

ifm efector



SM Series Compact Magmeter

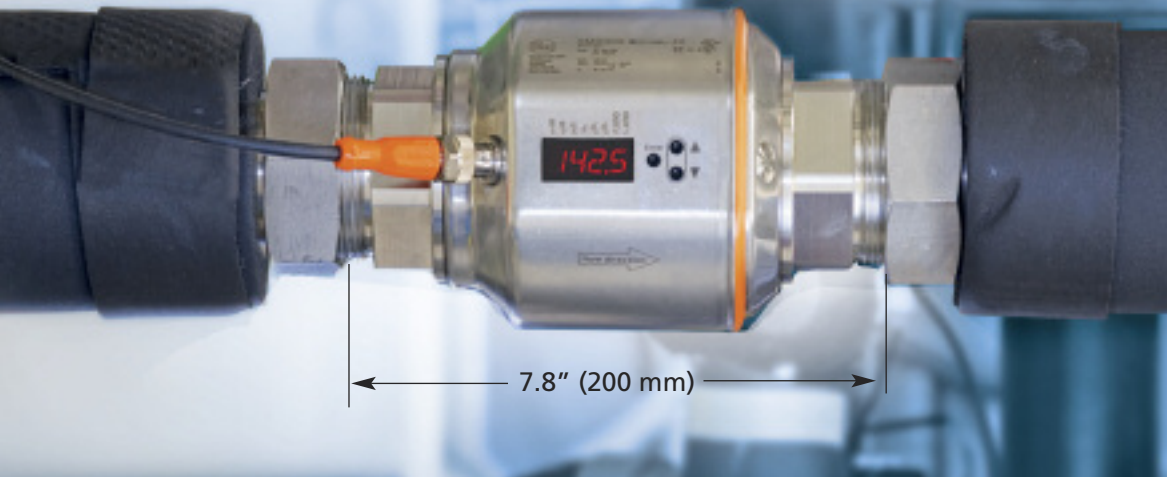
Accurate • Reliable • Great value

Flow sensing technology

up to 160 gpm
1/2" to 2" pipe sizes



Continuous monitoring of conductive media



ifm's SM Series Magmeter is designed to reliably detect the flow rate of conductive media up to 160 gallons per minute.

The stainless steel, mechanically-robust design mounts directly in-line providing a compact, low-profile installation for process control.

A 4-digit numeric display with pushbutton setup simultaneously indicates flow rate, fluid temperature and total volume.

Simple to setup and easy to install, the SM is a reliable alternative to traditional flow meters and mechanical flow switches.

ifm's SM is the new benchmark for price / performance for your flow sensing applications.

High performance magmeter at a great price.

Media up to 160 gpm

Monitors all conductive media up to 160 gallons per minute.

316 stainless steel

Compact, in-line stainless steel housing fits up to 2" pipe diameter.

LED display

4-digit numeric display indicates flow rate, total volume and temperature.

Variety of output options

Simple pushbutton setup allows outputs to be parameterized in less than 5 minutes.

