

PUSH INSERTION SENSOR

ISOMAG ™
The friendly magmeter

SENSOR

MS 3800



**UNDER PRESSURE SENSOR : "PUSH" VERSION INSTALLATION,
AVAILABLE WITH QUICK CONNECTION 1/8" FOR PRESSURE SENSOR; IT
CAN BE CONNECT TO CONVERTER ML 250 – FLOWIZ**

The manufacturer only guarantees the English text.
Available on our web site: www.isoil.com

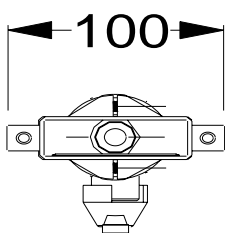
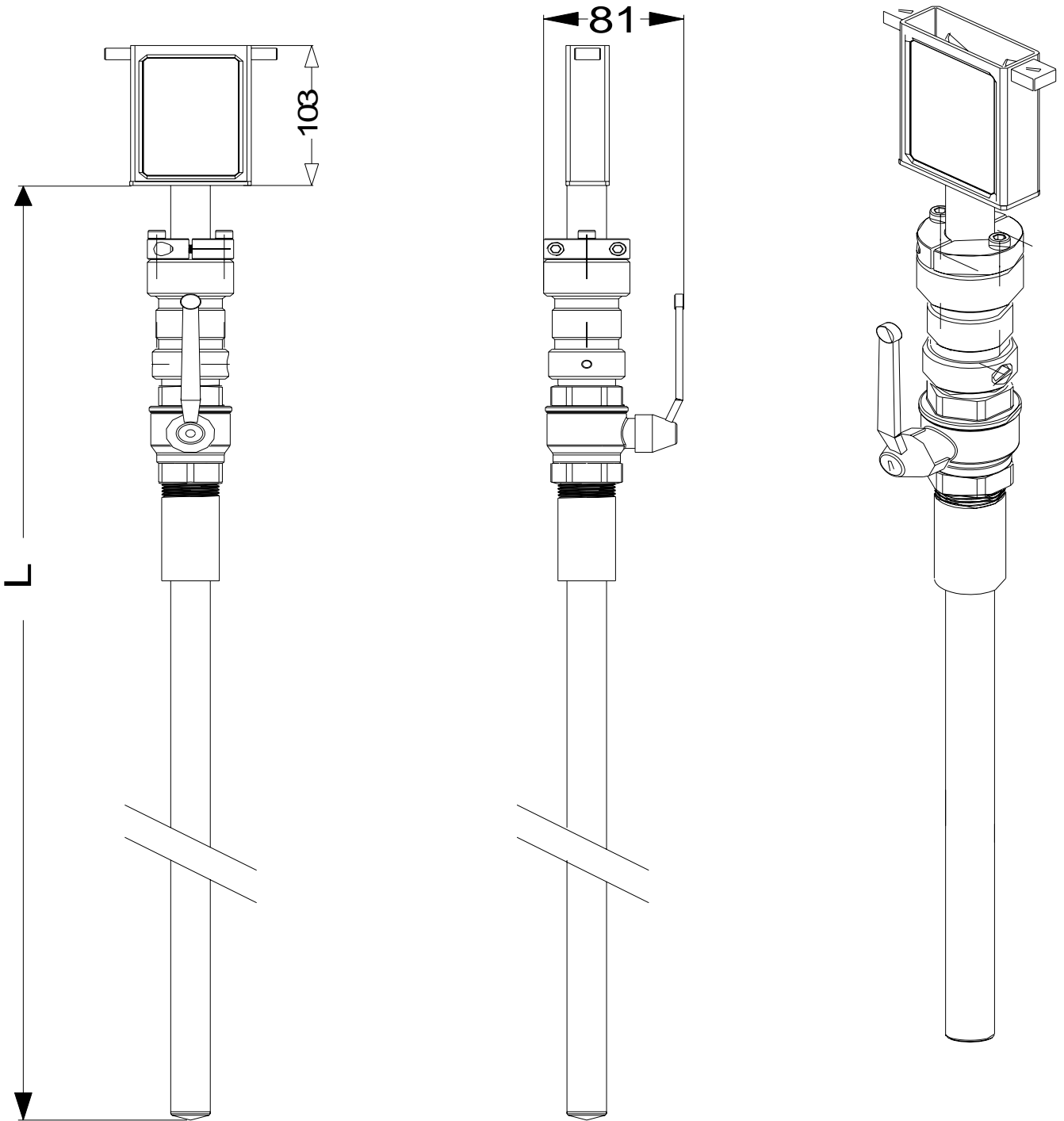
ISOIL 
INDUSTRIA

