



Microelettrica's Energy Metering Solutions and Regulation Challenges

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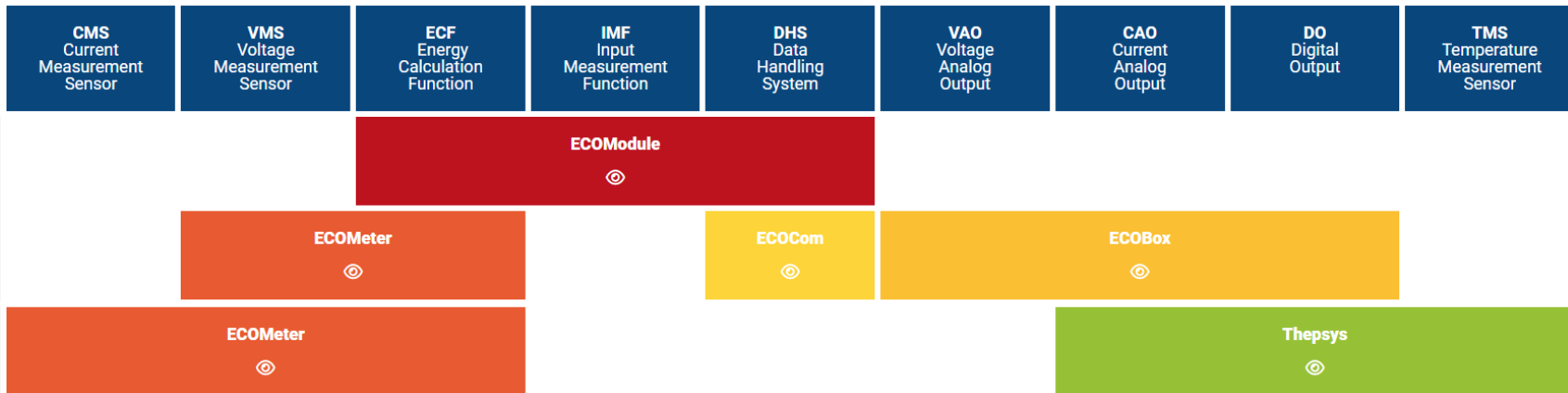
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Microelettrica metering portfolio





www.microelettricacatalogue.com



Microelettrica metering portfolio

- Modular solutions, for any kind of applications ranging from newly built light rail up to high-power freight modernization
- Thousands of delivered products all around the world, from Italy to Australia
- Ten years of experience in the field, hundreds of managed projects
- On the vehicles of all main car builders, including Alstom, CAF, CRRC, Hitachi, PESA, Stadler
- *All of them certified...*

Metering certification challenges

- Billing legal value,  Therefore, need for accredited testing laboratories
- Highest level of modularity configurability,  Therefore, necessity to re-certify Specific Applications and products' combinations
- TSI-relevant,  but not Interoperability Constituent
- Lack of knowledge by involved stakeholders,  Therefore, commercial and management issues

EN50463 accredited testing laboratories

- Not available in a lot of different EU countries, including Italy, France, Spain:

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Totale risultati 0
Mostrò i laboratori che soddisfano TUTTE le condizioni
Filtro applicato: nome norma 50463

In Switzerland, the only EN50463 accredited lab is inside an industrial group which is a competitor of Microelettrica!

Therefore:

- need for test qualification every time* by NoBo, with additional costs.

*often, for every project!

Generic Application / Specific Application certificates

- Electronic configurable systems are certified via EN50126-2 approach, i.e. first at Generic Application level:



CERTIFICATE OF CONFORMITY

CERT/2023/RST/EN/6399/0001 Ed.2

In accordance with:

EN 50463:2017 parts 1, 3, 4, 5 - Railway applications - Energy measurement on board trains

The Specific Application

Energy Measurement System
ECOCom NG Generic Application

(P/N 3360.0002, Software Baseline SW00390.500-010000)

First of all, Customers are troubled by the mismatch of the versions in the generic certificate and the specific versions of their specific project.

Then a clear path on how to proceed is missing, heavily dependent on vehicle-level assessment body. Sometimes just a declaration is sufficient, sometimes not.

TSI Issues

- Although Interoperability-relevant, the EMS is not an Interoperability Constituent according to TSI LOC&PAS:

5.3.	Interoperability constituent specification
5.3.1.	Automatic centre buffer coupler
5.3.2.	Manual end coupling
5.3.3.	Rescue couplers
5.3.4.	Wheels
▼M3↓	
5.3.4a.	Automatic variable gauge systems
▼B↓	
5.3.5.	WSP (wheel slide protection system)
5.3.6.	Head lamps
5.3.7.	Marker lamps
5.3.8.	Tail lamps
5.3.9.	Horns
5.3.10.	Pantograph
5.3.11.	Contact strips
5.3.12.	Main circuit breaker
5.3.13.	Driver's seat
5.3.14.	Toilet discharge connection
5.3.15.	Inlet connection for water tanks

This sometimes creates confusion among Customers, who try to require an IC certification *for metering...*

The situation worsens when RFU-RST-301 is drawn into the picture... a procedure requiring *two NoBos* acting on *two stages of assessment...*

For a system aimed at billing!

Commercial and management Issues

Your products are already certified, why do I need to pay again to certify my project?

You don't have all the access parameters for your competitors' DCSs? Really?!?

Our vehicle NoBo wants all the accuracy tests repeated on vehicle. What? You don't have a free, millivolt-level controllable catenary?!?

Your products baselines are cited in the vehicle authorization. Now we need to change them because of xxx. Please be prepared to re-pay for the entire vehicle homologation process.

We assume the use of your DCS for testing is completely open and free, right? (the final DCS will be your competitor's one of course)



THANK YOU!