93005
93005

Dt: 5-12-16

SPECIFICATIONS OF PIN MIXER to The Item No-1

MODEL NO: CS2-50-3000

Features

- 1) Twelve (12) channel instrument for biasing of self-shortening or ionization sensors.
- 2) Bias voltage can be varied from -30 to -300 V for each pin.
- 3) Selection of bias voltage should be provided on front panel with digital readout.
- 4) Output of the each channel should be un-attenuated in high impedance. Also single summation of all output attenuated by 100, capable of driving 50Ω output line terminated in 50Ω should be provided.
- 5) DC offset null capability for 50 Ω output should be provided.
- 6) Input power requirement should be 230V/50Hz AC.

Front Panel Controls

- 1) Power Switch – To supply power to the system
- 2) Voltage Set – Adjust bias voltage for all channel
- 3) Digital Display – Indicate the bias voltage
- 4) Input – BNC connector which attaches to the sensor
- 5) Output – BNC connector for output pulse measurement
- 6) Sum. Out – BNC connector, provides summation of all the pin's output divided by 100

Test Conditions for the Unit

- 1) Voltage setting ranges from -30V to -300V using Voltage set.
- 2) Voltage at all Input as per the set voltage.
- 3) Output Voltage in each channel corresponding to input present.

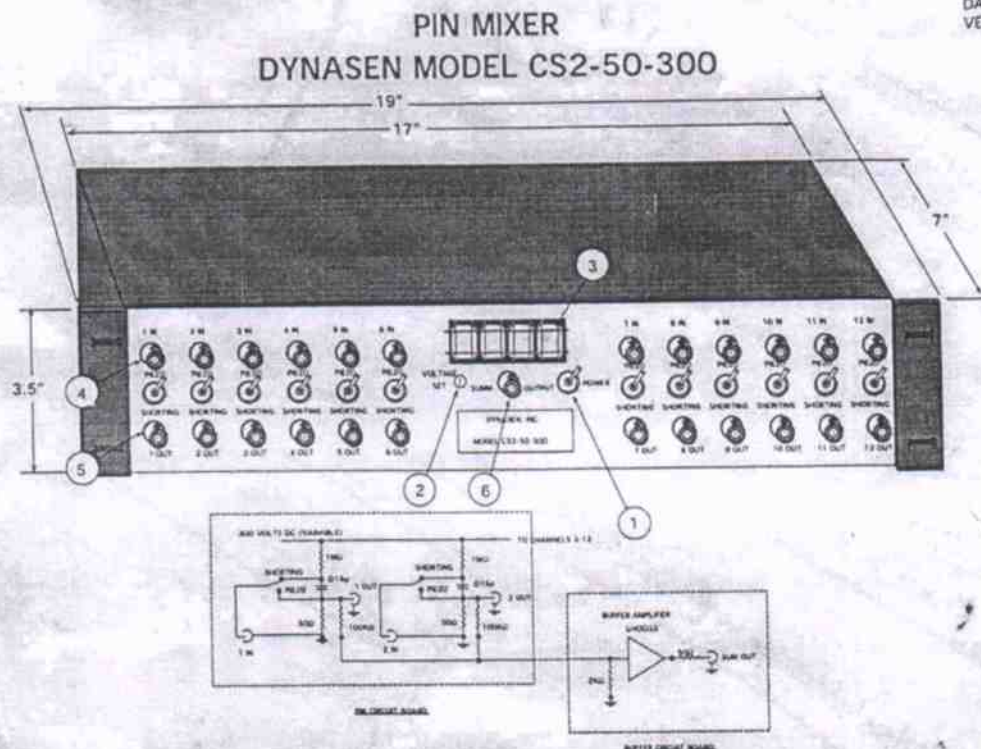


FIGURE 1. FRONT PANEL AND PARTIAL (2-CHANNEL) SCHEMATIC

Dynasen's pin mixer, model CS2-50-300, is a twelve-channel instrument that can be used to bias self-shortening or ionization pins or to condition the output produced by piezoelectric pins. The unit is constructed to provide the user with an unattenuated output signal (hi-z) for each pin, and a summation of all of the outputs attenuated by 1/100. The summation output is capable of driving a 50Ω output line and should be terminated with 50Ω.