The solutions that count

TECHNICAL DATA

Body material	<input type="checkbox"/> Stainless steel AISI 304 <input type="checkbox"/> Stainless steel AISI 316 (opt.)
Size for pipe line Ø	<input type="checkbox"/> Size 1 max insertion deep 300 mm <input type="checkbox"/> Size 2 max insertion deep 500 mm <input type="checkbox"/> Size 3 max insertion deep 700 mm <input type="checkbox"/> Size 4 max insertion deep 1000 mm <input type="checkbox"/> Other on request
Nominal pressure	<input type="checkbox"/> PN 25 <input type="checkbox"/> Other on request
Process connection	<input type="checkbox"/> Threaded end (with exclusion ball valve) <input type="checkbox"/> Other on request
Connection material	<input type="checkbox"/> Stainless steel AISI 304 <input type="checkbox"/> Bronze ball valve
Liquid temperature	<input type="checkbox"/> -20 °C ÷ 100 °C compact version <input type="checkbox"/> -20 °C ÷ 150 separate version
Ambient Temperature	<input type="checkbox"/> -20... +60°C
Lining material/tightness	<input type="checkbox"/> PTFE/FPM (O-ring) <input type="checkbox"/> Other on request
Electrodes material	<input type="checkbox"/> Stainless steel AISI 316L <input type="checkbox"/> Other on request
Version – protection rate	<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)
Accuracy	<input type="checkbox"/> ± 2 % with all converters flow speed > 1 m/s
Repeatability	<input type="checkbox"/> ± 0,5 %
Optional	<input type="checkbox"/> Pressure Sensor

OVERALL DIMENSIONS



SIZE	MAX DEPTH	L
SIZE 1	300 mm	650
SIZE 2	500 mm	850
SIZE 3	700 mm	1050
SIZE 4	1000 mm	1350

INSTALLATION

INSTALLATION STEPS

1) Define and block on Z value the reference ring

AVAILABLE INSERTION DEEP	
Insertion	"Z" VALUE
1/8D	$L-(X+S+1/8D+110)$
1/2D	$L-(X+S+1/2D+110)$
7/8D	$L-(X+S+7/8D+110)$

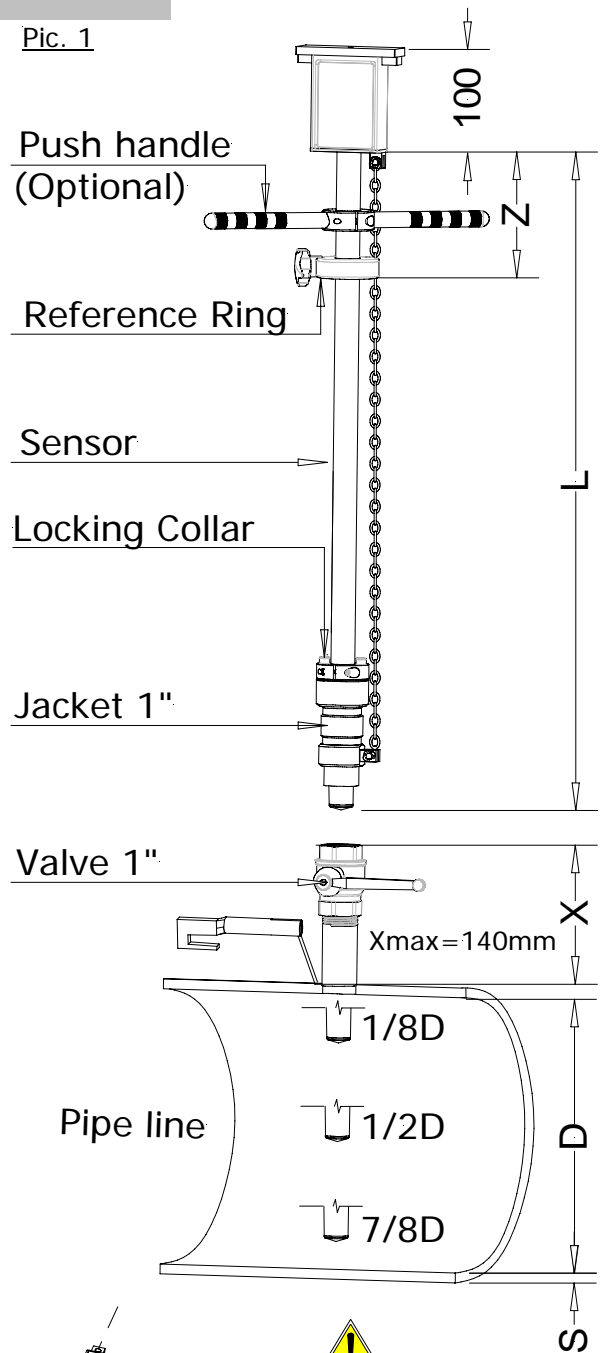
S = THICKNESS OF PIPE
 D = INTERNAL DIAMETER OF PIPE
 Z = VALUE TO REACH FOR RIGHT INSERTION DEEP

