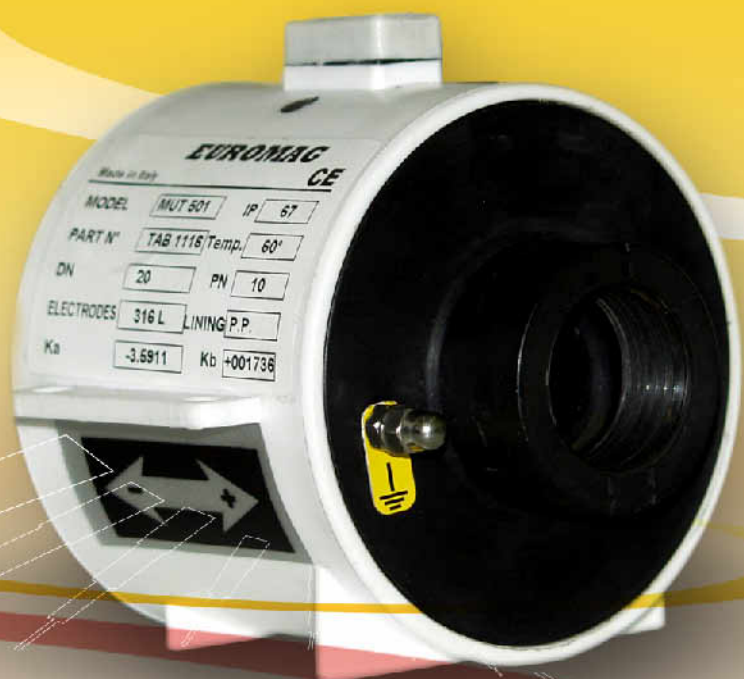


Electromagnetic flowmeters



Sensor MUT 501

DS061-1-ENG 

Sensor MUT 501

EUROMAG INTERNATIONAL series MUT501 are suitable for the measurement of small flowrates of liquids electrically conductive (conductivity > 10 mS/cm) with temperatures not higher than 60° C. They cover all diameters from DN 6 until DN 20. The degree of protection is IP 67. They are made of a flow tube in polypropylene. The coils generating of the electromagnetic field are mounted on the external side of the flow tube. The complete assembly is enclosed in a polypropylene body.

1. Body connections and internal lining

The flow tube and the external body are in polypropylene manufactured by thermoplastic injection. The connections in the standard version are female threads UNI338 in polypropylene; and on request, the thread can be in NPT. Table 3 shows the connections dimensions.

2. Electrodes.

The standard version has three electrodes in AISI 316 L, but on request, they can be in the materials shown in Table 2. The third electrode, provided as a standard, is used for grounding the liquid.

3. Coupling and connecting to sensor

Sensors of the MUT501 family can be mounted to all converters manufactured by EUROMAG INTERNATIONAL shown in Table 4. The MUT501 can only be delivered in the separate version. In this version the sensor is connected to the converter by means of two cables (C012 and C013) the length of which depend on the liquid conductivity, the maximum length cannot exceed 100 metres, as it is shown in Figure 1. The standard length for this type of version is 5 meters.

4. Choice of diameter

MUT501 can measure flowrates of up to 12.500 l/h. When choosing the diameter, we advice keeping at the full scale flowrate, a liquid velocity of at least 2÷3 m/s. The maximum velocity accepted is 10 m/s. Figure 3 gives the flowrate of each ND (nominal diameter) according to the liquid velocity.

5. Maximum temperature of liquid

In the separate and compact version the maximum temperature the liquid can reach is 60° C.

6. Calibration and maximum error

MUT501 belongs to the reference Group B1 (ISO 11631). Each sensor is calibrated on a hydraulic bench equipped with a reference weighting system and SIT certified. The uncertainty of the measure is equal to 0.2% of the flowrate read value, when the liquid velocity is higher than 0.2 m/s. the repeatability of the measure is in the order of 0.1%.

7. Reference norms

The EUROMAG INTERNATIONAL magnetic meters are marked CE and are manufactured according to the following standards:

- CEI EN 61010-1
- UNI EN ISO 6817
- EN 1434
- EN 50081 - 1
- EN 50082 - 1

Maximum length of cable according to the liquid conductivity.

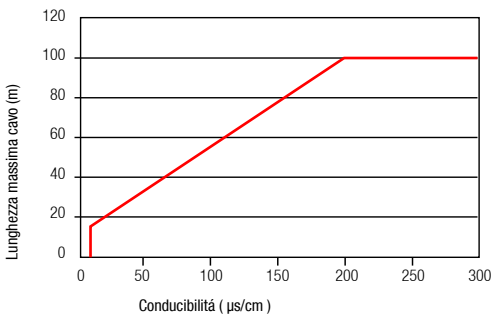


figura 1

Available diameters

millimeters (mm)	6	10	15	20	25
inches (")	1/4"	3/8"	1/2"	3/4"	1"

table 1

Available electrodes

AISI 316 L
Hastelloy B
Hastelloy C

table 2

Passage - Diameter of connections

Passage DN		Diameter of connections
		UNI 338/NPT
20 mm	3/4"	1/4"
20 mm	3/4"	3/8"
20 mm	3/4"	1/2"
20 mm	3/4"	3/4"
20 mm	3/4"	1"

table 3

Coupling converters

Versions of MUT501	MC 106 A	MC 106 B	MC 106 C	MC 306	MC 308	MC 308 C	MC 108	MC 108/ET
	[1]	[1]	[3]	[1]	[1] [2]	[2]	[2]	[2]
SEPARATED	●	●	●	●	●	●	●	●