The pin mixer can simultaneously accommodate ionization pins, shorting pins, and piezoelectric pins of positive polarity. The output of negative polarity piezoelectric pins will not get through the summation circuit and will only appear at the hi-z outputs. The pin mixer's main features are as follows:

- A. 110/220 Volts AC power requirement (internally switchable).
- B. Twelve identical dual-mode pin channels: shorting or piezoelectric modes (front panel switchable).
- C. Continuously adjustable charge voltage from -30 to -300 volts with front panel control and digital readout.
- D. Dual output capability: Hi-Z output for each channel and 50Ω summation output for all channels.
- E. Balance capability (DC offset null) is provided for the 50Ω output.

CONTROLS AND CONNECTIONS (See fig.1)

- 1. Power Switch--Applies power to the system.
- 2. Voltage Set--Adjustment sets the charge voltage for all channels
- 3. Digital display--Indicates the capacitors' charge voltage
- 4. Input--BNC connector which attaches to the pin
- 5. Output--BNC connector which monitors the voltage drop across the internal 50 resistor
- 6. Sum Out--Provides the summation of all of the pins' outputs divided by 100.

DYNASEN INC.
20 ARNOLD PLACE
GOLETA CA. 93117

SPECIFICATIONS OF Pulse Power Supply to The Item No-2

MODEL NO: CK2-50/0.05-300

Pulsed power supply is used for the excitation of 50 m Ω (Low impedance) gauges for transient pressure measurement.

Features

- 1) 230 V/ 50 Hz AC power operation. No batteries should be used.
- 2) Three channel per unit with independent operation.
- 3) For each channel constant output current of 10A, should be available for duration of maximum 200 μ sec for load of 50 Ω .
- 4) Pulsed width of the output pulsed current should be variable from 50 μ s to 200 μ s.
- 5) Manual or electrical trigger capability with positive edge trigger signal having level from 4.0 to 50 Volts and rise time of 3-100 ns.
- 6) Separate trigger input for each channel.
- 7) Rack mountable units with aluminum chassis.

Front Panel Switches and Controls

Followings are the switches and controls should be present on front panel supported for dual channel operation:

- 1) Input – BNC for connecting gauges, Trigger etc.
- 2) Output – BNC for Gauge pulse etc.
- 3) Venires Knobs –Pulse width adjustment etc.
- 4) Toggle Switch – Power on, manual discharges switch etc.
- 5) LED/LCD Display – For selected changing voltage
- 6) LED Indication – For system ready indication.

Test Conditions for the Unit

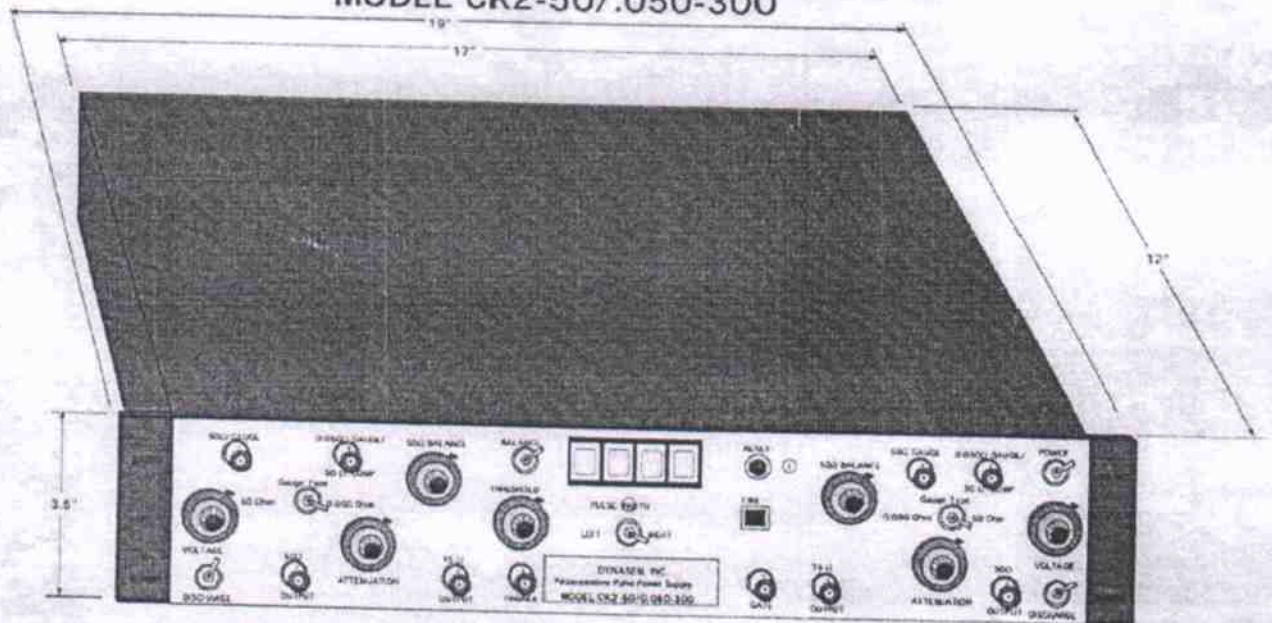
- 1) Charging voltage setting ranges from 30V to 500V using knob.
- 2) Pulse output present on all channel with manual as well as external trigger.
- 3) Pulse width variation test.