- Weld to the pipeline the Ø 1" hose-coupling .
ATTENTION: "X" dimension max 140 mm
- Screw the 1" sensor's jacket to the 1" valve
- Open slowly the valve
- Push the sensor up to the reference ring touch the Locking collar ("Z" dimension)
- Verify the lineup (Pic. 2) : the sensor's junction box MUST be aligned with the pipe axis
- Tighten the two screw of Locking collar

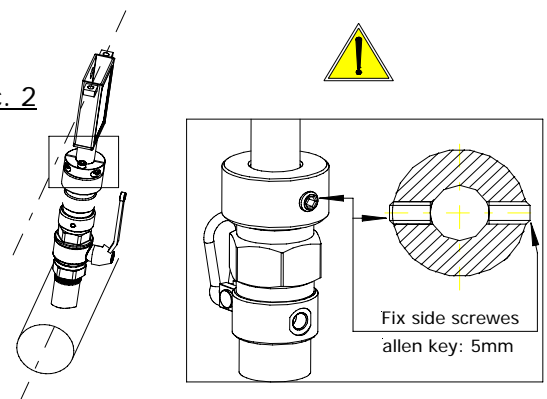
SIZE	L	MAX DEPTH
SIZE 1	650	300 (X<140)
SIZE 2	850	500 (X<140)
SIZE 3	1050	700 (X<140)
SIZE 4	1350	1000 (X<140)

Dimensions in mm

Pic. 1



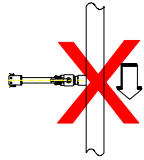
Pic. 2



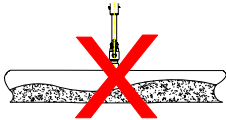
WARNING FOR YOUR SAFETY : DON'T REMOVE OR MODIFY THE LOCK CHAIN

INSTALLATION RECCOMANDATION

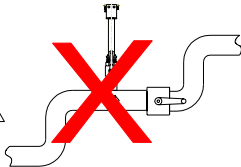
AVOID



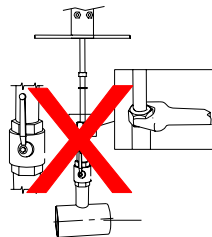
For vertical installations with descending flow direction contact the manufacturer



Avoid the functioning with partially empty pipe

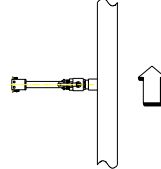


Avoid the installation near bends or hydraulic accessories

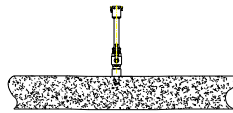


The opening of the ball valve before tighten the fixing nut could cause the expulsion of the sensor from the pipe line

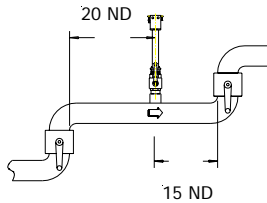
RECOMMENDED



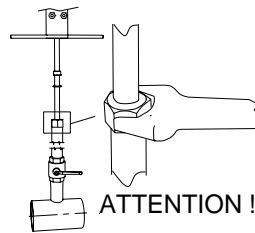
In vertical installations an ascending flow is preferable



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



Install the sensor away from bends and hydraulic accessories

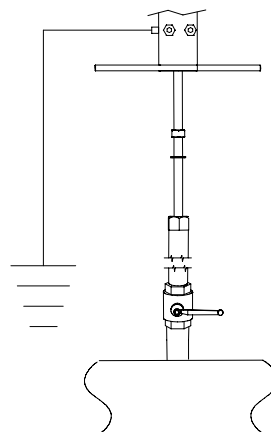


Before opening the ball valve lock the centring bush with the grain in endowment

ATTENTION !!!