[1] Case in abs [2] Case in aluminium [3] Case in stainless steel

table 4

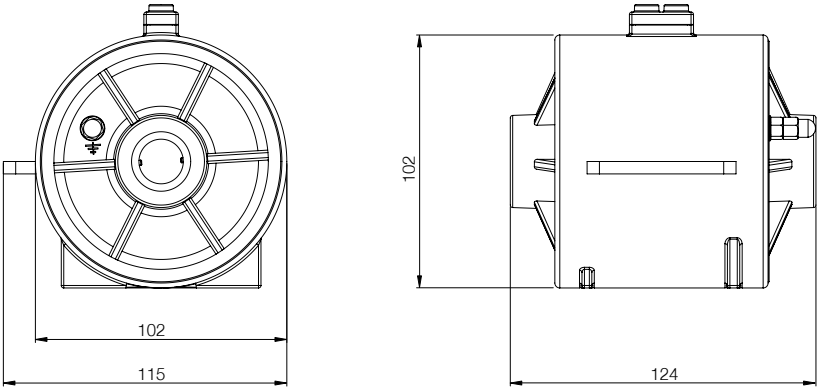
Body materials

MUT 501	Polypropilene
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table 5

Fig. 2 - Overall dimensions.

The dimensions are expressed in [mm]. All dimensions indicated are the same for all the sensors of the MUT501 family.



Sensor MUT501

Available diameters	6 mm 1/4"	10 mm 3/8"	15 mm 1/2"	20 mm 3/4"	25 mm 1"		
Available electrodes [*]	AISI 316L		HASTELLOY B		HASTELLOY C		
Joints	Female thread	UNI 338	NPT				
Nominal Pressure	10 bar						
Liquid Temperature (constant)	-20°C a + 60°C						
Degree of Protection	IP67						
Converters compatibility [1]	MC 106 A	MC 106 B	MC 106 C	MC 306	MC 308	MC 308 C	MC 108
Parts in contact with the liquid	Passage Pipe			Connections			
Weight [2]	0,350 kg						

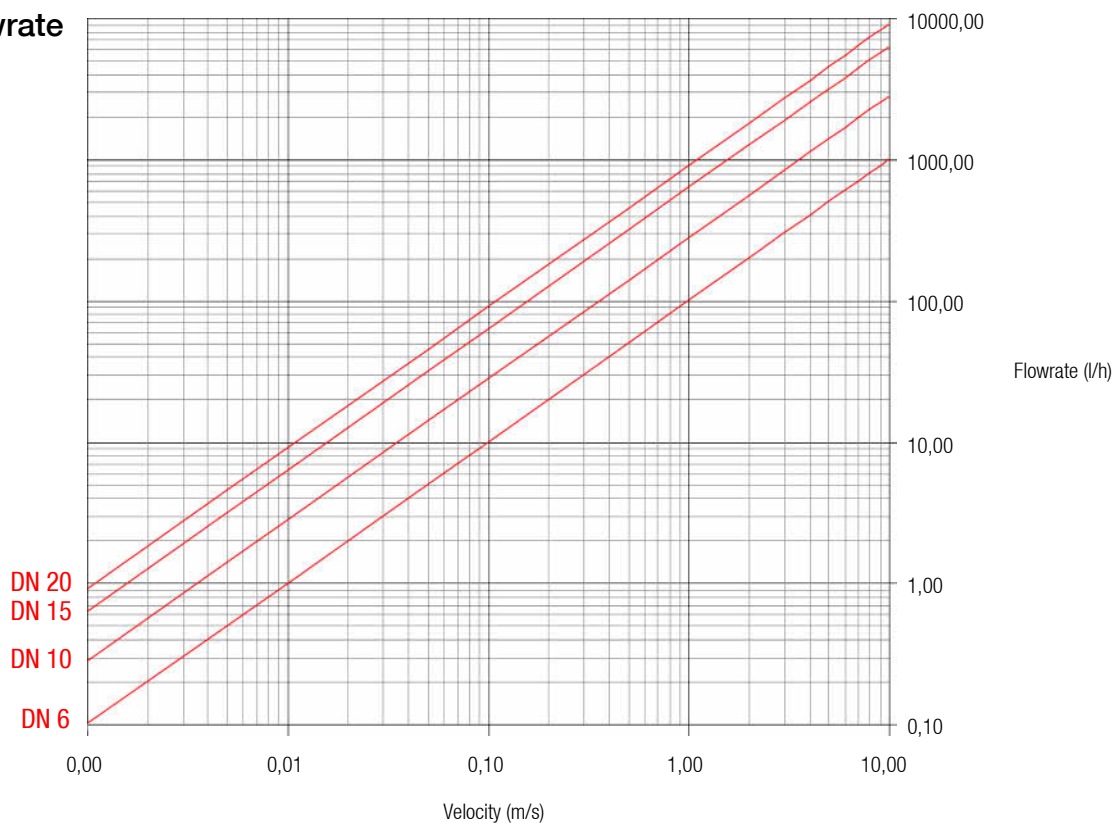
[1] Available only in the separate version

table 6

[2] Maximum weight of sensor without cables

Fig. 3 - Flowrate values according to the liquid velocity for all available diameters

MUT 501 Flowrate



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