

MID DIGITAL METER AND GUNS



N° 223-MID

ADVANCED FLUID
MANAGEMENT SOLUTIONS



*Welcome to the
world of* **MID**



HELP THE NATURE

Packaging contains, depending on the articles, one or more of the following materials; they must be recycled in accordance with current regulations in the country of use.

cardboard • polyethylene sack • polystyrene
paper • wood • nails • plastic strap
cellophane • clips • gummed paper





**ADVANCED FLUID
MANAGEMENT SOLUTIONS**



DESIGN IS AN

Art





founded in 1975



*the human side
of Quality*



STUDY, RESEARCH AND DESIGN

The real strength of a firm starts with the ability of its study and research departments to always find the most suitable solutions to address market demands.



LIFE TESTS

A sophisticated test room enables careful testing of the quality of new products before they are put on the market.

TESTING

Each digital meter is computer tested to ensure utmost quality and high precision measurement.



ASSEMBLY LINES

Dedicated equipment specially designed to facilitate assembly operations, at the same time allowing an effective and automatic control of quality.



STORAGE OF COMPONENTS

Our vertical stores enable quick and careful preparation of the components and spare parts intended for assembly and sale.

TECHNICAL ASSISTANCE

RAASM target is to give always a comprehensive answer to its customers questions and to satisfy each of their single need.



Certification MID MI-005

Compliant with European Directive 2014/32/EU



What's this



The new **RAASM MID-certified digital meter** is the mandatory tool **required for commercial transactions** involving direct sale of lubricants for public use.

In compliance with the Measuring Instruments Directive 2014/32/EU, MID MI-005 certification focuses on the continuous, dynamic quantity measurement for liquids other than water. RAASM offers solutions for the supply of oil and similar products suitable for every need, ensuring a **high protection rating (IP65)** and save data for 2000 dispensing operations.





FEATURES REGULATIONS

STANDARDS, GUIDELINES AND OTHER REGULATIONS	OIML R 117-1- Wemec 7.2
MID IMPLEMENTATION DECREE	DECREE 19 May 2016, no. 84
METROLOGICAL MARKING OF DIGITAL METER LABEL	CE MXX 0476
EC TEST CERTIFICATE	MID 94-B-1
CHECKSUM CODE (unique digital meter software identifier)	C3.00



How does it work?



All **RAASM** digital meters
are calibrated

100%

Calibration is performed using only sophisticated equipment designed in-house by our R&D department. The units are sealed by applying a stainless steel wire on the screws closing the meter body.

