

C-RING AMPLIFIER

C ← RING

PCR 308 Eng.



- Amplifies the C-Ring signal thereby permitting long-distance connections
- Power supply 230 Volt ~ , DIN rail mounting

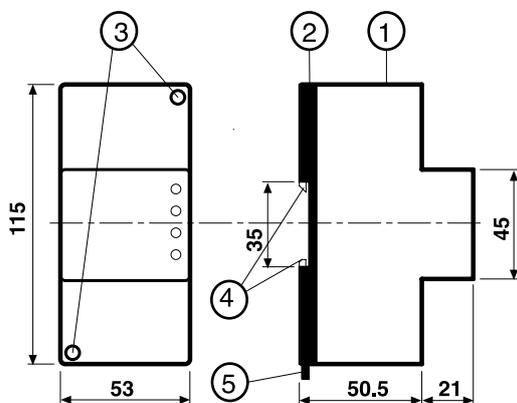
1. APPLICATION

Used for long-distance C-Ring connections. A typical example is the connection of several sub-stations of a district heating plant to a single C-Ring network.

2. INSTALLATION

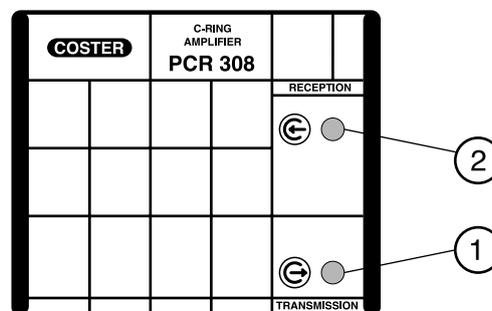
PCR 308 must be installed in a dry location that respects the ambient conditions given under 6. TECHNICAL DATA. If installed in a location classified as "Hazardous" it must be installed in a cabinet for electrical equipment constructed according to the current regulations for the class of danger concerned. PCR 308 must be installed on a DIN rail.

3. OVERALL DIMENSIONS



- 1 – Protective cover for electronic components
- 2 – Base with transformer, relay and terminal blocks
- 3 – Screws for securing base and cover
- 4 – DIN rail securing elements
- 5 – DIN rail release lever

4. FACIA



- 1 - **Transmission data LED** : indicates that C-Ring data has been received by the local controllers (E) and the subsequent transmission of the amplified data (Ua).
- 2 - **Reception data LED** : indicates that remote C-Ring data has been received (Ea) and the subsequent transmission of the amplified data to the local controllers (U).

5. TECHNICAL DATA

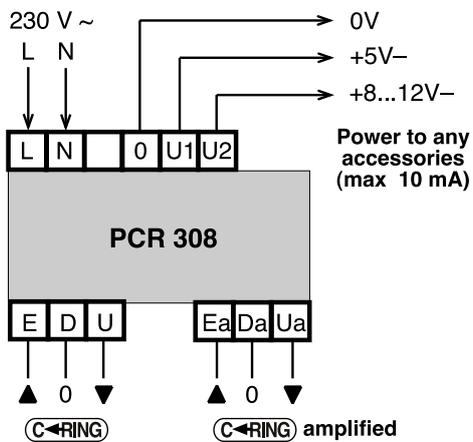
Power supply	230 Volt ~ ± 10%	Ambient temperature:	
Frequency	50...60 Hz	– Operating	0 ... 45 °C
Consumption	2.5 VA	– Storage	– 25 ...60 °C
Protection	IP40	Ambient humidity	class F DIN 40040
Radiodisturbances	VDE0875/0871	Weight	0.230 kg
Vibration test	con 2g (DIN 40 046)	Output power supplies :	
Construction standard	Italian Elecrotech. Committee (CEI)	– U1 : voltage	+5 Volt – stabilised
Enclosure	DIN 3E module	current	10 mA max
Installation	on DIN 35 rail	– U2 : voltage	+8...12 Volt – rectified
Materials:		current	10 mA max
– Base	Nylon		
– Cover	ABS		

6. ELECTRICAL CONNECTIONS

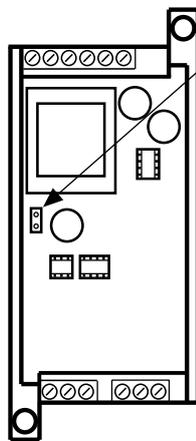
Make the electrical connections in accordance with the diagram and in compliance with the current electrical regulations, using the following cable types:

- 1,5 mm² cables for power supply,
- 1... 1.5 mm² cables for C-Ring
- 1 mm² for the other connections.

