



# CONVERTER MC106



The MC106 series of **EUROMAG INTERNATIONAL** converter has essential and economic characteristics especially in the version A, where a single output measurement signal is required. Other unrequired functions would increase cost and dimensions. It is applicable to all “full board” electromagnetic sensors manufactured by **EUROMAG INTERNATIONAL** (Table 1). The MC106 converters are produced in three versions the characteristics of which can be seen in Table 2. The only standard signal present in all three versions is the ON/OFF signal (transistor output) which can be used for one of the functions that can be chosen via the “presetting” (Table 2).

## 1. CASE AND ASSEMBLY

### 1.1. CONVERTER MC106A



Model MC106 A is contained in an ABS case, dimensions 165 x 140 x 65, IP 67 protection degree; it is without keyboard, while the display is optional. It can be supplied mounted on the sensor (compact version), or separate from it. In the separate version, the converter must be wall mounted by using screws inserted in the four holes the converter is fitted with.

### 1.2. CONVERTER MC106B

Model MC106 B is suitable for panel mounting and is provided with a 2 line 16 character display and with a 6 key keyboard. It is contained in an ABS case, IP 44 protection degree and frontal dimensions 72 x 144 mm. On request it can be equipped with transparent flap door IP 65. The MC106B converter is connected to the sensor by two cables C012 and C013. The same is valid for models MC106A and MC106C if in the separate version. The length of these cables must not exceed 100 meters (the length depends on the conductivity of the liquid).

## 2. PRESETTING

The MC106B version can be perfectly programmed for all of its functions (full scale flow rate, measurement unit, type of use of ON/OFF output, response time constant, alarm thresholds according to Namur standards, etc.) via keyboard and display, which the converter is equipped with.

Models MC106A and MC106B, being without a keyboard, for their presetting require either a portable terminal TRM100 or a connection to a TRM200/1.

The TRM100 is a terminal equipped with a 16 key keyboard, a 2 line 16 character display and a 2 m cable complete with a 5 pole DIN plug. This plug should be inserted in the correct connector socket placed on the case side, by removing a screw-on cap. The TRM100 permits the reading of measurements and information and for inserting presetting data.

The TRM200/1 permits the measurement supplied by the meter, equipped with MC106A or MC106C, to be transferred up to a distance of some hundreds of meters (eg. in control room) and also permits carrying out, from a remote distance, all the presetting required by the flow meter. In place of the TRM 200/1 you can use the TRM200/2, which also offers the possibility of having a 4-20 mA output and three ON/OFF outputs which can be directed at the same time, by means of the keyboard, to three of the functions listed in Table 2.

Versions of MC106	COUPLING SENSORS											
	MUT500		MUT501		MUT1000		MUT1100		MUT2200		MUT2400	
	CP [2]	SP [1]	CP [2]	SP [1]	CP [2]	SP [1]	CP [2]	SP [1]	CP [2]	SP [1]	CP [2]	SP [1]
MC106 A	•	•	•	•	•	•	•	•	•	•	•	•
MC106 B		•		•		•		•		•		•

[1] SP: SEPARATE  
[2] CP: COMPACT

**Table 1.**

Presetting of output ON/OFF of MC106 [1]	MC106 A	MC106 B
- Frequency proportional to the flow rate	•	•
- Impulse totalization	•	•
- Forward/inverse flow rate	•	•
- Maximum alarm	•	•
- Minimum alarm	•	•
- Hardware alarm + empty tube	•	•
- Out of range alarm	•	•