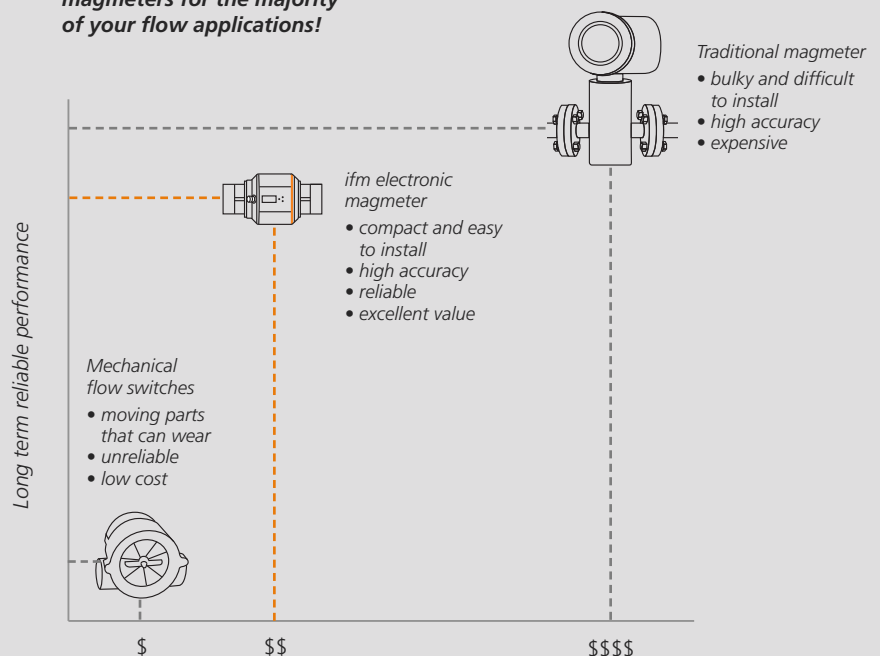
Adapter system

simplifies installation.

Micro DC

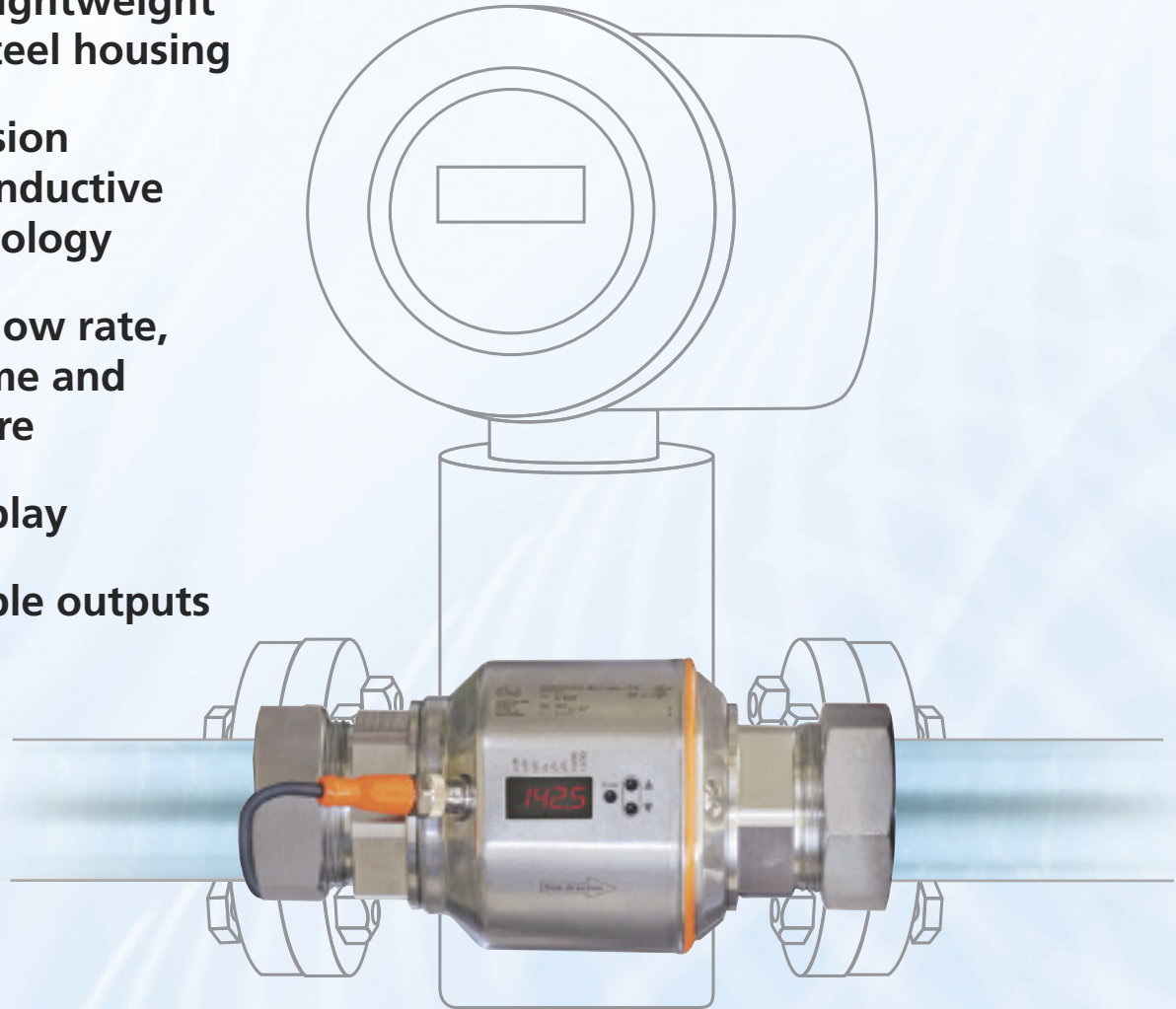
Quick disconnect wiring for plug-and-play connection.

