

CCU-30**UNIVERSAL SIGNALLING CONVERTER**

- *Up to 30 fully independent telephone interfaces supported*
- *Full range of 2 wires programmable telephone interfaces*
- *Internal ring generator unit*
- *LED status indicators*
- *Alarms extension port*
- *19" rack mounting*
- *Low power consumption*
- *Easy installation*
- *Low cost-High reliability*
- *Modular construction*
- *All signalling converter cards identical*

**USE AND FUNCTION**

CCU-30 is a universal signalling converter equipment, able to convert the signals of a 4 wire VF channel, and its associated signalling criteria E&M, in 2 wires telephone interfaces and vice-versa.

EQUIPMENT DESCRIPTION

CCU-30 universal signalling converter, is a compact and modular equipment 4RU's high, suitable for 19 inch rack installation.

CCU-30 provides up to 30 telephone lines for 2 wire transmission between 4 wire facilities (usually multiplex channel modem 4 wire VF circuits + E&M).

All electrical connection, including power supply, 2 and 4 wires telephone interfaces and alarms extension, are located on the front of the shelf assembly.

The shelf holds up to ten (10) plug-in signalling converter modules MCR3. Each MCR3 signalling converter module implements three individual and independent programmable telephone interface circuits, including the hybrid network for 2W/4W conversion, according to the following operating modes:

- LB Local Battery
- CB/R Central Battery with repeated call
- ACB/S Automatic Central Battery-Subscriber side
- ACB/E Automatic Central Battery-Exchange side
- EE Direct Exchange connection
- a/b+ground Signalling on 2 VF wires with ground return

CCU-30 shelf is powered by the AL38 plug-in power supply unit, that provides a high efficiency DC to DC function within the range from 21 to 56 VDC.

A plug-in RGU1 ring generator module, provides the alternate voltage for supply the 2 wire telephone line, when required by the programmed interface on the MCR3 card.

LED's indicators, on the front of each module, are provided for monitoring the operative status of the equipment.

Two ports are also available, on the front of the equipment as dry relay contacts, for alarms extension.

CCU-30 Technical Characteristics

Electrical interface	
Voice band	300÷3400 Hz
4 wire impedance	600 ohm
4 wire return loss	≥ 14 dB within 300÷3400 Hz
2 wire impedance	600 ohm
2 wire return loss	≥ 14 dB within 300÷3400 Hz
Balanced attenuation in the voice band	≥ 36 dB
Hybrid loss	10 dB
2 Wire Termination Types	
LB	Local Battery
CB/R	Central Battery with repeated call
ACB/S	Automatic Central Battery / Subscriber
ACB/E	Automatic Central Battery / Exchange
EE	Direct Exchange connection
a/b + ground	Signalling on 2 VF wires with ground return
Power Supply & Consumption	
Input Voltage	21÷56 VDC
Power Consumption	50 W Max. (fully equipped)
Ring generator	
Output voltage	86 V r.m.s.
Output frequency	20 Hz
Mechanical	
Wide (mm)	482,6
High (mm)	177 (4RU)
Dept (mm)	280
Weight (kg)	8 (fully equipped)
Environmental	
Operative temperature	From 0° to 50° C
Storage temperature	From -10° to 70° C
Humidity	Up to 90% not condensing
Alarms & Monitoring	
	LED's status indicators on each card Connectors for alarms extension

CCU-30 Equipment Composition

CCU/CB 19" wired rack	One (1) for each CCU-30 equipment
MCR3 Signalling Converter Card	Up to 10 (Three telephone interfaces for each card)
AL38 DC Power Supply Unit	One (1) for each CCU-30 equipment
RGU1 Ring Generator Unit	One (1) for each CCU-30 equipment