

# ISOMAG ™

THE FRIENDLY MAG METER

SENSOR

## MS 3770



INSERTION FLOW METER

INSERTION SENSOR: MOUNTING ONLY IN NO PRESSURE CONDITION

The manufacturer only guarantees the English text.  
Available on our web site: [www.isoil.com](http://www.isoil.com)

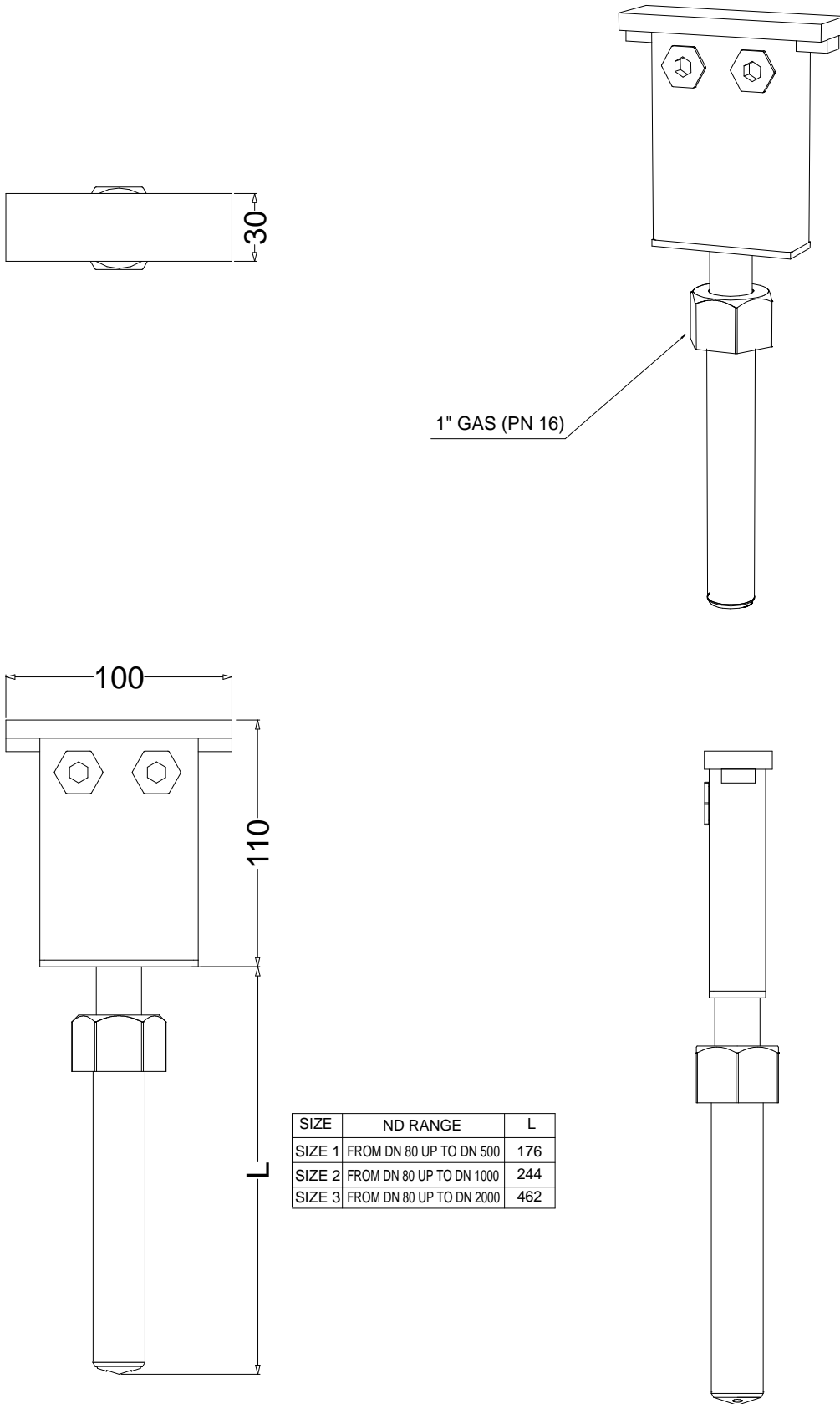
ISOIL   
INDUSTRIA

*The solutions that count*

## TECHNICAL DATA

<b>Body material</b>	<input type="checkbox"/> Stainless steel AISI 304 <input type="checkbox"/> Stainless steel AISI 316
<b>Size for pipe line Ø</b>	<input type="checkbox"/> Size 1 Ø £ 500mm <input type="checkbox"/> Size 2 Ø £ 1000mm <input type="checkbox"/> Size 3 Ø £ 2000mm <input type="checkbox"/> Other on request
<b>Nominal pressure</b>	<input type="checkbox"/> NP 16 <input type="checkbox"/> Other on request
<b>Process connection</b>	<input type="checkbox"/> 1" Threaded end <input type="checkbox"/> Other on request
<b>Connection material</b>	<input type="checkbox"/> Stainless steel AISI 304