Now it's possible to use ifm magmeters for the majority of your flow applications!



The next generation of magmeters from ifm – Smaller in size at a great price / performance

- ✓ Compact, lightweight stainless steel housing
- ✓ High precision magnetic inductive flow technology
- ✓ Indicates flow rate, total volume and temperature
- ✓ 4-digit display
- ✓ Configurable outputs



▶ To get a "First Look" of the SM Magmeter, visit www.ifm.com/us/sm

Starting
List Price
\$498



The SM magmeter product line is available in multiple size housings to cover your flow rate and pipe size.

Magmeter type	Process connection	Flow rate
SM6 Series	1/2" NPT	0...6.6 gpm
SM7 Series	1/2" NPT	0...13.2 gpm
SM8 Series	1/2", 3/4" and 1" NPT	0...26.4 gpm
SM9 Series	1 1/2" or 2" NPT	0...80 gpm
SM2 Series	1 1/2" or 2" NPT	0...160 gpm

Flow rates up to 160 gpm 1/2" to 2" pipe sizes



The SM Magmeter is used in induction hardening applications and features high accuracy with a response time of less than 0.15 seconds and a repeatability of $\pm 0.2\%$.



In cooling water applications the compact SM can be setup to monitor flow rate, fluid temperature, and provide a totalizer function.

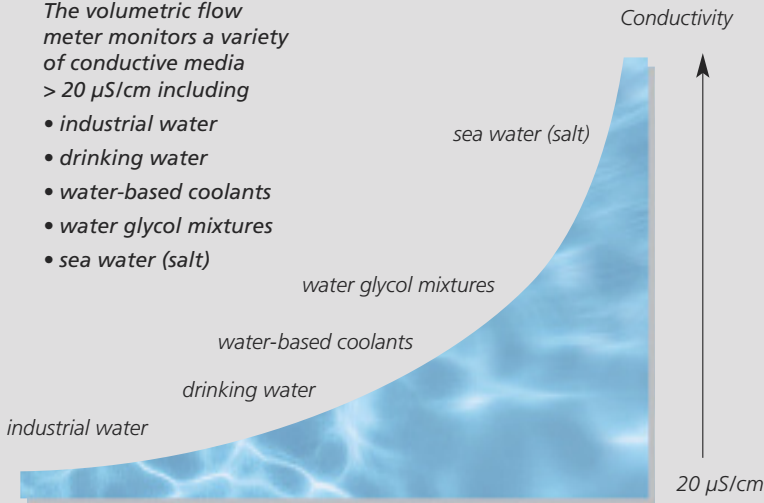
Magnetic-inductive flow technology provides high-precision measurement

The SM Series Flow Meter's principle of operation is based on Faraday's law of electromagnetic induction. The conductive medium flowing through a pipe in a magnetic field generates a voltage that is proportional to the flow velocity or volumetric flow quantity.