7. WIRING DIAGRAM



8. PROGRAMMING JUMPER



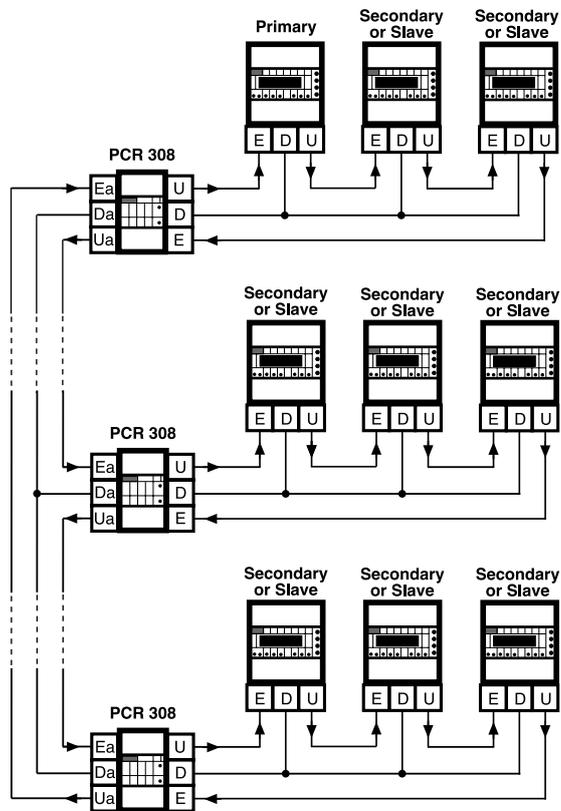
Jumper Z1
Jumper open: **factory setting**. Normal operating condition
Jumper closed: to set when PCR 308 is connected to devices with the basic circuit having a serial number equal to or below 430 (indicative figure)

In any event, if the C-Ring communication should not work, first try inverting the Z1 jumper.

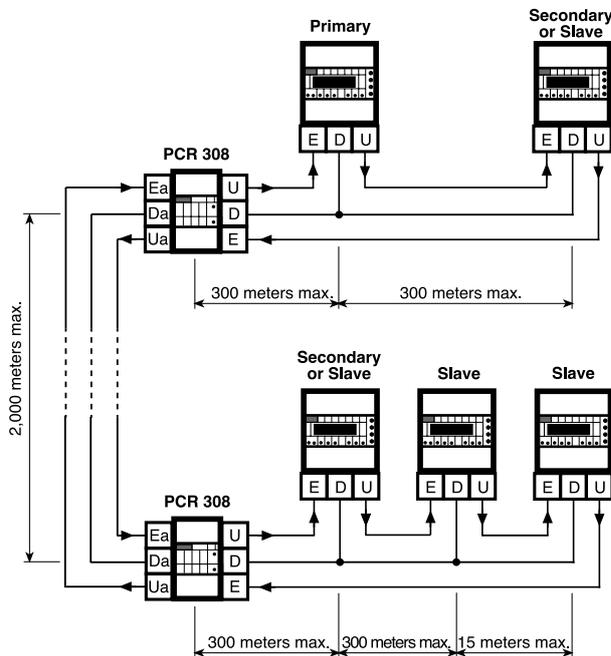
9. OPERATION

PCR 308 is a signal amplifier, for serial connection to C-Ring, which permits communication between controllers sited at long distances from one another.
An example is the need for communication between two district heating sub-stations which might be situated up to two kilometres from each other. It is clear that, in this situation, a device is required which can guarantee correct data transmission irrespective of the distance and of any disturbances.

10. SCHEMATIC DIAGRAM



11. MAXIMUM PERMITTED DISTANCES



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