

## OverView:

Electromagnetic Flowmeters EMFM3 are used in various ways. Large ones are for water supply and drainage. Medium and small ones handle demanding tasks, like cooling water control in steel mills or measuring liquids in the paper and chemical industries. They also work with corrosive substances in metallurgy and in hygienic environments like the pharmaceutical and food industries.

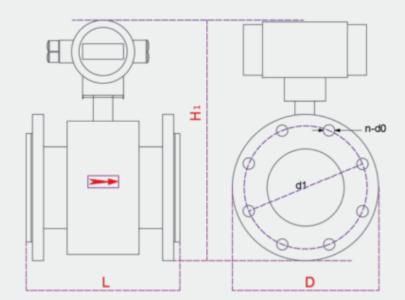
#### Feature:

- The measurement channel consists of a smooth straight pipe, ensuring no blockages. Ideal for measuring liquid-solid two-phase
- No pressure loss occurs during flow detection, resulting in excellent energy savings.
- The measured volume flow remains largely unaffected by changes in fluid density, viscosity, temperature, pressure, and
- Offers a large flow range and accommodates a wide caliber range.
- Suitable for applications involving corrosive fluids.



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#### **Dimensions:**



## Application:

- I chemical fiber, food, paper making, sugar, mining, metallurgy, water supply, and drainage, along with environmental protection.
- Widely used in hydraulic engineering, iron and steel industries, petroleum, pharmaceuticals, beer, wort, and various beverages.
- Suitable for measuring corn pulp, fiber pulp, syrup, lime milk, sewage, and cooling raw water.
- Applicable to drainage, saltwater, hydrogen peroxide, black liquor, and other conductive fluid media flows.

#### Electromagnetic Flowmeters



Specifications:

## Electromagnetic Flowmeter EMFM3

Maximum velocity of flow		15m/s					
	DN15 ~ DN600	±0.5% of the indicated value(flow velocity≥1m/s), ±0.2%					
Accuracy	DIVIS	+3mm/s (flow velocity < 1m/s)					
	DN700 ~ DN3000	±0.5% of the indicated value (flow velocity ≥ 0.8m/s)					
	DN700 ~ DN3000	±4mm/s (flow velocity < 0.8m/s)					
Fluid Electrical Conductivity	≥50µS/cm						
	DN10 ~ DN200	1.6MPa					
Nominal pressure	DN250 ~ DN1000 1.0MPa						
Norminal pressure	DN1200 ~ DN2000	0.6MPa					
	DN2200 ~ DN3000	DN2200 ~ DN3000 0.6MPa					
	Sensor	-25°C~ +60°C					
Nominal pressure	Converter & Integrated type	-10°C~	+60°C				
	Lining material	Separate type	Integrated type				
	PTFE (Polytetrafluoroethylene)	120°C (special customization)	70°C				
Lining material &	PFA (Perfluoroalkoxy resin)	180°C (special customization)	70°C				
Fluid maximum temperature	FEP (Fluorinated ethylene propylene)	160°C (special customization)	70°C				
	Polychloroprene Rubber	80°C (special customization)	70°C				
	PUR (Polyurethane)	80°C	70°C				
Signal electrode form	Fixed type ( DN15 ~ DN2600 )、scraper type ( DN80 ~ DN3000 )						
Signal Electrode &	Molybdenum-containing stainless steel, Hastelloy B, Hastelloy C, Titanium,						
Ground Electrode Materials	Tantalum, latinumiridium alloy, stainless steel coated tungsten carbide						
Connection flange material	Carbon steel						
Grounding flange material	Stainless steel 1Cr18Ni9Ti						
Inlet protection	DN15 ~ DN600	Stainless steel 1Cr18Ni9Ti					
flange material	DN700 ~ DN3000 Carbon steel						



IP Rate	DN15 ~ DN150separable rubber or polyurethane lined sensor	IP65, IP68 (special customization)				
	DN200 ~ DN2600separable rubber or polyurethane lined sensor	IP68, 10 meters underwater				
	Other sensors and all converters	IP65				
Spacing (separate type)	The distance between the converter and the sensor is generally not more than 100m; if it exceeds 100m, special customization is required.					

DN700 ~ DN3000, the accuracy of special order can reach +0.3% of the indicated value (flow velocity ≥ 1m/s) or +3mm (flow velocity < 1m/s).

Lining material	Main performance	Applications
PTFE (Polytetrafluoroethylene)	<ul> <li>It is the material that has most stable chemical property among plastics:resistant to boiling hydrochloric acid, sulfuric acid, nitric acid and aqua regia, also resistant to concentrated alkali and various organic solvents, not resistant to corrosion by chlorine trifluoride, high temperature oxygen trifluoride, high flow rate liquid fluorine, liquid oxygen and ozone.</li> <li>Poor wear resistance</li> <li>The ability to resist negative pressure is poor.</li> </ul>	<ul> <li>100°C, 150°C (special customization)</li> <li>Strong corrosive media such as concentrated acid and alkali</li> <li>Hygienic media</li> </ul>
PCR(Polychloroprene Rubber)	<ul> <li>It has excellent elasticity, high breaking force and good wear resistance</li> <li>It is resistant to the corrosion of general low-concentration acid and alkali salt media, and not resistant to the corrosion of oxidative media.</li> </ul>	<ul> <li>80°C, 120*C (special customization)</li> <li>General water, sewage, weak abrasive mud, ore pulp</li> </ul>
PUR (Polyurethane)	<ul> <li>Excellent wear resistance (equivalent to ten times that of natural rubber)</li> <li>Acid and alkali resistance is poor.</li> <li>It cannot be used for water mixed with organic solvents.</li> </ul>	<ul> <li>&lt; 80°C</li> <li>Neutral and strong abrasive slurry, coal slurry, mud, etc</li> </ul>



# Order Informations:

EMFM3		Remark							
	Code and description Electromagnetic flowmeter							Model	
	DN		10					Diameter	
		1.6				(DN1	0-DN200)		
		1		(DN250-DN1000)					
			Nominal pressure						
		0.6				(DN220	00-DN3000)		
		XX							
		1							
			2			Polycl	nloroprene rubber		
			3			F	polyurethane	Lining material	
			4		Poly	perfluc	proethylene propylene.		
		5				An			
				1		Stainle	ess steeloc0Cr18Ni12Mo2T		
				2					
				3					
				4			Electrode materials		
				5		Pl			
				6					
				7		Stainle	ess ste	el coated with tungsten carbide	
					1		IP65		
					2	ро	IP68 IP65(The sensor is chloroprene rubber sensor IP68 converter IP65 or lyurethane-explosion-proof eparation type is optional)	Shell protection	
						2	Exdm IICT4 (No acetylene) (Ashape, IP65, Magnetic bond or no display)		
						3	Exdm IICT4 (No acetylene) (separation type, IP65, Magnetic bond or no display)	Explosion-proof marks	
						4	Exdm/IT4 (No acetylene) (separation type, IP65, Converter in safe zone)		



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2		Attachment			
3					
4					
5			Electro	ode scraper mechanism	
	1	separation type, English Menu			
	2		Structure		
		1		Power	
		2		40-11VDC	Power
			MA	MAKey, double line display, output standard	
			MB	MB Key, double line display, output standard. RS485	
			LA	LAKey, double line display, output standard	Converter form
			LB	LB Key, double line display, output standard. RS485, HART	
			АА	AAKey English menu, double line display, output standard. RS232	