

LDD 8955 CENTRAL CONTROL EXCHANGE



INTRODUCTION :

The Public Address System offered is meant for independent two-way communications network in the industrial plant. Functionally, the different process unit and offsite areas of an industrial plant will be inter connected with the central control room through this communication network. Compatible with all types of industrial paging systems.

The CCE is a microprocessor based System. The CCE has a switching matrix of relays for communication on two modes viz. PAGE (to address large area) and PRIVATE (to hold conversation).

The CCE can expand upto 96 Zones inclusive of MCD. This system easily supports upto 8 MCDs. The cards used in the CCE is in modular type and distributed in standard 19" sub racks. The details are explained in GA drawings. Please contact our office for further details.

The P.A. System network mainly comprises with the following items:

1. Central Control Exchange (CCE)
2. Master Control Unit (MCU)
3. Field Call Stations (FCS) with accessories (J. Boxes and loudspeakers)
4. Cables for interconnection.

MECHANICAL CONSTRUCTION :

General Arrangement and size of the rack are made as per customer requirement.

CONSTRUCTIONAL DETAILS :

The CCE is made of a free floor mounting type rack. The sub racks used in exchange are 19" standard sub racks. The front and rear doors of the rack has locking facility. The side covers can be opened for any service if required. The rack is supplied with 100mm base frame or with castor wheels. The height of the racks depend upon the customers' requirement.

INTERCONNECTIONS :

The cables from field stations and master control station are terminated on terminal blocks, which is easily accessible from the bottom of the rack or from front side. The detachable gland plate is provided at the bottom of the rack, which can be removed & holes punched to facilitate the entry of cables. All the cards/ modules used in this system are plugged and distributed in sub racks. Euro connectors are used to interface the same with motherboard. It is very easy to add some cards for further expansion. UL approved connectors are used for interconnections.

CONTROL & FACILITIES :

1. Fan cooling facility to circulate the air within the rack.
2. Non blocking type of communication. Provided 4 Channel for PVT & 4 Channel for PAGE.
3. Multi Channel communication is possible. Channel selection is done automatically.
 - a. In 4 channel min 2 zones and max. 4 zones can communicate in conference mode. Likewise, 4 groups can communicate at a time without any cross talk.
 - b. In 8 channel min 2 zones and max. 4 zones can communicate in conference mode. Likewise, 8 groups can communicate at a time without any cross talk.
4. Independent PAGE and PVT channel. When PVT channel is in use, we can use PAGE channel for the same location without any system limitations.
5. The CPU module has 4 LED's to indicate the status of the CPU/SYSTEM.
6. The announcement through EPABX ON PAGE Line is possible.
7. TALK BACK facility between plant EPABX & FCS and vice versa is possible. This facility is possible through MCD.
8. Direct interface of the FDA SYSTEM is possible. Broadcasting of siren/prerecorded messages are possible. This is possible either on Fire affected area wise and/or on ALL CALL BASIS. Even, initially, this can broadcasted on fire affected area and some pre-determined period can be done on ALL ZONE WISE.
9. POWER ON indications are provided at Mains Panel & SMPS.
10. On site Programming (Communication chart, ALARM, Group Cal

etc.,) are possible through Laptop/Desk top computers.

11. Different type of communication is possible. Communication like selective communication, Group call etc., are possible without adding and deleting Hardwires. This is possible by software only.
12. Integration of existing Plant Communication (whatever make) is possible.
14. Integration of Plant DCS is possible.
15. Integration of Walkie-Talkie is possible.
16. Integration of Wireless System is possible.
17. Redundant of CPU/POWER SUPPLY is possible. The selection of CPU/SMPS are done automatically, by using watch dog facility provided in the CPU.

ELECTRICAL SPECIFICATIONS :

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|--------------------------|-----------------------------------|
| 1. Power Supply: | |
| Rated supply voltage | : 240V, 50 Hz (+/-10%) |
| Total Power Consumption | : 200 VA at critical condition |
| 2. Input Signal Level | : 0.1 Vrms to 2.00 Vrms (+/- 50%) |
| 3. Rated o/p | : 0.1 Vrms to 2.00 Vrms (+/- 50%) |
| 4. Frequency response | : 10Hz- 40KHz |
| 5. Signal to noise ratio | : - 90dB |
| 6. Distortion | : 0% |
| 7. Channel Separation | : - 90 dB |
| 8. Switching loss | : - 0.01dB |

PROTECTION :

The communication channel lines can withstand indefinite short circuit & meets safety requirements as per IEC-65.

ENVIRONMENTAL SPECIFICATIONS :

Intended operating environment : Indoor, temperature controlled.

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|--------------------|--|
| Ingress Protection | : IP 22, IP 32 & IP 42. |
| Temperature range | : Operating : -10°C to +55°C
: Storage : -40°C to +70°C |
| Relative Humidity | : Operating : < 90% R.H.
: Storage : < 95% R.H. |

D. D. Electronic Equipments Private Limited

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