<b>Liquid temperature</b>	<input type="checkbox"/> -4°F ÷ 212 compact version <input type="checkbox"/> -4°F ÷ 302 separate version
<b>Lining material/Tightness</b>	<input type="checkbox"/> PTFE/FPM
<b>Electrode material</b>	<input type="checkbox"/> Stainless steel AISI 316L <input type="checkbox"/> Other on request
<b>Version – protection rate</b>	<input type="checkbox"/> Compact version – IP 67 <input type="checkbox"/> Separate version (max 20m) – IP 68 <input type="checkbox"/> Separate version (max 500 m), with preamplifier – IP 67 (OPT. IP 68)
<b>Accuracy</b>	<input type="checkbox"/> ± 2,5 % with all converters, flow speed > 1 m/s
<b>Repeatability</b>	<input type="checkbox"/> ± 0,5 %

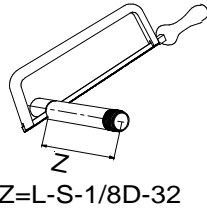
**OVERALL DIMENSIONS**



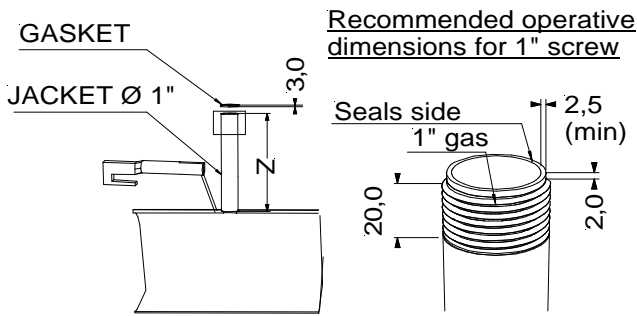
# INSTALLATION

**Pic. 1**

Cut the Ø 1" jacket as in picture 1.  
( check also PIC. 6 )  
**ATTENTION:** consider the necessary over-metal for the welding operation