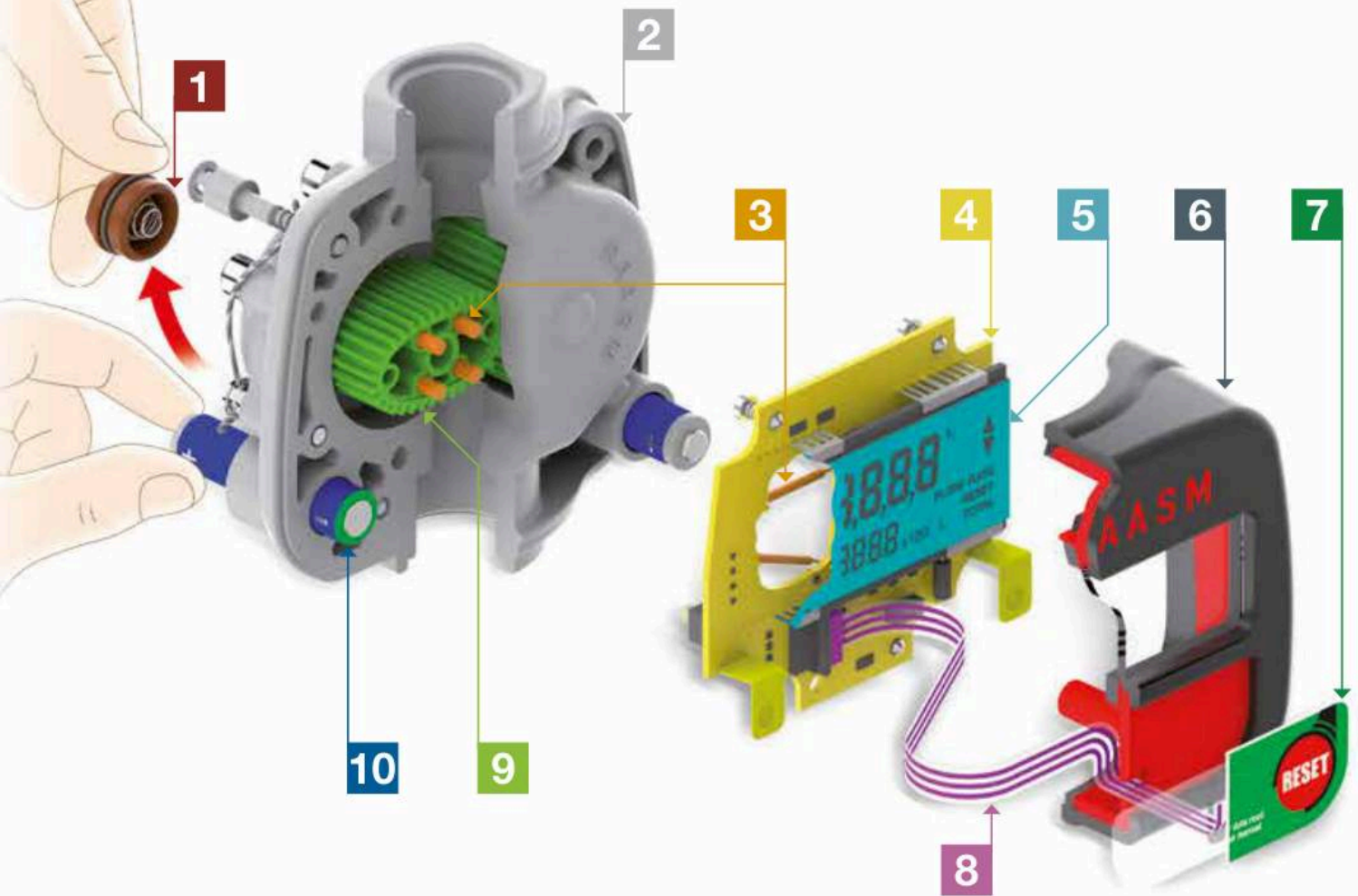
The certified minimum that can be dispensed is half a litre of oil; the total dispensed cannot be reset, however partial dispensing - up to 2000 entries can be saved with date and time - are overwritten so that the last 2000 recordings are always available. When the digital meter is delivered, alone or mounted on a gun, we provide a detailed report containing the data for all calibration tests performed, **plus the original RAASM certification.**

⚠ To use the guns with the MID-certified digital meter in RAASM dispensing kits, they must be fitted with a degasser.



MID Digital meter

TECHNICAL features



1 SEALED BATTERY
compartment assures continuous electronic contact in rugged working conditions.

2 ALUMINIUM BODY
designed with a compact, shock-resistant structure.

3 THE USE OF 4 MAGNETS
provides superior control and precision measurement.

4 ELECTRONIC CARD ASSEMBLED
with protective cover fitted with large LCD screen.

5 THE DISPLAY
is welded permanently on the electronic card.

6 DOUBLE LAYER PROTECTIVE COVER
provides an air tight seal with the aluminium body.

7 RAISED BUTTONS ON THE MEMBRANE
produce an improved operational feel.

8 A RIBBON WIRE CONNECTION BETWEEN THE BUTTONS
and the electronic board provide superior connectivity.

9 OVAL GEARS MADE OF POM
suitable for dispensing oils and similar products.

10 2 ALKALINE BATTERIES
standard 1.5 V AAA

DISPLAY specifications



The display provides simple, user-friendly indications to make use easier.

Battery low level indicator.
When it goes on, replace the batteries immediately.

5 digit
resettable totalizer.

Records total, instantaneous
flow rate and number of
dispensing operations
saved (6-digit).

Total may be multiplied
by x10 - x100.



