LMF11P Electromagnetic Flow/Energy meter

WINTERS Instruments
Excellence Since 1953

Features & Performance

- Compact structure, suitable for installation in confined spaces
- The meter is factory-calibrated as a complete unit to ensure measurement accuracy upon delivery
- Optional Bluetooth for convenient on-site commissioning
- Energy meter fuction optional
- 2-year warranty

Application

- OEM
- HVAC
- Cooling system
- Air conditioning water, circulating water

Technical Parameters

Measurement	
Principle	Faraday's law of electromagnetic induction
Application range	Liquid conductivity≥15μS/cm
Flow direction	Bidirectional measurement
Measured value	Flow velocity
Calculated value	Flow rate
Accuracy	0.5% or 0.3%FS

Material	
Body	Carbon steel, spray-painted
Flange	Carbon steel, spray-painted
Electrode	316L
Liner	PU,Neoprene,PTFE,FEP
Housing	PC or cast aluminum
Window	Glass

Temperature	
Environment	-20 … 60°C
Medium	PU: -40 ... 80°C Neoprene: -30 ... 70°C PTFE: -40 ... 120°C FEP: -40 ... 140°C
Transmitter protection rating	PC :IP65 Cast aluminum:IP65
Sensor protection rating	IP65,IP67 or IP68
Ambient humidity	< 95 % RH，Non-condensing
Temperature drift coefficient	Max ±0.005% of measured value /°C (at reference temperature of 25°C)

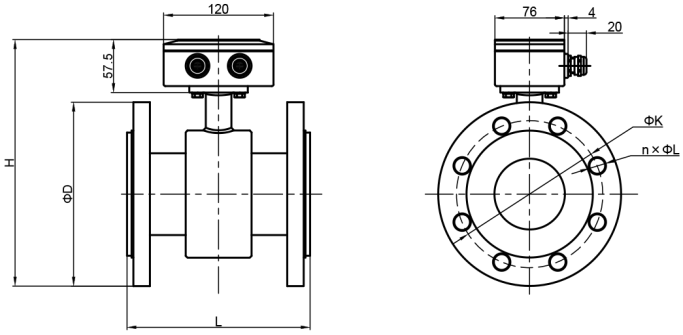
Electrical	
Output signal	4-20mA with pulse, or 4-20mA with Modbus
Input voltage	24VDC or 220VAC （cast aluminum optional）
Short-circuit protection	Yes
Reverse polarity protection	Yes
Lightning protection	Optional

Dimensions	
Electrical connection	Cable gland，Max cable diameter 11mm
Process connection	Flange or Thread
Pipe size	DN10 to DN1000
Structural type	Integral or remote type
Flange standard	HG/T 20592 or HG/T 20615 EN 1092-1 or EN 1759-1 ASME B16.5 or ANSI B16.5 JIS B 2238 or JIS B 2239

Display	
Type	LCD
Language	English & Chinese
Content	Instantaneous flow rate, forward totalizer, net totalizer, flow velocity, etc.
Alarm	Empty pipe alarm
Bluetooth	Optional

Dimension（mm）

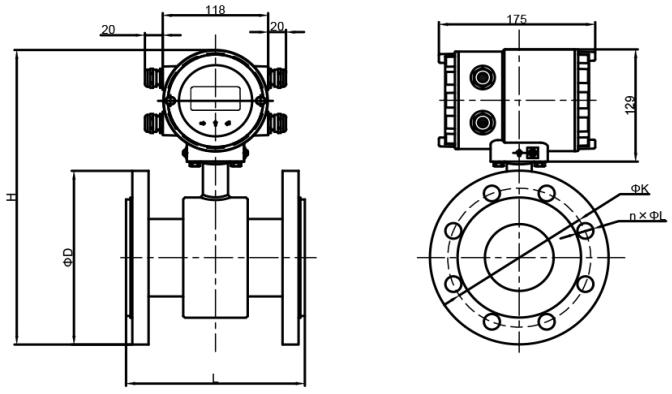
size (mm)	(PN)	L	D	H	K	n×φL	Thread
10	40	150	90	185	60	4×14	M12
15			95	187	65		
20			105	192	75		
25			115	204	85		
32			140	216	100	4×18	M16
40			150	224	110		
50		200	165	238	125		
65			185	261	145	8×18	
80			200	268	160		
100	16		220	291	180		
125		250	250	319	210		
150			285	349	240	8×22	M20
200	10	300	340	412	295		
250		350	395	466	350	12×22	
300			445	517	400		
350		400	505	573	460	16×22	
400			565	639	515	16×26	M24
450		450	615	690	565	20×26	
500		500	670	743	620		
600		600	780	860	725	20×30	M27
700		700	895	879.5	840		
800		800	1015	1007.5	950	24×33	