SPECIAL NOTES:

- a) Delivery of the complete tested system to ECIL.
- b) Preparation and submission of complete documentation of hardware, including Schematics and User Manual.
- c) Supplier shall demonstrate the intended functional testing as per the specification at ECIL premises.

PIEZORESISTIVE PULSE POWER SUPPLY MODEL CK2-50/.050-300

DATA SHEET #7
VER: 2-9/20/00



Dynasen's piezoresistive pulse power supply, Model CK2-50/.050-300, is a unique and most advanced pulse bridge arrangement of its kind that can be used for the excitation of 50 Ω or .050 Ω (low-impedance) shock pressure gauges. Its basic features are:

1. 115/230 AC power input. No batteries.
2. Dual-channel capabilities with either 50 Ω or .050 Ω gauge modes. One channel can be used with a 50 Ω gauge while the other can be used with a .050 Ω gauge or vice-versa.
3. Constant voltage full bridge arrangement for 50 Ω gauges and constant current one-half bridge arrangement for .050 Ω gauges. Each channel can be set in either 50 Ω or .050 Ω mode using a single front panel switch.
4. Differential gauge arrangement (50 Ω gauges only) for compensating or canceling temperature, strain, or noise effects (see page 2 of data sheet for bridge arrangements #1, #2 and #3).
5. Continuously adjustable charge voltage for each channel from 30 to 300 volts.
6. Easy bridge balancing features (50 Ω gauges only) with front panel digital display.
7. Unattenuated 75 Ω bridge output and continuously adjustable 50 Ω / line driver output for each channel.
8. Front panel pulse width adjustment (5 μ sec to 500 μ sec, nominally set at 100 μ sec) with an equal duration gate output.
9. Single manual or electrical trigger capability with manual (or remote reset optional) capability.
10. Continuously adjustable trigger level from 4.0 to 50 volts.
11. All rotating knobs are self-locking verniers.
12. Aluminum chassis for rack mount or table use.

DYNASEN INC.
20 ARNOLD PLACE



Electronics Corporation of India Limited

A Govt. of India (Dept. of Atomic Energy) Enterprise

Tender No :- 688

Tender Reference No :- ECIL/CAD/MMS/PUR/PUB/I/931005

Template Name :- Technical Compliance with LD CLAUSE STDT.