Unit of measure for partial
registration (litres).

Displays instantaneous
"FLOW RATE".

Indicates the "TOTAL" or
"RESET TOTAL".

Unit of measure for partial
registration (litres).

TECHNICAL PERFORMANCE

MPE (maximum permissible error)

Max. value between: 0,01 l (minimum error)
0,3% (supply > 2 l)

Repeatability 0,2%

Pressure loss < 0,5 bars at max flow rate

Temperature ΔT +5 °C ÷ +40 °C (+41 °F ÷ +104 °F)

SEALED closing



- **Lead sealed** to guarantee that the instrument cannot be tampered with.



strength points



- **2000 permanent operations can be saved to memory** and viewed on the instrument at any time.
- MPE (maximum permissible error) 0,01 l or the 0.3% when dispensing more than **2 litres**, also thanks to a double pair of magnets which improves measurement precision.
- Comes standard with a device **able to maintain the date and time** while the battery is being changed.
- For each meter, a **detailed calibration certificate** is provided containing the data from the tests performed.



MID Digital meter For oil and allied products



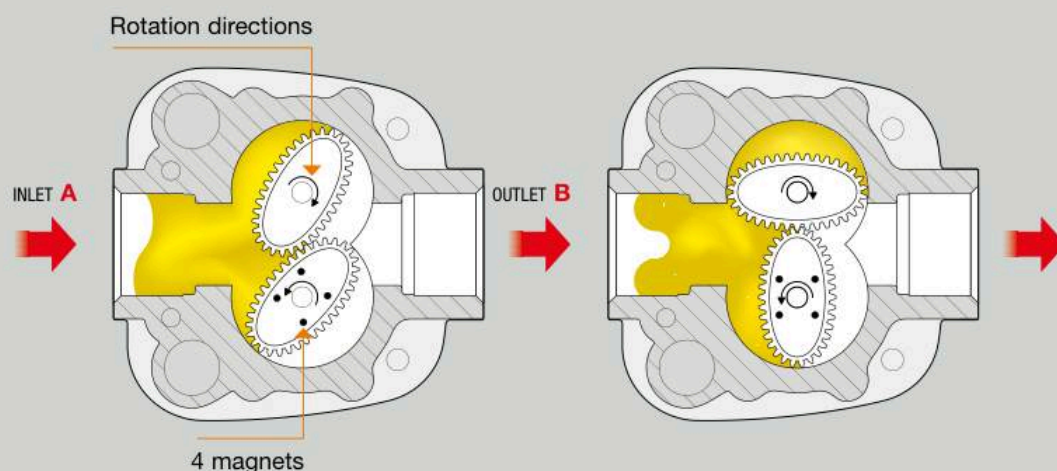
RAASM MID-certified digital meter is designed to measure oil and similar products in compliance with current European legislation. It let you view the total amount supplied - which cannot be reset - while the partial supplies can be displayed and saved. The instantaneous flow rate can be consulted on the display, as well as the number of dispensing operations saved to memory. It can also be mounted on guns already in use, provided the transparent display p/n 38119 and automatic nozzle p/n 38116 are also used.



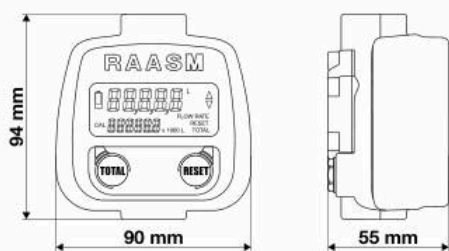
Article	37780M
Compatible fluids	Oil and allied products
Viscosity	90 ÷ 200 mPas
Body's material	Aluminum
Gear's material	POM
Inlet/Outlet	G 1/2" (f) / G 1/2" (f)
Delivery	1 ÷ 10 l/min
Minimum measurable quantity	0,5 l
Max operating pressure	1 : 20 bar
Burst pressure	200 bar
Precision class	0,5
MPE (maximum permissible error)	Max. value between: 0,01 l (minimum error) - 0,3% (supply > 2 l)
Working temperature	+5 °C ÷ +40 °C
Mechanical environment class	M2
Electromagnetic environment class	E2
Protection degree	IP65

Measuring principle

When the fluid enter in the oval gear chamber through the **inlet "A"**, the gears start to rotate. The gears start to rotate because of the pressure of the fluid which comes out from the **outlet "B"**. Each rotation corresponds to a determinate quantity of fluid.



