



Member State
Switzerland

OIML Certificate
No R49/2006-CH1-09.02

OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name Federal Office of Metrology METAS
Certification Body METAS-Cert

Address METAS, Lindenweg 50, CH-3003 Bern-Wabern

Person responsible Jürg Ramseyer, Head of METAS-Cert

Applicant

Name ISOIL INDUSTRIA SPA

Address Via F.lli Gracchi 27, IT-20092 Cinisello Balsamo (Mi)

Manufacturer The manufacturer of the certified pattern is the Applicant

Identification of the certified pattern

**Family of electromagnetic flow meters intended for the
metering of cold water**

Type **ISOMAG**

For further characteristics see page 3 and ff.

This Certificate attests the conformity of the above identified type (represented by the sample or samples identified in the associated test report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R 49-1, edition 2006
for accuracy class 2

This Certificate relates only to the metrological and technical characteristics of the type of instrument covered by the relevant OIML Recommendation identified above.

This Certificate does not bestow any form of legal international approval.



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The conformity was established by the results of tests and examinations provided in the associated Test Reports:

No 135-10735 that includes 27 pages

The Issuing Authority

Jürg Ramseyer, Head of METAS-Cert

The OIML Member

Dr. Philippe Richard, Vice Director

CH-3003 Bern-Wabern, July 1st, 2009

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1 Description of the Type

The family of water meters ISOMAG covers the nominal diameters in the range of DN25 to DN200 consisting of 10 nominal diameters. The water meters are designed for a nominal pressure of 16 bar and a maximal water temperature of 60 °C.

2 Design

The family of water meters ISOMAG is designed for measuring the flow of electrically conductive mediums (water) by means of the electromagnetic flow measuring system. The conductive medium flows through a magnetic field which induces a voltage that is proportional to the mean flow speed as the magnitude of the magnetic field is kept constant and the nominal pipe diameter is a constant factor. The converter of the sensor manages the input and output signals and converts the data.

Versions:

Compact flow meter

The converter and the flow sensor are fixed together.

Splitversion:

The converter and the flow sensor are connected via cable.

3 Sensor

Typ MS 2500

Process connection	Flanges: ANSI, DIN, JIS
Flanges material	Carbon steel Stainless steel AISI 304- AISI316 (op.)
Liquid temperature	0°C ÷ 60°C
Vacuum resistance	20 kPa (absolute) at 100 °C (60/80 °C for PP/Ebon)
Lining material	Polypropylene Ebonite PTFE
Electrodes material	Stainless steel AISI 316 Hastelloy Platinum-Rhodium Titanium Tantalum
Version – protection rate	Compact version – IP 67 Separate version – Sensor IP 68 / Sensorelektronik IP 67

Adjustment:

- The converter corrects the sensor linearly with the k-factor.



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4 Converter of the sensor

Type ML 110 or ML 210

- Upper part of the housing AZ.020420.A1
- Lower part of the housing AZ.020421.A1
- Software revision 3.xx

5 Accessory components

none

6 Technical specifications

DN	Q(1)	Q(2)	Q(3)	Q(4)	Orientation	Disturbance	T	Meter Class	Length
mm	m ³ /h	m ³ /h	m ³ /h	m ³ /h			°C	R	mm
25	0.100	0.160	16	20	H / V	U0 / D0	60	160	200
32	0.156	0.250	25	31.3	H / V	U0 / D0	60	160	200
40	0.250	0.400	40	50	H / V	U0 / D0	60	160	200
50	0.394	0.630	63	78.8	H / V	U0 / D0	60	160	200
65	0.625	1	100	125	H / V	U0 / D0	60	160	200
80	1	1.6	160	200	H / V	U0 / D0	60	160	200
100	1.563	2.5	250	312.5	H / V	U0 / D0	60	160	250
125	2.5	4	400	500	H / V	U0 / D0	60	160	250
150	3.938	6.3	630	787.5	H / V	U0 / D0	60	160	300
200	6.250	10	1000	1250	H / V	U0 / D0	60	160	350