Monitors conductive liquids $> 20 \mu\text{S/cm}$

The volumetric flow meter monitors a variety of conductive media $> 20 \mu\text{S/cm}$ including

- industrial water
- drinking water
- water-based coolants
- water glycol mixtures
- sea water (salt)




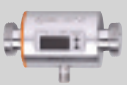



Types of medium with electrical conductivity

Easily configurable for application flexibility


Output 1	Output 2	Typical applications	Output configurations
		Flow and temperature monitoring through induction furnaces	Models are available with two analog outputs – one for flow and the other for temperature
		Guard welding equipment against loss of cooling water	Two switching outputs can be configured as a flow rate switch and a temperature switch
		Batching / totalizing flow of process water	A pulse output can provide resolution up to 100 pulses per gallon
		Pump run-dry protection	A simple switching output can signal low flow condition





Product selection guide DC

Sensor Type	Measuring Range (Flow)	Output 1	Output 2	Measuring Range (Temperature)	Display Units	Empty Pipe Detection	Part No.	List Price
	0...6.6 gpm	Switching / pulse (flow)	Switching / scaleable analog (flow or temperature)	-4...176 °F	gpm, gph, gal, °F	no	SM6001	\$498.00
	0...13.2 gpm						SM7001	\$591.00
	0...26.4 gpm						SM8001	\$699.00
	0...25 lpm	Switching / pulse (flow)	Switching / scaleable analog (flow or temperature)	-20...80 °C	lpm, m ³ , h, L, °C	no	SM6000	\$498.00
	0...50 lpm						SM7000	\$591.00
	0...100 lpm						SM8000	\$699.00
	0...6.6 gpm	Scaleable analog (temperature)	Scaleable analog (flow)	-20...80 °C	lpm, m ³ , h, gpm, gph, °F, °C	no	SM6004	\$498.00
	0...13.2 gpm						SM7004	\$591.00
	0...26.4 gpm						SM8004	\$699.00
	0...80 gpm	Switching / pulse / frequency (flow)	Switching / scaleable analog (flow or temperature)	-4...176 °F	gpm, gph, gal, °F	yes	SM9001	\$925.00
	0...160 gpm						SM2001	\$990.00
	0...300 lpm	Switching / pulse / frequency (flow)	Switching / scaleable analog (flow or temperature)	-20...80 °C	lpm, m ³ , h, L, °C	yes	SM9000	\$925.00
	0...600 lpm						SM2000	\$990.00

Required accessories (process connections, 2 pieces per package)

	Description	Use with Meter	Part No.	Unit Price
	1/2" NPT adapter 316 stainless steel	SM6	E40200	\$54.00
	1/2" NPT adapter 316 stainless steel	SM7	E40191	\$54.00
	1/2" NPT adapter 316 stainless steel	SM8	E40192	\$54.00
	3/4" NPT adapter 316 stainless steel	SM8	E40193	\$54.00
	1" NPT female adapter 316 stainless steel	SM8	US0041	\$54.00
	1-1/2" NPT adapter 316 stainless steel	SM2 and SM9	E40229	\$120.00
	2" NPT adapter 316 stainless steel	SM2 and SM9	E40228	\$120.00

Cordsets

	Description	Part No.	Unit Price
	M12 Micro DC Cordset (4-pin) 2 m, PUR	EVC001	\$9.95
	M12 Micro DC Cordset (4-pin) 5 m, PUR	EVC002	\$13.50
	M12 Micro DC Cordset (4-pin) 2 m, PUR	EVC004	\$9.95
	M12 Micro DC Cordset (4-pin) 5 m, PUR	EVC005	\$13.50

Technical specs

Fluid conductivity	≥ 20 µS / cm
Fluid viscosity	≤ 70 cSt at 104 °F
Supply voltage	19...30 VDC (20...30 VDC SMxxx4)
Accuracy (flow)	± (2% measured value + 0.5% of full range)
Repeatability (flow)	± 0.2% of full range
Response time (flow)	< 150 msec
Accuracy (temperature)	± 4.5 °F (2.5 °C)
Response time (temperature)	T09 = 30 sec
Pressure rating	232 psi (16 bar)
Wetted parts	316L stainless steel, PEEK™, Viton™
Current consumption	120 mA (150 mA SM2 and SM9)
Protection rating	IP67



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