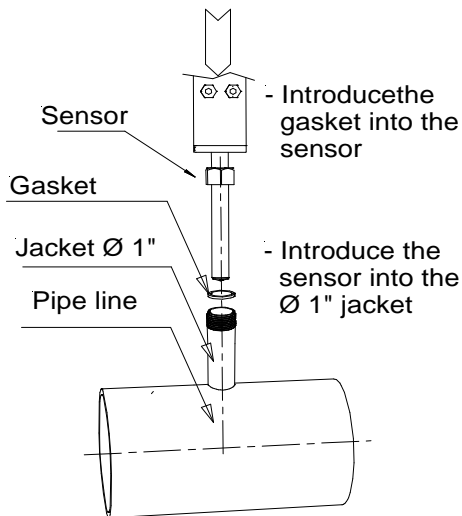


**Pic. 2**

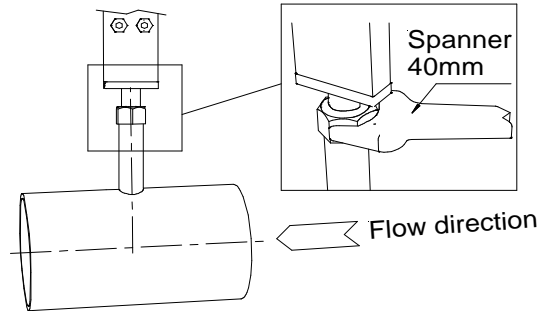


weld the jacket to the pipe line

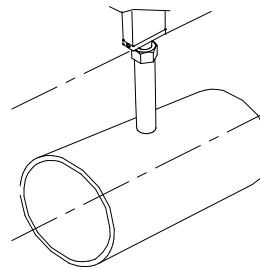
**Pic. 3**



**Pic. 4**



**Pic. 5**

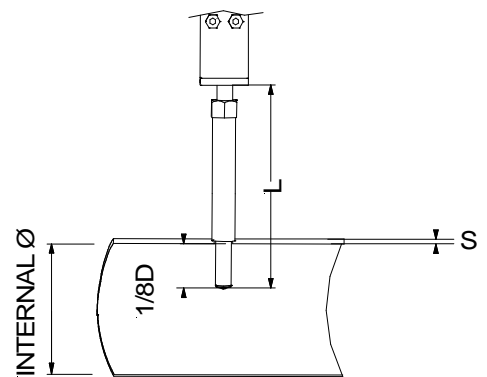


- align longitudinally the connector box with the pipe line axis
- Tighten the nut with a spanner keeping the alignment.  
The fixing of the nut must guarantee the sealing of the gasket

**Pic. 6**

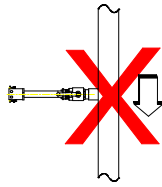
SIZE	ND RANGE	L
SIZE 1	DN 80 UP TO DN 500	176
SIZE 2	DN 80 UP TO DN 1000	244
SIZE 3	DN 80 UP TO DN 2000	462

Sensor installed

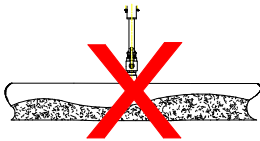


## INSTALLATION RECCOMANDATION

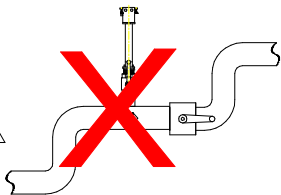
### AVOID



For vertical installations with descending flow direction contact the manufacturer

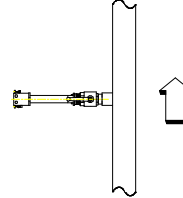


Avoid the functioning with partially empty pipe

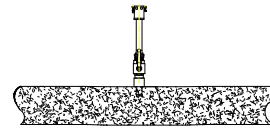


Avoid the installation near bends or hydraulic accessories

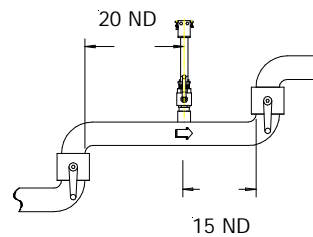
### RECOMMENDED



In vertical installations an ascending flow is preferable



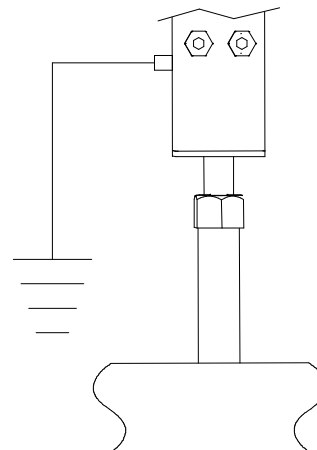
During the functioning the pipe must be either completely full of liquid or completely empty



