



- Comité de fabricants européens d'installation et de distribution de pétrole
- Committee of european manufacturers of petroleum measuring and distributing equipment
- Komitee der europäischen Hersteller von Einrichtungen zur Messung und Verteilung von flüssigen Brennstoffen

NON-REGRESSIVE ECONOMICAL SOLUTIONS FOR IDENTIFICATION OF INSTRUMENTS AND COMPONENTS FOR EASIER MAINTENANCE

CECOD BEST PRACTICE FOR MI-005 PETROL STATION INSTRUMENTS

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In this specific MID/National approach, this document tries to bring the best non regressive practice proposal to the EU community of member states, to soften the “real life market” of petrol stations in the union, and remove the restrictive/obstructive consequences of MID versus market reality and existing instruments already in service or put to market before MID introduction.

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SCOPE:

When MID came into force in the Union, it was the perfect tool to create a new mindset for measuring instruments. Barriers to trade were falling, and market was opening.

For the petrol station business, things were not as good as expected.

One example:

Historically, all dispenser manufacturers had approvals in all countries for their products (dispensers and components such as meters, pumps, calculators) and several SSD. For some components, European approvals were in place (with « ε » marking).

All approvals had to be renewed to create the new parallel world called MID.

MID created a parallel world, not mixable with old world.

As a consequence, cost of maintenance of new MID instruments could not profit from already in place logistics and tools. Vans needed to have parts two sets of parts, even when they were exactly the same. Parts with “ EPSILON” marking, and parts with TC (MID) marking.

Of course, some countries already found alternate solutions via concessions.

In 2010, CECOD decided to promote as much as possible a new approach, to better explain the constraints the CECOD community was having, and the solutions that could make life easier for everyone.

The approach proposed in this guide is not perfect, but it is the best non regressive and pro-active technical solutions to avoid continuing trouble and unwanted cost on a stressed marking.

Petrol station domain requires special care. It is a key utility for the community, for our economy, probably the first tax collector of the world, and CECOD represents over 95% of European dispenser sales, and maintenance over lifetime of instruments and cost of ownership are concerns.

1) Domain

This document is only to be used for MID / MI-005 instruments placed on petrol stations. The purpose is to define a clear common best practice for various combinations and/or situations of everyday life in the petrol station domain. Above all, it's purpose is to give clear non regressive solutions

2) References to standards

OIML R117 (1995)
OIML R117-1 (2007)

It is assumed that R117 is a non regressive community standard, meaning that any revision of the recommendation is considered as better or equal to any prior revision to reach the essential requirements.

3) Terms, acronyms and symbols

SSD: Self Service Device

DISPENSER: measuring instrument to transfer fuel into the tank of a vehicle, a small boat, a small aircraft or just a jerry can

Other terms are usual terms used in the petrol station domain or coming from known references such as R117 or MID.

4) Spare parts with Evaluation or Part Certificates, and legacy repairs

Preamble:

Most of the time, instruments in all domains have a quite short life time. Exception starts when cost of investment increases to such a level that owner expects his instruments to last more than 5 years.

On MI-005 instruments for petrol stations, instruments such as dispensers are long lasting instruments. Average life in service is around 15 years, but some stations still have pumps that are over 20 to 25 years old.

Concerns are around maintenance. If maintenance stops, those very old pumps are most likely to be decommissioned, and to never be replaced because they are in use on very small rural stations.

To maintain such dispensers with an acceptable cost, maintenance companies need to have typical spares available, either in the maintenance vans, or in their local workshop.

Level of cost of such precaution can increase very much if number of dispensers to maintain increases. The younger the dispensers are, the worse the problem is since MID.

When MID came into force, all instruments approved under this new rule were just “copy-paste” of existing legacy dispensers. Manufacturers just had the approvals revisited to get to MID level. All internal components remain the same except for marking.

As a consequence, impact on maintenance was not really assessed.