SENSOR GROUNDING

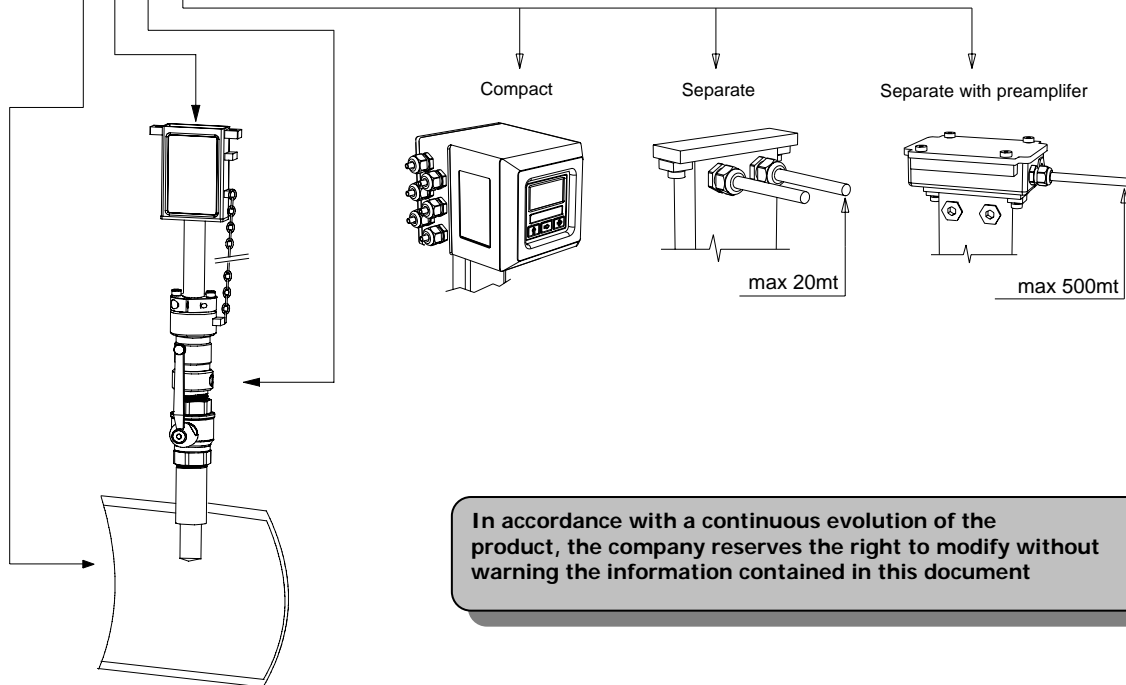
For the correct operation of the meter it is **NECESSARY** that sensor and liquid are equipotential, so **ALWAYS** connect the sensor and the converter to the ground. For grounding with chatodic protection pipe, please contact the manufacturer.



HOW TO ORDER

MS 3800	Max Insertion Depth
1	max insertion 300 mm
2	max insertion 500 mm
3	max insertion 700 mm
4	max insertion 1000 mm
9	suitable for diameter : to be specified
Sensor and electrodes material / lining	
A	Sensor material AISI304, PTFE lining, electrodes in AISI316 , Junction box in AISI 304
Z	Sensor material: to be specified
Accessory for mounting in pressurised pipe line	
1	Without accessories
2	Accessory kit, suitable for mounting in pressurised line, composed by: 1" hose-coupling (to welding on the) and 1" ball valve (Bronze material)
6	(ONLY FOR ML 250) Accessory kit, suitable for mounting in pressurised line, composed by: 1" hose-coup.(to welding on the pipe)+1" ball valve (Bronze) + QUICK CONNECTIONS 1/8"
9	Special connection: to be specified
Execution - Protection rate	
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
E	Execution with length and position of the neck of the Sensor to define according draw. G006 (valid for A-B-C-D versions, add the relative COST)
F	Execution separate with N° 2 connectors IP 68 suitable for C015/16 for fast cable connections (max 20 m-ADD THE COST)
G	Execution separate with N° 2 connectors IP 68 suitable for C18 for fast cable connections (max 20 m-ADD THE COST)
H	Execution sep. with N° 1 connectors IP 68 suitable for C014 for fast cable connections TO PRAMPLIFIRE IN CARBON STEEL (DEFINE LENGHT MAX 500 m-ADD THE COST)
I	Execution sep. with N° 1 connectors IP 68 suitable for C014 for fast cable connections TO PRAMPLIFIRE IN STAIN. STEEL (DEFINE LENGHT MAX 500 m-ADD THE COST)

MS 3800 2 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