Install the sensor away from bends and hydraulic accessories

## SENSOR GROUNDING

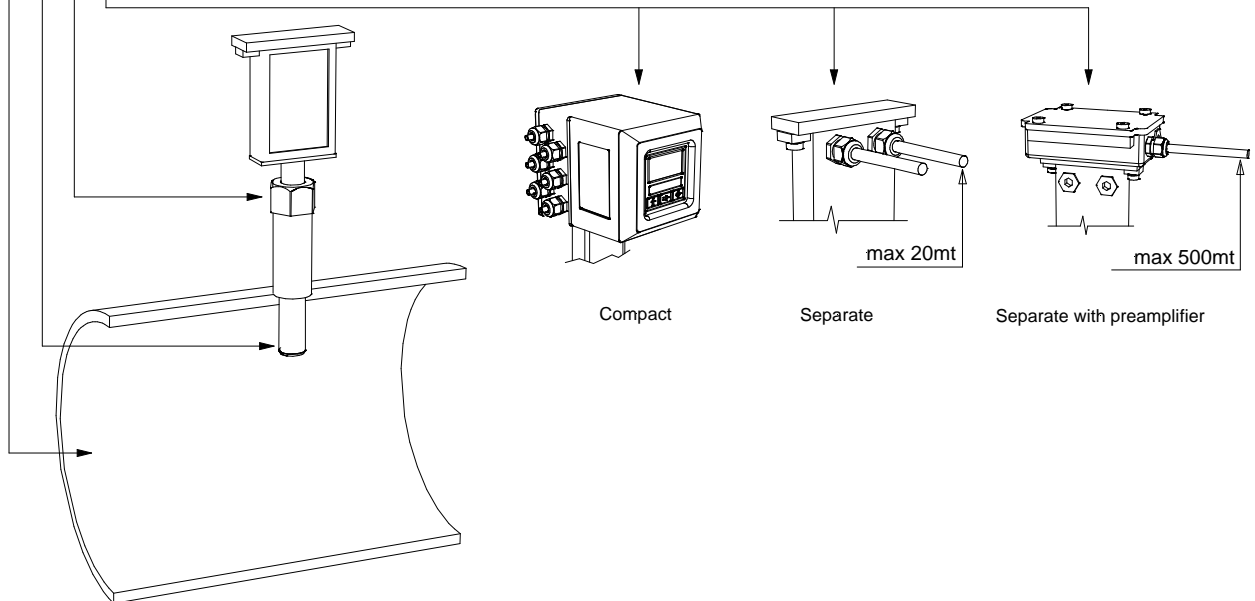
For the correct operation of the meter it is **NECESSARY** that sensor and liquid are equipotential, so **ALWAYS** connect sensor and converter to the ground. For grounding with cathodic protection pipe, please contact the manufacturer.



## HOW TO ORDER

<b>MS 3770</b>	<b>ND range pipeline</b>
1	suitable for diameter $\leq 500$ mm.
2	suitable for diameter $\leq 1000$ mm.
3	suitable for diameter $\leq 2000$ mm.
9	suitable for diameter : to be specified
<b>Sensor and electrodes material / lining</b>	
A	Sensor material AISI304, PTFE lining, electrodes in AISI316 (gasket in FPM)
Z	Sensor material: to be specified
<b>Accessory for mounting in pressurised pipe line</b>	
1	1" male threaded connection
0	Special connection: to be specified
<b>Execution - Protection rate</b>	
A	Compact execution, IP67 protection rate, liquid maximum temperature 100 °C
B	Separate execution "C", maximum length 10 m (20m, see note 1), liquid maximum temperature 150 °C, protection rate IP68
C	Separate execution "L" (in Carbon Steel), with preamplifier (maximum length 500 m), liquid maximum temperature 100 °C, protection rate IP67
D	Separate execution "L" (in AISI304), with preamplifier (maximum length 500 m.), liquid maximum temperature 100 °C, protection rate IP67

**MS 3770 1 A 1 A**      **EXAMPLE OF ORDER CODE**



In accordance with a continuous evolution of the Product, the company reserves the right to modify without warning the information contained in this document