New situation forced each maintenance company to pay more attention to discriminate old “national” instruments from “new” MID instruments, even if the internal spare parts were all the same.

- Old components use to carry national or Epsilon marking
- New components had to carry MID TC references

Dilemma:

- Different marking, different components, even if exactly the same, need to have both available
- How to store more heavy components in vans, and why if they are the same?
- **Using Epsilon or national certification reference after Oct 2016, and applying partial factory verification (2 phase verification or WELMEC 8.8 spirit)**

More: during industrial life, manufacturers keep improving quality and performance of all their components. Because of the MID new world, improvement of components became not accessible for “old” national dispensers.



CECOD best practice:

BECAUSE

- a) spare parts used during repairs of dispensers carry specific marking
 - with TC/PC numbers) for MID dispensers
 - with national or Epsilon marking for “old” national dispensers
- b) MID parts were identical to pre-MID parts used on national dispensers (most of the time with “ε” from former European approvals)
- c) of the non regressiveness of R117 and R117-1, all MID (TC/PC) approved sub-components are 100% compatible with prior generation that was “ε” marked...

CECOD COMMUNITY ESTABLISHED THE FOLLOWING MINDSET (voluntary)

- When there are risks of confusion (ie: differences in part numbers or visual aspect), manufacturers can establish ascending compatibility list for each sub-components to allow use of such MID components (latest revision) in all legacy “national” dispenser built in the past , to allow quality/reliability improvement for service companies, and inventory reduction
- Multiple marking (TC/PC and former “ε” , even if multiple) shall be allowed to stand together on same label, to help verification when ever needed.
- After October 2016, the “ε” or national marking shall be preceded by the “≈” sign to clearly show that component is “equivalent to”. Using this equivalence sign is a commitment of manufacturer to insure equivalence, and apply last valid national or Epsilon certificate requirements and marking to secure maintenance of instruments made before MID came into force
- A tick box system might be added to allow better identification of applicable approval upon use of component (when used for a repair in a dispenser)

The purpose of this proposal is to

- *allow maintenance companies to reduce inventory in headquarters and vans*
- *give all market (old and new instruments) access to repair quality improvement*
- *avoid associating MID to a regression of quality on “old” national installed base as a knock-on effect*
- *Allow maintenance (repairs) of pre-MID instruments after October 2016 in a non regressive way*

This should be done on a Voluntary basis by manufacturers. They shall:

- *establish list of ascending compatibility between EPSILON marked components and new MID components, and warranty such ascending compatibility*
- *establish the multiple marking on their components*

5) Mini Serial plate

Preamble

External MID plate can get

- *Vandalized*
- *Erased by time, solvents, scratches*
- *Remove with cladding during livery campaign, and lost*
- *And link back to datasheet can become a source of conflicts or doubts*

CECOD best practice

Implement a mini-serial plate inside dispenser head

- *Away from vandals, solvents, scratches*
- *Not affected by cladding removal/change/repaint*

In case the external official MID plate is damaged/lost/removed, it allows replacing it with no doubt about the link between dispenser and datasheet coming from manufacturer.

Serial number reflected on Mini Serial Plate shall refer to either

- Serial number range as per applicable at time of build (*)
or
- Serial number cluster radix when applicable (*)

FIRST VERIFICATION:

seal mini-serial plate to inside of head with M sticker (module D or module F)

(*) the way the nozzles/measuring instruments are identified in a dispenser frame is the choice of the manufacturer. Here are some examples for a 6 hoses dispenser:

- one serial number for the frame itself (eg: 77566)
- one serial number for each nozzle in the frame (eg: 12340 to 12345)
- one serial number cluster for the frame (eg: 8832) and nozzle identification with additional letter or digit (eg: 8832-a, 8832-b, 8832-f)
- any other serial number identification insuring one-to-one tracability

Voluntary application by manufacturers. If used, indicated on sealing diagram

Note: use of RFID or bar-code, allowing extra identification via website is allowed