

ment
gement System



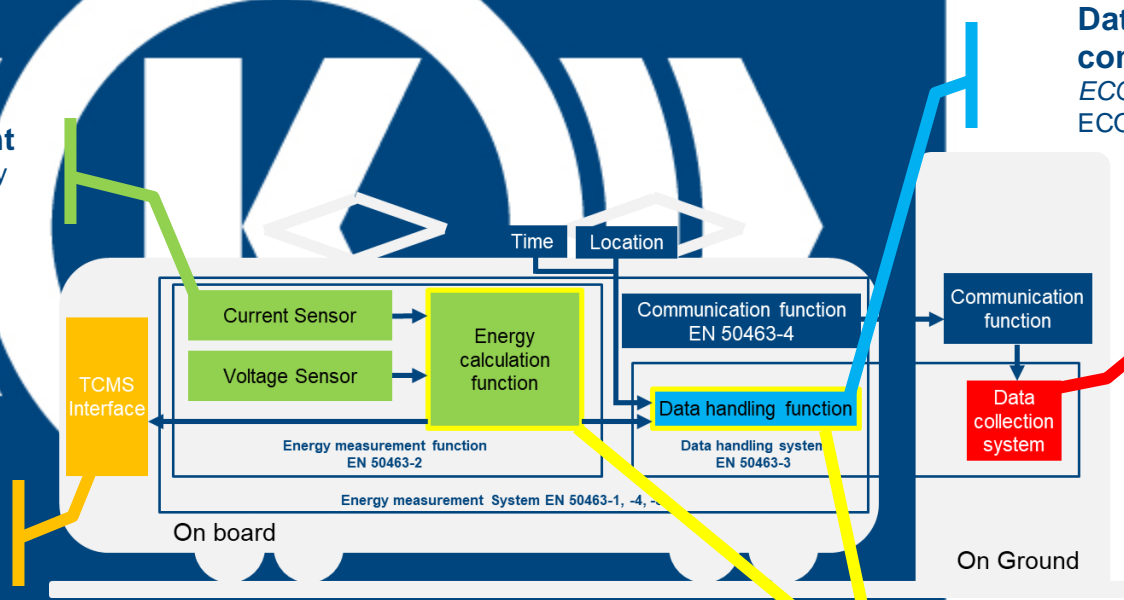
Luca Omati, Marzieh Alhooei
Product Management

EMS DAY - 06 October 2021

M



Measurement
ECOMeter family



Data handling
communication
ECOMCom (iCOM metering on board)
ECOMCom 4G

Data collection
(Blue box)
ECOMCom
iCOM metering

Energy calculation, data handling
and communication
ECOModule (iCOM metering onboard)
ECOModule 4G



ECOMeter V170

One device
All catenaries measurement with one device

Advanced functionalities

Harmonics detection*/Overvoltage*/Overcurrent*
Cybersecurity
Condition Based Monitoring
Interface with Back office for data management

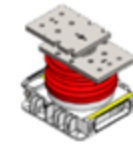
High accuracy

0.5R according to EN 50463:2017

Without re-calibration

Ad hoc setting through SW
Remote Software update

* SIL2 when combined with ECOBox-RSIL



Product	ECOMeter V125	ECOMeter VI125	ECOMeter V170	ECOMeter VI170	ECOMeter DC	ECOMeter Light
AC Catenary Voltage	25 kV 50Hz 15 kV 16,7 Hz	25 kV 50Hz 15 kV 16,7 Hz	25 kV 50Hz 15 kV 16,7 Hz	25 kV 50Hz 15 kV 16,7 Hz	-	AC auxiliary supply line up to 2kV
DC Catenary Voltage	3/1.5/0.75 kV	3/1.5/0.75 kV	3/1.5/0.75 kV	3/1.5/0.75 kV	3/1.5/0.75 kV	3/1.5/0.75 kV
Standard Compliance	EN 50463:2017					
Outputs & Interfaces	<ul style="list-style-type: none"> ▪Optical Communication <ul style="list-style-type: none"> ▪RS485 High Speed ▪Ethernet communication <ul style="list-style-type: none"> ▪Digital outputs 					<ul style="list-style-type: none"> ▪Ethernet communication ▪CAN Bus ▪Electric Frame ▪Digital outputs

New/Retrofit projects:

Our meters are installed on many vehicles such as:

ETR610, ETR400, TGV2020,
EMU, TfNSW, E9000, E6000, Keolis,
Kiss, Flirt, EMU, ETR1000, Talent3 etc.

List of some of our clients:

Alstom
CAF
Deutsche Bahn
Hitachi
Mermec
ÖBB
RFI
SBB CFF FFS
SNCF
Stadler
etc.

From Offer phase to project

Define the scope of the project

Engineering support

SW / HW modification

Certification / validation

Prototype preparation

Installation & project support

- Homologation
- Commissioning
- Training
- Service desk support
- Remote software update

DCS



ECOMeter



sustainability

which are possible to achieve them by:

The continuous measurement of traction power consumption provides a comprehensive data basis for the control of energy efficiency.

The evaluation of this data enables the identification of potential measures and the corresponding proof of efficacy after implementation.

Advanced driver advisory system for:
Energy efficient and economic driving
Reduction of energy consumption

Sa



The logo for Microelettrica Scientifica features a large white circle containing a stylized white letter 'K'. To the left of the circle are three white chevron-like shapes pointing right, and to the right are three white chevron-like shapes pointing left, creating a symmetrical, arrow-like appearance.

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A large, bold, blue letter 'M' is positioned on the right side of the image, partially cut off by the edge.