OVERALL DIMENSIONS



N° 1 packing 0,0015 m³ Net weight 0,535 kg

streight points



- **MID-MI005** Certification.
- Reference Directive **2014/32/UE**.
- **Sealed** with stainless steel wire applied on screws after in-house calibration.

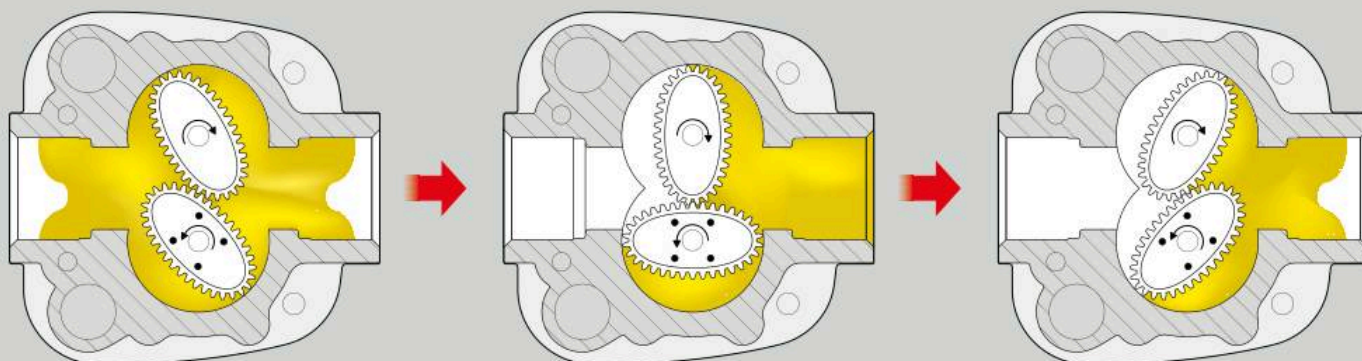


Guarantee and quality of the components are our priority!



Correct dimensional tollerances between gears and chamber grant the reliability and the accuracy of the meter.

4 magnets, placed on one of the two gear, give the pulses to the microprocessor during every rotation.





Dispensing guns

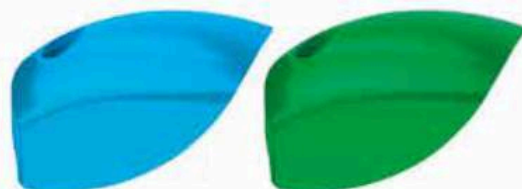


inlet filter



- supplied on the entire protect range, guaranteeing cleaning of dispensed liquid while maintaining gun performance.

Coloured caps supplied for all the range.



PERFORMANCE

Series	1/2" 30 TP
Flow rate	10 l/min
Max pressure	60 bar
Inlet union	G 1/2" (f)
Seals	NBR

- 1 DRIP-CATCHER NOZZLE**
Only ø 16 mm automatic drip-catcher nozzles are installed to guarantee maximum precision dispensing.

- 2 TERMINAL**
Versions with flexible or rigid terminal are available.

- 3 TRANSPARENT SIGHT GLASS**
Each gun has a transparent sight glass to check that there are no air bubbles during oil throughflow.

- 4 GRIP**
Grip in aluminium alloy or technopolymer.

- 5 LEVER LOCKING BUTTON**
Depending on your needs, models are available both with and without the lever locking button.

- 6 HOOK**
All guns come standard with a hook so they can be stored quickly and easily.

TECHNICAL FEATURES

RAASM MID-certified guns are designed to measure oil and similar products in compliance with current European legislation. They accommodate the 37780M meter and confirm all technical characteristics. The range of guns available can meet every need and includes flexible or rigid terminals, handles in aluminium or technopolymer, lever locking buttons and automatic drip-catcher nozzles.



