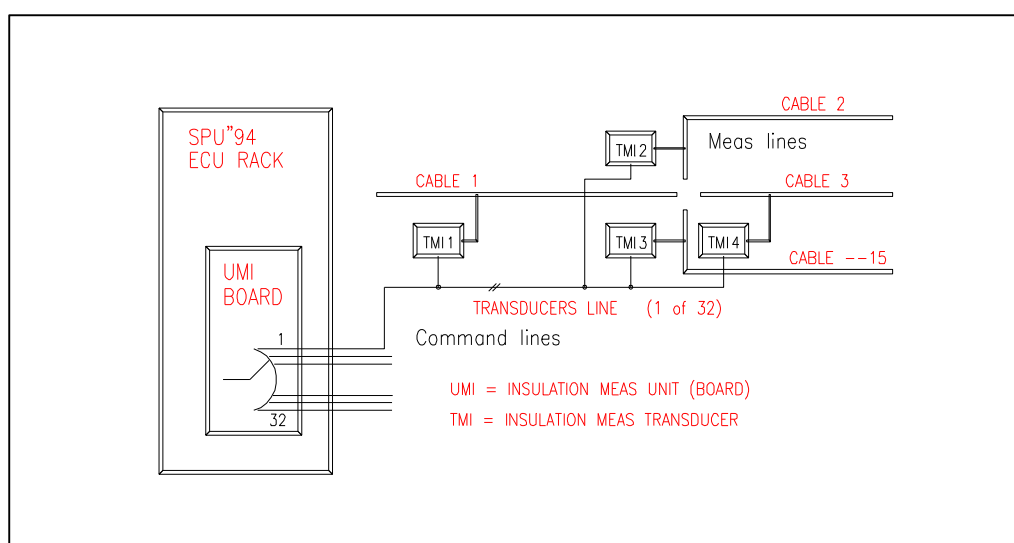


Control Unit (board) for insulation measurement transducers (TMI)

The unit enables a preventive diagnostic of the cable condition periodically checking the electric insulation of one control pair. The individual insulation measurement of the various cable sections gives a diagnostic that suffices to generate an alarm before the cables go out-of-service. This integration with the pressurisation system is done via the UMI board which, via communication and command lines, enables the transducers (TMI) connected to it, which actually take the measurements.

The UMI board has been designed to be connected to our CPUs and, like all the SPU'94 system units, it is completely autonomous in the management of the measurement cycle, and dialogues with the CPU via the standard RS485 serial interface.



The CPU system locally manages all the data received from the UMI board, data that can be displayed, programmed or transmitted to the remote surveillance centres.

The measurement transducers are remote-powered by the same command line and dialogue digitally in serial mode with the UMI board, which is always in the command line. Each transducer has an address (from 1 to 15) that can be set with jumpers.

Main features of the UMI board

Format:	Double Europe
Remote power-supply	60 V DC max 35ma
Command lines	max 32
Transducers per line	max 15
Data interface	rs485 4 wires 9600 bit/s

TMI:**Main TMI features**

Insulation measurement:	range from 50 k to 100 Mohm.
Check cable presence:	C min = 100 nf.
Off-load voltages:	range from 0 to 120 V AC and V DC
Stand-by consumption:	below a 1ma
Working absorption:	below a 10ma
Rx dialogue:	polarity inversion 75 baud
Tx dialogue:	current modulation 75 baud