

1.- DESCRIPTION

1) The operation is with 2- or 4-wired lines. RTS and CTS signals are jumpered. This allows the PC to detect any lack of supply in the equipment.

2) There is **galvanic isolation** between input and output, provided by optocouplers in transmission, in reception and in the driver enable.

3) The **output driver** is enabled as follows:

- By RTS signal.
- By complement RTS signal.
- By the monostable output (“Automatic” option).

The latter mode enables the IFRA output as soon as a transition in the Transmit Data (TD) is detected.

The monostable enables the data transmission as long as transitions in the TD occur. t_{ms} after the last transition in TD, the monostable disables any transmission. At a speed of 9600 Bps, t is approximately equal to two characters. Thus, for a correct operation at lower speeds, it must be proportionally increased. Therefore, if this alternative is required, it must be warned when ordered.

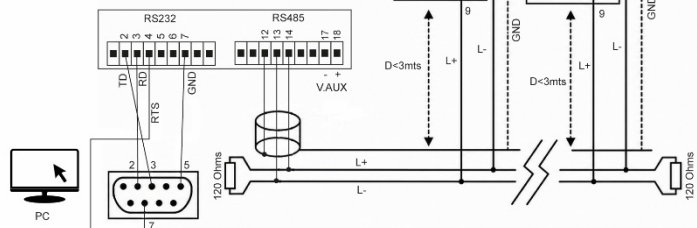
4) An additional driver is provided to allow **4-wired operation**.

- Output driver **permanently enabled** (point-to-point connection).
- Output driver **controlled** by the signals (multipoint connection, any device can act as master).

IFRA converter, 4 wires



IFRA converter, 2 wires



2.- COMMUNICATION

IFRA allows half-duplex with 2- or 4-wired lines, or full-duplex with 4-wired lines only. In this case, the transmission driver can be continuously enabled. If a multipoint communication is required (where any equipment can access the bus), it can also be controlled either automatically or by RTS signal.

3.- CONNECTIONS

With regard to the RS485 line, the connections of several devices are made in parallel, so that in the 2-wired connection all L+ labelled terminals are joined together (to be applied to L- labelled terminals as well). Positive terminals correspond to the so-called A terminals in some transmission circuits and the negative ones to the B terminals. As for the 4-wired lines, terminals labelled as LA+ are joined together, and so are the LA- ones.

4.- JUMPER SETTINGS

Two versions are available as described in the figure, depending on the current supply (DC / AC). Some jumpers let the user select how to enable the transmission driver. These jumpers cannot be reached from the outside. Open the box in the underside. The following figures show the jumpers lay-out.

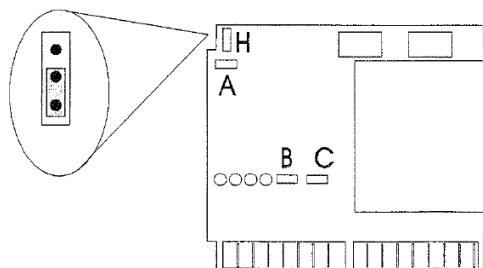
Alternating current. Board 8963

Direct current. Board 9639

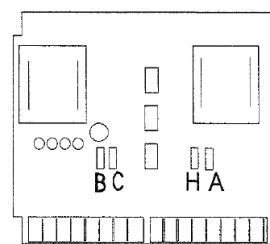
Jumper	Mode	Location	
Jumper B	Automatic	Right	Down
	RTS Control	Left	Up
Jumper C	RTS -	Right	Up
	RTS +	Left	Down
Jumper H	4 wires Continuous activation	Up	Up
	4 wires Controlled activation	Down	Down
Jumper A	4 wires	Right	Up
	2 wires	Left	Down

NOTE: RS485 (2-wired) equipment cannot work as 4-wired ones since the respective driver was not installed.

AC



DC



Access the manual:



For any technical issues or enquiries, please contact us.
SACI reserves the right to modify these specifications without prior notice.