TECHNICAL

1/2" 40 AL	1/2" 40 AP
10 l/min	10 l/min
70 bar	70 bar
G 1/2" (f)	G 1/2" (f)
Viton®	Viton®

strength points



- **All accessory components** required by law are available for implementation on the gun you already have so it can be used **for MID-MI005 certified delivery.**
- **IP65 protection rating** so the meter can be used in environments that are extremely dusty and subject to jets of water.
- **Precision, ergonomic design** featuring compact, light-weight structure that **ensures an easy, manoeuvrable grip.**



Dispensing guns with **flexible terminal** Oil and allied products



Series **1/2" 30 TP**
P/N **38145M**
with digital meter p/n **37780M**

Grip: technopolymer	Terminal: flexible black synthetic rubber
Drip-catcher nozzle: automatic ø 16 mm	Transparent sight glass to check the oil throughflow
Hook for storing the gun	Inlet swivel joint G 1/2" (f)



Series **1/2" 40 AL**
P/N **38155M**
with digital meter p/n **37780M**

Grip: in aluminum alloy	Terminal: flexible black synthetic rubber
Drip-catcher nozzle: automatic ø 16 mm	Transparent sight glass to check the oil throughflow
Hook for storing the gun	Inlet swivel joint G 1/2" (f)
Coloured caps supplied for all the range	



Series **1/2" 40 AP**
P/N **38185M**
with digital meter p/n **37780M**

Grip: in aluminum alloy	Terminal: flexible black synthetic rubber
Drip-catcher nozzle: automatic ø 16 mm	Transparent sight glass to check the oil throughflow
Hook for storing the gun	Inlet swivel joint G 1/2" (f)
Coloured caps supplied for all the range	Lever locking button



Dispensing guns with **rigid terminal** Oil and allied products



Series 1/2" 30 TP
P/N 38146M
with digital meter p/n 37780M

Grip: technopolymer	Terminal: rigid terminal in aluminum alloy
Drip-catcher nozzle: automatic ø 16 mm	Transparent sight glass to check the oil throughflow
Hook for storing the gun	Inlet swivel joint G 1/2" (f)



Series 1/2" 40 AL
P/N 38156M
with digital meter p/n 37780M

Grip: in aluminum alloy	Terminal: rigid terminal in aluminum alloy
Drip-catcher nozzle: automatic ø 16 mm	Transparent sight glass to check the oil throughflow
Hook for storing the gun	Inlet swivel joint G 1/2" (f)
Coloured caps supplied for all the range	



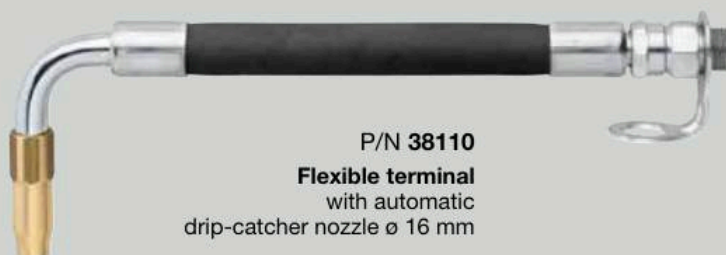
Series 1/2" 40 AP
P/N 38186M
with digital meter p/n 37780M

Grip: in aluminum alloy	Terminal: rigid terminal in aluminum alloy
Drip-catcher nozzle: automatic ø 16 mm	Transparent sight glass to check the oil throughflow
Hook for storing the gun	Inlet swivel joint G 1/2" (f)
Coloured caps supplied for all the range	Lever locking button

