

RWU for EMG

Acquisition, collection and analysis of power consumption from EMG (Electronic Measurement Group)

X-RWU GOLD monitors power consumption detected by the Electronic Measurement Group (EMG). Within the X-Meter, X-RWU GOLD is attached through to the ES (Signal Emitter) interface board. With X-RWU GOLD, it is possible to acquire information useful to read the real power consumption levels at the withdrawal point. In particular, the system receives the following information from the EMG at pulse level:

- > Acquired/given active power (A+ A-)
- > Acquired/given reactive power (R+ R-)
- > Zone signals (used also for synchronism).
- > Indirectly, the $\cos\phi$ value of the system is calculated.

The unit, which has 8 digital inputs, acquires the pulses of the values supplied, stores them with the same temporal storage criteria (15') and in perfect synchrony with the withdrawal zone used by the EMG. This method in reality guarantees the maximum accuracy possible. In fact the measure indirectly obtained through a pulse system is not subject to class errors which are typical in the case of direct measures.

The 4 outputs available are completely managed to:

- > activate alarms when certain levels of the acquired values are reached;
- > create load management logics linked to the exceeding of contractual consumption levels. This happens by progressively controlling the opening or the closing of the loads according to a list of manageable priorities (XM 15 XM 18),
- > to open or close the utilities according to clocks that can be programmed freely (option XM7).

Advantages

- Control the correctness of consumption levels invoiced by the power supplier. Remember that the fiscal meters, since they are not updated according to the current price charts, do not allow the user to verify the correct division of consumptions for each zone. Avoid exceeding the set power level by managing the loads (with option XM15 XM18) to:
- > avoid the application of the fixed power rates (transportation costs) for the entire running month even for occasional peaks. The supplier, in fact, invoices this item according to the highest 15 minute period of the month
 - > avoid paying the Supplier connection fees due to occasional peaks; these costs are applied if the maximum power available is exceeded
 - > use the most advantageous tariff options according to the power market
 - > limit the unbalancing costs in the free market
 - > Reduce withdrawals in the most expensive sections by programming the on and off switching of the loads ("clock" option)
 - > Store all values measured in the unit without using a specific PC.
 - > Remotely send to a PC all the measures filed with different data processing and displaying possibilities.

The diagram below shows the way in which the X-RWU GOLD can be connected to the EMG meter and the outside world. The free inputs, 5 in the most simple configuration, can be used to acquire values such as: Water, Gas, Steam, Compressed air, Temperature, 4-20mA etc.