| Sr. No. | Specification | Bidder's Compliance (Yes/No /Deviation, if any) |
|---------|--|---|
| 1 | DATA SHEET / CATALOGUES SHALL BE ENCLOSED TO YOUR OFFER. | |
| 2 | PERFORMANCE BANK GUARANTEE: SHALL BE EXECUTED FOR 10% OF ORDER VALUE TILL COMPLETION OF WARRANTY PERIOD BEFORE CLAIMING PAYMENT. | |
| 3 | WARRANTY: MINIMUM 24-MONTHS WARRANTY PERIOD SHALL BE MENTIONED IN THE QUOTATION AND IN CASE OF THE ORDER, WARRANTY CERTIFICATE SHALL BE SENT WITH THE ITEMS. | |
| 4 | DELIVERY PERIOD SHOULD BE MENTIONED IN YOUR QUOTATION. THE ABOVE MATERIALS ARE URGENTLY REQUIRED. PLEASE QUOTE THE EARLIEST DELIVERY DATE. | |
| 5 | OUR TERMS OF PAYMENT: 90% PAYMENT WILL BE MADE WITHIN 60 DAYS OF RECEIPT OF MATERIAL AT ECIL AND BALANCE 10% PAYMENT WILL BE MADE WITHIN 30 DAYS OF ACCEPTANCE. | |
| 6 | TERMS OF PRICE SHOULD BE MENTIONED.(Example.FOR-ECIL) | |
| 7 | LIQUIDATED DAMAGES: IN THE CASE OF ANY DELAY IN EXECUTION OF THE PURCHASE ORDER, LD WILL BE RECOVERED MINIMUM @ 0.5% PER WEEK ON THE VALUE OF UNDELIVERED GOODS SUBJECT TO A MAXIMUM OF 10% OF THE VALUE OF UNDELIVERED PORTION. | |
| 8 | RISK PURCHASE CLAUSE: IN THE EVENT OF ANY FAILURE OF THE SELLER TO COMPLY PURCHASE ORDER TERMS. THE BUYER HAS A RIGHT TO CANCEL THE ORDER AND PROCEED WITH AN ALTERNATE SOURCE. IN THE EVENT OF PROCEEDING WITH SUCH AN ALTERNATE SOURCE YOU ARE LIABLE TO BEAR THE EXTRA COST WITH MAY INCURRED BY US WHICH WILL BE RECOVERED FROM AVAILABLE CREDIT & SECURITY DEPOSIT. | |
| 9 | ARBITRATION CLAUSE : ALL DISPUTES OR DIFFERENCES WHAT SO EVER ARISING BETWEEN TWO PARTIES OUT OF PRELATING TO THE CONSTRITION MEANING AND OPERATION OF EFFECT OF THIS CONTRACT OR THE BREACH OF THEM SHALL BE SETTLED BY ARBITRATION IN ACCORDANCE WITH RULES OF ARBITRATION OF THE INDIAN COUNCIL OF ARBITRATION IS AT HYDERABAD , SECUNDERABAD JURISDICTION. | |

| | | |
|----|--|--|
| 10 | REJECTION OF ANY DURING FUNCTIONAL TEST & WARRANTY PERIOD, YOU SHALL ARRANGE REPLACEMENTS OR REPAIR OF THE SAME IMMEDIATELY WITH ALL COSTS TO YOUR ACCOUNT TILL THE MATERIAL REACHED TO OUR STORES. | |
| 11 | COC SHALL BE SUBMITTED ALONG WITH THE MATERIAL. | |
| 12 | PRICE-BID VALIDITY (IN DAYS) | |
| 13 | SECURITY DEPOSIT SHALL BE PROVIDED FOR 10% OF PURCHASE VALUE ALONG WITH YOUR ORDER ACKNOWLEDGEMENT | |
| 14 | In case of order, PO should be placed on with bank details. | |
| 15 | Delivery of the complete tested system to ECIL. | |
| 16 | Preparation and submission of complete documentation of hardware, including Schematics and User Manual. | |
| 17 | Supplier shall demonstrate the intended functional testing as per the specification at` ECIL premises. | |
| 18 | SUPPLIER SHALL CONFORM TO ALL SPECS IN THE ANNEXURES | |
| 19 | CD EXEMPTION is available for ECIL. Hence Vendors are requested to quote both in foreign currency and/or in INR on high-sea sale basis. | |
| 20 | All the suppliers are requested to submit a Hard Copy of EMD(like DD/BG) and TENDER FEE before the due date.If your not able to submit on or before the due date, your quotation strictly rejected at the time of opening. | |
| 21 | THE VENDOR SHALL BE SUBMIT AUTHORIZATION LETTER OF M/s.DYNASEN ALONG WITH THE QUOTAION. | |

Note: Please fill above template and click on **Encrypt** button. After encrypting please click on **Save Bid** button and then click on **Back to Tender** link as given above