[1] Available for all versions HV e LV

**Table 2.**

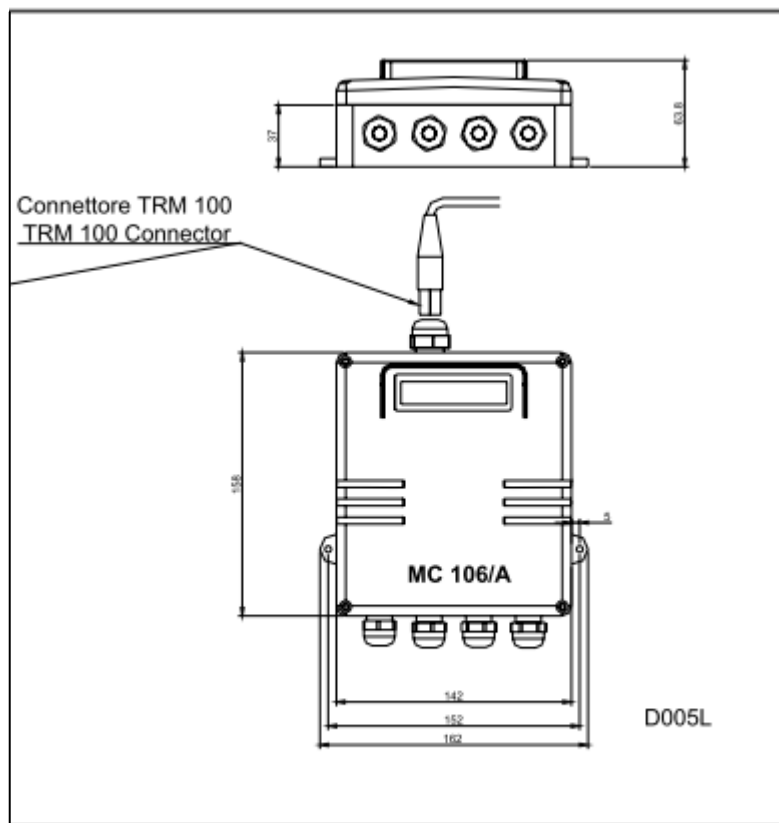
Characteristics of MC106	MC106 A		MC106 B	
	HV	LV	HV	LV
Power supply [1] [2]				
Display	•	•	•	•
Keyboard			•	•
Case in ABS IP 67	•	•		
Case in ABS IP 44			•	•
Case in ABS IP 65				
Use of terminal TRM100	•	•		
Output ON/OFF 24 Vdc [7]	•	•	•	•
Interface RS485 only for TRM200	•	•	•	•
Output 4(0) - 20 mA [3]	•	•	•	•
Auto-ranging	•	•	•	•
Metric system: decimal, English, American	•	•	•	•
Input Reset for totalizers [4]	•	•	•	•
Forward/reverse flow rate [6]	•	•	•	•
Empty tube alarm [5]	•	•	•	•
Language: Italian and English	•	•	•	•
Operating environmental temp. -20 °C a + 60 °C	•	•	•	•
[1] [LV] Power supply 24 Vac/dc				
[2] [HV] Power supply 90...264 Vac				
[3] Only on request: optional				
[4] Zero resetting possible only via RS 485				
[5] Available only with output 4(0) ÷ 20 mA				
[6] Occupies the only output ON/OFF				
[7] Choice available: alarm output or output ON/OFF 24 Vdc				

**Table 3.**

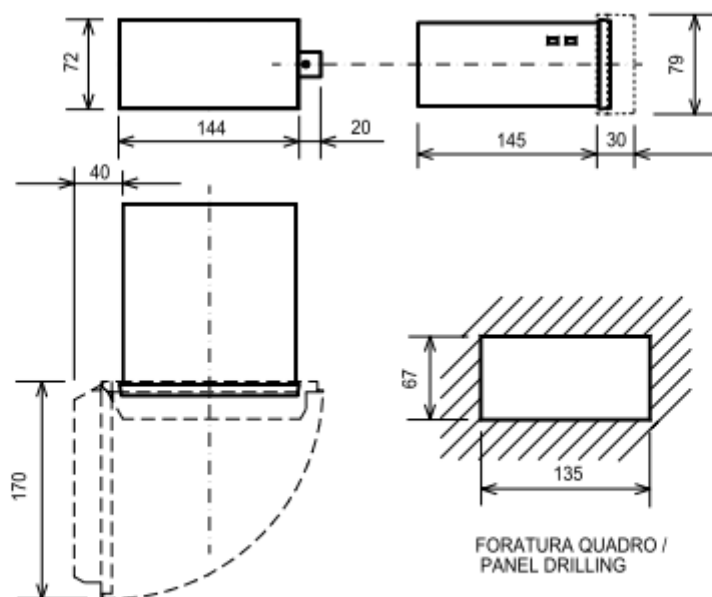
### OVERALL DIMENSIONS

Dimensions and weight of MC106 converters				
Versions of MC106	Width	Height	Depth	Weight
MC106 A [1] [2]	162.0 mm	158.0 mm	63.8 mm	1200 g
MC106 B [3]	170.0 mm	79.0 mm	145.0 mm	800 g
[1] Space for connecting TRM100 foreseen				
[2] Diagram 1B				
[3] Diagram 2				
[4] Diagram 4A				

**Table 4.**



**Diagram 1B.**  
**Converter MC106A**



**Diagram 2. Converter MC106B**

The data shown in this manual are subject to modification without prior notice.