Magnetic-Inductive Flow Meter Accessories

The FMM-GND1 Grounding Clamp is used when an FMM series Magnetic-Inductive Flow Meter is installed in an ungrounded pipe system (e.g. PVC pipe).

Simply place the FMM-GND1 Grounding Clamp around the base of the M12 connector and attach a grounded wire to FMM-GND1 Grounding Clamp with the supplied machine screw and nut.

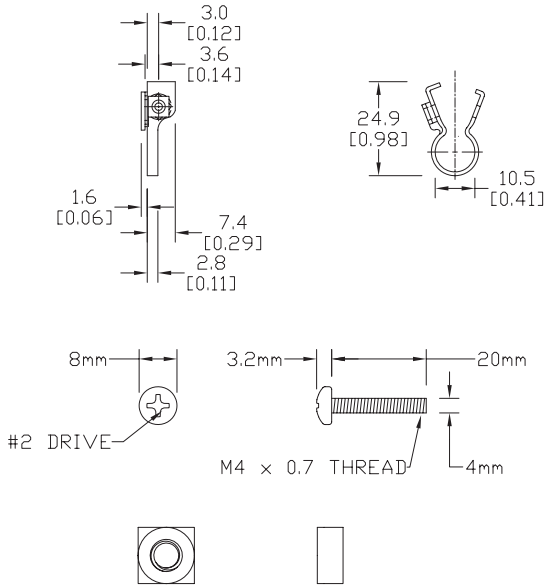
Note: Improper grounding may cause inaccurate readings

ProSense Magnetic Flow Meter Accessories			
Part No.	***Description***	***Price***	***Weight***
FMM-GND1	ProSense 316 stainless steel grounding clamp for magnetic flow meters with an M12 connector.		0.015 lb

Dimensions

mm [inches]

Part No. FMM-GND1



See our website for complete Engineering drawings.

Grounding Clamp Installation

The ProSense magnetic flow meter grounding clamp is installed as shown above.

Note: the ground wire shown above is not included.

FMM Series Magnetic-Inductive Flow Meters

Magnetic-Inductive Flow Meter Application

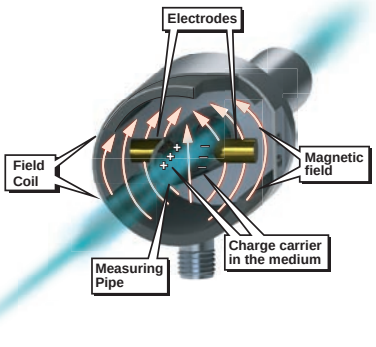
Magnetic-inductive flow meters (Magmeters) are one of the most widely used technologies for liquid flow monitoring in industrial process markets such as wastewater, mining and minerals, utilities, food and beverage, and pharmaceuticals. To ensure reliable and accurate operation, some important application requirements should be considered. Meeting the minimum conductivity of the liquid and properly installing with a full pipe are required in order to avoid significant error or the meter not functioning at all. Additionally, the presences of air bubbles should be avoided as they will affect the accuracy of the meter's measurements. Installation location in the piping is important because disturbances in the flow caused by bends in the pipe, valves, reductions, etc. can cause inaccuracies. Refer to the magmeter's specifications and operating instruction documents for specific information regarding application and installation requirements.

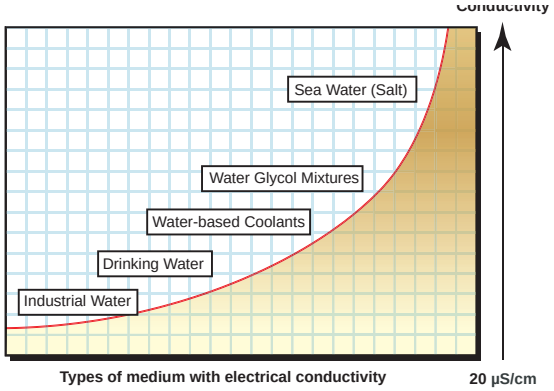
Click on the thumbnail or go to https:///VID-FL-0002 for a short overview video of the FMM Series Magnetic-Inductive Flow Meters

Magnetic-Inductive Flow Meter Measuring Principle

Magmeters operate by using the magnetic-inductive measuring principle in which a magnetic field is generated in the specified measuring pipe by current-carrying coils. When the media flows through the pipe, the ions of the conductive media are diverted perpendicularly to the magnetic field with the positive and negative charge carriers flowing in opposite directions. The two electrodes that are in contact with the medium then measure the voltage that is induced. The measured signal voltage is proportional to the average flow velocity. By knowing the inside pipe diameter of the unit, the volumetric flow rate is determined. Magmeters are suitable for use with a variety of conductive liquids in industrial process applications such as those in the following graph:

Click on the thumbnail or go to https:///VID-FL-0006 for a short video to learn how Magnetic Inductive Flow Meters works





ProSense FMM Series Magnetic Flow Meter Selection Guide

Model	Price	Process Connection	Flow Range	Temperature Range	Display Units	Output 1	Output 2	Empty Pipe Detection
FMM50-1001		1/2" FNPT	0 to 6.6 GPM	-4 to 176°F [-20 to 80°C]	GPM, GPH, GAL, or °F	Switch or pulse (flow)	Switch, analog or reset input (flow or temperature)	No
FMM75-1001		3/4" FNPT	0 to 13.2 GPM					
FMM100-1001		1" FNPT	0 to 26.4 GPM					
FMM150-1001		1-1/2" FNPT	0 to 80 GPM			Switch, pulse or frequency (flow)		Yes
FMM200-1001		2" FNPT	0 to 160 GPM					
FMM50-1002		1/2" FNPT	0 to 6.6 GPM		GPM, GPH, LPM, m³/h, °F, °C	Analog 4-20 mA (temperature)	Analog 4-20 mA (flow)	No
FMM75-1002		3/4" FNPT	0 to 13.2 GPM					
FMM100-1002		1" FNPT	0 to 26.4 GPM					
FMM150-1002		1-1/2" FNPT	0 to 79.3 GPM					Yes
FMM200-1002		2" FNPT	0 to 158.5 GPM					