Customise your gun



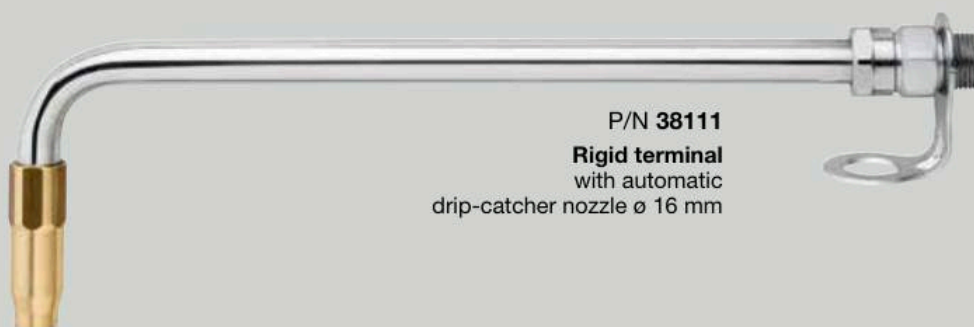
P/N 38116
Automatic
drip-catcher nozzle
ø 16 mm



P/N 38110
Flexible terminal
with automatic
drip-catcher nozzle ø 16 mm



P/N 38119
Transparent sight glass
assembly kit
to check that there
are no air bubbles
during oil throughflow



P/N 38111
Rigid terminal
with automatic
drip-catcher nozzle ø 16 mm

All components of the new RAASM MID digital meter and guns can be purchased separately. These units can be used to take a standard gun, already in use and turn it into a gun certified for commercial transactions for public use. The parts indispensable for this purpose are the 37780M digital meter, the automatic drip-catcher nozzle 38116 and the oil sight glass 38119. See the exploded drawing below to find the necessary item.

*welcome to the
world of*



P/N 37780M
MID Digital meter
for oil, inlet/outlet
G 1/2" (f)



P/N 38072
Nipple
G 1/2" (m) x G 3/8" (m)

P/N 38023
Grip
in technopolymer with
inlet swivel joint G 1/2" (f)



P/N 38020
Grip
in aluminum alloy with
inlet swivel joint G 1/2" (f)



P/N 37740
Grip
in aluminum alloy with
inlet swivel joint G 1/2" (f)
and lever locking button

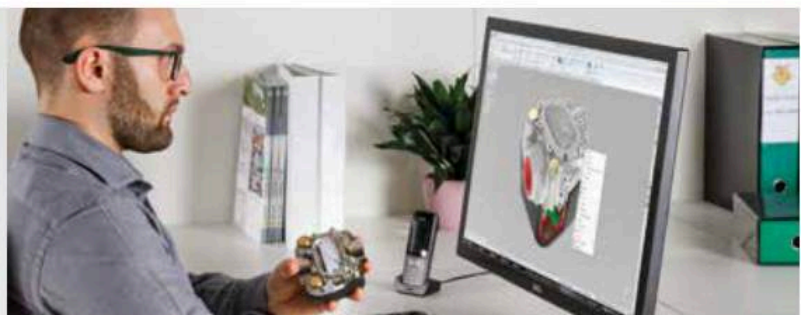




THREE WORDS TO DESCRIBE RAASM

■ Technology

The starting point for the entire production cycle is the research and development of cutting-edge new solutions which lead to the development of **high quality products, fully produced in Italy.**



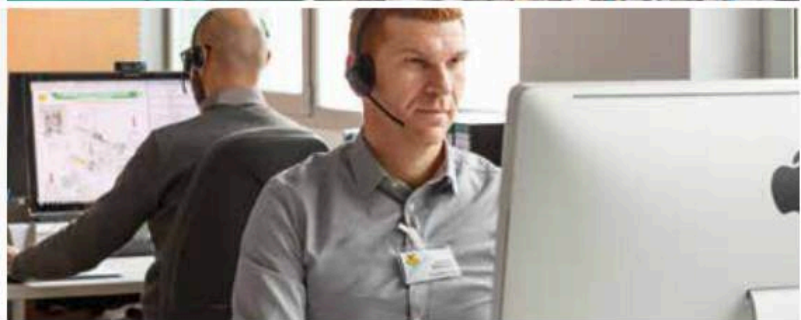
■ Quality

The quality of our product manufacturing has always been our absolute priority. To reach this goal rigorous testing accompanies every phase of the manufacturing process.



■ Functionality

RAASM offers the most complete range of lubrication products suited to many sectors. Our aim is to always be available to provide solutions to our customers.



Company with an
ISO 9001:2015
certified quality
management system

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