PC junction box

dimension with junction box（mm）

size (mm)	(PN)	L	D	H	K	n×φL	Thread
10	40	150	90	256	60	4×14	M12
15			95	258	65		
20			105	263	75		
25			115	275	85		
32			140	287	100	4×18	M16
40			150	295	110		
50		200	165	309	125		
65			185	331	145	8×18	
80			200	339	160		
100	16		220	362	180		
125		250	250	390	210		
150			285	420	240	8×22	M20
200	10	300	340	483	295		
250		350	395	537	350	12×22	
300			445	588	400		
350		400	505	644	460	16×22	
400			565	710	515	16×26	M24
450		450	615	761	565	20×26	
500		500	670	814	620		
600		600	780	931	725	20×30	M27
700		700	895	1016	840		
800		800	1015	1127	950	24×33	



cast aluminum junction box

LMF11P Serials order code selection table

		code	technical parameter
1.		LMF11P	serials
			Accuracy
2.		A	±0.5%
		B	±0.3%FS
			Installation
3.		F	Flange type
		T	Thread type (pipe diameter range DN10-DN40)
		C	Wafer type (pipe diameter range DN10-DN125)
			Liner material
4.		U	PU (DN25...DN600)
		N	Neoprene (≥DN700)
		T	PTFE (DN15...DN800)
		F	FEP (DN10...DN600)
			Pipe diameter
5.		10	DN10
		15	DN15
		20	DN20
		25	DN25
		32	DN32
		40	DN40
		50	DN50
		65	DN65
		80	DN80
		1H	DN100
		1Q	DN125
		1F	DN150
		2H	DN200
		2F	DN250
		3H	DN300
		3F	DN350
		4H	DN400
		4F	DN450
		5H	DN500
		6H	DN600
		7H	DN700
		8H	DN800
			Number of electrodes
6.		D	Two electrodes
		T	Three electrodes
			Nominal pressure
7.		B	0.6MPa
		C	1.0MPa
		D	1.6MPa
			Transmitter type
8.		1	Flowmeter (polycarbonate)
		2	Flowmeter (cast aluminum)
		3	Energy meter (cast aluminum)

LMF11P Serials order code selection table

		code	technical parameter
			Matching flange material
9.		0	None（Thread,Wafer）
		1	Carbon steel (standard)
			Grounding ring material
10.		0	None (standard)
		1	Carbon steel
			Medium temperature
11.		1	-40...80℃ (PU)
		2	-30...70℃ (Neoprene)
		3	-40...120℃ (PTFE)
		4	-40...140℃ (FEP)
			Structural type
12.		T	Integral type (maximum temperature rating: 110°C)
		S	Remote type
			Output signal
13.		03	4-20mA with Pulse
		05	4-20mA with RS485
			Supply voltage
14.		K	24VDC
		G	220VAC (Only cast aluminum housing is optional)
			Sensor protection rating
15.		0	IP65 (Integral type)
		1	IP67 (Remote type)
		2	IP68(Remote type,Potting)
			Explosion protection
16.		0	None
			Electrical connection
17.		1	Cable gland
			Cable length
18.		0	0m (Integral type)
		XXX	Please enter the cable length in meters (max 100m for remote type)
			Optional
19.		0	None
		BT	Bluetooth